BELFORD AVENUE BRIDGE

Design Calculations

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PARKER
COLORADO

DEVELOPED BY:

FELSBURG HOLT & ULLEVIG

Felsburg Holt & Ullevig
6300 S Syracuse Way, Suite 600
Centennial, CO 80111
303-721-1440

FHU Reference No. 115360

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1.0 GENERAL

WIND LOADS ON SUPERSTRUCTURE

General

Wind Exposure Category = C [3.8.1.1.5]
Max Height of Structure = 33 ft Max Span Length = 77.20833 ft
Max Height of Substructure = 20.1 ft
Structure Type = Girders
$V_{Strength\ 3}$ = 115 mph [Figure 3.8.1.1.2-1]
$V_{Strength\ 5}$ = 80 mph [Figure 3.8.1.1.2-1]
$V_{Service\ 1}$ = 70 mph [Figure 3.8.1.1.2-1]
$V_{Service\ 4}$ = 86.25 mph 75% of Strength III [Tbl 3.8.1.1.2-1]

Strength III

G = 1 (Bridges, i.e. "Other Structures") [Tbl 3.8.1.2.1-1]
C_D = 1.3 (Windward Girder Superstructures) [Tbl 3.8.1.2.1-2]

Z	Kz (C)	P_z (psf)	[3.8.1.2.1-2,3,4]
<= 33	1.00	44.08	[3.8.1.2.1]
40	1.05	46.03	
50	1.10	48.36	
60	1.14	50.30	
70	1.18	51.97	
80	1.21	53.44	

Use P_z = 44.08 psf or Varying load profile

Strength V

G = 1 (Strength V Loading) [3.8.1.2.1]
C_D = 1.3 (Windward Girder Superstructures) [Tbl 3.8.1.2.1-2]
K_Z = 1 (Strength V Loading) [3.8.1.2.1]
Use P_z = 21.30 psf [3.8.1.2.1]

Service I

G = 1 (Service I Loading) [3.8.1.2.1]
C_D = 1.3 (Windward Girder Superstructures) [Tbl 3.8.1.2.1-2]
K_Z = 1 (Service I Loading) [3.8.1.2.1]
Use P_z = 16.31 psf [3.8.1.2.1]

Service IV

G = 1 (Bridges, i.e. "Other Structures") [Tbl 3.8.1.2.1-1]
C_D = 1.3 (Windward Girder Superstructures) [Tbl 3.8.1.2.1-2]

Z	Kz (C)	P_z (psf)	[3.8.1.2.1-2,3,4]
<= 33	1.00	24.79	[3.8.1.2.1]
40	1.05	25.89	
50	1.10	27.20	
60	1.14	28.29	
70	1.18	29.23	
80	1.21	30.06	

Use P_z = 24.79 psf or Varying load profile

WIND LOADS ON SUBSTRUCTURE

Strength III

G =	1		(Bridges, i.e. "Other Structures")	[Tbl 3.8.1.2.1-1]
C_D =	1.6		(Substructures)	[Tbl 3.8.1.2.1-2]
	Z	Kz (C)	P_z (psf)	[3.8.1.2.1-2,3,4]
	<= 33	1.00	54.25	[3.8.1.2.1]
	40	1.05	56.66	
	50	1.10	59.52	
	60	1.14	61.91	
	70	1.18	63.97	
	80	1.21	65.78	
			Use P_z = 54.25 psf or Varying load profile	

Strength V

G =	1	(Strength V Loading)	[3.8.1.2.1]
C_D =	1.6	(Substructures)	[Tbl 3.8.1.2.1-2]
K_Z =	1	(Strength V Loading)	[3.8.1.2.1]
		Use P_z = 26.21 psf	[3.8.1.2.1]

Service I

G =	1	(Service I Loading)	[3.8.1.2.1]
C_D =	1.6	(Substructures)	[Tbl 3.8.1.2.1-2]
K_Z =	1	(Service I Loading)	[3.8.1.2.1]
		Use P_z = 20.07 psf	[3.8.1.2.1]

Service IV

G =	1		(Bridges, i.e. "Other Structures")	[Tbl 3.8.1.2.1-1]
C_D =	1.6		(Substructures)	[Tbl 3.8.1.2.1-2]
	Z	Kz (C)	P_z (psf)	[3.8.1.2.1-2,3,4]
	<= 33	1.00	30.51	[3.8.1.2.1]
	40	1.05	31.87	
	50	1.10	33.48	
	60	1.14	34.82	
	70	1.18	35.98	
	80	1.21	37.00	
			Use P_z = 30.51 psf or Varying load profile	

RESULTS

Results for Superstructure Wind Pressures

Since individual span length is under 150ft and maximum height is below 33ft, design pressures use 100% of transverse (0deg) pressure + Longitudinal pressure as 25% of transverse. Both loads applied simultaneously. [3.8.1.2.3a]

	Trans	Long
Strength III =	44.08	11.02
Strength V =	21.30	5.32
Service I =	16.31	4.08
Service IV =	24.79	6.20

Results for Substructure Wind Pressures

	Pressure	*90 deg pressure shown*
Strength III =	54.25	
Strength V =	26.21	
Service I =	20.07	
Service IV =	30.51	

STREAM LOADS

100yr strom event

$p = C_D V^2$ = 72.83 psf

Pier Type = Semicircular-nosed pier
C_D = 0.7
V = 10.2 ft/s
Water EL = 5776.5 ft
Scour EL = 5755 ft

500yr strom event

$p = C_D V^2$ = 74.26 psf

Pier Type = Semicircular-nosed pier
C_D = 0.7
V = 10.3 ft/s
EL = 5779.5 ft
Scour EL = 5753 ft

NOTE: 100yr scour will undercut abutment & remove approach slab by visual inspection
100yr & 500yr storm are both evaluated in the Extreme Event Condition only (no LL)

Site Class = E

PGA =	0.056	[Fig 3.10.2.1-1]
SS =	0.12	[Fig 3.10.2.1-2]
S1 =	0.033	[Fig 3.10.2.1-3]
FPGA =	2.5	[Table 3.10.3.2-1]
Fa =	2.5	[Table 3.10.3.2-2]
Fv =	3.5	[Table 3.10.3.2-3]
$A_s = F_{PGA}PGA =$	0.140	[3.10.4.2]
$S_{DS} = F_aS_S =$	0.300	
$S_{D1} = F_vS_1 =$	0.116	
Seismic Zone =	**1**	[Table 3.10.6-1]

Note: Per 5.11.2, SD1 > 0.10 and shall meet the transverse reinforcement requirements of T&B columns of 5.11.4.1.3 - 5.

Site Classification, Method B - Blow Count Method [C3.10.3.1-1]

Boring = BA1

	Layer Depth	Blow Count	Movement, in	N, Blow per ft	d/N
1	6	10	12	10.0	0.6
2	8	7	12	7.0	1.1
3	14.5	5	12	5.0	2.9
4	10.5	50	7	85.7	0.1
5					
6					
7					
8					
9					
10					

Avg N = 8.2 Blows per ft

Boring = BA2

	Layer Depth	Blow Count	Movement, in	N, Blow per ft	d/N
1	7	4	12	4.0	1.8
2	10	23	12	23.0	0.4
3	12	16	12	16.0	0.8
4	6	20	12	20.0	0.3
5	7	50	10	60.0	0.1
6					
7					
8					
9					
10					

Avg N = 12.5 Blows per ft

Average blows/ft is below 15. Per Table 3.10.3.1-1, site class shall be E

Design Maps Detailed Report

2009 AASHTO Guide Specifications for LRFD Seismic Bridge Design (39.55361°N, 104.81479°W)

Site Class E – "Soft Clay Soil"

Article 3.4.1 — Design Spectra Based on General Procedure

Note: Maps in the 2009 AASHTO Specifications are provided by AASHTO for Site Class B. Adjustments for other Site Classes are made, as needed, in Article 3.4.2.3.

From Figure 3.4.1-2 [1]	PGA = 0.056 g
From Figure 3.4.1-3 [2]	S_S = 0.120 g
From Figure 3.4.1-4 [3]	S_1 = 0.033 g

Article 3.4.2.1 — Site Class Definitions

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class E, based on the site soil properties in accordance with Article 3.4.2.

Table 3.4.2.1–1 Site Class Definitions

SITE CLASS	SOIL PROFILE NAME	Soil shear wave velocity, $\overline{v}_s$, (ft/s)	Standard penetration resistance, $\overline{N}$	Soil undrained shear strength, $\overline{s}_u$, (psf)
A	Hard rock	$\overline{v}_S > 5{,}000$	N/A	N/A
B	Rock	$2{,}500 < \overline{v}_S \leq 5{,}000$	N/A	N/A
C	Very dense soil and soft rock	$1{,}200 < \overline{v}_S \leq 2{,}500$	$\overline{N} > 50$	>2,000 psf
D	Stiff soil profile	$600 \leq \overline{v}_S < 1{,}200$	$15 \leq \overline{N} \leq 50$	1,000 to 2,000 psf
E	Stiff soil profile	$\overline{v}_S < 600$	$\overline{N} < 15$	<1,000 psf
E	—	Any profile with more than 10 ft of soil having the characteristics: 1. Plasticity index $PI > 20$, 2. Moisture content $w \geq 40\%$, and 3. Undrained shear strength $\overline{s}_u < 500$ psf		
F	—	Any profile containing soils having one or more of the following characteristics: 1. Soils vulnerable to potential failure or collapse under seismic loading such as liquefiable soils, quick and highly sensitive clays, collapsible weakly cemented soils. 2. Peats and/or highly organic clays ($H > 10$ feet of peat and/or highly organic clay where H = thickness of soil) 3. Very high plasticity clays ($H > 25$ feet with plasticity index $PI > 75$) 4. Very thick soft/medium stiff clays ($H > 120$ feet)		

For SI: 1ft/s = 0.3048 m/s 1lb/ft² = 0.0479 kN/m²

Article 3.4.2.3 — Site Coefficients

Table 3.4.2.3-1 (for F_{pga})—Values of F_{pga} as a Function of Site Class and Mapped Peak Ground Acceleration Coefficient

Site Class	Mapped Peak Ground Acceleration				
	PGA ≤ 0.10	PGA = 0.20	PGA = 0.30	PGA = 0.40	PGA ≥ 0.50
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See AASHTO Article 3.4.3				

Note: Use straight–line interpolation for intermediate values of PGA

For Site Class = E and PGA = 0.056 g, F_{PGA} = 2.500

Table 3.4.2.3-1 (for F_a)—Values of F_a as a Function of Site Class and Mapped Short-Period Spectral Acceleration Coefficient

Site Class	Spectral Response Acceleration Parameter at Short Periods				
	S_S ≤ 0.25	S_S = 0.50	S_S = 0.75	S_S = 1.00	S_S ≥ 1.25
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See AASHTO Article 3.4.3				

Note: Use straight–line interpolation for intermediate values of S_S

For Site Class = E and S_S = 0.120 g, F_a = 2.500

Table 3.4.2.3-2—Values of F_v as a Function of Site Class and Mapped 1-sec Period Spectral Acceleration Coefficient

Site Class	Mapped Spectral Response Acceleration Coefficient at 1-sec Periods				
	$S_1 \leq 0.10$	$S_1 = 0.20$	$S_1 = 0.30$	$S_1 = 0.40$	$S_1 \geq 0.50$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	See AASHTO Article 3.4.3				

Note: Use straight–line interpolation for intermediate values of S_1

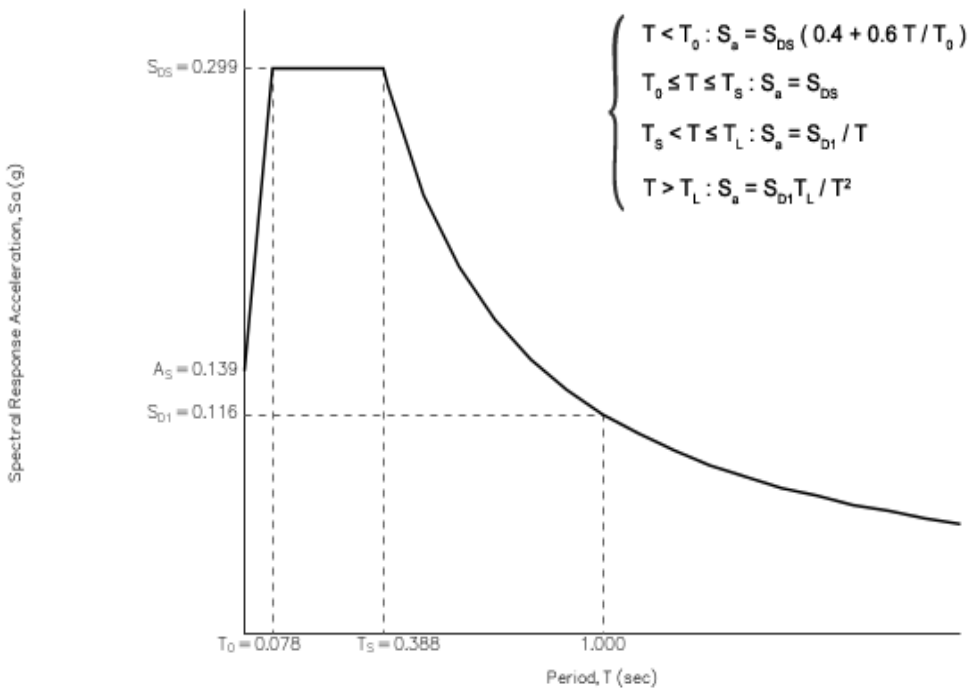
For Site Class = E and S_1 = 0.033 g, F_v = 3.500

Equation (3.4.1-1): $A_S = F_{PGA}\ PGA = 2.500 \times 0.056 = 0.139$ g

Equation (3.4.1-2): $S_{DS} = F_a\ S_S = 2.500 \times 0.120 = 0.299$ g

Equation (3.4.1-3): $S_{D1} = F_v\ S_1 = 3.500 \times 0.033 = 0.116$ g

Figure 3.4.1-1: Design Response Spectrum


$S_{DS} = 0.299$
$A_S = 0.139$
$S_{D1} = 0.116$
$T_0 = 0.078$
$T_S = 0.388$
1.000
Period, T (sec)
Spectral Response Acceleration, Sa (g)
$T < T_0 : S_a = S_{DS} (0.4 + 0.6\, T / T_0)$
$T_0 \le T \le T_S : S_a = S_{DS}$
$T_S < T \le T_L : S_a = S_{D1} / T$
$T > T_L : S_a = S_{D1} T_L / T^2$

Article 3.5 - Selection of Seismic Design Category (SDC)

Table 3.5-1—Partitions for Seismic Design Categories A, B, C, and D

VALUE OF S_{D1}	**SDC**
$S_{D1} < 0.15g$	A
$0.15g \le S_{D1} < 0.30g$	B
$0.30g \le S_{D1} < 0.50g$	C
$0.50g \le S_{D1}$	D

For S_{D1} = 0.116 g, Seismic Design Category = A

Seismic Design Category ≡ "the design category in accordance with Table 3.5-1" = A

References

1. *Figure 3.4.1-2*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/AASHTO-2009-Figure-3.4.1-2.pdf
2. *Figure 3.4.1-3*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/AASHTO-2009-Figure-3.4.1-3.pdf
3. *Figure 3.4.1-4*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/AASHTO-2009-Figure-3.4.1-4.pdf

2.0 DECK DESIGN

Calculations based on concrete strength under 15ksi and normal weight

BRIDGE INPUTS

Material Properties

f_y =	60 ksi	E_s =	29,000 ksi		
f'_c =	4.5 ksi	E_c =	4,145 ksi		5.4.2.4 & 6
f_r =	0.509117 ksi	β_1 =	0.825		5.6.2.2
K_1 =	1.00	α_1 =	0.85		5.6.2.2
n =	7				

Bridge Geometry

L_s =	94 ft (Max Span)	S_{girder} =	8.500 ft		
W_{bridge} =	77.3 ft (Total Width)	Girder Type =	BT-42		
L_{ovhg} =	5.416667 ft (Overhang)	b_f =	43 in (Top Flange Width)		
Rail Type =	Type 10	b_w =	7 in (Web Width)		

Overlay = Y

T_{slab} =	8 in (Total Slab Thickness)	C_{lrTop} =	2 in (Top Clear Cover)
T_{slab} =	0 in (Sacrificial Thickness)	C_{lrBtm} =	1 in (Btm Clear Cover)
T =	**8 in** (Design Thickness)		

Load Factors

Tbl 3.4.1-1

	γ_{DC}	γ_{DW}	γ_{LL}	γ_{CT}	
Service 1	1.00	1.00	1.00	0.00	(Crack Control)
Strength 1	1.25	1.50	1.75	0.00	
Extreme Event 2	1.00	1.00	0.50	1.00	(Crash Event)

Loading (1ft Strip)

Loading Assumes uniform loads applied equally to 3span continuous & point loads applied on one of spans

Desc.	Type	Magnitude (lbs & ft)	w (k/ft)	M+ (k-ft)	M- (k-ft)	
Concrete	Uniform	150	0.100	0.578	0.723	
Misc DC	Point	0		0.000	0.000	
			M_{DC} =	**0.578**	**0.723**	**k-ft**
Overlay	Uniform	36.67	0.037	0.212	0.265	
Utilities	Uniform	5	0.005	0.029	0.036	
Misc DW	Point	0		0.000	0.000	
			M_{DC} =	**0.241**	**0.301**	**k-ft**

$+M_{LL+I}$ =	5.990 k-ft	$-M_{LL+I}$ =	3.357 k-ft		Tbl A4-1
		d_{-M} =	14.33333 in		4.6.2.1.6

DESIGN FORCES

Service 1 Moments, M+ =	6.809 ft-k	Service 1 Moments, M- =	4.381 ft-k
Strength 1 Moments, M_u+ =	11.566 ft-k	Strength 1 Moments, M_u- =	7.230 ft-k

Fatigue 5.5.3.1

Fatigue need not be investigated for Concrete Deck Slabs in multigirder applications

POSITIVE MOMENT DESIGN

Transverse Reinforcement

Bar size =	# 5		Bundle Bar =		
A_b =	0.31	in^2	A_b =	0	in^2
d_{btm} =	6.69	in			
Spacing =	7	in			
$A_{s\ prv'd}$ =	0.531	in^2/ft			

Strength Design 5.6.3.2

$a = A_s f_y / \alpha_1 f'_c b$ = 0.695 in

$c = a/\beta_1$ = 0.842 in

Resistance Factor: 5.5.4.2

ε_{cl} = 0.002 ϕ = 0.9

ε_{tl} = 0.005

ε_s = 0.021

$\phi M_n = \phi A_s f_y (d-a/2)$ = 15.16 k-ft > M_u = 11.57 k-ft **OK**

Minimum Reinforcement 5.6.3.3.2

$M_{cr} = \gamma_3 \gamma_1 f_r I_g / y_t$ Using "Design thickness, T"

γ_3 = 0.67 A615 Gr60 steel

γ_1 = 1.6 "All other concrete structures"

I_g = 512 in^4 Per 1 foot wide strip

y_t = 4.00 in

M_{cr} = 5.82 k-ft **controls**

$1.33M_u$ = 15.38 k-ft

ϕM_n = 15.16 k-ft > M_{cr} = 5.82 k-ft **OK**

Control of Cracking by Distribution of Flexural Reinforcement 5.6.7

$s \le 700\gamma_e / \beta_s f_{ss} - 2d_c$

$\beta_s = 1 + d_c / 0.7(h-d_c)$ = 1.280

h = 8 in

d_c = 1.31 in

$f_{ss} = M_{serv} / (A_{s\ prvd} jd)$ = 25.19 ksi

j = 0.913 1 - k/3

k = 0.262 $(2n\rho+(n\rho)^2)^{1/2} - n\rho$

$\rho_{prv'd}$ = 0.0066

s = 13.65 in > $s_{prv'd}$ = 7 in **OK**

γ_e = 0.75

NEGATIVE MOMENT DESIGN

Transverse Reinforcement

Bar size =	# 5		Bundle Bar =		
A_b =	0.31	in^2	A_b =	0	in^2
d_{btm} =	5.69	in			
Spacing =	7	in			
$A_{s\ prv'd}$ =	0.531	in^2/ft			

Strength Design 5.6.3.2

$a = A_s f_y / \alpha_1 f'_c b$ = 0.695 in

$c = a/\beta_1$ = 0.842 in

Resistance Factor: 5.5.4.2

ε_{cl} = 0.002 ϕ = 0.9

ε_{tl} = 0.005

ε_s = 0.017

$\phi M_n = \phi A_s f_y (d-a/2)$ = 12.77 k-ft > M_u = 7.23 k-ft **OK**

Minimum Reinforcement 5.6.3.3.2

$M_{cr} = \gamma_3 \gamma_1 f_r I_g / y_t$ Using "Design thickness, T"

γ_3 = 0.67 A615 Gr60 steel

γ_1 = 1.6 "All other concrete structures"

I_g = 512 in^4 Per 1 foot wide strip

y_t = 4.00 in

M_{cr} = 5.82 k-ft **controls**

$1.33M_u$ = 9.62 k-ft

ϕM_n = 12.77 k-ft > M_{cr} = 5.82 k-ft **OK**

Control of Cracking by Distribution of Flexural Reinforcement 5.6.7

$s \le 700\gamma_e / \beta_s f_{ss} - 2d_c$

$\beta_s = 1 + d_c / 0.7(h-d_c)$ = 1.581

h = 8 in

d_c = 2.31 in

$f_{ss} = M_{serv} / (A_{s\ prvd} j d)$ = 19.18 ksi

j = 0.907 1 - k/3

k = 0.280 $(2n\rho+(n\rho)^2)^{1/2} - n\rho$

$\rho_{prv'd}$ = 0.0078

s = 12.69 in > $s_{prv'd}$ = 7 in **OK**

γ_e = 0.75

SHRINKAGE AND TEMPERATURE REINFORCEMENT 5.10.6

Bar size = # 4
Spacing = 6 in
$A_{s\ prv'd}$ = 0.400 in²/ft

$A_{s\ req'd} = 1.3bh / (2(b+h)f_y)$ = 0.086 in²/ft per face **OK**
b = 927.6 in

$0.11 \le A_s \le 0.6$ **OK**

DISTRIBUTION REINFORCEMENT (POSITIVE MOMENT) 9.7.3.2

Primary Reinforcement Perpendicular to Traffic

220 / √S = 75.5%
Max = 67% **Use = 67.0%**

$A_{s\ dist}$ = 0.356 in²/ft

Between Girders

L_{Dbars} = 6.71 ft (1/4pt to 1/4pt of flange)
Spa_{max} = 12 in CDOT BDM Table 9-1
N_{bars} = 8 total @ Eq Spaces btw girders
Spa_{calc} = 11.5 in **OK**

Bar size = # 5
A_b = 0.31 in²
$A_{s\ req'd}$ = 2.39 in²
$N_{bars,min}$ = 8 total **OK**

At Overhang

L_{Dbars} = 4.27 ft (1/4pt of flange to 3" from edge of deck)
Spa_{max} = 6 in
N_{bars} = 10 total @ Eq Spaces btw girders
Spa_{calc} = 5.694444 in **OK**

Bar size = # 5
A_b = 0.31 in²
$A_{s\ req'd}$ = 1.52 in²
$N_{bars,min}$ = 5 total **OK**

Calculations based on concrete strength under 15ksi and normal weight

BRIDGE INPUTS

Material Properties

f_y =	60 ksi	E_s =	29,000 ksi		
f'_c =	4.5 ksi	E_c =	4,145 ksi		5.4.2.4 & 6
f_r =	0.509117 ksi	β_1 =	0.825		5.6.2.2
K_1 =	1.00	α_1 =	0.85		5.6.2.2
n =	7	w_{conc} =	0.15 kcf		

Bridge Geometry

Girder Type = BT-42

b_f =	43 in (Top Flange Width)	4.6.2.1.6
t_f =	3.5 in (Flange Thickness)	

Rail Type = Type 10 By Inspection, Type 10 produces higher design forces than Parker's Railing

Rail Width = 1.5 ft

Rail CG to EOD = 9.00 in

Rating = TL-4

L_{ovhg} = 5.416667 ft (Overhang)

$L_{support}$ = 14.33 in

EOD Thickness = 8 in

C_{lrTop} = 2 in (Top Clear Cover)

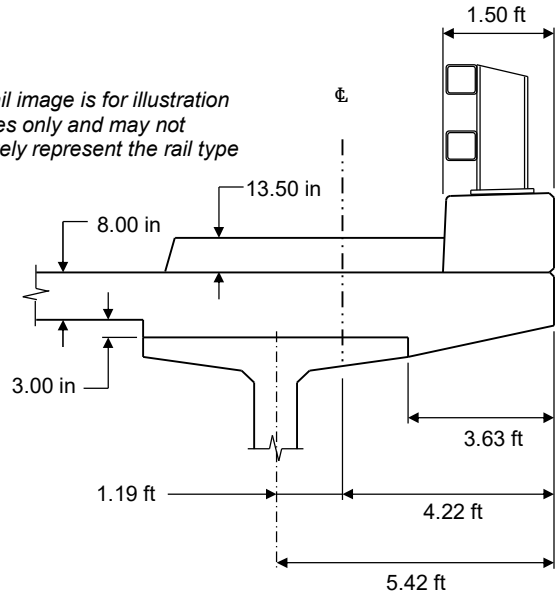
Max Haunch = 3.00 in

Struct. Haunch = 1.00 in

Sidewalk = 13.50 in

Double Mat = Y

Note: Rail image is for illustration purposes only and may not accurately represent the rail type



Load Factors Tbl 3.4.1-1

	γ_{DC}	γ_{DW}	γ_{LL}	γ_{CT}	
Service 1	1.00	1.00	1.00	0.00	(Crack Control)
Strength 1	1.25	1.50	1.75	0.00	
Extreme Event 2	1.00	1.00	0.50	1.00	(Crash Event)

DESIGN FORCES

Dead Loads:

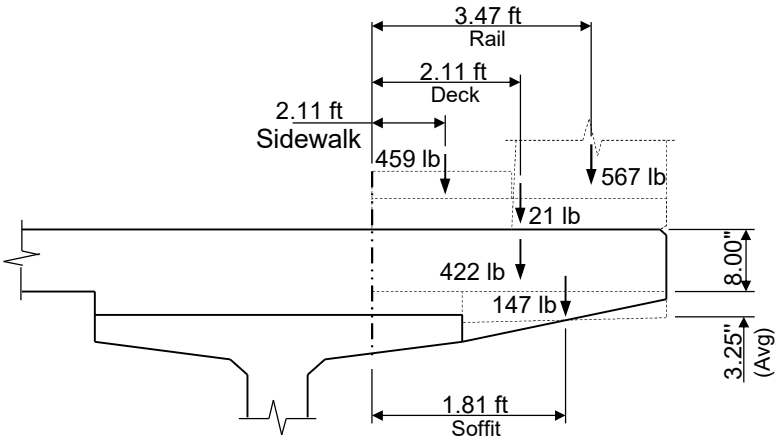
w_{Deck} = 100 psf
w_{Soffit} = 40.625 psf
$w_{Sidewalk}$ = 168.75 psf
w_{Misc} = 0.00 psf
w_{Rail} = 566.80 lb/ft

	w (k/ft)	Arm (ft)	Moment (k-ft/ft)	Shear (k/ft)
Deck	0.10	2.11	0.89	0.42
Soffit	0.04	1.81	0.27	0.15
Sidewalk	0.17	2.11	0.97	0.46
Misc.	0.00	0.00	0.00	0.00
Rail	0.57	3.47	1.97	0.57
Total	**0.88**	**4.67**	**4.10**	**1.60**

Wearing Surface & Utilities:

$w_{Overlay}$ = 36.67 psf
$w_{Utilities}$ = 5.00 psf
w_{misc} = 0.00 psf

Overlay	0.00	1.36	0.00	0.00
Utilities	0.01	2.11	0.04	0.02
Misc.	0.00	0.00	0.00	0.00
Total	**0.01**	**8.91**	**0.04**	**0.02**



Live Loads

A13.4.1

Design Case 1 [Extreme Event II: Initial Impact - Longitudinal and Lateral Forces]

M_{LL} = 25.81 k-ft/ft
T_{LL} = 9.11 k/ft
V_{LL} = 0 k/ft

Design Case 2 [Extreme Event II: Vertical Forces - After impact]

M_{LL} = 3.47 k-ft/ft
T_{LL} = 28.53 k/ft
V_{LL} = 1.00 k/ft

Design Case 3 [Strength 1: Vehicle Traffic Loads on Overhang]

M_{LL} = 1.72 k-ft/ft
T_{LL} = 0 k/ft
V_{LL} = 1 k/ft 3.6.1.3.4

Wheel Offset = 1 ft 3.6.1.3.1
Arm, X = 1.72 ft 4.6.2.1.6
P_{LL} = 16 k 3.6.1.2.2
Impact = 1.33 3.6.2.1
Mult. Pres, m = 1.2 3.6.1.1.2
E = 45.0+10.0X = 62.22 in Tbl 4.6.2.1.

Design Forces

Extreme Event II (Design Case 1): M_u = 30.809 k-ft/ft
T_u = 9.109 k/ft
V_u = 2.117 k/ft

Extreme Event II (Design Case 1): M_u = 8.473 k-ft/ft
T_u = 28.531 k/ft
V_u = 3.117 k/ft

Extreme Event II (Design Case 1): M_u = 8.200 k-ft/ft
T_u = 0.000 k/ft
V_u = 3.776 k/ft

Negative Moment Design

Transverse Reinforcement

Bar size = # 5 Bundle Bar = # 6
A_b = 0.31 in^2 A_b = 0.44 in^2
d_{btm} = 6.69 in

Spacing = 7 in
$A_{s\ prv'd}$ = 1.286 in^2/ft $A_{s\ req'd}$ = 1.054 in^2/ft **OK**

Strength Design 5.6.3.2

$a = A_s f_y / \alpha_1 f'_c b$ = 1.681 in
$c = a/\beta_1$ = 2.037 in

Resistance Factor: 5.5.4.2
ε_{cl} = 0.002 ϕ = 1 *Extreme Event Factor*
ε_{tl} = 0.005
ε_s = 0.007

$\phi M_n = \phi A_s f_y (d-a/2)$ = 37.59 k-ft / ft > M_u = 30.81 k-ft / ft **OK**

Minimum Reinforcement 5.6.3.3.2

$M_{cr} = \gamma_3 \gamma_1 f_r I_g / y_t$ Using "Design thickness, T"
γ_3 = 0.67 A615 Gr60 steel
γ_1 = 1.6 "All other concrete structures"
I_g = 512 in^4 Per 1 foot wide strip
y_t = 4.00 in
M_{cr} = 5.82 k-ft **controls**
$1.33M_u$ = 40.98 k-ft

ϕM_n = 37.59 k-ft / ft > M_{cr} = 5.82 k-ft / ft **OK**

TENSION DESIGN

Transverse Reinforcement

Top Mat:

Bar Size =	# 5 @ 7.0 in		A_s =	0.531429	in^2/ft
Bundled Bar =	# 6 @ 7.0 in		A_s =	0.754286	in^2/ft

Btm Mat:

Bar Size =	# 5 @ 7.0 in		A_s =	0.531429	in^2/ft

Tension Strength

$A_{s\text{-}Total}$ = 1.817143 in^2/ft

ϕ = 1 *Extreme Event Factor*

$\phi P_n = \phi f_y A_s$ =	109.0286 k / ft	>	T_u =	28.53 k / ft	**OK**

COMBINED LOADING

$M_u / \phi M_n + T_u / \phi P_n < 1$

Extreme Event II (Design Case 1) =	0.90	**OK**
Extreme Event II (Design Case 2) =	0.49	**OK**
Strength I (Design Case 1) =	0.24	**OK**

SHEAR DESIGN 5.7.3.3

$\beta 1$ =	2	
bv =	12 in	
dv =	5.85 in	5.7.2.8
ϕ =	0.9	

$V_n = V_c = 0.0316\beta\sqrt{(f'_c)}b_v d_v$ =	9.41 k				
$V_n = 0.25 f'_c b_v d_v$ =	78.94 k				
ϕV_n =	8.47 k / ft	>	$2V_u$ =	7.55 k / ft	**OK**

REINFORCING DETAILING

Minimum Spacing of Bars 5.10.3.1

Clr = 4.875 in > Min Clr = 1.5 in **OK**

Development at Face of Barrier

λ

Transverse Bar in Tension (Assumes bundled bar fully developed) 5.10.8.2.1

$l_d = l_{db} \times [\ \lambda_{rl}\ \lambda_{cf}\ \lambda_{rc}\ \lambda_{er} / \lambda\ ]$ = 12 in Avail = 16 in **OK**

$l_{bd} = 2.4 d_b f_y / \sqrt{f'_c}$ = 42.43 in

λ_{rl} = 1 (reinforcement location factor)

λ_{cf} = 1.2 (coating factor)

$\lambda_{rl} \times \lambda_{cf}$ = 1.2

λ_{er} = 0.56 (excess reinforcement factor)

λ = 1 (concrete density factor)

λ_{rc} = 0.4 (reinforcement confinement factor)

k_{tr} = 0

Hook Length Bundled Bar 5.10.8.2.4

$l_{dh} = l_{hb} \times [\ \lambda_{rc}\ \lambda_{cw}\ \lambda_{er} / \lambda\ ]$ = 13.21 in Avail = 16 in **OK**

$l_{hd} = (38 d_b/60) f_y / \sqrt{f'_c}$ = 13.44 in

λ_{rc} = 1 (reinforcement confinement factor)

λ_{cw} = 1.2 (coating factor)

λ_{er} = 0.819633 (excess reinforcement factor)

λ = 1 (concrete density factor)

REINFORCING CUTOFF

Determine when Bundled Bars are not required

M_u (CL Ext Girder) = 33.09 k-ft / ft

Add'l Moment Arm = 10.75 in

Location Where Bundle Bar is not needed

ϕM_n = 12.77 k-ft / ft

ϕM_n = 7.06 k-ft / ft (Reduced for Tension Capacity)

X = 4.46 ft (Beyond Cl Ext Girder)

S = 8.50 ft

Development Length of Bundled Bar 5.10.8.2.1

$l_d = l_{db} \times [\ \lambda_{rl}\ \lambda_{cf}\ \lambda_{rc}\ \lambda_{er} / \lambda\ ]$ = 24.44 in

$l_{bd} = 2.4 d_b f_y / \sqrt{f'_c}$ = 50.91 in

λ_{rl} = 1 (reinforcement location factor)

λ_{cf} = 1.2 (coating factor)

$\lambda_{rl} \times \lambda_{cf}$ = 1.2

λ_{er} = 1 (excess reinforcement factor)

λ = 1 (concrete density factor)

λ_{rc} = 0.4 (reinforcement confinement factor)

k_{tr} = 0

Cutoff Point 5.10.8.1.2

Effective Depth, d =	6.69	in	
15 bar Dia =	11.25	in	
1 / 20 Span L =	5.1	in	
		$X1_{min}$ =	24.44 in

Total Bundled Bar Length = 7.5 ft (Not including hook)

MATERIAL PROPERTIES [AASHTO LRFD]

F_y =	50	ksi	f_y =	60	ksi
F_{ub} =	120	ksi (A325)	f'_c =	4.5	ksi Curb
			w_{conc} =	0.15	kcf

DESIGN INPUTS

Rail Rating = TL-4
Resistance Factor= 1.00 Extreme Event

RAIL PROPERTIES

Post & Rail:

Post Size = W8x18
Wt Post = 18 lb/ft
Z_{post} = 17 in^3
d = 8.14 in
t_f = 0.33 in
H = 21.125 in (Total Height of Post)
H_{post} = 5.5 in (Height of post corresponding to Pp)
L = 10 ft (Post Spacing)

Rail Size = HSS5x5x5/16
Wt Rail = 19.03 lb/ft

w_b = 8 in
d_b = 6.875 in
Anchor d_b = 1 in
A_b = 0.785 in^2
n = 2

Curb:

H_{curb} = 26.50 in (Curb Height: 1'-1" above sidewalk)
W_{curb} = 18 in (Curb Width)
Stirrup Cover = 2 in
Stirrup Bar = # 4
d_b = 0.5 in
A_b = 0.2 in^2
n = 9 (Number of Stirrups) Stirrup Spa = 9 in

Overhang Deck:

Top Cover = 2 in (Cover for Tensile Steel in Deck)
X = 28.50 (Top of Curb to Tensile Rebar)

Self Weight:

Post =	3.17	lb/ft
Rail =	38.06	lb/ft
Base Plate =	1.70	lb/ft
Curb =	496.88	lb/ft
Misc =	26.99	lb/ft
Total =	566.80	lb/ft

DESIGN FORCES

A13.4.3

Design Case 1 [Extreme Event II: Initial Longitudinal & Lateral Forces of impact]

Steel Post Capacity

M_{post} =	850	k-in	F_yZ
P_{post} =	154.55	k	M_{post}/H_{post}
W =	65.00	in	$2X+w_b$ Distributed Width
Moment Arm = L_p =	34.00	in	H_{post} + X (For all DC1 options)
M_d =	**80.84**	**k-ft/ft**	$(M_{post}+P_{post}X)/W$
T =	**28.53**	**k/ft**	$12P_{post}/W$

Design forces assume forces transfer through curb at 45deg

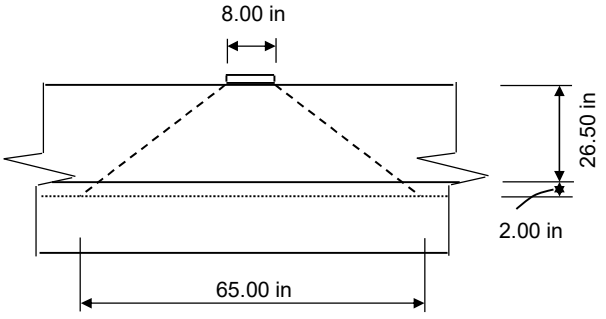
Anchor Bolt Capacity

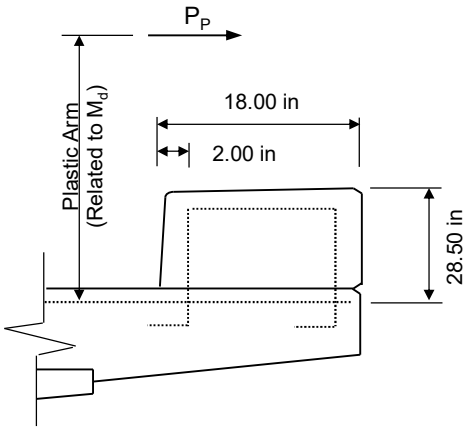
P_p =	74.94	k	Force that will create unity for shear and tension combined	
R_n =	90.48	k	$n0.48A_bF_{ub}N_s$	6.13.2.7
T_n =	59.36	k	$n0.76A_bF_{ub}(1-(P_u/\phi R_n))^{1/2}$	6.13.2.11
N_s =	1			
W =	65.00	in	$2X+w_b$ Distributed Width	
M_d =	**39.20**	**k-ft/ft**	P_PL_p/W	
T =	**13.84**	**k/ft**	P_P/W	

Design forces assume forces transfer through curb at 45deg

Concrete Curb Capacity

A_s =	0.33	in^2/ft	nAb/W	
d =	15.75	in		
α_1 =	0.85			5.6.2.2
a =	0.434389	in	$A_s f_y / \alpha_1 f'_c b$	
M_d =	**25.81**	**k-ft/ft**	A_sf_y (d - a/2)	
T =	**9.11**	**k/ft**	M_d / L_p	





Design Case 2 [Extreme Event II: Vertical Forces - After Design Case 1; Vehicle Sitting on Rail]

F_v =	18	k		
L_v =	18	ft		
b =	65	in	$2X+W_b$	
Moment Arm = L_p =	3.47	ft	(see Overhang dead load moments)	
P_v =	**10**	**k**	F_vL/L_v	punching shear force
V =	**1**	**k/ft**	F_v/L_v	
M_d =	**3.47**	**k-ft/ft**	VL_p	overhang moment
T =	**28.53**	**k/ft**		

PUNCHING SHEAR A13.4.3.2

h =	8.00	in	Depth of slab
E =	2.72	in	Edge of slab to centroid of compressive flange
B =	7.81	in	Distance between tension and compression flange
v_c =	0.16	ksi	$(0.0633 + 0.1265/\beta_c)\ f'_c{}^{1/2}$ or $0.1265\ f'_c{}^{1/2}$
β_c =	8.87		W_b/d_b
W_b =	61.00	in	$w_b + 2H_{curb}$ (Distribution through curb)
ϕ =	1		
ϕV_n =	118.79	k	$\phi\ v_c\ [\ W_b + h + 2(\ E + B/2 + h/2\ )\ ]\ h$

ϕV_n =	**118.79**	**k**	**>**	**P_v =**	**10.00 k**	**OK**

General Inputs

fy =	60	ksi	Girder Type =	BT-42	
Span 1 girder, f'c =	8.5	ksi	Girder Depth =	42	in
α_1 =	0.85		Btm Flange Width = b_f =	27	in
β_1 =	0.65		Btm Flange Thickness = t_f =	6.5	in
Span 2 girder, f'c =	8.5	ksi	Min Haunch =	1.5	in
α_1 =	0.85		Girder Spacing =	8.08	ft
β_1 =	0.65		Overhang =	3.958333	ft (Zero if Int. Girder)
d =	47.5	in			
deck, f'c =	4.5	ksi	Deck Thickness =	8	in
			Cover =	2	in
			Transverse Bar =	# 6	

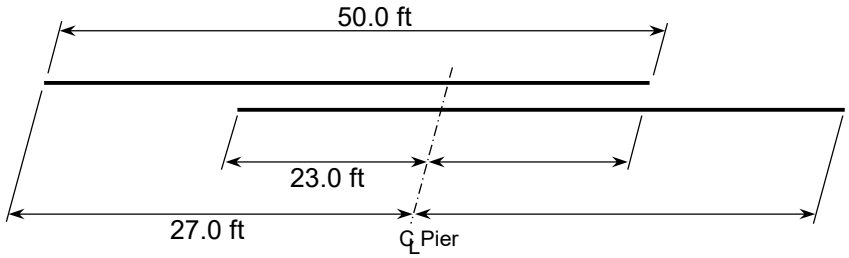
Moment output of bridge span

	Span Section	Location (ft)	Location (ft)	M_u - (k-ft)	$A_{s\text{-req'd}}$ (in2)	a (in)	a < t_f ?
Span 1	1	0	0	0	0.00	0.00	OK
	2	7.59	7.59	-26.31	0.12	0.04	OK
	3	15.18	15.18	-83.88	0.39	0.12	OK
	4	22.77	22.77	-172.72	0.81	0.25	OK
	5	30.36	30.36	-292.83	1.38	0.42	OK
	6	37.95	37.95	-444.2	2.09	0.64	OK
	7	45.54	45.54	-626.84	2.96	0.91	OK
	8	53.13	53.13	-840.74	3.98	1.23	OK
	9	60.72	60.72	-1113.8	5.30	1.63	OK
	10	68.31	68.31	-1555.08	7.46	2.29	OK
	11	75.9	75.9	-2618.44	12.78	3.93	OK
Span 2	1	0	75.9	-2618.44	12.78	3.93	OK
	2	7.6	83.49	-1550.84	7.43	2.29	OK
	3	15.2	91.08	-1107.72	5.27	1.62	OK
	4	22.8	98.67	-836.09	3.96	1.22	OK
	5	30.4	106.26	-622.48	2.94	0.90	OK
	6	38.0	113.85	-439.74	2.07	0.64	OK
	7	45.5	121.44	-289.01	1.36	0.42	OK
	8	53.1	129.03	-169.67	0.80	0.24	OK
	9	60.7	136.62	-81.72	0.38	0.12	OK
	10	68.3	144.21	-25.17	0.12	0.04	OK
	11	75.9	151.8	0	0.00	0.00	OK

Steel Reinforcing Layout & Capacity Checks

Continuity Bar Size = # 9 at Pier Spaced at = 6 in O.C.
Total Effective Bar Length = 50 ft # Effective Bars = 15
Bar End to Pier = 23 ft (short dimension)
Bar End to Pier = 27 ft (long dimension)
Lap Splice Length, l_{ds} = 59.73 in Use = 60 in
Splice Class? B

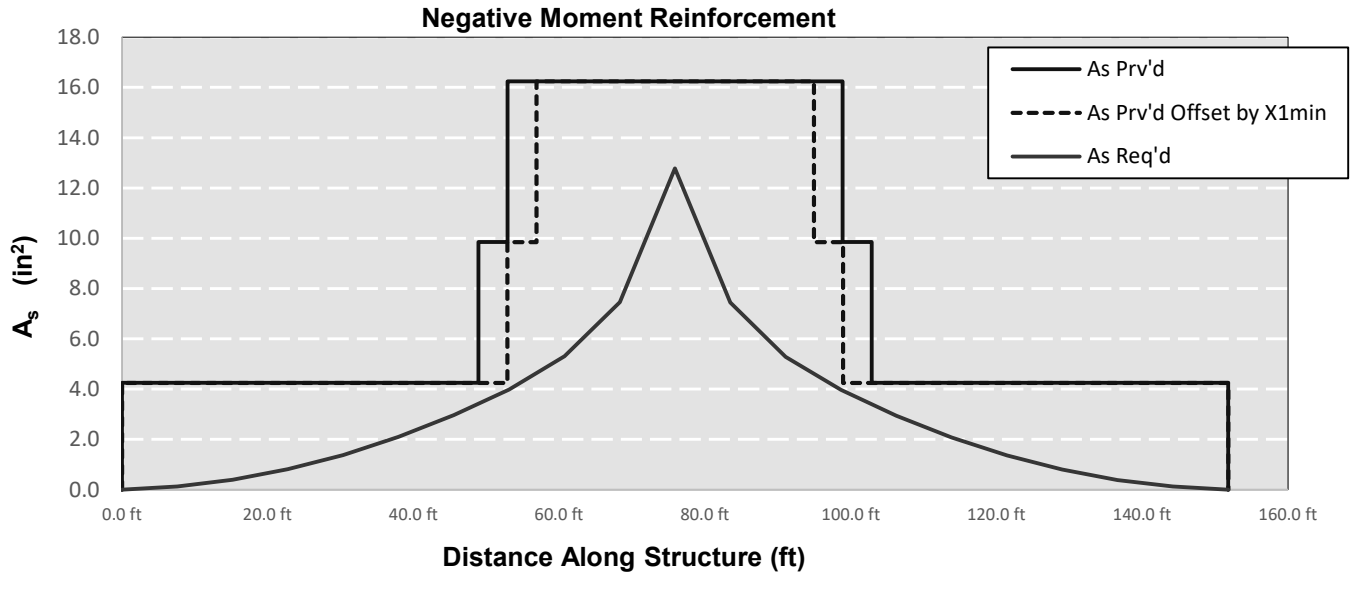
Continuity Bar Size = # 4 at Abutment



Location			Bar Size	As-pvd	ϕM_n	
0.0 ft	to	48.9 ft	# 4	3	-893.9	
48.9 ft	to	52.9 ft	# 4 and # 9	8.6	-2036.3	
52.9 ft	to	75.9 ft	# 9	15	-3288.8	**OK**
75.9 ft	to	98.9 ft	# 9	15	-3288.8	**OK**
98.9 ft	to	102.9 ft	# 4 and # 9	8.6	-2036.3	
102.9 ft	to	151.8 ft	# 4	3	-893.9	

Extra Bars in Overhang			Bar Size	Qty	As-pvd	
0.0 ft	to	151.8 ft	# 5	4	1.24	*Btm mat in overhang*

Area of steel provided assumes more small bars than large bars to be conservative



Cutoff, Embedment, and Development Length Checks

Extension Beyond Bar Cutoff 5.10.8.1.2

Effective Depth, d = 47.5 in **Controls**
15 bar Dia = 16.92 in
1 / 20 Span L = 45.54 in
$X1_{min}$ = 47.5 in

Development Length 5.10.8.2.1

$\lambda_d = \lambda_{db} \times [\ \lambda_{rl}\ \lambda_{cf}\ \lambda_{rc}\ \lambda_{er} / \lambda\ ]$ = 45.94 in
$l_{db} = 2.4\ d_b\ f_y / \sqrt{f'_c}$ = 76.6 in
λ_{rl} = 1 FALSE *Horizontal bars with 12 in fresh conc below?*
λ_{cf} = 1.5 TRUE *Epoxy Coated?*
$\lambda_{rl} \times \lambda_{cf}$ = 1.5
TRUE *Limited Cover & Spacing?*
λ_{rc} = 0.40 *0.4 < d_b/c_b < 1.0, (k_{tr} assumed = 0)*
k_{tr} = 0
λ_{er} = 1 $A_{s\ Req}/A_s$
λ = 1 FALSE *Lightweight?*

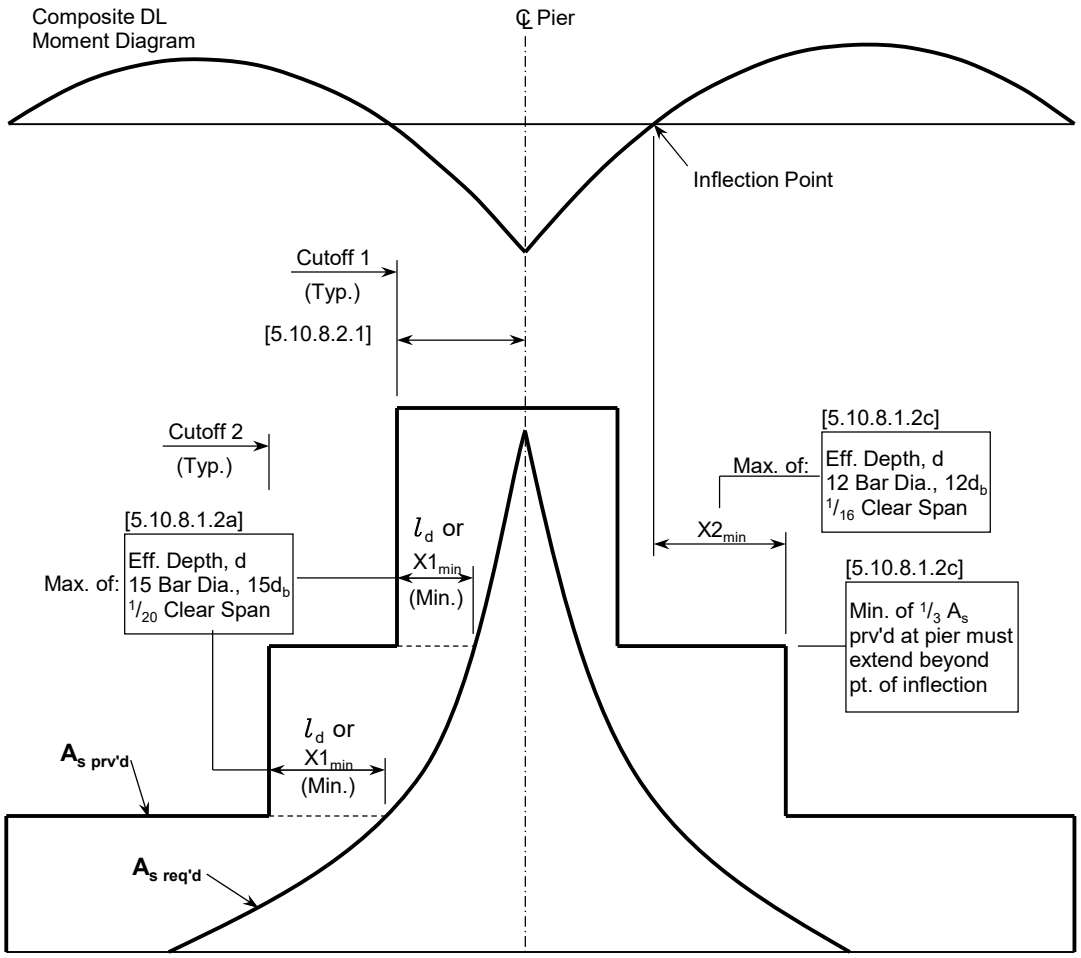
Check that bar extends l_d and $X1_{min}$ beyond point where steel is required for strength:

	Location where ϕM_n Req'd (ft)	Min Extension (ft)	Min Req'd Length From Pier (ft)	Actual (ft)	
Cutoff 1	71.74	3.96	8.11	23	**OK**
	80.04	3.96	8.10	23	**OK**
Cutoff 2	54.61	3.96	25.25	27	**OK**
	97.06	3.96	25.11	27	**OK**

Extend 1/3 of As @ Pier Beyond Uniform Load (DC+DW) Inflection Point 5.10.8.1.2c

Effective Depth, d = 47.5 in
12 bar Dia = 13.536 in
1 / 16 Span L = 56.925 in **Controls**
$X2_{min}$ = 56.925 in

	Inflection Pt	Inflection Pt ± $X2_{min}$	$A_{s\text{-}pvd}$ at Location		$A_{s\text{-}req'd}$ 1/3 A_s	
Span 1	56.67	51.93	9.84	>	5.41	**OK**
Span 2	95.13	99.87	9.84	>	5.41	**OK**


Composite DL
Moment Diagram
℄ Pier
Inflection Point
Cutoff 1
(Typ.)
[5.10.8.2.1]
Cutoff 2
(Typ.)
[5.10.8.1.2c]
Max. of:
Eff. Depth, d
12 Bar Dia., 12db
1/16 Clear Span
X2min
[5.10.8.1.2a]
Max. of:
Eff. Depth, d
15 Bar Dia., 15db
1/20 Clear Span
ld or
X1min
(Min.)
[5.10.8.1.2c]
Min. of 1/3 As
prv'd at pier must
extend beyond
pt. of inflection
As prv'd
As req'd

General Inputs

fy =	60 ksi	Girder Type =	BT-42		
Span 1 girder, f'c =	8.5 ksi	Girder Depth =	42 in		
α_1 =	0.85	Btm Flange Width = b_f =	27 in		
β_1 =	0.65	Btm Flange Thickness = t_f =	6.5 in		
Span 2 girder, f'c =	8.5 ksi	Min Haunch =	1.5 in		
α_1 =	0.85	Girder Spacing =	8.08 ft		
β_1 =	0.65	Overhang =	0 ft	(Zero if Int. Girder)	
d =	47.5 in				
deck, f'c =	4.5 ksi	Deck Thickness =	8 in		
		Cover =	2 in		
		Transverse Bar =	# 6		

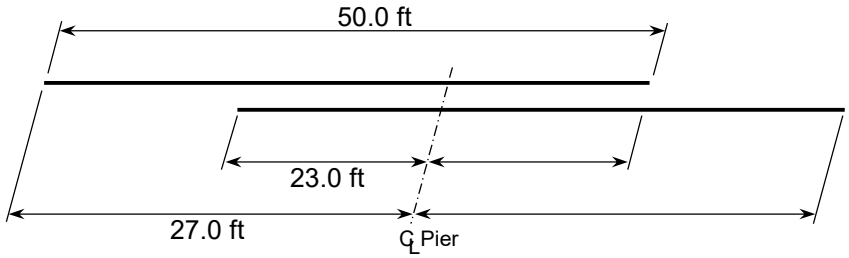
Moment output of bridge span

	Span Section	Location (ft)	Location (ft)	M_u - (k-ft)	$A_{s\text{-req'd}}$ (in2)	a (in)	a < t_f ?
Span 1	1	0	0	0	0.00	0.00	OK
	2	7.59	7.59	0	0.00	0.00	OK
	3	15.18	15.18	-26.33	0.12	0.04	OK
	4	22.77	22.77	-86.39	0.40	0.12	OK
	5	30.36	30.36	-177.71	0.83	0.26	OK
	6	37.95	37.95	-300.31	1.41	0.43	OK
	7	45.54	45.54	-454.17	2.14	0.66	OK
	8	53.13	53.13	-639.29	3.02	0.93	OK
	9	60.72	60.72	-882.52	4.19	1.29	OK
	10	68.31	68.31	-1272.05	6.07	1.87	OK
	11	75.9	75.9	-2176.3	10.54	3.24	OK
Span 2	1	0	75.9	-2176.3	10.54	3.24	OK
	2	7.6	83.49	-1268.59	6.05	1.86	OK
	3	15.2	91.08	-877.49	4.16	1.28	OK
	4	22.8	98.67	-634.64	3.00	0.92	OK
	5	30.4	106.26	-449.81	2.12	0.65	OK
	6	38.0	113.85	-296.37	1.39	0.43	OK
	7	45.5	121.44	-174.31	0.82	0.25	OK
	8	53.1	129.03	-83.65	0.39	0.12	OK
	9	60.7	136.62	-24.38	0.11	0.04	OK
	10	68.3	144.21	0	0.00	0.00	OK
	11	75.9	151.8	0	0.00	0.00	OK

Steel Reinforcing Layout & Capacity Checks

Continuity Bar Size = # 9 at Pier Spaced at = 6 in O.C.
Total Bar Length = 50 ft # Effective Bars = 15
Bar End to Pier = 23 ft (short dimension)
Bar End to Pier = 27 ft (long dimension)
Lap Splice Length, l_{ds} = 59.73 in Use = 60 in
Splice Class? B

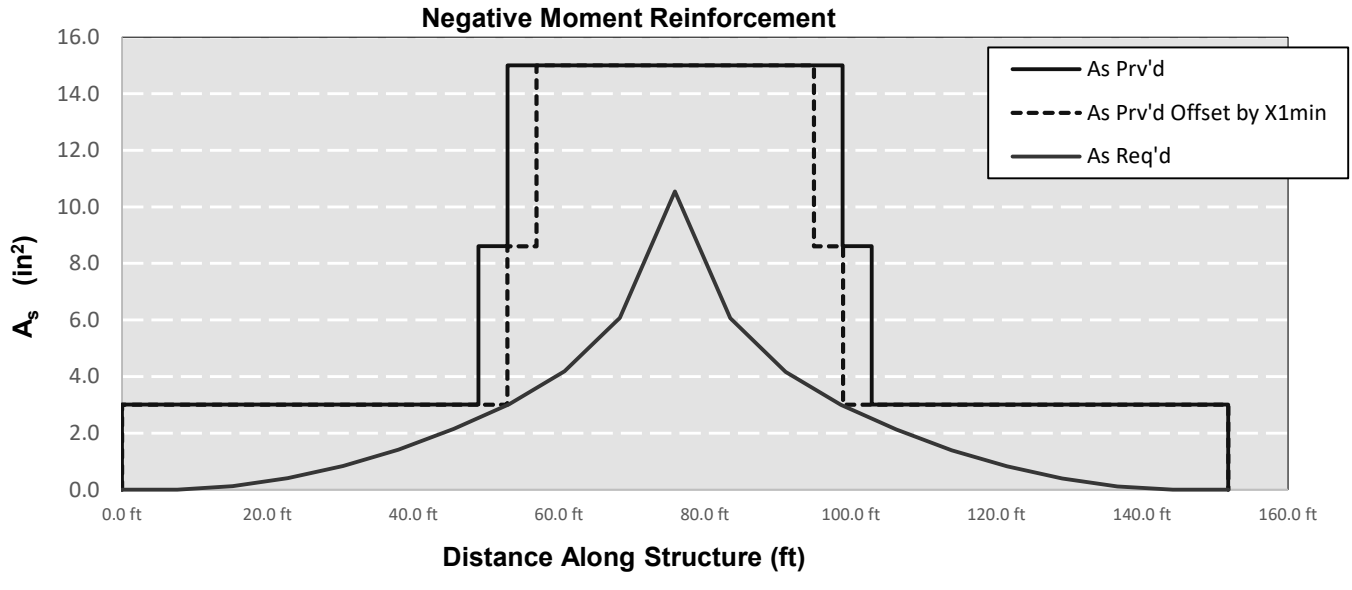
Continuity Bar Size = # 4 at Abutment



Location			Bar Size	As-pvd	ϕM_n	
0.0 ft	to	48.9 ft	# 4	3	-635.0	
48.9 ft	to	52.9 ft	# 4 and # 9	8.6	-1787.1	
52.9 ft	to	75.9 ft	# 9	15	-3050.5	**OK**
75.9 ft	to	98.9 ft	# 9	15	-3050.5	**OK**
98.9 ft	to	102.9 ft	# 4 and # 9	8.6	-1787.1	
102.9 ft	to	151.8 ft	# 4	3	-635.0	

Extra Bars in Overhang			Bar Size	Qty	As-pvd
0.0 ft	to	151.8 ft	# 6	3	0

Area of steel provided assumes more small bars than large bars to be conservative



Cutoff, Embedment, and Development Length Checks

Extension Beyond Bar Cutoff 5.10.8.1.2

Effective Depth, d =	47.5	in	**Controls**
15 bar Dia =	16.92	in	
1 / 20 Span L =	45.54	in	
		$X1_{min}$ =	47.5 in

Development Length 5.10.8.2.1

$\lambda_d = \lambda_{db} \times [\ \lambda_{rl}\ \lambda_{cf}\ \lambda_{rc}\ \lambda_{er} / \lambda\ ]$ = 45.94 in

$l_{db} = 2.4\ d_b\ f_y / \sqrt{f'_c}$ =	76.6	in	
λ_{rl} =	1	FALSE	*Horizontal bars with 12 in fresh conc below?*
λ_{cf} =	1.5	TRUE	*Epoxy Coated?*
$\lambda_{rl} \times \lambda_{cf}$ =	1.5		
		TRUE	*Limited Cover & Spacing?*
λ_{rc} =	0.40		*0.4 < d_b/c_b < 1.0, (k_{tr} assumed = 0)*
k_{tr} =	0		
λ_{er} =	1	$A_{s\ Req}/A_s$	
λ =	1	FALSE	*Lightweight?*

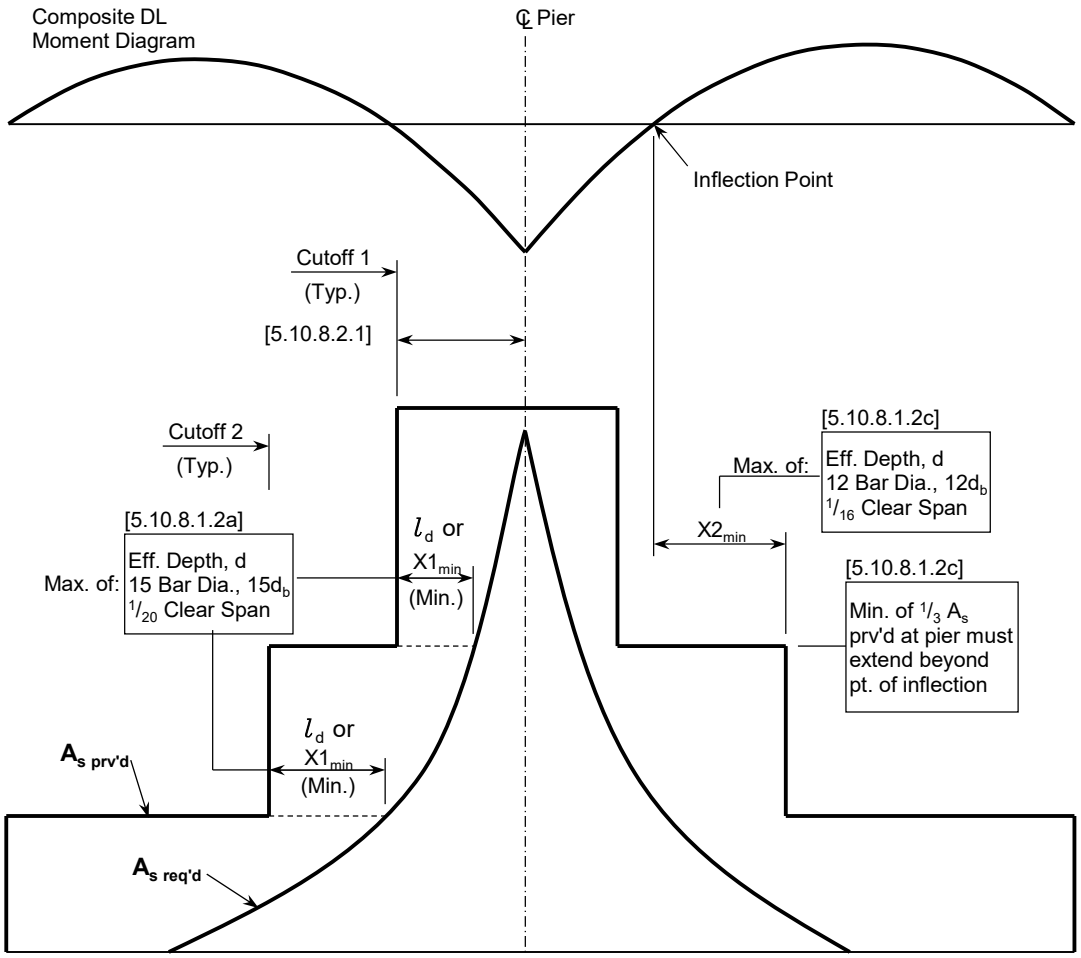
Check that bar extends l_d and $X1_{min}$ beyond point where steel is required for strength:

	Location where ϕM_n Req'd (ft)	Min Extension (ft)	Min Req'd Length From Pier (ft)	Actual (ft)	
Cutoff 1	72.63	3.96	7.23	23	**OK**
	79.15	3.96	7.21	23	**OK**
Cutoff 2	52.95	3.96	26.90	27	**OK**
	98.66	3.96	26.72	27	**OK**

Extend 1/3 of As @ Pier Beyond Uniform Load (DC+DW) Inflection Point 5.10.8.1.2c

Effective Depth, d =	47.5	in	
12 bar Dia =	13.536	in	
1 / 16 Span L =	56.925	in	**Controls**
		$X2_{min}$ =	56.925 in

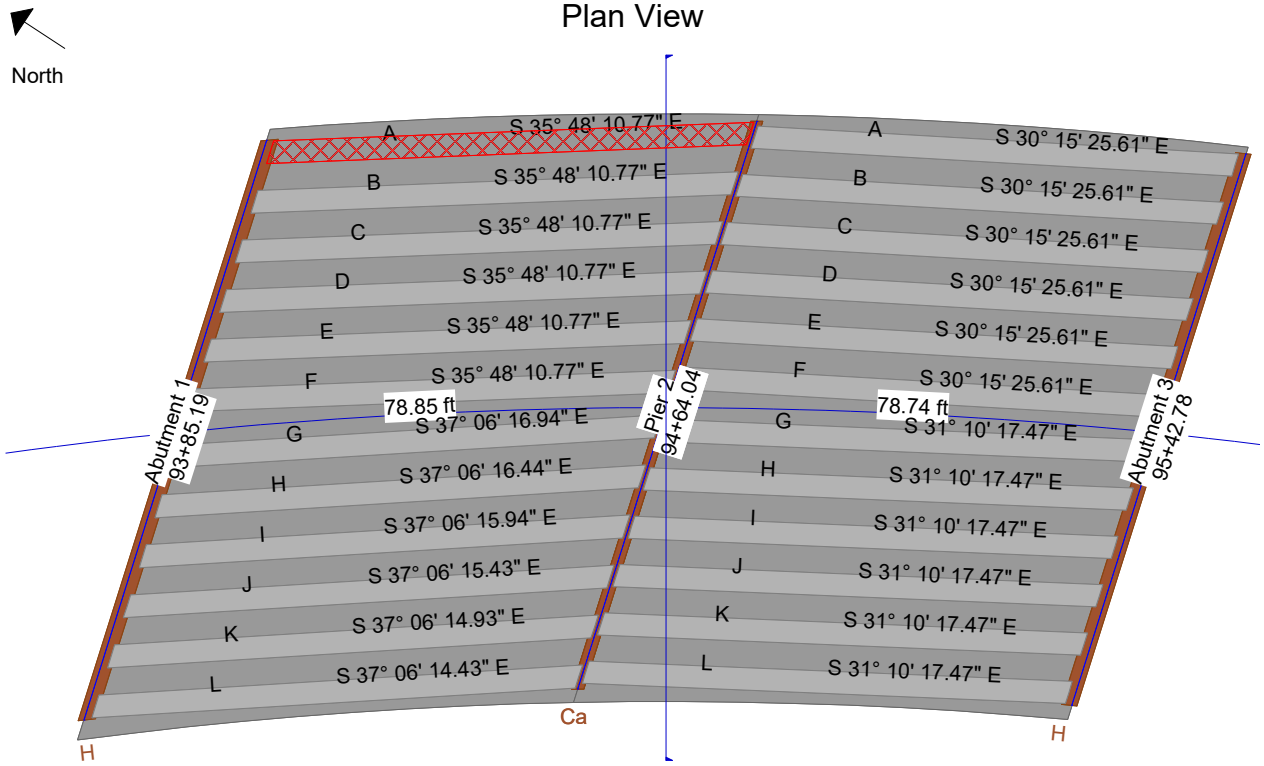
	Inflection Pt	Inflection Pt ± $X2_{min}$	$A_{s\text{-}pvd}$ at Location		$A_{s\text{-}req'd}$ 1/3 A_s	
Span 1	56.67	51.93	8.6	>	5.00	**OK**
Span 2	95.13	99.87	8.6	>	5.00	**OK**


Composite DL
Moment Diagram
℄ Pier
Inflection Point
Cutoff 1
(Typ.)
[5.10.8.2.1]
Cutoff 2
(Typ.)
[5.10.8.1.2c]
Max. of:
Eff. Depth, d
12 Bar Dia., 12db
1/16 Clear Span
X2min
[5.10.8.1.2a]
Max. of:
Eff. Depth, d
15 Bar Dia., 15db
1/20 Clear Span
ld or
X1min
(Min.)
[5.10.8.1.2c]
Min. of 1/3 As
prv'd at pier must
extend beyond
pt. of inflection
ld or
X1min
(Min.)
As prv'd
As req'd

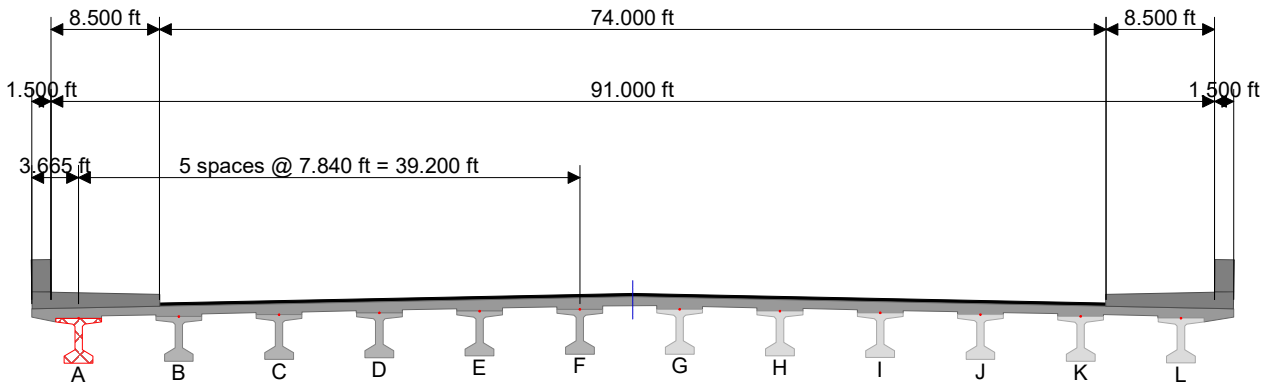
3.0 SUPERSTRUCTURE DESIGN

Bridge: Belford over Happy Canyon Creek	**Bridge ID:**	**Sheet** 1 **of** 1
Engineer: J. Lynch	**Job Number:** 115360 **Date:** March 15, 2021	

Plan View



Section at Station 94+63.99 - Normal to Alignment



C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

PGSuper™ Version 5.0.3.0, Copyright © 2021, WSDOT, All rights reserved

Details Report

For

Span 1 Girder A

March 15, 2021 8:01:54 am

PGSuper™ (x64)

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Version 5.0.3 - Built on Jul 9 2020



Project Properties

Bridge Name	Belford over Happy Canyon Creek
Bridge ID	
Company	FHU
Engineer	J. Lynch
Job Number	115360
Comments	Belford Ave over Happy Canyon Creek. Updated design for full width and current design codes.
File	C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

Configuration
Configuration Name: WSDOT
Configuration Source: ftp://ftp.wsdot.wa.gov/public/bridge/Software/PGSuper/Version_5.0.0/WSDOT.pgz
Configuration Date Stamp: September 25, 2020 2:10:27 pm

Library	Entry	Source
Girders	BT-42 CDOT	Project Library
Traffic Barriers	Parker Rail	Project Library
Project Criteria	CDOT based on AASHTO LRFD Bridge Design Specification, Eighth Edition 2017	Project Library
Vehicular Live Load	CDOT Permit	Project Library
Vehicular Live Load	OL1	Master Library
Vehicular Live Load	OL2	Master Library
Load Rating Criteria	WSDOT based on The Manual for Bridge Evaluation, Second Edition 2011, with 2011-2016 interim provisions	Master Library
Haul Trucks	HT40-72	Master Library

Analysis Controls
Structural Analysis Method: Simple Spans made Continuous
Section Properties: Gross
Losses: Approximate lump sum estimate per AASHTO LRFD 5.9.3.3

Notes

Symbol	Definition
L_r	Span Length of Girder at Release
L_l	Span Length of Girder during Lifting
L_{st}	Span Length of Girder during Storage
L_h	Span Length of Girder during Hauling
L_e	Span Length of Girder after Erection
L_s	Length of Span
Debond	Point where bond begins for a debonded strand
PSXFR	Point of prestress transfer
FoS	Face of Support
ST	Section Transitions
STLF	Section Transitions, Left Face
STRF	Section Transitions, Right Face
SDCR	Start of Deck Casting Region
EDCR	End of Deck Casting Region
Diaphragm	Location of a precast or cast in place diaphragm
Bar Cutoff	End of a reinforcing bar in the girder
Deck Bar Cutoff	End of a reinforcing bar in the deck
CS	Critical Section for Shear
SZB	Stirrup Zone Boundary
H	H from end of girder or face of support
1.5H	1.5H from end of girder or face of support
HP	Harp Point
Pick Point	Support point where girder is lifted from form
Bunk Point	Point where girder is supported during transportation

Status Items

Level	Description
Warning	Span 1, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)

Alignment

Alignment Details

Direction: N 49° 48' 33.38" E
Ref. Point: 0+00.00 (E (X) 0.000, N (Y) 0.000)

Horizontal Curve Data

Curve Parameters	Curve 1
Back Tangent Bearing	N 49° 48' 33.38" E
Forward Tangent Bearing	S 24° 47' 12.62" E
PC Station	81+65.50
PI Station	91+76.34
PT Station	95+82.03
Delta (Δ_{cc})	105° 24' 14.00" R
Degree Curvature (DC)	7° 26' 27.64"
Radius (R)	770.000 ft
Tangent (T)	1010.841 ft
Length (L)	1416.527 ft
Chord (C)	1225.061 ft
External (E)	500.708 ft
Mid Ordinate (MO)	303.410 ft
Curve Points (x,y)	
PC	5269.475 ft, 6237.629 ft
PI	5921.805 ft, 7009.810 ft
PT	5004.089 ft, 7433.599 ft
Center of Circular Curve (CCC)	4681.272 ft, 6734.536 ft

Profile Details

Station: 0+00.00
Elevation: 0.000 ft
Grade: 0%

Roadway Cross Sections

Each Roadway Cross Section Template contains 3 segments per section.
Ridge Point #1 is the controlling ridge point. It defines the slope sign convention and coincides with the horizontal alignment, profile grade, and superelevation pivot location.

Template	Station	Segment 1	Segment 2		Segment 3
		Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Slope (ft/ft)
1	0+00.00	-0.02	0.000	0	-0.02

Bridge Description

General Bridge Information

Number of Spans	2
Girder Type	BT-42 CDOT

Concrete Properties

Element	Type	f'_{ci} (KSI)	E_{ci} (KSI)	f'_c (KSI)	E_c (KSI)	w_w (kip/ft^3)	w_c (kip/ft^3)	D_{agg} (in)	f_{ct} (KSI)	E_c		Creep		Shrinkage		λ
										K_1	K_2	K_1	K_2	K_1	K_2	
Girder A	Normal Weight Concrete	6.000	4557.295	8.000	5011.145	0.163	0.145	0.750	N/A	1	1	1	1	1	1	1
Deck	Normal Weight Concrete	-	-	4.500	4144.550	0.150	0.145	0.750	N/A	1	1	1	1	1	1	1

$$E_c = 120{,}000 K_1 K_2 w_c^{2.0} f_c'^{0.33}$$

* = Modulus of elasticity was input

Pier Layout

	Station	Bearing	Skew Angle	Boundary Condition
Abutment 1	93+85.19	N 73° 56' 01.00" E	23° 22' 01.32" R	Hinge
Pier 2	94+64.04	N 73° 56' 01.00" E	17° 29' 59.26" R	Continuous after deck placement
Abutment 3	95+42.78	N 73° 56' 01.00" E	11° 38' 26.68" R	Hinge

Pier Diaphragms

	Diaphragm - Back				Diaphragm - Ahead			
	Height (in)	Width (in)	Loading	Location(*) (in)	Height (in)	Width (in)	Loading	Location(*) (in)
Abutment 1					Compute	Compute	Apply load at centerline bearing	N/A
Pier 2	Compute	Compute	Apply load at centerline bearing	N/A	Compute	Compute	Apply load at centerline bearing	N/A
Abutment 3	Compute	Compute	Apply load at centerline bearing	N/A				

(*) Distance from Abutment/Pier Line to Centroid of Diaphragm

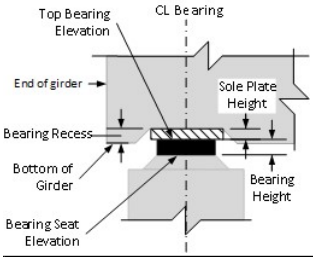
Pier Connections

	Back				Ahead			
	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure
Abutment 1					18.000	FA-NA	5.000	FCLB-AG
Pier 2	10.000	FP-NP	5.000	FCLB-AG	10.000	FP-NP	5.000	FCLB-AG
Abutment 3	18.000	FA-NA	5.000	FCLB-AG				

Bearing Offset Measure
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

End Distance Measure
FCLB-AG = Measured From CL Bearing along Girder
FCLB-NCLB = Measured From and Normal to CL Bearing
FCLB-NCLB = Measured From and Normal to CL Bearing
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

Bearing Details



Location	Shape	# of Bearings	Spacing (in)	Length or Diameter (in)	Width (in)	Height (in)	Recess Height (in)	Recess Length (in)	Sole Plate Height (in)
Abutment 1 - Ahead	Rectangular	1	N/A	8.000	12.000	0.000	0.000	0.000	0.000

Spans

Span	# Girders	Start of Span		End of Span	
		Girder Spacing	Datum	Girder Spacing	Datum
1	12	Between A & F : 8.323 ft Between F & G : 9.368 ft Between G & L : 8.393 ft	4	Between A & F : 8.323 ft Between F & G : 7.519 ft Between G & L : 8.393 ft	4
2	12	Between A & F : 8.080 ft Between F & G : 8.784 ft Between G & L : 8.113 ft	4	Between A & F : 8.080 ft Between F & G : 7.525 ft Between G & L : 8.113 ft	4

Girder Spacing Datum:
(1) Measured normal to the alignment at the abutment/pier line
(2) Measured normal to the alignment at the centerline of bearing
(3) Measured at and along the abutment/pier line
(4) Measured at and along the centerline of bearing

Girder spacing is measured at the work point elevation, which is at top centerline of girder.
Girder orientation is set plumb

Span 1, Girder A

Girder Type	BT-42 CDOT
Slab Offset ("A" Dimension) at Abutment 1	11.000 in
Slab Offset ("A" Dimension) at Pier 2	11.000 in
Strand Fill Type	Sequence of Straight/Harped Strands
Type of Adjustable Web Strands	Harped
Number of Straight Strands	18 8 extended at left end 8 extended at right end
Straight Strand P_{jack}	790.97 kip
Number of Harped Strands	10
Harped Strand P_{jack}	439.43 kip
Total Number of Permanent Strands	28
Distance from top of girder to top-most harped strand at ends of girder	4.000 in
Distance from bottom of girder to lowest harped strand at harp point	2.000 in
Specified Release Strength f'_{ci}	6.000 KSI
Specified 28 day Strength f'_c	8.000 KSI
Prestressing Strand (Permanent)	0.600 in Dia. Grade 270 Low Relaxation

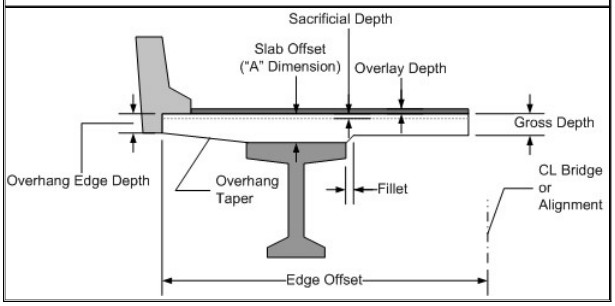
Deck Geometry

Deck Type
Composite cast-in-place deck
Cross Section
Gross Depth = 8.000 in
Left Overhang Edge Depth = 8.000 in
Left Overhang Taper = Taper overhang to bottom of girder top flange
Right Overhang Edge Depth = 8.000 in
Right Overhang Taper = Taper overhang to bottom of girder top flange
Fillet = 1.000 in
Slab Offset ("A" Dimension) = 11.000 in

Plan (Edge of Deck)

Station	Measured From	Left Offset (ft)	Right Offset (ft)
0+00.00	Bridge Line	47.000	47.000

Wearing Surface
Wearing Surface: Overlay
Overlay Weight = 0.037 KSF



Deck Reinforcement
Reinforcement: AASHTO M31 (A615) - Grade 60
Top Mat Cover: 2.000 in
Bottom Mat Cover: 1.000 in
Primary Reinforcement - Longitudinal reinforcement running the full length of the bridge

Mat	Bars		Lump Sum (in^2/ft)
Top	#9 @ 6.000	AND	0.000
Bottom	None @ 18.000	AND	0.000

Supplemental Reinforcement - Negative moment reinforcement at continuous piers

Pier	Mat	A_s (in^2/ft)	Bar	Spacing (in)	Left Cutoff (ft)	Right Cutoff (ft)
2	Top	0.000	#9	6.000	22.000	22.000

Analysis Intervals

Interval	Description	Start Event	End Event	Start (day)	Middle (day)	End (day)	Duration (day)
1	Tension strand, cast girder, strand relaxation, and concrete curing	1	1	0	0.5	1	1
2	Prestress Release	1	1	1	1	1	0
3	Lift girders	1	1	1	1	1	0
4	Place girders into storage	1	1	1	1	1	0
5	Time Step	1	2	1	14.5	28	27
6	Haul Girders	2	2	28	28	28	0
7	Erect Girders	2	2	28	28	28	0
8	Time Step	2	3	28	44.5	61	33
9	Install Intermediate Diaphragms	3	3	61	61	61	0
10	Time Step	3	4	61	61.5	62	1
11	Cast Deck, Apply User Defined Loads	4	4	62	62	62	0
12	Deck curing	4	4	62	62	62	0
13	Composite deck	4	4	62	62	62	0
14	Time Step	4	5	62	62.5	63	1
15	Apply User Defined Loads, Install Railing System and Overlay	5	5	63	63	63	0
16	Time Step	5	6	63	63.5	64	1
17	Open to Traffic	6	6	64	64	64	0

Span Lengths

C-C Pier = Abutment/Pier Line to Abutment/Pier Line length measured along the girder
C-C Bearing = Centerline bearing to centerline bearing length measured along the girder centerline
Girder Length, Plan = End to end length of the girder projected into a horizontal plane
Girder Length, Along Grade = End to end length of girder measured along grade of the girder (slope adjusted) = $L_g\sqrt{1+grade^2}$

C-C Pier (ft)	C-C Bearing (ft)	Girder Length		Grade (ft/ft)	End Distance	
		Plan (ft)	Along Grade (ft)		Start (ft)	End (ft)
78.466	75.987	76.820	76.820	-0.0002	0.417	0.417

Section Properties

Left Traffic Barrier Area = 2145.000 in^2
Left Traffic Barrier I_{yy} = 298512.8 in^4
Left Traffic Barrier Y_b = 12.798 in
Left Exterior Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Left Exterior Traffic Barrier to Left Edge of Deck = 9.000 in
Left Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Left Sidewalk to Left Edge of Deck = 69.000 in
Left Sidewalk Actual Width = 120.000 in
Left Sidewalk Face Depth = 11.000 in
Left Sidewalk Back Depth = 15.750 in
Left Sidewalk Weight = 1.672 kip/ft

Right Traffic Barrier Area = 2145.000 in^2
Right Traffic Barrier I_{yy} = 298512.8 in^4
Right Traffic Barrier Y_b = 12.798 in
Right Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Right Exterior Traffic Barrier to Right Edge of Deck = 9.000 in
Right Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Right Sidewalk to Right Edge of Deck = 69.000 in
Right Sidewalk Actual Width = 120.000 in
Right Sidewalk Face Depth = 11.000 in
Right Sidewalk Back Depth = 15.750 in
Right Sidewalk Weight = 1.672 kip/ft

Deck E_c = 4144.550 KSI

Bending Stiffness of Entire Bridge Section at center of Span 1
EI_{xx} = 2.13e+10 kip-in^2 (used to compute Live Load Deflections per LRFD 3.6.1.3.2)
EI_{yy} = 8.13e+12 kip-in^2
EI_{xy} = -1.96e+09 kip-in^2

Section Properties

	Girder
Area (in^2)	654.000
I_x (in^4)	153070.0
I_y (in^4)	42346.5
d (girder depth) (in)	42.000
Y_{tg} (in)	20.850
Y_{bg} (in)	21.150
Y_{td} (in)	-
Y_{bd} (in)	-
S_{tg} (in^3)	7341.4
S_{bg} (in^3)	7237.4
$S_{td} = n(I_x/Y_{td})$ (in^3)	-

	Girder
$S_{bd} = n(I_x/Y_{bd})$ (in^3)	-
Q_{deck} (in^3)	-
Effective Flange Width (in)	-
k_t (in) (Top kern point)	11.066
k_b (in) (Bottom kern point)	11.225
Perimeter (in)	195.230
Span/Depth Ratio	22
Weight (kip/ft)	0.740
Total Weight (kip)	56.87

Interval 17 : Open to Traffic

Location from Left Support (ft)	Area (in^2)	Depth (in)	I_x (in^4)	X_{tg} (in)	X_{rg} (in)	Y_{tg} (in)	Y_{bg} (in)	Y_{td} (in)	Y_{bd} (in)	S_{tg} (in^3)	S_{bg} (in^3)	S_{td} (in^3)	S_{bd} (in^3)	Q_{deck} (in^3)	Effective Flange Width (in)	Assumed Haunch Depth (in)
(STRF) -0.417	1291.539	51.000	368520.5	45.490	45.490	8.214	33.786	17.214	8.214	44866.4	10907.4	25884.9	54247.7	8264.2	90.980	1.000
0.000	1292.820	51.000	368750.7	45.587	45.587	8.201	33.799	17.201	8.201	44966.1	10910.0	25920.8	54368.2	8272.8	91.174	1.000
(0.0L_e) 0.000	1292.820	51.000	368750.7	45.587	45.587	8.201	33.799	17.201	8.201	44966.1	10910.0	25920.8	54368.2	8272.8	91.174	1.000
(FoS) 0.333	1293.832	51.000	368932.4	45.664	45.664	8.190	33.810	17.190	8.190	45045.1	10912.0	25949.1	54463.6	8279.5	91.327	1.000
(SZB) 1.337	1296.815	51.000	369466.0	45.889	45.889	8.160	33.840	17.160	8.160	45277.9	10918.0	26032.6	54745.2	8299.4	91.778	1.000
(Bar Develop.) 1.705	1297.884	51.000	369656.8	45.970	45.970	8.149	33.851	17.149	8.149	45361.5	10920.2	26062.5	54846.3	8306.5	91.939	1.000
(PSXFR) 2.583	1300.384	51.000	370101.5	46.159	46.159	8.124	33.876	17.124	8.124	45557.4	10925.1	26132.4	55083.1	8323.0	92.317	1.000
(Bar Develop.) 2.765	1300.892	51.000	370191.7	46.197	46.197	8.119	33.881	17.119	8.119	45597.3	10926.1	26146.6	55131.4	8326.4	92.394	1.000
(H) 3.833	1303.810	51.000	370708.3	46.418	46.418	8.089	33.911	17.089	8.089	45826.7	10931.9	26228.1	55408.7	8345.6	92.835	1.000
(SZB) 5.003	1306.878	51.000	371249.0	46.649	46.649	8.059	33.941	17.059	8.059	46068.5	10938.0	26313.6	55701.0	8365.7	93.299	1.000
(1.5H) 5.583	1308.351	51.000	371507.9	46.761	46.761	8.044	33.956	17.044	8.044	46184.9	10940.8	26354.7	55841.8	8375.3	93.521	1.000
(0.1L_e) 7.599	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(SZB) 10.503	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(0.2L_e) 15.197	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(SZB) 18.753	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(0.3L_e) 22.796	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(SZB) 29.753	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(HP) 30.311	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(0.4L_e) 30.395	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(0.5L_e) 37.993	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(0.6L_e) 45.592	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(HP) 45.675	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(SZB) 46.234	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(0.7L_e) 53.191	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(Deck Bar Cutoff) 54.581	1311.576	51.000	372072.4	47.004	47.004	8.012	33.988	17.012	8.012	46440.2	10947.1	26444.5	56150.5	8396.2	94.009	1.000
(SZB) 57.234	1307.717	51.000	371396.5	46.713	46.713	8.050	33.950	17.050	8.050	46134.8	10939.6	26337.0	55781.2	8371.1	93.426	1.000
(0.8L_e) 60.790	1298.092	51.000	369693.7	45.985	45.985	8.147	33.853	17.147	8.147	45377.8	10920.6	26068.3	54865.9	8307.8	91.971	1.000
(SZB) 65.484	1283.493	51.000	367063.9	44.882	44.882	8.297	33.703	17.297	8.297	44242.9	10891.0	25659.1	53493.8	8210.1	89.764	1.000
(0.9L_e) 68.388	1273.388	51.000	365209.2	44.119	44.119	8.402	33.598	17.402	8.402	43466.6	10870.0	25374.7	52555.1	8141.0	88.237	1.000
(1.5H) 70.404	1265.892	51.000	363814.9	43.552	43.552	8.481	33.519	17.481	8.481	42895.5	10854.1	25163.0	51864.6	8089.1	87.104	1.000
(SZB) 70.984	1263.659	51.000	363396.4	43.383	43.383	8.505	33.495	17.505	8.505	42726.1	10849.4	25099.9	51659.8	8073.6	86.767	1.000
(H) 72.154	1259.062	51.000	362530.5	43.036	43.036	8.555	33.445	17.555	8.555	42378.6	10839.5	24969.7	51239.7	8041.3	86.072	1.000
(Bar Develop.) 73.222	1254.748	51.000	361712.1	42.710	42.710	8.601	33.399	17.601	8.601	42053.8	10830.1	24847.4	50847.0	8010.8	85.420	1.000
(PSXFR) 73.404	1254.002	51.000	361570.0	42.654	42.654	8.609	33.391	17.609	8.609	41997.8	10828.5	24826.2	50779.2	8005.5	85.307	1.000
(Bar Develop.) 74.282	1250.353	51.000	360872.8	42.378	42.378	8.649	33.351	17.649	8.649	41724.4	10820.4	24722.6	50448.6	7979.6	84.756	1.000
(SZB) 74.650	1248.803	51.000	360575.3	42.261	42.261	8.666	33.334	17.666	8.666	41608.4	10817.0	24678.5	50308.4	7968.5	84.521	1.000
(FoS) 75.654	1244.509	51.000	359747.8	41.936	41.936	8.713	33.287	17.713	8.713	41288.3	10807.5	24556.4	49921.4	7937.7	83.873	1.000
(1.0L_e) 75.987	1243.061	51.000	359467.4	41.827	41.827	8.729	33.271	17.729	8.729	41180.6	10804.2	24515.1	49791.2	7927.2	83.654	1.000
75.987	1243.061	51.000	359467.4	41.827	41.827	8.729	33.271	17.729	8.729	41180.6	10804.2	24515.1	49791.2	7927.2	83.654	1.000
(STLF) 76.404	1241.236	51.000	359113.1	41.689	41.689	8.749	33.251	17.749	8.749	41045.1	10800.1	24463.1	49627.3	7914.0	83.378	1.000

User Defined Loads

Locations are measured from left support.
Point loads were not defined for this girder

Distributed Loads

Event	Load Case	Start Location	End Location	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Event 5: Final without Live Load	DW	0.00 %	100.00 %	0.040	0.040	Utility Load
Event 4: Cast Deck	DC	0.00 %	100.00 %	0.022	0.022	SIP Forms

Moment loads were not defined for this girder

Moments, Shears, and Reactions

Load Responses - Casting Yard

At Release

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF, 0.0L_r) 0.000	0.00	28.43	0.000
(PSXFR) 3.000	81.97	26.21	-0.104
(0.1L_r) 7.682	196.59	22.75	-0.261
(0.2L_r) 15.364	349.50	17.06	-0.494
(0.3L_r) 23.046	458.72	11.37	-0.676
(HP, 0.4L_r) 30.728	524.25	5.69	-0.792
(0.5L_r) 38.410	546.09	0.00	-0.832
(HP, 0.6L_r) 46.092	524.25	-5.69	-0.792

During Storage

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF) -0.417	0.00	0.00	0.014
(0.0L_{st}) 0.000	-0.06	-0.31 28.13	0.000
(PSXFR) 2.583	70.12	26.21	-0.086
(0.1L_{st}) 7.599	192.29	22.50	-0.250
(0.2L_{st}) 15.197	341.89	16.88	-0.473
(0.3L_{st}) 22.796	448.75	11.25	-0.647
(HP) 30.311	512.40	5.69	-0.757
(0.4L_{st}) 30.395	512.87	5.63	-0.758

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.7L_r$) 53.774	458.72	-11.37	-0.676
($0.8L_r$) 61.456	349.50	-17.06	-0.494
($0.9L_r$) 69.138	196.59	-22.75	-0.261
(PSXFR) 73.820	81.97	-26.21	-0.104
(STLF, $1.0L_r$) 76.820	0.00	-28.43	0.000

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.5L_{st}$) 37.993	534.24	0.00	-0.796
($0.6L_{st}$) 45.592	512.87	-5.63	-0.758
(HP) 45.675	512.40	-5.69	-0.757
($0.7L_{st}$) 53.191	448.75	-11.25	-0.647
($0.8L_{st}$) 60.790	341.89	-16.88	-0.473
($0.9L_{st}$) 68.388	192.29	-22.50	-0.250
(PSXFR) 73.404	70.12	-26.21	-0.086
($1.0L_{st}$) 75.987	-0.06	-28.13 0.31	0.000
(STLF) 76.404	0.00	0.00	0.014

Responses from Externally Applied Loads at the Bridge Site

Moments

Location from Left Support (ft)	Girder (kip-ft)	Diaphragm (kip-ft)	Slab (kip-ft)	Haunch (kip-ft)	Sidewalk (kip-ft)	Railing System (kip-ft)	Overlay (kip-ft)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
(PSXFR) 2.583	70.19	0.00	84.69	13.36	19.81	8.29	16.11	8.88	-1.32	253.66 (D0)	-30.33 (D0)	144.72 (F0)	-16.38 (F0)	314.29 (P0)	-37.20 (P0)
($0.1L_e$) 7.599	192.35	0.00	232.86	36.70	52.95	22.17	43.07	24.10	-3.89	676.46 (D0)	-89.22 (D0)	378.62 (F0)	-48.18 (F0)	825.89 (P0)	-109.41 (P0)
($0.2L_e$) 15.197	341.96	0.00	415.37	65.45	89.81	37.60	73.05	42.06	-7.78	1145.69 (D0)	-178.44 (D0)	620.09 (F0)	-96.36 (F0)	1379.67 (P0)	-218.83 (P0)
($0.3L_e$) 22.796	448.82	0.00	545.97	86.09	110.59	46.30	89.94	53.89	-11.67	1418.09 (D0)	-267.66 (D0)	771.19 (F0)	-144.53 (F0)	1711.90 (P0)	-328.24 (P0)
($0.4L_e$) 30.395	512.93	0.00	623.68	98.53	115.27	48.26	93.75	59.58	-15.56	1544.60 (D0)	-356.88 (D0)	815.83 (F0)	-192.71 (F0)	1853.57 (P0)	-437.66 (P0)
($0.5L_e$) 37.993	534.31	0.00	648.12	102.68	103.87	43.49	84.48	59.14	-19.45	1519.72 (D0)	-446.10 (D0)	770.67 (F0)	-240.89 (F0)	1858.41 (P0)	-547.07 (P0)
($0.6L_e$) 45.592	512.93	0.00	619.51	98.53	76.38	31.98	62.12	52.56	-23.34	1373.24 (D0)	-535.32 (D0)	735.50 (F0)	-289.07 (F0)	1642.52 (P0)	-656.49 (P0)
($0.7L_e$) 53.191	448.82	0.00	538.66	86.09	32.79	13.73	26.67	39.85	-27.23	1076.80 (D0)	-624.54 (D0)	591.98 (F0)	-337.25 (F0)	1269.07 (P0)	-765.90 (P0)
($0.8L_e$) 60.790	341.96	0.00	406.97	65.45	-26.88	-11.25	-21.86	21.00	-31.12	662.82 (D0)	-713.76 (D0)	359.57 (F0)	-385.42 (F0)	742.60 (P0)	-875.32 (P0)
($0.9L_e$) 68.388	192.35	0.00	226.54	36.70	-102.64	-42.97	-83.48	4.79	-43.78	269.01 (D1)	-930.34 (D2)	61.38 (F0)	-433.60 (F0)	58.25 (P0)	-1021.82 (P0)
(PSXFR) 73.404	70.19	0.00	82.07	13.36	-161.46	-67.60	-131.32	0.70	-62.11	79.48 (D0)	-1306.68 (D2)	0.00 (F0)	-465.40 (F0)	0.00 (P0)	-1414.39 (P0)
($1.0L_e$) 75.987	0.00	0.00	0.00	0.00	-194.49	-81.43	-158.18	0.04	-74.04	19.22 (D0)	-1514.02 (D2)	0.00 (F0)	-481.78 (F0)	0.00 (P0)	-1620.88 (P0)
75.987	0.00	0.00	0.00	0.00	-194.49	-81.43	-158.18	0.04	-74.04	19.22 (D0)	-1514.02 (D2)	0.00 (F0)	-481.78 (F0)	0.00 (P0)	-1620.88 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.
(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Moment due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip-ft)	User DW (kip-ft)	User LL+IM (kip-ft)
0.000	0.00	0.00	0.00
($0.0L_e$) 0.000	0.00	0.00	0.00
(PSXFR) 2.583	2.09	0.00	0.00
($0.1L_e$) 7.599	5.72	0.00	0.00
($0.2L_e$) 15.197	10.16	0.00	0.00
($0.3L_e$) 22.796	13.34	0.00	0.00
($0.4L_e$) 30.395	15.24	0.00	0.00
($0.5L_e$) 37.993	15.88	0.00	0.00
($0.6L_e$) 45.592	15.24	0.00	0.00
($0.7L_e$) 53.191	13.34	0.00	0.00
($0.8L_e$) 60.790	10.16	0.00	0.00
($0.9L_e$) 68.388	5.71	0.00	0.00
(PSXFR) 73.404	2.08	0.00	0.00
($1.0L_e$) 75.987	-0.00	0.00	0.00
75.987	-0.00	0.00	0.00

Shears

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
($0.0L_e$) 0.000	28.43 28.13	2.93 0.00	34.22 33.87	5.40 5.34	8.14 8.03	3.41 3.36	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
($0.1L_e$) 7.599	22.50	0.00	27.37	4.31	5.91	2.47	4.81	2.82	-0.56	86.89 (D0)	-12.04 (D0)	49.83 (F0)	-6.34 (F0)	108.69 (P0)	-14.40 (P0)

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.2L_e$) 15.197	16.88	0.00	20.63	3.25	3.79	1.59	3.08	2.16	-0.71	71.72 (D0)	-18.46 (D1)	40.80 (F0)	-9.02 (F0)	89.64 (P0)	-15.68 (P0)
($0.3L_e$) 22.796	11.25	0.00	13.72	2.18	1.68	0.70	1.36	1.60	-0.96	57.59 (D0)	-27.91 (D1)	32.31 (F0)	-13.40 (F0)	71.56 (P0)	-26.11 (P0)
($0.4L_e$) 30.395	5.63	0.00	6.72	1.09	-0.44	-0.19	-0.36	1.13	-1.30	44.60 (D0)	-39.84 (D0)	24.46 (F0)	-17.85 (F0)	54.70 (P0)	-38.25 (P0)
($0.5L_e$) 37.993	0.00	0.00	-0.29	-0.00	-2.56	-1.07	-2.08	0.75	-1.73	32.88 (D0)	-53.41 (D0)	17.38 (F0)	-26.39 (F0)	37.89 (P0)	-60.77 (P0)
($0.6L_e$) 45.592	-5.63	0.00	-7.23	-1.09	-4.68	-1.96	-3.80	0.46	-2.24	22.54 (D0)	-66.97 (D0)	11.17 (F0)	-34.85 (F0)	16.35 (P0)	-83.45 (P0)
($0.7L_e$) 53.191	-11.25	0.00	-14.02	-2.18	-6.79	-2.84	-5.53	0.25	-2.84	14.50 (D1)	-80.33 (D0)	5.91 (F0)	-43.77 (F0)	1.91 (P0)	-104.01 (P0)
($0.8L_e$) 60.790	-16.88	0.00	-20.59	-3.25	-8.91	-3.73	-7.25	0.11	-3.50	8.34 (D1)	-93.34 (D0)	1.63 (F0)	-52.14 (F0)	0.00 (P0)	-122.34 (P0)
($0.9L_e$) 68.388	-22.50	0.00	-26.83	-4.31	-11.03	-4.62	-8.97	0.03	-4.23	3.35 (D1)	-105.78 (D0)	0.00 (F0)	-59.84 (F0)	0.00 (P0)	-138.28 (P0)
($1.0L_e$) 75.987	-28.13 -28.43	0.00 -2.15	-32.77 -33.09	-5.34 -5.40	-13.15	-5.50	-10.69	0.00	-5.01	0.25 (D0)	-117.45 (D0)	0.00 (F0)	-66.75 (F0)	0.00 (P0)	-151.78 (P0)
75.987	0.00	0.00	0.00	0.00	-13.15	-5.50	-10.69	0.00	-5.01	0.25 (D0)	-117.45 (D0)	0.00 (F0)	-66.75 (F0)	0.00 (P0)	-151.78 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Shears due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip)	User DW (kip)	User LL+IM (kip)
0.000	0.00	0.00	0.00
($0.0L_e$) 0.000	0.84	0.00	0.00
($0.1L_e$) 7.599	0.67	0.00	0.00
($0.2L_e$) 15.197	0.50	0.00	0.00
($0.3L_e$) 22.796	0.33	0.00	0.00
($0.4L_e$) 30.395	0.17	0.00	0.00
($0.5L_e$) 37.993	-0.00	0.00	0.00
($0.6L_e$) 45.592	-0.17	0.00	0.00
($0.7L_e$) 53.191	-0.33	0.00	0.00
($0.8L_e$) 60.790	-0.50	0.00	0.00
($0.9L_e$) 68.388	-0.67	0.00	0.00
($1.0L_e$) 75.987	-0.84	0.00	0.00
75.987	0.01	0.00	0.00

Girder Line Pier Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1	28.43	2.93	34.22	5.40	8.14	3.41	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
Pier 2	56.94	0.00	67.28	10.81	26.80	11.22	21.61	10.22	0.00	170.57 (D2)	0.00 (D0)	77.34 (F0)	0.00 (F0)	213.56 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	28.43	2.93	34.22	5.40	8.14	3.41	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
Pier 2 - Back	28.43	0.00	33.09	5.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Line Pier Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1	0.84	0.00	0.00

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Pier 2	1.70	0.00	0.00

Girder Bearing Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1 - Ahead	0.84	0.00	0.00

Deflections

Location from Left Support (ft)	Girder (in)	Diaphragm (in)	Slab (in)	Haunch (in)	Sidewalk (in)	Railing System (in)	Overlay (in)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
($0.1L_e$) 7.599	-0.250	0.000	-0.275	-0.044	-0.018	-0.008	-0.015	0.004	-0.010	0.081 (D0)	-0.244 (D0)	0.044 (F0)	-0.130 (F0)	0.099 (P0)	-0.302 (P0)
($0.2L_e$) 15.197	-0.473	0.000	-0.521	-0.082	-0.033	-0.014	-0.027	0.007	-0.019	0.157 (D0)	-0.461 (D0)	0.085 (F0)	-0.245 (F0)	0.192 (P0)	-0.571 (P0)
($0.3L_e$) 22.796	-0.647	0.000	-0.713	-0.113	-0.044	-0.018	-0.036	0.010	-0.026	0.223 (D0)	-0.627 (D0)	0.120 (F0)	-0.331 (F0)	0.273 (P0)	-0.774 (P0)
($0.4L_e$) 30.395	-0.758	0.000	-0.835	-0.132	-0.049	-0.020	-0.039	0.012	-0.030	0.275 (D0)	-0.722 (D0)	0.148 (F0)	-0.379 (F0)	0.337 (P0)	-0.890 (P0)
($0.5L_e$) 37.993	-0.796	0.000	-0.876	-0.139	-0.047	-0.020	-0.038	0.013	-0.031	0.308 (D0)	-0.742 (D0)	0.166 (F0)	-0.387 (F0)	0.377 (P0)	-0.914 (P0)
($0.6L_e$) 45.592	-0.758	0.000	-0.833	-0.132	-0.040	-0.017	-0.033	0.014	-0.029	0.317 (D0)	-0.686 (D0)	0.171 (F0)	-0.361 (F0)	0.388 (P0)	-0.844 (P0)
($0.7L_e$) 53.191	-0.647	0.000	-0.710	-0.113	-0.029	-0.012	-0.024	0.013	-0.024	0.297 (D0)	-0.564 (D0)	0.160 (F0)	-0.301 (F0)	0.364 (P0)	-0.694 (P0)
($0.8L_e$) 60.790	-0.473	0.000	-0.518	-0.082	-0.017	-0.007	-0.014	0.011	-0.017	0.244 (D0)	-0.396 (D0)	0.132 (F0)	-0.212 (F0)	0.299 (P0)	-0.486 (P0)
($0.9L_e$) 68.388	-0.250	0.000	-0.274	-0.044	-0.006	-0.002	-0.005	0.007	-0.009	0.153 (D0)	-0.203 (D0)	0.083 (F0)	-0.109 (F0)	0.187 (P0)	-0.249 (P0)
($1.0L_e$) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.023 (P0)	-0.024 (P0)
75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.023 (P0)	-0.024 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Deflections due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.000	0.000	0.000
($0.1L_e$) 7.599	-0.007	0.000	0.000
($0.2L_e$) 15.197	-0.013	0.000	0.000
($0.3L_e$) 22.796	-0.017	0.000	0.000
($0.4L_e$) 30.395	-0.020	0.000	0.000
($0.5L_e$) 37.993	-0.022	0.000	0.000
($0.6L_e$) 45.592	-0.020	0.000	0.000
($0.7L_e$) 53.191	-0.017	0.000	0.000
($0.8L_e$) 60.790	-0.013	0.000	0.000
($0.9L_e$) 68.388	-0.007	0.000	0.000
($1.0L_e$) 75.987	0.000	0.000	0.000
75.987	0.000	0.000	0.000

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 1 - Ahead	-0.00279	0.00000	-0.00308	-0.00049	-0.00020	-0.00009	-0.00017	0.00004	-0.00012	0.00089 (D0)	-0.00273 (D0)	0.00048 (F0)	-0.00146 (F0)	0.00110 (P0)	-0.00338 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Rotations due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 1 - Ahead	-0.00008	0.00000	0.00000

Deflections For The LRFD Optional Deflection Live Load (LRFD 3.6.1.3.2)

Location from Left Support (ft)	D1 (in)	D2 (in)	D Controlling (in)
0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.000	0.000	0.000
($0.1L_e$) 7.599	-0.072	-0.043	-0.072
($0.2L_e$) 15.197	-0.137	-0.081	-0.137
($0.3L_e$) 22.796	-0.187	-0.110	-0.187
($0.4L_e$) 30.395	-0.215	-0.127	-0.215
($0.5L_e$) 37.993	-0.221	-0.130	-0.221
($0.6L_e$) 45.592	-0.204	-0.121	-0.204
($0.7L_e$) 53.191	-0.167	-0.100	-0.167
($0.8L_e$) 60.790	-0.117	-0.070	-0.117
($0.9L_e$) 68.388	-0.060	-0.036	-0.060
($1.0L_e$) 75.987	-0.006	-0.003	-0.006
75.987	-0.006	-0.003	-0.006

D1 = LRFD Design truck without lane load and including impact
D2 = 0.25*(Design truck) + lane load, including impact
D(Controlling) = Max(D1, D2)
EI = Bridge EI / Number of Girders
Live Load Distribution Factor = (Multiple Presence Factor)(Number of Lanes)/(Number of Girders)

Combined Results - Interval 2: Prestress Release

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF, $0.0L_t$) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.750	21.12	0.00	21.12	0.00	21.12
(SZB) 1.753	48.72	0.00	48.72	0.00	48.72
(Bar Develop.) 2.121	58.65	0.00	58.65	0.00	58.65
(PSXFR) 3.000	81.97	0.00	81.97	0.00	81.97
(Bar Develop.) 3.182	86.73	0.00	86.73	0.00	86.73
(H) 4.250	114.16	0.00	114.16	0.00	114.16
(SZB) 5.419	143.22	0.00	143.22	0.00	143.22
(1.5H) 6.000	157.28	0.00	157.28	0.00	157.28
($0.1L_t$) 7.682	196.59	0.00	196.59	0.00	196.59
(SZB) 10.919	266.35	0.00	266.35	0.00	266.35
($0.2L_t$) 15.364	349.50	0.00	349.50	0.00	349.50
(SZB) 19.169	409.06	0.00	409.06	0.00	409.06
($0.3L_t$) 23.046	458.72	0.00	458.72	0.00	458.72
(SZB) 30.169	520.95	0.00	520.95	0.00	520.95
(HP, $0.4L_t$) 30.728	524.25	0.00	524.25	0.00	524.25
($0.5L_t$) 38.410	546.09	0.00	546.09	0.00	546.09
(HP, $0.6L_t$) 46.092	524.25	0.00	524.25	0.00	524.25
(SZB) 46.651	520.95	0.00	520.95	0.00	520.95
($0.7L_t$) 53.774	458.72	0.00	458.72	0.00	458.72
(Deck Bar Cutoff) 54.998	444.25	0.00	444.25	0.00	444.25
(SZB) 57.651	409.06	0.00	409.06	0.00	409.06
($0.8L_t$) 61.456	349.50	0.00	349.50	0.00	349.50
(SZB) 65.901	266.35	0.00	266.35	0.00	266.35
($0.9L_t$) 69.138	196.59	0.00	196.59	0.00	196.59
(1.5H) 70.820	157.28	0.00	157.28	0.00	157.28
(SZB) 71.401	143.22	0.00	143.22	0.00	143.22
(H) 72.570	114.16	0.00	114.16	0.00	114.16
(Bar Develop.) 73.638	86.73	0.00	86.73	0.00	86.73
(PSXFR) 73.820	81.97	0.00	81.97	0.00	81.97
(Bar Develop.) 74.699	58.65	0.00	58.65	0.00	58.65
(SZB) 75.067	48.72	0.00	48.72	0.00	48.72
(FoS) 76.070	21.12	0.00	21.12	0.00	21.12
(STLF, $1.0L_t$) 76.820	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF, $0.0L_t$) 0.000	28.43	0.00	28.43	0.00	28.43
(FoS) 0.750	27.88	0.00	27.88	0.00	27.88
(SZB) 1.753	27.14	0.00	27.14	0.00	27.14
(Bar Develop.) 2.121	26.86	0.00	26.86	0.00	26.86
(PSXFR) 3.000	26.21	0.00	26.21	0.00	26.21
(Bar Develop.) 3.182	26.08	0.00	26.08	0.00	26.08
(H) 4.250	25.29	0.00	25.29	0.00	25.29
(SZB) 5.419	24.42	0.00	24.42	0.00	24.42
(1.5H) 6.000	23.99	0.00	23.99	0.00	23.99
($0.1L_t$) 7.682	22.75	0.00	22.75	0.00	22.75
(SZB) 10.919	20.35	0.00	20.35	0.00	20.35
($0.2L_t$) 15.364	17.06	0.00	17.06	0.00	17.06
(SZB) 19.169	14.24	0.00	14.24	0.00	14.24
	11.37	0.00	11.37	0.00	11.37

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
($0.3L_t$) 23.046					
(SZB) 30.169	6.10	0.00	6.10	0.00	6.10
(HP, $0.4L_t$) 30.728	5.69	0.00	5.69	0.00	5.69
($0.5L_t$) 38.410	0.00	0.00	0.00	0.00	0.00
(HP, $0.6L_t$) 46.092	-5.69	0.00	-5.69	0.00	-5.69
(SZB) 46.651	-6.10	0.00	-6.10	0.00	-6.10
($0.7L_t$) 53.774	-11.37	0.00	-11.37	0.00	-11.37
(Deck Bar Cutoff) 54.998	-12.28	0.00	-12.28	0.00	-12.28
(SZB) 57.651	-14.24	0.00	-14.24	0.00	-14.24
($0.8L_t$) 61.456	-17.06	0.00	-17.06	0.00	-17.06
(SZB) 65.901	-20.35	0.00	-20.35	0.00	-20.35
($0.9L_t$) 69.138	-22.75	0.00	-22.75	0.00	-22.75
(1.5H) 70.820	-23.99	0.00	-23.99	0.00	-23.99
(SZB) 71.401	-24.42	0.00	-24.42	0.00	-24.42
(H) 72.570	-25.29	0.00	-25.29	0.00	-25.29
(Bar Develop.) 73.638	-26.08	0.00	-26.08	0.00	-26.08
(PSXFR) 73.820	-26.21	0.00	-26.21	0.00	-26.21
(Bar Develop.) 74.699	-26.86	0.00	-26.86	0.00	-26.86
(SZB) 75.067	-27.14	0.00	-27.14	0.00	-27.14
(FoS) 76.070	-27.88	0.00	-27.88	0.00	-27.88
(STLF, $1.0L_t$) 76.820	-28.43	0.00	-28.43	0.00	-28.43

Combined Results - Interval 11: Cast Deck, Apply User Defined Loads

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)	Service I (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	13.29	0.00	22.63	0.00	22.63
(SZB) 1.337	52.64	0.00	89.58	0.00	89.58
(Bar Develop.) 1.705	66.83	0.00	113.69	0.00	113.69
(PSXFR) 2.583	100.14	0.00	170.32	0.00	170.32
(Bar Develop.) 2.765	106.94	0.00	181.88	0.00	181.88
(H) 3.833	146.18	0.00	248.56	0.00	248.56
(SZB) 5.003	187.82	0.00	319.26	0.00	319.26
(1.5H) 5.583	207.98	0.00	353.48	0.00	353.48
($0.1L_e$) 7.599	275.27	0.00	467.62	0.00	467.62
(SZB) 10.503	364.85	0.00	619.42	0.00	619.42
($0.2L_e$) 15.197	490.98	0.00	832.94	0.00	832.94
(SZB) 18.753	570.94	0.00	968.21	0.00	968.21
($0.3L_e$) 22.796	645.40	0.00	1094.22	0.00	1094.22
(SZB) 29.753	732.10	0.00	1241.26	0.00	1241.26
(HP) 30.311	736.78	0.00	1249.24	0.00	1249.24
($0.4L_e$) 30.395	737.45	0.00	1250.38	0.00	1250.38
($0.5L_e$) 37.993	766.67	0.00	1300.98	0.00	1300.98
($0.6L_e$) 45.592	733.28	0.00	1246.21	0.00	1246.21
(HP) 45.675	732.57	0.00	1245.03	0.00	1245.03
(SZB) 46.234	727.61	0.00	1236.78	0.00	1236.78
($0.7L_e$) 53.191	638.09	0.00	1086.90	0.00	1086.90
(Deck Bar Cutoff) 54.581	614.09	0.00	1046.56	0.00	1046.56
(SZB) 57.234	562.73	0.00	960.00	0.00	960.00
($0.8L_e$) 60.790	482.58	0.00	824.54	0.00	824.54
(SZB) 65.484	357.27	0.00	611.84	0.00	611.84
($0.9L_e$) 68.388	268.95	0.00	461.30	0.00	461.30
(1.5H) 70.404	202.91	0.00	348.41	0.00	348.41
(SZB) 70.984	183.17	0.00	314.61	0.00	314.61
(H) 72.154	142.45	0.00	244.83	0.00	244.83
(Bar Develop.) 73.222	104.14	0.00	179.09	0.00	179.09
(PSXFR) 73.404	97.51	0.00	167.70	0.00	167.70
(Bar Develop.) 74.282	65.04	0.00	111.91	0.00	111.91
(SZB) 74.650	51.22	0.00	88.16	0.00	88.16
(FoS) 75.654	12.93	0.00	22.26	0.00	22.26
($1.0L_e$) 75.987	-0.00	0.00	-0.00	0.00	-0.00
75.987	-0.00	0.00	-0.00	0.00	-0.00
(STLF) 76.404	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00
($0.0L_e$) 0.000	40.45 40.05	0.00	71.82 68.18	0.00	71.82 68.18
(FoS) 0.333	39.72	0.00	67.60	0.00	67.60
(SZB) 1.337	38.72	0.00	65.86	0.00	65.86
(Bar Develop.) 1.705	38.35	0.00	65.21	0.00	65.21
(PSXFR) 2.583	37.47	0.00	63.68	0.00	63.68
(Bar Develop.) 2.765	37.28	0.00	63.36	0.00	63.36
(H) 3.833	36.21	0.00	61.49	0.00	61.49

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
(SZB) 5.003	35.02	0.00	59.44	0.00	59.44
(1.5H) 5.583	34.42	0.00	58.42	0.00	58.42
($0.1L_e$) 7.599	32.35	0.00	54.85	0.00	54.85
(SZB) 10.503	29.33	0.00	49.69	0.00	49.69
($0.2L_e$) 15.197	24.39	0.00	41.26	0.00	41.26
(SZB) 18.753	20.59	0.00	34.83	0.00	34.83
($0.3L_e$) 22.796	16.23	0.00	27.48	0.00	27.48
(SZB) 29.753	8.68	0.00	14.78	0.00	14.78
(HP) 30.311	8.07	0.00	13.76	0.00	13.76
($0.4L_e$) 30.395	7.98	0.00	13.61	0.00	13.61
($0.5L_e$) 37.993	-0.29	0.00	-0.29	0.00	-0.29
($0.6L_e$) 45.592	-8.49	0.00	-14.11	0.00	-14.11
(HP) 45.675	-8.58	0.00	-14.26	0.00	-14.26
(SZB) 46.234	-9.17	0.00	-15.27	0.00	-15.27
($0.7L_e$) 53.191	-16.54	0.00	-27.79	0.00	-27.79
(Deck Bar Cutoff) 54.581	-17.99	0.00	-30.26	0.00	-30.26
(SZB) 57.234	-20.73	0.00	-34.97	0.00	-34.97
($0.8L_e$) 60.790	-24.35	0.00	-41.22	0.00	-41.22
(SZB) 65.484	-29.01	0.00	-49.36	0.00	-49.36
($0.9L_e$) 68.388	-31.81	0.00	-54.31	0.00	-54.31
(1.5H) 70.404	-33.72	0.00	-57.71	0.00	-57.71
(SZB) 70.984	-34.27	0.00	-58.69	0.00	-58.69
(H) 72.154	-35.37	0.00	-60.66	0.00	-60.66
(Bar Develop.) 73.222	-36.37	0.00	-62.45	0.00	-62.45
(PSXFR) 73.404	-36.54	0.00	-62.76	0.00	-62.76
(Bar Develop.) 74.282	-37.36	0.00	-64.23	0.00	-64.23
(SZB) 74.650	-37.71	0.00	-64.84	0.00	-64.84
(FoS) 75.654	-38.64	0.00	-66.52	0.00	-66.52
($1.0L_e$) 75.987	-38.95 -41.47	0.00	-67.07 -69.90	0.00	-67.07 -69.90
75.987	0.01	0.00	0.01	0.00	0.01
(STLF) 76.404	0.01	0.00	0.01	0.00	0.01

Girder Line Pier Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Abutment 1	40.45	0.00	71.82	0.00
Pier 2	84.05	0.00	140.98	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Abutment 1 - Ahead	40.45	0.00	71.82	0.00
Pier 2 - Back	41.48	0.00	69.92	0.00

Combined Results - Interval 17: Open to Traffic

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	0.00	0.00
(FoS) 0.333	0.00	0.00	26.40	2.55
(SZB) 1.337	0.00	0.00	104.44	10.03
(Bar Develop.) 1.705	0.00	0.00	132.53	12.71
(PSXFR) 2.583	0.00	0.00	198.42	18.95
(Bar Develop.) 2.765	0.00	0.00	211.86	20.22
(H) 3.833	0.00	0.00	289.31	27.48
(SZB) 5.003	0.00	0.00	371.29	35.09
(1.5H) 5.583	0.00	0.00	410.91	38.73
($0.1L_s$) 7.687	0.00	0.00	548.34	51.17
(SZB) 10.503	0.00	0.00	717.22	65.96
($0.2L_s$) 15.374	0.00	0.00	968.58	86.58
(SZB) 18.753	0.00	0.00	1112.26	97.16
($0.3L_s$) 23.062	0.00	0.00	1258.96	106.23
(SZB) 29.753	0.00	0.00	1405.12	110.52
(HP) 30.311	0.00	0.00	1412.83	110.33
($0.4L_s$) 30.749	0.00	0.00	1418.37	110.13
($0.5L_s$) 38.436	0.00	0.00	1446.39	98.28
(HP) 45.675	0.00	0.00	1352.83	72.71
($0.6L_s$) 46.123	0.00	0.00	1343.23	70.66
(SZB) 46.234	0.00	0.00	1340.79	70.15
($0.7L_s$) 53.811	0.00	0.00	1109.82	27.30
(Deck Bar Cutoff) 54.581	0.00	0.00	1079.30	22.08
(SZB) 57.234	0.00	0.00	964.32	2.91
($0.8L_s$) 61.498	0.00	0.00	747.71	-31.83
(SZB) 65.484	0.00	0.00	509.99	-68.69
($0.9L_s$) 69.185	0.00	0.00	259.28	-106.71
(1.5H) 70.404	0.00	0.00	170.46	-120.02
(SZB) 70.984	0.00	0.00	127.05	-126.51
(H) 72.154	0.00	0.00	37.50	-139.84

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(Bar Develop.) 73.222	0.00	0.00	-46.77	-152.33
(PSXFR) 73.404	0.00	0.00	-61.36	-154.49
(Bar Develop.) 74.282	0.00	0.00	-132.79	-165.04
(SZB) 74.650	0.00	0.00	-163.19	-169.52
(FoS) 75.654	0.00	0.00	-247.46	-181.92
75.987	0.00	0.00	-275.92	-186.10
(STLF) 76.404	0.00	0.00	-283.72	-191.34
(1.0L_s) 76.872	0.00	0.00	-292.59	-197.28

Moment - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(0.0L_s) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	1.19	-0.17	29.19	-3.35	13.98	-1.51	36.38	-4.11	30.37	-3.52	13.98	-1.51	36.38	-4.11
(SZB) 1.337	4.68	-0.68	114.91	-13.43	54.86	-6.04	142.87	-16.47	119.60	-14.11	54.86	-6.04	142.87	-16.47
(Bar Develop.) 1.705	5.94	-0.87	145.56	-17.12	69.41	-7.71	180.80	-21.00	151.50	-18.00	69.41	-7.71	180.80	-21.00
(PSXFR) 2.583	8.88	-1.32	217.02	-25.95	103.18	-11.68	268.89	-31.82	225.90	-27.27	103.18	-11.68	268.89	-31.82
(Bar Develop.) 2.765	9.48	-1.42	231.51	-27.78	110.00	-12.50	286.70	-34.07	240.99	-29.19	110.00	-12.50	286.70	-34.07
(H) 3.833	12.92	-1.96	314.49	-38.51	148.88	-17.33	388.26	-47.22	327.42	-40.47	148.88	-17.33	388.26	-47.22
(SZB) 5.003	16.55	-2.56	401.27	-50.25	189.14	-22.61	493.73	-61.63	417.82	-52.81	189.14	-22.61	493.73	-61.63
(1.5H) 5.583	18.30	-2.86	442.79	-56.09	208.24	-25.24	543.90	-68.78	461.09	-58.95	208.24	-25.24	543.90	-68.78
(0.1L_s) 7.687	24.34	-3.94	584.42	-77.22	272.49	-34.75	713.33	-94.70	608.76	-81.16	272.49	-34.75	713.33	-94.70
(SZB) 10.503	31.69	-5.38	752.60	-105.50	347.00	-47.48	910.10	-129.38	784.29	-110.88	347.00	-47.48	910.10	-129.38
(0.2L_s) 15.374	42.41	-7.87	987.47	-154.44	445.01	-69.50	1189.61	-189.40	1029.87	-162.31	445.01	-69.50	1189.61	-189.40
(SZB) 18.753	48.36	-9.60	1109.63	-188.38	499.12	-84.77	1341.91	-231.02	1157.98	-197.98	499.12	-84.77	1341.91	-231.02
(0.3L_s) 23.062	54.19	-11.81	1219.00	-231.66	552.31	-104.25	1470.59	-284.10	1273.19	-243.47	552.31	-104.25	1470.59	-284.10
(SZB) 29.753	59.34	-15.23	1318.44	-298.88	581.99	-134.49	1575.72	-366.53	1377.78	-314.11	581.99	-134.49	1575.72	-366.53
(HP) 30.311	59.55	-15.52	1321.14	-304.49	581.72	-137.02	1584.60	-373.41	1380.69	-320.01	581.72	-137.02	1584.60	-373.41
(0.4L_s) 30.749	59.70	-15.74	1322.70	-308.88	581.24	-139.00	1590.65	-378.80	1382.40	-324.63	581.24	-139.00	1590.65	-378.80
(0.5L_s) 38.436	58.92	-19.68	1296.72	-386.11	550.32	-173.74	1583.97	-473.50	1355.65	-405.78	550.32	-173.74	1583.97	-473.50
(HP) 45.675	52.46	-23.38	1172.79	-458.83	523.65	-206.47	1402.58	-562.68	1225.25	-482.21	523.65	-206.47	1402.58	-562.68
(0.6L_s) 46.123	51.87	-23.61	1161.32	-463.33	519.58	-208.49	1387.94	-568.20	1213.20	-486.94	519.58	-208.49	1387.94	-568.20
(SZB) 46.234	51.73	-23.67	1158.41	-464.44	518.54	-208.99	1384.23	-569.56	1210.14	-488.11	518.54	-208.99	1384.23	-569.56
(0.7L_s) 53.811	38.54	-27.55	896.19	-540.55	410.73	-243.24	1052.99	-662.90	934.73	-568.10	410.73	-243.24	1052.99	-662.90
(Deck Bar Cutoff) 54.581	36.86	-27.94	864.70	-548.29	396.02	-246.72	1011.17	-672.39	901.56	-576.23	396.02	-246.72	1011.17	-672.39
(SZB) 57.234	30.59	-29.30	746.05	-575.41	341.22	-258.72	862.26	-705.65	776.63	-604.71	341.22	-258.72	862.26	-705.65
(0.8L_s) 61.498	18.94	-31.48	529.45	-618.28	238.35	-277.99	585.88	-758.22	548.38	-649.76	238.35	-277.99	585.88	-758.22
(SZB) 65.484	9.33	-36.56	340.36	-674.02	130.62	-296.01	276.90	-807.37	349.69	-710.58	130.62	-296.01	276.90	-807.37
(0.9L_s) 69.185	3.85	-46.22	200.96	-845.62	19.85	-312.74	0.00	-927.88	204.81	-891.85	19.85	-312.74	0.00	-927.88
(1.5H) 70.404	2.64	-50.32	157.77	-926.60	0.00	-318.25	0.00	-1009.31	160.41	-976.91	0.00	-318.25	0.00	-1009.31
(SZB) 70.984	2.16	-52.41	137.45	-962.33	0.00	-320.87	0.00	-1048.24	139.61	-1014.74	0.00	-320.87	0.00	-1048.24
(H) 72.154	1.34	-56.91	97.46	-1035.61	0.00	-326.16	0.00	-1126.74	98.80	-1092.52	0.00	-326.16	0.00	-1126.74
(Bar Develop.) 73.222	0.78	-61.33	71.83	-1106.61	0.00	-330.99	0.00	-1198.75	72.61	-1167.94	0.00	-330.99	0.00	-1198.75
(PSXFR) 73.404	0.70	-62.11	67.99	-1118.84	0.00	-331.81	0.00	-1211.07	68.70	-1180.95	0.00	-331.81	0.00	-1211.07
(Bar Develop.) 74.282	0.38	-65.99	49.86	-1178.42	0.00	-335.78	0.00	-1270.78	50.24	-1244.41	0.00	-335.78	0.00	-1270.78
(SZB) 74.650	0.28	-67.67	42.45	-1203.62	0.00	-337.45	0.00	-1295.90	42.72	-1271.29	0.00	-337.45	0.00	-1295.90
(FoS) 75.654	0.08	-72.41	22.79	-1273.07	0.00	-341.98	0.00	-1364.72	22.88	-1345.48	0.00	-341.98	0.00	-1364.72
75.987	0.04	-74.04	16.44	-1296.38	0.00	-343.49	0.00	-1387.88	16.49	-1370.41	0.00	-343.49	0.00	-1387.88
(STLF) 76.404	0.01	-76.10	8.63	-1325.67	0.00	-345.37	0.00	-1416.83	8.64	-1401.77	0.00	-345.37	0.00	-1416.83
(1.0L_s) 76.872	0.00	-78.47	0.00	-1358.87	0.00	-347.77	0.00	-1449.48	0.00	-1437.34	0.00	-347.77	0.00	-1449.48

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Moment, Mu

Location from Left Support (ft)	Design								
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II		
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(0.0L_s) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	59.32	53.25	35.45	89.97	19.26	-1.11	85.94	19.87	-0.49
(SZB) 1.337	234.07	210.15	139.52	354.89	75.82	-4.79	338.48	78.29	-2.33
(Bar Develop.) 1.705	296.74	266.44	176.73	449.85	96.04	-6.28	428.81	99.19	-3.14
(PSXFR) 2.583	443.27	398.10	263.46	671.78	143.17	-10.12	639.46	147.94	-5.35
(Bar Develop.) 2.765	473.08	424.88	281.05	716.90	152.73	-10.96	682.21	157.83	-5.86
(H) 3.833	644.21	578.73	381.72	975.84	207.42	-16.28	927.01	214.49	-9.21
(SZB) 5.003	824.20	740.63	486.90	1247.93	264.54	-22.80	1183.27	273.77	-13.57
(1.5H) 5.583	910.73	818.51	537.18	1378.64	291.83	-26.30	1305.99	302.13	-16.00
(0.1L_s) 7.687	1208.27	1086.52	708.48	1827.51	384.74	-40.49	1725.17	398.92	-26.31
(SZB) 10.503	1567.47	1410.62	912.09	2367.98	494.34	-63.14	2224.11	513.71	-43.77
(0.2L_s) 15.374	2085.03	1879.05	1195.09	3142.87	643.95	-112.24	2946.57	672.31	-83.88
(SZB) 18.753	2367.40	2135.80	1353.39	3562.53	717.73	-153.66	3347.64	752.32	-119.07
(0.3L_s) 23.062	2638.38	2383.74	1511.06	3961.13	776.04	-215.26	3718.35	818.58	-172.72
(SZB) 29.753	2893.41	2617.86	1630.80	4333.28	786.76	-330.38	4049.41	841.64	-275.50
(HP) 30.311	2903.86	2627.72	1634.16	4347.75	783.25	-341.07	4070.74	839.16	-285.16
(0.4L_s) 30.749	2910.90	2634.42	1636.12	4357.36	780.03	-349.55	4085.55	836.75	-292.83

Location from Left Support (ft)	Design									
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II			
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
($0.5L_s$) 38.436	2900.31	2629.18	1597.81	4327.78	655.51	-515.10	4093.75	726.40	-444.20
(HP) 45.675	2650.78	2405.73	1498.24	3944.27	420.93	-699.59	3693.57	505.18	-615.34
($0.6L_s$) 46.123	2627.09	2384.45	1486.32	3908.13	402.70	-711.92	3658.75	487.77	-626.84
(SZB) 46.234	2621.08	2379.05	1483.28	3898.95	398.11	-714.99	3649.93	483.39	-629.70
($0.7L_s$) 53.811	2071.84	1884.90	1184.65	3063.99	22.41	-940.00	2849.76	121.67	-840.74
(Deck Bar Cutoff) 54.581	2002.94	1822.63	1144.72	2959.98	-22.68	-964.58	2747.32	78.00	-863.90
(SZB) 57.234	1743.86	1588.53	995.44	2568.87	-188.47	-1052.47	2373.82	-82.86	-946.86
($0.8L_s$) 61.498	1264.27	1154.59	715.47	1873.62	-511.88	-1227.29	1704.90	-398.40	-1113.80
(SZB) 65.484	790.99	721.06	416.57	1204.80	-887.55	-1438.21	966.66	-733.99	-1284.65
($0.9L_s$) 69.185	357.39	316.43	106.06	613.17	-1487.44	-1863.17	254.74	-1179.34	-1555.08
(1.5H) 70.404	210.85	178.77	25.22	415.78	-1736.21	-2049.79	135.06	-1389.18	-1702.75
(SZB) 70.984	140.15	112.23	0.27	320.89	-1851.22	-2134.37	76.58	-1490.54	-1773.69
(H) 72.154	-3.54	-23.30	-51.17	128.88	-2087.91	-2308.26	-44.02	-1697.10	-1917.45
(Bar Develop.) 73.222	-126.49	-141.01	-99.55	-14.04	-2330.85	-2554.71	-141.11	-1905.27	-2129.13
(PSXFR) 73.404	-147.16	-160.90	-107.93	-35.43	-2375.10	-2584.72	-155.65	-1943.38	-2153.00
(Bar Develop.) 74.282	-247.60	-257.65	-148.92	-138.87	-2591.27	-2731.15	-226.79	-2129.11	-2268.99
(SZB) 74.650	-289.99	-298.53	-166.36	-182.29	-2683.03	-2793.23	-257.06	-2207.74	-2317.94
(FoS) 75.654	-406.51	-411.08	-214.69	-300.93	-2936.81	-2964.63	-340.97	-2424.58	-2452.41
75.987	-445.54	-448.83	-231.01	-340.44	-3022.28	-3022.27	-369.30	-2497.69	-2497.68
(STLF) 76.404	-466.43	-468.16	-237.53	-364.61	-3094.78	-3094.78	-379.73	-2554.39	-2554.39
($1.0L_s$) 76.872	-489.86	-489.86	-244.93	-391.56	-3177.00	-3177.00	-391.56	-2618.44	-2618.44

* Deck moment (Mu) is for negative moment deck design, and is from superimposed dead load and live load only.

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	83.37 79.56	7.68
(FoS) 0.333	0.00	0.00	78.85	7.59
(SZB) 1.337	0.00	0.00	76.72	7.32
(Bar Develop.) 1.705	0.00	0.00	75.93	7.23
(PSXFR) 2.583	0.00	0.00	74.05	6.99
(Bar Develop.) 2.765	0.00	0.00	73.66	6.94
(H) 3.833	0.00	0.00	71.37	6.66
(SZB) 5.003	0.00	0.00	68.85	6.35
(1.5H) 5.583	0.00	0.00	67.60	6.19
($0.1L_s$) 7.687	0.00	0.00	63.04	5.63
(SZB) 10.503	0.00	0.00	56.92	4.88
($0.2L_s$) 15.374	0.00	0.00	46.25	3.58
(SZB) 18.753	0.00	0.00	38.81	2.68
($0.3L_s$) 23.062	0.00	0.00	29.27	1.53
(SZB) 29.753	0.00	0.00	14.41	-0.25
(HP) 30.311	0.00	0.00	13.17	-0.40
($0.4L_s$) 30.749	0.00	0.00	12.19	-0.52
($0.5L_s$) 38.436	0.00	0.00	-4.90	-2.57
(HP) 45.675	0.00	0.00	-20.93	-4.50
($0.6L_s$) 46.123	0.00	0.00	-21.92	-4.62
(SZB) 46.234	0.00	0.00	-22.16	-4.65
($0.7L_s$) 53.811	0.00	0.00	-38.78	-6.67
(Deck Bar Cutoff) 54.581	0.00	0.00	-40.45	-6.87
(SZB) 57.234	0.00	0.00	-46.21	-7.58
($0.8L_s$) 61.498	0.00	0.00	-55.38	-8.72
(SZB) 65.484	0.00	0.00	-63.86	-9.78
($0.9L_s$) 69.185	0.00	0.00	-71.62	-10.77
(1.5H) 70.404	0.00	0.00	-74.16	-11.09
(SZB) 70.984	0.00	0.00	-75.37	-11.25
(H) 72.154	0.00	0.00	-77.79	-11.56
(Bar Develop.) 73.222	0.00	0.00	-80.01	-11.84
(PSXFR) 73.404	0.00	0.00	-80.39	-11.89
(Bar Develop.) 74.282	0.00	0.00	-82.20	-12.12
(SZB) 74.650	0.00	0.00	-82.96	-12.22
(FoS) 75.654	0.00	0.00	-85.04	-12.49
75.987	0.00	0.00	-18.64	-12.58
(STLF) 76.404	0.00	0.00	-18.81	-12.60
($1.0L_s$) 76.872	0.00	0.00	-19.01	-12.72

Shear - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	3.57	-0.51	93.82	-10.70	44.99	-4.81	117.06	-13.12	97.40	-11.21	44.99	-4.81	117.06	-13.12
(FoS) 0.333	3.54	-0.51	93.12	-10.69	44.65	-4.81	116.20	-13.11	96.66	-11.21	44.65	-4.81	116.20	-13.11
(SZB) 1.337	3.43	-0.51	90.99	-10.69	43.62	-4.80	113.61	-13.09	94.43	-11.20	43.62	-4.80	113.61	-13.09
(Bar Develop.) 1.705	3.40	-0.51	90.22	-10.68	43.25	-4.80	112.66	-13.09	93.62	-11.20	43.25	-4.80	112.66	-13.09
(PSXFR) 2.583	3.31	-0.52	88.39	-10.69	42.36	-4.79	110.40	-13.07	91.69	-11.20	42.36	-4.79	110.40	-13.07

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(Bar Develop.) 2.765	3.29	-0.52	88.01	-10.69	42.18	-4.79	109.94	-13.06	91.30	-11.21	42.18	-4.79	109.94	-13.06
(H) 3.833	3.18	-0.52	85.80	-10.70	41.11	-4.79	107.22	-13.04	88.98	-11.23	41.11	-4.79	107.22	-13.04
(SZB) 5.003	3.07	-0.53	83.42	-10.73	39.95	-4.78	104.28	-13.02	86.48	-11.26	39.95	-4.78	104.28	-13.02
(1.5H) 5.583	3.01	-0.54	82.24	-10.75	39.37	-4.77	102.83	-13.00	85.25	-11.29	39.37	-4.77	102.83	-13.00
($0.1L_s$) 7.687	2.81	-0.56	78.04	-10.84	37.29	-4.76	97.62	-12.96	80.85	-11.41	37.29	-4.76	97.62	-12.96
(SZB) 10.503	2.55	-0.61	72.54	-11.49	34.60	-4.73	90.74	-12.90	75.09	-12.09	34.60	-4.73	90.74	-12.90
($0.2L_s$) 15.374	2.14	-0.72	63.44	-16.60	30.07	-6.76	79.28	-14.15	65.58	-17.31	30.07	-6.76	79.28	-14.15
(SZB) 18.753	1.88	-0.81	57.43	-20.18	27.09	-8.16	71.62	-18.20	59.31	-20.99	27.09	-8.16	71.62	-18.20
($0.3L_s$) 23.062	1.58	-0.97	50.12	-24.78	23.42	-9.91	62.26	-23.23	51.70	-25.75	23.42	-9.91	62.26	-23.23
(SZB) 29.753	1.17	-1.26	39.61	-33.58	18.15	-12.49	48.66	-31.64	40.78	-34.84	18.15	-12.49	48.66	-31.64
(HP) 30.311	1.14	-1.29	38.78	-34.41	17.73	-12.83	47.57	-32.95	39.91	-35.70	17.73	-12.83	47.57	-32.95
($0.4L_s$) 30.749	1.11	-1.32	38.13	-35.06	17.41	-13.18	46.73	-33.98	39.24	-36.37	17.41	-13.18	46.73	-33.98
($0.5L_s$) 38.436	0.73	-1.76	27.58	-46.37	12.12	-19.17	31.52	-53.17	28.31	-48.13	12.12	-19.17	31.52	-53.17
(HP) 45.675	0.46	-2.25	19.19	-57.42	7.92	-24.92	13.77	-71.60	19.65	-59.67	7.92	-24.92	13.77	-71.60
($0.6L_s$) 46.123	0.44	-2.28	18.71	-58.10	7.68	-25.30	12.60	-72.68	19.15	-60.38	7.68	-25.30	12.60	-72.68
(SZB) 46.234	0.44	-2.29	18.59	-58.26	7.62	-25.40	12.30	-72.95	19.03	-60.55	7.62	-25.40	12.30	-72.95
($0.7L_s$) 53.811	0.24	-2.89	11.94	-69.64	3.94	-31.71	1.06	-90.34	12.18	-72.53	3.94	-31.71	1.06	-90.34
(Deck Bar Cutoff) 54.581	0.22	-2.95	11.37	-70.78	3.60	-32.33	0.36	-92.00	11.59	-73.73	3.60	-32.33	0.36	-92.00
(SZB) 57.234	0.17	-3.18	9.48	-74.69	2.50	-34.43	0.00	-97.59	9.65	-77.87	2.50	-34.43	0.00	-97.59
($0.8L_s$) 61.498	0.10	-3.57	6.70	-80.86	0.91	-37.71	0.00	-106.03	6.79	-84.43	0.91	-37.71	0.00	-106.03
(SZB) 65.484	0.05	-3.95	4.38	-86.50	0.00	-40.61	0.00	-113.36	4.43	-90.45	0.00	-40.61	0.00	-113.36
($0.9L_s$) 69.185	0.02	-4.31	2.48	-91.58	0.00	-43.20	0.00	-119.62	2.50	-95.89	0.00	-43.20	0.00	-119.62
(1.5H) 70.404	0.02	-4.43	1.90	-93.22	0.00	-44.01	0.00	-121.59	1.92	-97.65	0.00	-44.01	0.00	-121.59
(SZB) 70.984	0.01	-4.49	1.64	-93.99	0.00	-44.39	0.00	-122.51	1.65	-98.49	0.00	-44.39	0.00	-122.51
(H) 72.154	0.01	-4.61	1.26	-95.55	0.00	-45.16	0.00	-124.33	1.27	-100.16	0.00	-45.16	0.00	-124.33
(Bar Develop.) 73.222	0.00	-4.72	0.95	-96.94	0.00	-45.85	0.00	-125.93	0.96	-101.67	0.00	-45.85	0.00	-125.93
(PSXFR) 73.404	0.00	-4.74	0.90	-97.18	0.00	-45.97	0.00	-126.20	0.90	-101.92	0.00	-45.97	0.00	-126.20
(Bar Develop.) 74.282	0.00	-4.83	0.66	-98.32	0.00	-46.53	0.00	-127.47	0.66	-103.15	0.00	-46.53	0.00	-127.47
(SZB) 74.650	0.00	-4.87	0.56	-98.79	0.00	-46.77	0.00	-127.99	0.56	-103.66	0.00	-46.77	0.00	-127.99
(FoS) 75.654	0.00	-4.98	0.30	-100.07	0.00	-47.38	0.00	-129.39	0.30	-105.04	0.00	-47.38	0.00	-129.39
75.987	0.00	-5.01	0.21	-100.49	0.00	-47.59	0.00	-129.85	0.22	-105.50	0.00	-47.59	0.00	-129.85
(STLF) 76.404	0.00	-5.05	0.11	-101.01	0.00	-47.84	0.00	-130.43	0.11	-106.06	0.00	-47.84	0.00	-130.43
($1.0L_s$) 76.872	0.00	-5.10	0.00	-106.30	0.00	-50.34	0.00	-137.13	0.00	-111.41	0.00	-50.34	0.00	-137.13

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Shear, Vu

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	188.45 184.65	168.97 165.17	113.02 111.11	286.19 281.43	60.41 56.98	273.77 269.01	62.32 58.89
(FoS) 0.333	183.10	163.77	110.20	279.10	56.29	266.83	58.20
(SZB) 1.337	178.47	159.58	107.45	272.13	54.21	260.25	56.13
(Bar Develop.) 1.705	176.77	158.05	106.45	269.58	53.44	257.84	55.37
(PSXFR) 2.583	172.73	154.39	104.07	263.51	51.58	252.09	53.55
(Bar Develop.) 2.765	171.90	153.64	103.57	262.26	51.19	250.90	53.17
(H) 3.833	167.01	149.21	100.68	254.92	48.91	243.94	50.95
(SZB) 5.003	161.68	144.38	97.52	246.93	46.38	236.35	48.52
(1.5H) 5.583	159.04	141.99	95.95	242.98	45.11	232.60	47.31
($0.1L_s$) 7.687	149.52	133.35	90.27	228.73	40.44	219.03	42.91
(SZB) 10.503	136.89	121.88	82.80	209.88	33.24	200.97	36.99
($0.2L_s$) 15.374	115.41	102.30	70.02	177.95	13.66	170.22	24.85
(SZB) 18.753	100.80	88.94	61.37	156.33	-0.07	149.21	12.10
($0.3L_s$) 23.062	82.50	72.16	50.53	129.36	-17.72	122.93	-4.02
(SZB) 29.753	54.94	46.78	34.30	89.21	-48.39	83.54	-30.12
(HP) 30.311	52.68	44.70	32.98	86.04	-51.23	80.42	-33.24
($0.4L_s$) 30.749	50.91	43.07	31.95	83.57	-53.45	77.99	-35.67
($0.5L_s$) 38.436	20.85	15.18	14.44	43.47	-94.20	36.47	-81.75
(HP) 45.675	-5.78	-9.71	-0.83	12.63	-137.33	-3.17	-129.57
($0.6L_s$) 46.123	-7.38	-11.21	-1.75	10.79	-139.99	-5.72	-132.45
(SZB) 46.234	-7.78	-11.58	-1.97	10.34	-140.64	-6.36	-133.16
($0.7L_s$) 53.811	-33.27	-35.70	-16.81	-17.92	-185.40	-37.80	-180.43
(Deck Bar Cutoff) 54.581	-35.73	-38.05	-18.26	-20.59	-189.91	-40.39	-185.07
(SZB) 57.234	-44.14	-46.07	-23.14	-29.63	-205.41	-46.51	-200.87
($0.8L_s$) 61.498	-57.31	-58.67	-30.68	-43.62	-230.06	-55.51	-225.44
(SZB) 65.484	-69.21	-70.09	-36.82	-56.08	-252.78	-63.83	-247.53
($0.9L_s$) 69.185	-79.89	-80.39	-41.19	-67.08	-273.48	-71.45	-267.16
(1.5H) 70.404	-83.33	-83.71	-42.62	-70.59	-280.22	-73.95	-273.47
(SZB) 70.984	-84.96	-85.29	-43.31	-72.24	-283.43	-75.14	-276.46
(H) 72.154	-88.08	-88.34	-44.68	-75.31	-289.86	-77.53	-282.43
(Bar Develop.) 73.222	-90.90	-91.09	-45.93	-78.03	-295.69	-79.71	-287.78
(PSXFR) 73.404	-91.37	-91.55	-46.14	-78.49	-296.68	-80.08	-288.69
(Bar Develop.) 74.282	-93.67	-93.80	-47.16	-80.71	-301.46	-81.86	-293.02
(SZB) 74.650	-94.63	-94.74	-47.59	-81.63	-303.45	-82.61	-294.82
(FoS) 75.654	-97.23	-97.29	-48.76	-84.13	-308.86	-84.65	-299.70

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
75.987	-31.00	-31.04	-15.61	-24.57	-226.78	-24.95	-217.46
(STLF) 76.404	-31.29	-31.32	-15.70	-24.92	-228.02	-25.12	-218.48
($1.0L_s$) 76.872	-31.73	-31.73	-15.86	-25.37	-237.80	-25.37	-227.97

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Abutment 1	0.00	0.00	83.37	7.68
Pier 2	0.00	0.00	179.01	25.46

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
Abutment 1 - Ahead	0.00	0.00	83.37	7.68	184.94

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	93.89	-10.71	45.02	-4.82	117.14	-13.13	97.46	-11.22	45.02	-4.82	117.14	-13.13

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	184.94	166.17	113.06	280.04	61.29	273.88	62.30

Live Load Reactions Without Impact

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	75.46	-8.75	39.15	-4.19	88.08	-9.87	79.04	-9.26	39.15	-4.19	88.08	-9.87

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Stresses

Product Load Stresses

At Release

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF, $0.0L_r$) 0.000	0.000	0.000
(PSXFR) 3.000	-0.134	0.136
($0.1L_r$) 7.682	-0.321	0.326
($0.2L_r$) 15.364	-0.571	0.579
($0.3L_r$) 23.046	-0.750	0.761
(HP, $0.4L_r$) 30.728	-0.857	0.869
($0.5L_r$) 38.410	-0.893	0.905
(HP, $0.6L_r$) 46.092	-0.857	0.869
($0.7L_r$) 53.774	-0.750	0.761
($0.8L_r$) 61.456	-0.571	0.579
($0.9L_r$) 69.138	-0.321	0.326
(PSXFR) 73.820	-0.134	0.136
(STLF, $1.0L_r$) 76.820	0.000	0.000

During Storage

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF) -0.417	0.000	0.000
($0.0L_{st}$) 0.000	0.000	-0.000
(PSXFR) 2.583	-0.115	0.116
($0.1L_{st}$) 7.599	-0.314	0.319
($0.2L_{st}$) 15.197	-0.559	0.567
($0.3L_{st}$) 22.796	-0.734	0.744
(HP) 30.311	-0.838	0.850
($0.4L_{st}$) 30.395	-0.838	0.850
($0.5L_{st}$) 37.993	-0.873	0.886
($0.6L_{st}$) 45.592	-0.838	0.850
(HP) 45.675	-0.838	0.850
($0.7L_{st}$) 53.191	-0.734	0.744
($0.8L_{st}$) 60.790	-0.559	0.567
($0.9L_{st}$) 68.388	-0.314	0.319
(PSXFR) 73.404	-0.115	0.116
($1.0L_{st}$) 75.987	0.000	-0.000
(STLF) 76.404	0.000	0.000

Girder Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_e$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.115 f_b = 0.116	f_t = 0.000 f_b = 0.000	f_t = -0.138 f_b = 0.140	f_t = -0.022 f_b = 0.022	f_t = -0.005 f_b = 0.022	f_t = -0.002 f_b = 0.009	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.008 f_b = 0.279	f_t = -0.067 f_b = -0.033	f_t = 0.004 f_b = 0.159	f_t = -0.038 f_b = -0.018	f_t = 0.010 f_b = 0.345	f_t = -0.083 f_b = -0.041
($0.1L_e$) 7.599	f_t = -0.314 f_b = 0.319	f_t = 0.000 f_b = 0.000	f_t = -0.381 f_b = 0.386	f_t = -0.060 f_b = 0.061	f_t = -0.014 f_b = 0.058	f_t = -0.006 f_b = 0.024	f_t = -0.011 f_b = 0.047	f_t = 0.001 f_b = 0.026	f_t = -0.006 f_b = -0.004	f_t = 0.023 f_b = 0.742	f_t = -0.175 f_b = -0.098	f_t = 0.012 f_b = 0.415	f_t = -0.098 f_b = -0.053	f_t = 0.028 f_b = 0.905	f_t = -0.213 f_b = -0.120
($0.2L_e$) 15.197	f_t = -0.559	f_t = 0.000	f_t = -0.679	f_t = -0.107	f_t = -0.023	f_t = -0.010	f_t = -0.019	f_t = 0.002	f_t = -0.011	f_t = 0.046	f_t = -0.296	f_t = 0.025	f_t = -0.160	f_t = 0.057	f_t = -0.357

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.567	f_b = 0.000	f_b = 0.689	f_b = 0.109	f_b = 0.098	f_b = 0.041	f_b = 0.080	f_b = 0.046	f_b = -0.009	f_t = 1.256	f_b = -0.196	f_b = 0.680	f_b = -0.106	f_b = 1.512	f_b = -0.240
(0.3L$_e$) 22.796	f_t = -0.734	f_t = 0.000	f_t = -0.892	f_t = -0.141	f_t = -0.029	f_t = -0.012	f_t = -0.023	f_t = 0.003	f_t = -0.014	f_t = 0.069	f_t = -0.366	f_t = 0.037	f_t = -0.199	f_t = 0.085	f_t = -0.442
	f_b = 0.744	f_b = 0.000	f_b = 0.905	f_b = 0.143	f_b = 0.121	f_b = 0.051	f_b = 0.099	f_b = 0.059	f_b = -0.013	f_b = 1.554	f_b = -0.293	f_b = 0.845	f_b = -0.158	f_b = 1.877	f_b = -0.360
(HP) 30.311	f_t = -0.838	f_t = 0.000	f_t = -1.019	f_t = -0.161	f_t = -0.030	f_t = -0.012	f_t = -0.024	f_t = 0.004	f_t = -0.015	f_t = 0.092	f_t = -0.399	f_t = 0.050	f_t = -0.211	f_t = 0.113	f_t = -0.479
	f_b = 0.850	f_b = 0.000	f_b = 1.033	f_b = 0.163	f_b = 0.126	f_b = 0.053	f_b = 0.103	f_b = 0.065	f_b = -0.017	f_b = 1.693	f_b = -0.390	f_b = 0.894	f_b = -0.211	f_b = 2.030	f_b = -0.478
(0.4L$_e$) 30.395	f_t = -0.838	f_t = 0.000	f_t = -1.019	f_t = -0.161	f_t = -0.030	f_t = -0.012	f_t = -0.024	f_t = 0.004	f_t = -0.015	f_t = 0.092	f_t = -0.399	f_t = 0.050	f_t = -0.211	f_t = 0.113	f_t = -0.479
	f_b = 0.850	f_b = 0.000	f_b = 1.034	f_b = 0.163	f_b = 0.126	f_b = 0.053	f_b = 0.103	f_b = 0.065	f_b = -0.017	f_b = 1.693	f_b = -0.391	f_b = 0.894	f_b = -0.211	f_b = 2.032	f_b = -0.480
(0.5L$_e$) 37.993	f_t = -0.873	f_t = 0.000	f_t = -1.059	f_t = -0.168	f_t = -0.027	f_t = -0.011	f_t = -0.022	f_t = 0.005	f_t = -0.015	f_t = 0.115	f_t = -0.393	f_t = 0.062	f_t = -0.199	f_t = 0.141	f_t = -0.480
	f_b = 0.886	f_b = 0.000	f_b = 1.075	f_b = 0.170	f_b = 0.114	f_b = 0.048	f_b = 0.093	f_b = 0.065	f_b = -0.021	f_b = 1.666	f_b = -0.489	f_b = 0.845	f_b = -0.264	f_b = 2.037	f_b = -0.600
(0.6L$_e$) 45.592	f_t = -0.838	f_t = 0.000	f_t = -1.013	f_t = -0.161	f_t = -0.020	f_t = -0.008	f_t = -0.016	f_t = 0.006	f_t = -0.014	f_t = 0.138	f_t = -0.355	f_t = 0.075	f_t = -0.190	f_t = 0.170	f_t = -0.424
	f_b = 0.850	f_b = 0.000	f_b = 1.027	f_b = 0.163	f_b = 0.084	f_b = 0.035	f_b = 0.068	f_b = 0.058	f_b = -0.026	f_b = 1.505	f_b = -0.587	f_b = 0.806	f_b = -0.317	f_b = 1.800	f_b = -0.720
(HP) 45.675	f_t = -0.838	f_t = 0.000	f_t = -1.012	f_t = -0.161	f_t = -0.020	f_t = -0.008	f_t = -0.016	f_t = 0.006	f_t = -0.014	f_t = 0.139	f_t = -0.354	f_t = 0.075	f_t = -0.190	f_t = 0.170	f_t = -0.424
	f_b = 0.850	f_b = 0.000	f_b = 1.026	f_b = 0.163	f_b = 0.083	f_b = 0.035	f_b = 0.068	f_b = 0.058	f_b = -0.026	f_b = 1.503	f_b = -0.588	f_b = 0.805	f_b = -0.317	f_b = 1.797	f_b = -0.721
(0.7L$_e$) 53.191	f_t = -0.734	f_t = 0.000	f_t = -0.880	f_t = -0.141	f_t = -0.008	f_t = -0.004	f_t = -0.007	f_t = 0.007	f_t = -0.010	f_t = 0.161	f_t = -0.278	f_t = 0.087	f_t = -0.153	f_t = 0.198	f_t = -0.328
	f_b = 0.744	f_b = 0.000	f_b = 0.893	f_b = 0.143	f_b = 0.036	f_b = 0.015	f_b = 0.029	f_b = 0.044	f_b = -0.030	f_b = 1.180	f_b = -0.685	f_b = 0.649	f_b = -0.370	f_b = 1.391	f_b = -0.840
(0.8L$_e$) 60.790	f_t = -0.559	f_t = 0.000	f_t = -0.665	f_t = -0.107	f_t = 0.007	f_t = 0.003	f_t = 0.006	f_t = 0.008	f_t = -0.006	f_t = 0.189	f_t = -0.175	f_t = 0.102	f_t = -0.095	f_t = 0.231	f_t = -0.196
	f_b = 0.567	f_b = 0.000	f_b = 0.675	f_b = 0.109	f_b = -0.030	f_b = -0.012	f_b = -0.024	f_b = 0.023	f_b = -0.034	f_b = 0.728	f_b = -0.784	f_b = 0.395	f_b = -0.424	f_b = 0.816	f_b = -0.962
(0.9L$_e$) 68.388	f_t = -0.314	f_t = 0.000	f_t = -0.370	f_t = -0.060	f_t = 0.028	f_t = 0.012	f_t = 0.023	f_t = 0.012	f_t = -0.001	f_t = 0.257	f_t = -0.074	f_t = 0.120	f_t = -0.017	f_t = 0.282	f_t = -0.016
	f_b = 0.319	f_b = 0.000	f_b = 0.376	f_b = 0.061	f_b = -0.113	f_b = -0.047	f_b = -0.092	f_b = 0.005	f_b = -0.048	f_b = 0.297	f_b = -1.027	f_b = 0.068	f_b = -0.479	f_b = 0.064	f_b = -1.128
(PSXFR) 73.404	f_t = -0.115	f_t = 0.000	f_t = -0.134	f_t = -0.022	f_t = 0.046	f_t = 0.019	f_t = 0.038	f_t = 0.018	f_t = -0.000	f_t = 0.373	f_t = -0.023	f_t = 0.133	f_t = 0.000	f_t = 0.404	f_t = 0.000
	f_b = 0.116	f_b = 0.000	f_b = 0.136	f_b = 0.022	f_b = -0.179	f_b = -0.075	f_b = -0.146	f_b = 0.001	f_b = -0.069	f_b = 0.088	f_b = -1.448	f_b = 0.000	f_b = -0.516	f_b = 0.000	f_b = -1.567
(1.0L$_e$) 75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.057	f_t = 0.024	f_t = 0.046	f_t = 0.022	f_t = -0.000	f_t = 0.441	f_t = -0.006	f_t = 0.140	f_t = 0.000	f_t = 0.472	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.216	f_b = -0.090	f_b = -0.176	f_b = 0.000	f_b = -0.082	f_b = 0.021	f_b = -1.682	f_b = 0.000	f_b = -0.535	f_b = 0.000	f_b = -1.800
75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.057	f_t = 0.024	f_t = 0.046	f_t = 0.022	f_t = -0.000	f_t = 0.441	f_t = -0.006	f_t = 0.140	f_t = 0.000	f_t = 0.472	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.216	f_b = -0.090	f_b = -0.176	f_b = 0.000	f_b = -0.082	f_b = 0.021	f_b = -1.682	f_b = 0.000	f_b = -0.535	f_b = 0.000	f_b = -1.800
(STLF) 76.404	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.058	f_t = 0.024	f_t = 0.048	f_t = 0.022	f_t = 0.000	f_t = 0.453	f_t = -0.003	f_t = 0.142	f_t = 0.000	f_t = 0.484	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.222	f_b = -0.093	f_b = -0.181	f_b = 0.000	f_b = -0.085	f_b = 0.011	f_b = -1.720	f_b = 0.000	f_b = -0.538	f_b = 0.000	f_b = -1.839

* Live Load values are per lane and include impact.

Deck Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(0.0L$_e$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(PSXFR) 2.583	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.009	f_t = -0.004	f_t = -0.007	f_t = 0.001	f_t = -0.004	f_t = 0.014	f_t = -0.116	f_t = 0.008	f_t = -0.066	f_t = 0.017	f_t = -0.144
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.004	f_b = -0.002	f_b = -0.004	f_b = 0.000	f_b = -0.002	f_b = 0.007	f_b = -0.055	f_b = 0.004	f_b = -0.032	f_b = 0.008	f_b = -0.068
(0.1L$_e$) 7.599	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.024	f_t = -0.010	f_t = -0.020	f_t = 0.002	f_t = -0.011	f_t = 0.040	f_t = -0.307	f_t = 0.022	f_t = -0.172	f_t = 0.050	f_t = -0.375
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.011	f_b = -0.005	f_b = -0.009	f_b = 0.001	f_b = -0.005	f_b = 0.019	f_b = -0.145	f_b = 0.010	f_b = -0.081	f_b = 0.023	f_b = -0.177
(0.2L$_e$) 15.197	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.041	f_t = -0.017	f_t = -0.033	f_t = 0.004	f_t = -0.019	f_t = 0.081	f_t = -0.520	f_t = 0.044	f_t = -0.281	f_t = 0.099	f_t = -0.626
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.019	f_b = -0.008	f_b = -0.016	f_b = 0.002	f_b = -0.009	f_b = 0.038	f_b = -0.245	f_b = 0.021	f_b = -0.133	f_b = 0.047	f_b = -0.295
(0.3L$_e$) 22.796	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.050	f_t = -0.021	f_t = -0.041	f_t = 0.005	f_t = -0.024	f_t = 0.121	f_t = -0.644	f_t = 0.066	f_t = -0.350	f_t = 0.149	f_t = -0.777
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.019	f_b = 0.002	f_b = -0.012	f_b = 0.057	f_b = -0.303	f_b = 0.031	f_b = -0.165	f_b = 0.070	f_b = -0.366
(HP) 30.311	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.052	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.162	f_t = -0.701	f_t = 0.087	f_t = -0.370	f_t = 0.198	f_t = -0.840
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.330	f_b = 0.041	f_b = -0.174	f_b = 0.093	f_b = -0.396
(0.4L$_e$) 30.395	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.052	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.162	f_t = -0.701	f_t = 0.087	f_t = -0.370	f_t = 0.199	f_t = -0.841
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.330	f_b = 0.041	f_b = -0.174	f_b = 0.094	f_b = -0.396
(0.5L$_e$) 37.993	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.047	f_t = -0.020	f_t = -0.038	f_t = 0.009	f_t = -0.027	f_t = 0.202	f_t = -0.690	f_t = 0.109	f_t = -0.350	f_t = 0.248	f_t = -0.843
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.022	f_b = -0.009	f_b = -0.018	f_b = 0.004	f_b = -0.013	f_b = 0.095	f_b = -0.325	f_b = 0.051	f_b = -0.165	f_b = 0.117	f_b = -0.397
(0.6L$_e$) 45.592	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.035	f_t = -0.015	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.243	f_t = -0.623	f_t = 0.131	f_t = -0.334	f_t = 0.298	f_t = -0.745
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.114	f_b = -0.293	f_b = 0.062	f_b = -0.157	f_b = 0.140	f_b = -0.351
(HP) 45.675	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.034	f_t = -0.014	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.243	f_t = -0.622	f_t = 0.131	f_t = -0.333	f_t = 0.298	f_t = -0.744
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.115	f_b = -0.293	f_b = 0.062	f_b = -0.157	f_b = 0.141	f_b = -0.350
(0.7L$_e$) 53.191	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.015	f_t = -0.006	f_t = -0.012	f_t = 0.012	f_t = -0.018	f_t = 0.283	f_t = -0.489	f_t = 0.153	f_t = -0.269	f_t = 0.348	f_t = -0.576
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.007	f_b = -0.003	f_b = -0.006	f_b = 0.006	f_b = -0.009	f_b = 0.133	f_b = -0.230	f_b = 0.072	f_b = -0.127	f_b = 0.164	f_b = -0.271
(0.8L$_e$) 60.790	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.012	f_t = 0.005	f_t = 0.010	f_t = 0.014	f_t = -0.010	f_t = 0.329	f_t = -0.305	f_t = 0.177	f_t = -0.166	f_t = 0.403	f_t = -0.342
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.006	f_b = 0.002	f_b = 0.005	f_b = 0.007	f_b = -0.005	f_b = 0.156	f_b = -0.145	f_b = 0.084	f_b = -0.079	f_b = 0.191	f_b = -0.162
(0.9L$_e$) 68.388	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.049	f_t = 0.020	f_t = 0.039	f_t = 0.021	f_t = -0.002	f_t = 0.440	f_t = -0.127	f_t = 0.205	f_t = -0.029	f_t = 0.483	f_t = -0.028
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.023	f_b = 0.010	f_b = 0.019	f_b = 0.010	f_b = -0.001	f_b = 0.212	f_b = -0.061	f_b = 0.099	f_b = -0.014	f_b = 0.233	f_b = -0.013
(PSXFR) 73.404	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.078	f_t = 0.033	f_t = 0.063	f_t = 0.030	f_t = -0.000	f_t = 0.632	f_t = -0.038	f_t = 0.225	f_t = 0.000	f_t = 0.684	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.038	f_b = 0.016	f_b = 0.031	f_b = 0.015	f_b = -0.000	f_b = 0.309	f_b = -0.019	f_b = 0.110	f_b = 0.000	f_b = 0.334	f_b = 0.000
(1.0L$_e$) 75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.095	f_t = 0.040	f_t = 0.077	f_t = 0.036	f_t = -0.000	f_t = 0.741	f_t = -0.009	f_t = 0.236	f_t = 0.000	f_t = 0.793	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.047	f_b = 0.020	f_b = 0.038	f_b = 0.018	f_b = -0.000	f_b = 0.365	f_b = -0.005	f_b = 0.116	f_b = 0.000	f_b = 0.391	f_b = 0.000
75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.095	f_t = 0.040	f_t = 0.077	f_t = 0.036	f_t = -0.000	f_t = 0.741	f_t = -0.009	f_t = 0.236	f_t = 0.000	f_t = 0.793	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.047	f_b = 0.020	f_b = 0.038	f_b = 0.018	f_b = -0.000	f_b = 0.365	f_b = -0.005	f_b = 0.116	f_b = 0.000	f_b = 0.391	f_b = 0.000
(STLF) 76.404	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.098	f_t = 0.041	f_t = 0.080	f_t = 0.037	f_t = 0.000	f_t = 0.759	f_t = -0.005	f_t = 0.238	f_t = 0.000	f_t = 0.812	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.048	f_b = 0.020	f_b = 0.039	f_b = 0.018	f_b = 0.000	f_b = 0.374	f_b = -0.002	f_b = 0.117	f_b = 0.000	f_b = 0.400	f_b = 0.000

* Live Load values are per lane and include impact.

Girder Stresses due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.599	f_t = -0.009 f_b = 0.009	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
15.197	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
22.796	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
30.395	f_t = -0.025 f_b = 0.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
37.993	f_t = -0.026 f_b = 0.026	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
45.592	f_t = -0.025 f_b = 0.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
53.191	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
60.790	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
68.388	f_t = -0.009 f_b = 0.009	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.599	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = 0.008	f_t = 0.000 f_b = 0.000
15.197	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.014	f_t = 0.000 f_b = 0.000
22.796	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.017	f_t = 0.000 f_b = 0.000
30.395	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
37.993	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.016	f_t = 0.000 f_b = 0.000
45.592	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.012	f_t = 0.000 f_b = 0.000
53.191	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = 0.005	f_t = 0.000 f_b = 0.000
60.790	f_t = 0.000 f_b = 0.000	f_t = 0.001 f_b = -0.004	f_t = 0.000 f_b = 0.000
68.388	f_t = 0.000 f_b = 0.000	f_t = 0.004 f_b = -0.016	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.008 f_b = -0.031	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.008 f_b = -0.031	f_t = 0.000 f_b = 0.000

Deck Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.599	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.002	f_t = 0.000 f_b = 0.000
15.197	f_t = 0.000 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.000
22.796	f_t = 0.000	f_t = -0.007	f_t = 0.000

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
	f_b = 0.000	f_b = -0.003	f_b = 0.000
30.395	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
37.993	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
45.592	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = -0.002	f_t = 0.000 f_b = 0.000
53.191	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.000 f_b = 0.000
60.790	f_t = 0.000 f_b = 0.000	f_t = 0.002 f_b = 0.001	f_t = 0.000 f_b = 0.000
68.388	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = 0.003	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.014 f_b = 0.007	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.014 f_b = 0.007	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 2: Prestress Release

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF, 0.0L_T) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.750	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.753	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.121	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(PSXFR) 3.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.182	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(H) 4.250	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000
(SZB) 5.419	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000
(1.5H) 6.000	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000
(0.1L_T) 7.682	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000
(SZB) 10.919	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000
(0.2L_T) 15.364	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000
(SZB) 19.169	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000
(0.3L_T) 23.046	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000
(SZB) 30.169	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000
(HP, 0.4L_T) 30.728	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000
(0.5L_T) 38.410	f_t = -0.893 f_b = 0.905	f_t = 0.000 f_b = 0.000	f_t = -0.893 f_b = 0.905	f_t = 0.000 f_b = 0.000
(HP, 0.6L_T) 46.092	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000
(SZB) 46.651	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000
(0.7L_T) 53.774	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 54.998	f_t = -0.726 f_b = 0.737	f_t = 0.000 f_b = 0.000	f_t = -0.726 f_b = 0.737	f_t = 0.000 f_b = 0.000
(SZB) 57.651	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000
(0.8L_T) 61.456	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000
(SZB) 65.901	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000
(0.9L_T) 69.138	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000
(1.5H) 70.820	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000
(SZB) 71.401				

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000
(H) 72.570	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.638	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(PSXFR) 73.820	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.699	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(SZB) 75.067	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(FoS) 76.070	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(STLF, 1.0L_t) 76.820	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 11: Cast Deck, Apply User Defined Loads

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = -0.037 f_b = 0.038	f_t = 0.000 f_b = 0.000
(SZB) 1.337	f_t = -0.086 f_b = 0.087	f_t = 0.000 f_b = 0.000	f_t = -0.146 f_b = 0.149	f_t = 0.000 f_b = 0.000
(Bar Develop.) 1.705	f_t = -0.109 f_b = 0.111	f_t = 0.000 f_b = 0.000	f_t = -0.186 f_b = 0.189	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.164 f_b = 0.166	f_t = 0.000 f_b = 0.000	f_t = -0.278 f_b = 0.282	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.765	f_t = -0.175 f_b = 0.177	f_t = 0.000 f_b = 0.000	f_t = -0.297 f_b = 0.302	f_t = 0.000 f_b = 0.000
(H) 3.833	f_t = -0.239 f_b = 0.242	f_t = 0.000 f_b = 0.000	f_t = -0.406 f_b = 0.412	f_t = 0.000 f_b = 0.000
(SZB) 5.003	f_t = -0.307 f_b = 0.311	f_t = 0.000 f_b = 0.000	f_t = -0.522 f_b = 0.529	f_t = 0.000 f_b = 0.000
(1.5H) 5.583	f_t = -0.340 f_b = 0.345	f_t = 0.000 f_b = 0.000	f_t = -0.578 f_b = 0.586	f_t = 0.000 f_b = 0.000
(0.1L_e) 7.599	f_t = -0.450 f_b = 0.456	f_t = 0.000 f_b = 0.000	f_t = -0.764 f_b = 0.775	f_t = 0.000 f_b = 0.000
(SZB) 10.503	f_t = -0.596 f_b = 0.605	f_t = 0.000 f_b = 0.000	f_t = -1.012 f_b = 1.027	f_t = 0.000 f_b = 0.000
(0.2L_e) 15.197	f_t = -0.803 f_b = 0.814	f_t = 0.000 f_b = 0.000	f_t = -1.361 f_b = 1.381	f_t = 0.000 f_b = 0.000
(SZB) 18.753	f_t = -0.933 f_b = 0.947	f_t = 0.000 f_b = 0.000	f_t = -1.583 f_b = 1.605	f_t = 0.000 f_b = 0.000
(0.3L_e) 22.796	f_t = -1.055 f_b = 1.070	f_t = 0.000 f_b = 0.000	f_t = -1.789 f_b = 1.814	f_t = 0.000 f_b = 0.000
(SZB) 29.753	f_t = -1.197 f_b = 1.214	f_t = 0.000 f_b = 0.000	f_t = -2.029 f_b = 2.058	f_t = 0.000 f_b = 0.000
(HP) 30.311	f_t = -1.204 f_b = 1.222	f_t = 0.000 f_b = 0.000	f_t = -2.042 f_b = 2.071	f_t = 0.000 f_b = 0.000
(0.4L_e) 30.395	f_t = -1.205 f_b = 1.223	f_t = 0.000 f_b = 0.000	f_t = -2.044 f_b = 2.073	f_t = 0.000 f_b = 0.000
(0.5L_e) 37.993	f_t = -1.253 f_b = 1.271	f_t = 0.000 f_b = 0.000	f_t = -2.127 f_b = 2.157	f_t = 0.000 f_b = 0.000
(0.6L_e) 45.592	f_t = -1.199 f_b = 1.216	f_t = 0.000 f_b = 0.000	f_t = -2.037 f_b = 2.066	f_t = 0.000 f_b = 0.000
(HP) 45.675	f_t = -1.197 f_b = 1.215	f_t = 0.000 f_b = 0.000	f_t = -2.035 f_b = 2.064	f_t = 0.000 f_b = 0.000
(SZB) 46.234	f_t = -1.189 f_b = 1.206	f_t = 0.000 f_b = 0.000	f_t = -2.022 f_b = 2.051	f_t = 0.000 f_b = 0.000
(0.7L_e) 53.191	f_t = -1.043 f_b = 1.058	f_t = 0.000 f_b = 0.000	f_t = -1.777 f_b = 1.802	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 54.581	f_t = -1.004 f_b = 1.018	f_t = 0.000 f_b = 0.000	f_t = -1.711 f_b = 1.735	f_t = 0.000 f_b = 0.000
(SZB) 57.234	f_t = -0.920 f_b = 0.933	f_t = 0.000 f_b = 0.000	f_t = -1.569 f_b = 1.592	f_t = 0.000 f_b = 0.000
(0.8L_e) 60.790	f_t = -0.789	f_t = 0.000	f_t = -1.348	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.800	f_b = 0.000	f_b = 1.367	f_b = 0.000
(SZB) 65.484	f_t = -0.584 f_b = 0.592	f_t = 0.000 f_b = 0.000	f_t = -1.000 f_b = 1.014	f_t = 0.000 f_b = 0.000
(0.9L_e) 68.388	f_t = -0.440 f_b = 0.446	f_t = 0.000 f_b = 0.000	f_t = -0.754 f_b = 0.765	f_t = 0.000 f_b = 0.000
(1.5H) 70.404	f_t = -0.332 f_b = 0.336	f_t = 0.000 f_b = 0.000	f_t = -0.569 f_b = 0.578	f_t = 0.000 f_b = 0.000
(SZB) 70.984	f_t = -0.299 f_b = 0.304	f_t = 0.000 f_b = 0.000	f_t = -0.514 f_b = 0.522	f_t = 0.000 f_b = 0.000
(H) 72.154	f_t = -0.233 f_b = 0.236	f_t = 0.000 f_b = 0.000	f_t = -0.400 f_b = 0.406	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.222	f_t = -0.170 f_b = 0.173	f_t = 0.000 f_b = 0.000	f_t = -0.293 f_b = 0.297	f_t = 0.000 f_b = 0.000
(PSXFR) 73.404	f_t = -0.159 f_b = 0.162	f_t = 0.000 f_b = 0.000	f_t = -0.274 f_b = 0.278	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.282	f_t = -0.106 f_b = 0.108	f_t = 0.000 f_b = 0.000	f_t = -0.183 f_b = 0.186	f_t = 0.000 f_b = 0.000
(SZB) 74.650	f_t = -0.084 f_b = 0.085	f_t = 0.000 f_b = 0.000	f_t = -0.144 f_b = 0.146	f_t = 0.000 f_b = 0.000
(FoS) 75.654	f_t = -0.021 f_b = 0.021	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = 0.037	f_t = 0.000 f_b = 0.000
(1.0L_e) 75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 17: Open to Traffic

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.038 f_b = 0.042	f_t = -0.001 f_b = 0.003
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.150 f_b = 0.165	f_t = -0.003 f_b = 0.011
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.191 f_b = 0.209	f_t = -0.003 f_b = 0.014
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.286 f_b = 0.313	f_t = -0.005 f_b = 0.021
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.305 f_b = 0.335	f_t = -0.005 f_b = 0.022
(H) 3.833	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.417 f_b = 0.457	f_t = -0.007 f_b = 0.030
(SZB) 5.003	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.535 f_b = 0.586	f_t = -0.009 f_b = 0.038
(1.5H) 5.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.593 f_b = 0.649	f_t = -0.010 f_b = 0.042
(0.1L_s) 7.687	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.792 f_b = 0.867	f_t = -0.013 f_b = 0.056
(SZB) 10.503	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.038 f_b = 1.134	f_t = -0.017 f_b = 0.072
(0.2L_s) 15.374	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.407 f_b = 1.534	f_t = -0.022 f_b = 0.095
(SZB) 18.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.620 f_b = 1.763	f_t = -0.025 f_b = 0.107
(0.3L_s) 23.062	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.841 f_b = 1.999	f_t = -0.027 f_b = 0.116
(SZB) 29.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.071 f_b = 2.238	f_t = -0.029 f_b = 0.121
(HP) 30.311	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.084 f_b = 2.251	f_t = -0.029 f_b = 0.121
(0.4L_s) 30.749	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.094 f_b = 2.260	f_t = -0.028 f_b = 0.121
(0.5L_s) 38.436	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.164 f_b = 2.316	f_t = -0.025 f_b = 0.108
(HP) 45.675	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.063 f_b = 2.182	f_t = -0.019 f_b = 0.080

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
($0.6L_s$) 46.123	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.051 f_b = 2.168	f_t = -0.018 f_b = 0.077
(SZB) 46.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.048 f_b = 2.165	f_t = -0.018 f_b = 0.077
($0.7L_s$) 53.811	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.758 f_b = 1.817	f_t = -0.007 f_b = 0.030
(Deck Bar Cutoff) 54.581	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.719 f_b = 1.771	f_t = -0.006 f_b = 0.024
(SZB) 57.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.570 f_b = 1.596	f_t = -0.001 f_b = 0.003
($0.8L_s$) 61.498	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.287 f_b = 1.266	f_t = 0.008 f_b = -0.035
(SZB) 65.484	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.972 f_b = 0.902	f_t = 0.019 f_b = -0.076
($0.9L_s$) 69.185	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.639 f_b = 0.517	f_t = 0.030 f_b = -0.118
(1.5H) 70.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.520 f_b = 0.381	f_t = 0.034 f_b = -0.133
(SZB) 70.984	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.462 f_b = 0.314	f_t = 0.036 f_b = -0.140
(H) 72.154	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.341 f_b = 0.176	f_t = 0.040 f_b = -0.155
(Bar Develop.) 73.222	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.228 f_b = 0.047	f_t = 0.043 f_b = -0.169
(PSXFR) 73.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.209 f_b = 0.024	f_t = 0.044 f_b = -0.171
(Bar Develop.) 74.282	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.113 f_b = -0.086	f_t = 0.047 f_b = -0.183
(SZB) 74.650	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.072 f_b = -0.133	f_t = 0.049 f_b = -0.188
(FoS) 75.654	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.042 f_b = -0.263	f_t = 0.053 f_b = -0.202
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.080 f_b = -0.306	f_t = 0.054 f_b = -0.207
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.083 f_b = -0.315	f_t = 0.056 f_b = -0.213
($1.0L_s$) 76.872	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.071 f_b = -0.269	f_t = 0.048 f_b = -0.181

Girder Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.001	f_t = -0.000 f_b = -0.000	f_t = 0.001 f_b = 0.032	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.015	f_t = -0.004 f_b = -0.002	f_t = 0.001 f_b = 0.033	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.015	f_t = -0.004 f_b = -0.002
(SZB) 1.337	f_t = 0.000 f_b = 0.005	f_t = -0.001 f_b = -0.001	f_t = 0.004 f_b = 0.126	f_t = -0.030 f_b = -0.015	f_t = 0.002 f_b = 0.060	f_t = -0.015 f_b = -0.007	f_t = 0.004 f_b = 0.131	f_t = -0.032 f_b = -0.016	f_t = 0.002 f_b = 0.060	f_t = -0.015 f_b = -0.007
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.007	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.160	f_t = -0.039 f_b = -0.019	f_t = 0.002 f_b = 0.076	f_t = -0.018 f_b = -0.008	f_t = 0.005 f_b = 0.166	f_t = -0.040 f_b = -0.020	f_t = 0.002 f_b = 0.076	f_t = -0.018 f_b = -0.008
(PSXFR) 2.583	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.007 f_b = 0.238	f_t = -0.057 f_b = -0.029	f_t = 0.003 f_b = 0.113	f_t = -0.027 f_b = -0.013	f_t = 0.007 f_b = 0.248	f_t = -0.060 f_b = -0.030	f_t = 0.003 f_b = 0.113	f_t = -0.027 f_b = -0.013
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.002	f_t = 0.007 f_b = 0.254	f_t = -0.061 f_b = -0.031	f_t = 0.003 f_b = 0.121	f_t = -0.029 f_b = -0.014	f_t = 0.008 f_b = 0.265	f_t = -0.063 f_b = -0.032	f_t = 0.003 f_b = 0.121	f_t = -0.029 f_b = -0.014
(H) 3.833	f_t = 0.001 f_b = 0.014	f_t = -0.003 f_b = -0.002	f_t = 0.010 f_b = 0.345	f_t = -0.082 f_b = -0.042	f_t = 0.005 f_b = 0.163	f_t = -0.039 f_b = -0.019	f_t = 0.011 f_b = 0.359	f_t = -0.086 f_b = -0.044	f_t = 0.005 f_b = 0.163	f_t = -0.039 f_b = -0.019
(SZB) 5.003	f_t = 0.001 f_b = 0.018	f_t = -0.004 f_b = -0.003	f_t = 0.013 f_b = 0.440	f_t = -0.105 f_b = -0.055	f_t = 0.006 f_b = 0.208	f_t = -0.049 f_b = -0.025	f_t = 0.014 f_b = 0.458	f_t = -0.109 f_b = -0.058	f_t = 0.006 f_b = 0.208	f_t = -0.049 f_b = -0.025
(1.5H) 5.583	f_t = 0.001 f_b = 0.020	f_t = -0.005 f_b = -0.003	f_t = 0.015 f_b = 0.486	f_t = -0.115 f_b = -0.062	f_t = 0.007 f_b = 0.228	f_t = -0.054 f_b = -0.028	f_t = 0.015 f_b = 0.506	f_t = -0.120 f_b = -0.065	f_t = 0.007 f_b = 0.228	f_t = -0.054 f_b = -0.028
($0.1L_s$) 7.687	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.020 f_b = 0.641	f_t = -0.151 f_b = -0.085	f_t = 0.009 f_b = 0.299	f_t = -0.070 f_b = -0.038	f_t = 0.021 f_b = 0.667	f_t = -0.157 f_b = -0.089	f_t = 0.009 f_b = 0.299	f_t = -0.070 f_b = -0.038
(SZB) 10.503	f_t = 0.001 f_b = 0.035	f_t = -0.008 f_b = -0.006	f_t = 0.027 f_b = 0.825	f_t = -0.194 f_b = -0.116	f_t = 0.012 f_b = 0.380	f_t = -0.090 f_b = -0.052	f_t = 0.029 f_b = 0.860	f_t = -0.203 f_b = -0.122	f_t = 0.012 f_b = 0.380	f_t = -0.090 f_b = -0.052
($0.2L_s$) 15.374	f_t = 0.002 f_b = 0.046	f_t = -0.011 f_b = -0.009	f_t = 0.040 f_b = 1.082	f_t = -0.255 f_b = -0.169	f_t = 0.018 f_b = 0.488	f_t = -0.115 f_b = -0.076	f_t = 0.042 f_b = 1.129	f_t = -0.266 f_b = -0.178	f_t = 0.018 f_b = 0.488	f_t = -0.115 f_b = -0.076
(SZB) 18.753	f_t = 0.002 f_b = 0.053	f_t = -0.012 f_b = -0.011	f_t = 0.049 f_b = 1.216	f_t = -0.287 f_b = -0.206	f_t = 0.022 f_b = 0.547	f_t = -0.129 f_b = -0.093	f_t = 0.051 f_b = 1.269	f_t = -0.299 f_b = -0.217	f_t = 0.022 f_b = 0.547	f_t = -0.129 f_b = -0.093
($0.3L_s$) 23.062	f_t = 0.003	f_t = -0.014	f_t = 0.060	f_t = -0.315	f_t = 0.027	f_t = -0.143	f_t = 0.063	f_t = -0.329	f_t = 0.027	f_t = -0.143

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.059	f_b = -0.013	f_b = 1.336	f_b = -0.254	f_b = 0.605	f_b = -0.114	f_b = 1.396	f_b = -0.267	f_b = 0.605	f_b = -0.114
(SZB) 29.753	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.077 f_b = 1.445	f_t = -0.341 f_b = -0.328	f_t = 0.035 f_b = 0.638	f_t = -0.150 f_b = -0.147	f_t = 0.081 f_b = 1.510	f_t = -0.356 f_b = -0.344	f_t = 0.035 f_b = 0.638	f_t = -0.150 f_b = -0.147
(HP) 30.311	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.079 f_b = 1.448	f_t = -0.341 f_b = -0.334	f_t = 0.035 f_b = 0.638	f_t = -0.150 f_b = -0.150	f_t = 0.083 f_b = 1.513	f_t = -0.357 f_b = -0.351	f_t = 0.035 f_b = 0.638	f_t = -0.150 f_b = -0.150
(0.4L_s) 30.749	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.080 f_b = 1.450	f_t = -0.342 f_b = -0.339	f_t = 0.036 f_b = 0.637	f_t = -0.150 f_b = -0.152	f_t = 0.084 f_b = 1.515	f_t = -0.357 f_b = -0.356	f_t = 0.036 f_b = 0.637	f_t = -0.150 f_b = -0.152
(0.5L_s) 38.436	f_t = 0.005 f_b = 0.065	f_t = -0.015 f_b = -0.022	f_t = 0.100 f_b = 1.421	f_t = -0.335 f_b = -0.423	f_t = 0.045 f_b = 0.603	f_t = -0.142 f_b = -0.190	f_t = 0.105 f_b = 1.486	f_t = -0.350 f_b = -0.445	f_t = 0.045 f_b = 0.603	f_t = -0.142 f_b = -0.190
(HP) 45.675	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.119 f_b = 1.286	f_t = -0.303 f_b = -0.503	f_t = 0.053 f_b = 0.574	f_t = -0.135 f_b = -0.226	f_t = 0.125 f_b = 1.343	f_t = -0.317 f_b = -0.529	f_t = 0.053 f_b = 0.574	f_t = -0.135 f_b = -0.226
(0.6L_s) 46.123	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.120 f_b = 1.273	f_t = -0.300 f_b = -0.508	f_t = 0.054 f_b = 0.570	f_t = -0.134 f_b = -0.229	f_t = 0.126 f_b = 1.330	f_t = -0.313 f_b = -0.534	f_t = 0.054 f_b = 0.570	f_t = -0.134 f_b = -0.229
(SZB) 46.234	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.120 f_b = 1.270	f_t = -0.299 f_b = -0.509	f_t = 0.054 f_b = 0.568	f_t = -0.134 f_b = -0.229	f_t = 0.126 f_b = 1.327	f_t = -0.313 f_b = -0.535	f_t = 0.054 f_b = 0.568	f_t = -0.134 f_b = -0.229
(0.7L_s) 53.811	f_t = 0.007 f_b = 0.042	f_t = -0.010 f_b = -0.030	f_t = 0.140 f_b = 0.982	f_t = -0.232 f_b = -0.593	f_t = 0.063 f_b = 0.450	f_t = -0.106 f_b = -0.267	f_t = 0.147 f_b = 1.025	f_t = -0.242 f_b = -0.623	f_t = 0.063 f_b = 0.450	f_t = -0.106 f_b = -0.267
(Deck Bar Cutoff) 54.581	f_t = 0.007 f_b = 0.040	f_t = -0.010 f_b = -0.031	f_t = 0.142 f_b = 0.948	f_t = -0.223 f_b = -0.601	f_t = 0.064 f_b = 0.434	f_t = -0.102 f_b = -0.270	f_t = 0.149 f_b = 0.988	f_t = -0.233 f_b = -0.632	f_t = 0.064 f_b = 0.434	f_t = -0.102 f_b = -0.270
(SZB) 57.234	f_t = 0.008 f_b = 0.034	f_t = -0.008 f_b = -0.032	f_t = 0.150 f_b = 0.818	f_t = -0.194 f_b = -0.631	f_t = 0.067 f_b = 0.374	f_t = -0.089 f_b = -0.284	f_t = 0.157 f_b = 0.852	f_t = -0.202 f_b = -0.663	f_t = 0.067 f_b = 0.374	f_t = -0.089 f_b = -0.284
(0.8L_s) 61.498	f_t = 0.008 f_b = 0.021	f_t = -0.005 f_b = -0.035	f_t = 0.164 f_b = 0.582	f_t = -0.141 f_b = -0.680	f_t = 0.074 f_b = 0.262	f_t = -0.063 f_b = -0.306	f_t = 0.172 f_b = 0.603	f_t = -0.146 f_b = -0.714	f_t = 0.074 f_b = 0.262	f_t = -0.063 f_b = -0.306
(SZB) 65.484	f_t = 0.010 f_b = 0.010	f_t = -0.003 f_b = -0.040	f_t = 0.183 f_b = 0.375	f_t = -0.092 f_b = -0.743	f_t = 0.080 f_b = 0.144	f_t = -0.035 f_b = -0.326	f_t = 0.193 f_b = 0.385	f_t = -0.095 f_b = -0.783	f_t = 0.080 f_b = 0.144	f_t = -0.035 f_b = -0.326
(0.9L_s) 69.185	f_t = 0.013 f_b = 0.004	f_t = -0.001 f_b = -0.051	f_t = 0.235 f_b = 0.222	f_t = -0.056 f_b = -0.934	f_t = 0.087 f_b = 0.022	f_t = -0.006 f_b = -0.345	f_t = 0.247 f_b = 0.226	f_t = -0.057 f_b = -0.985	f_t = 0.087 f_b = 0.022	f_t = -0.006 f_b = -0.345
(1.5H) 70.404	f_t = 0.014 f_b = 0.003	f_t = -0.001 f_b = -0.056	f_t = 0.259 f_b = 0.174	f_t = -0.044 f_b = -1.024	f_t = 0.089 f_b = 0.000	f_t = 0.000 f_b = -0.352	f_t = 0.273 f_b = 0.177	f_t = -0.045 f_b = -1.080	f_t = 0.089 f_b = 0.000	f_t = 0.000 f_b = -0.352
(SZB) 70.984	f_t = 0.015 f_b = 0.002	f_t = -0.001 f_b = -0.058	f_t = 0.270 f_b = 0.152	f_t = -0.039 f_b = -1.064	f_t = 0.090 f_b = 0.000	f_t = 0.000 f_b = -0.355	f_t = 0.285 f_b = 0.154	f_t = -0.039 f_b = -1.122	f_t = 0.090 f_b = 0.000	f_t = 0.000 f_b = -0.355
(H) 72.154	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.063	f_t = 0.293 f_b = 0.108	f_t = -0.028 f_b = -1.146	f_t = 0.092 f_b = 0.000	f_t = 0.000 f_b = -0.361	f_t = 0.309 f_b = 0.109	f_t = -0.028 f_b = -1.209	f_t = 0.092 f_b = 0.000	f_t = 0.000 f_b = -0.361
(Bar Develop.) 73.222	f_t = 0.017 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.316 f_b = 0.080	f_t = -0.020 f_b = -1.226	f_t = 0.094 f_b = 0.000	f_t = 0.000 f_b = -0.367	f_t = 0.333 f_b = 0.080	f_t = -0.021 f_b = -1.294	f_t = 0.094 f_b = 0.000	f_t = 0.000 f_b = -0.367
(PSXFR) 73.404	f_t = 0.018 f_b = 0.001	f_t = -0.000 f_b = -0.069	f_t = 0.320 f_b = 0.075	f_t = -0.019 f_b = -1.240	f_t = 0.095 f_b = 0.000	f_t = 0.000 f_b = -0.368	f_t = 0.337 f_b = 0.076	f_t = -0.020 f_b = -1.309	f_t = 0.095 f_b = 0.000	f_t = 0.000 f_b = -0.368
(Bar Develop.) 74.282	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.073	f_t = 0.339 f_b = 0.055	f_t = -0.014 f_b = -1.307	f_t = 0.097 f_b = 0.000	f_t = 0.000 f_b = -0.372	f_t = 0.358 f_b = 0.056	f_t = -0.014 f_b = -1.380	f_t = 0.097 f_b = 0.000	f_t = 0.000 f_b = -0.372
(SZB) 74.650	f_t = 0.020 f_b = 0.000	f_t = -0.000 f_b = -0.075	f_t = 0.347 f_b = 0.047	f_t = -0.012 f_b = -1.335	f_t = 0.097 f_b = 0.000	f_t = 0.000 f_b = -0.374	f_t = 0.367 f_b = 0.047	f_t = -0.012 f_b = -1.410	f_t = 0.097 f_b = 0.000	f_t = 0.000 f_b = -0.374
(FoS) 75.654	f_t = 0.021 f_b = 0.000	f_t = -0.000 f_b = -0.080	f_t = 0.370 f_b = 0.025	f_t = -0.007 f_b = -1.414	f_t = 0.099 f_b = 0.000	f_t = 0.000 f_b = -0.380	f_t = 0.391 f_b = 0.025	f_t = -0.007 f_b = -1.494	f_t = 0.099 f_b = 0.000	f_t = 0.000 f_b = -0.380
75.987	f_t = 0.022 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.378 f_b = 0.018	f_t = -0.005 f_b = -1.440	f_t = 0.100 f_b = 0.000	f_t = 0.000 f_b = -0.382	f_t = 0.399 f_b = 0.018	f_t = -0.005 f_b = -1.522	f_t = 0.100 f_b = 0.000	f_t = 0.000 f_b = -0.382
(STLF) 76.404	f_t = 0.022 f_b = 0.000	f_t = 0.000 f_b = -0.085	f_t = 0.388 f_b = 0.010	f_t = -0.003 f_b = -1.473	f_t = 0.101 f_b = 0.000	f_t = 0.000 f_b = -0.384	f_t = 0.410 f_b = 0.010	f_t = -0.003 f_b = -1.558	f_t = 0.101 f_b = 0.000	f_t = 0.000 f_b = -0.384
(1.0L_s) 76.872	f_t = 0.019 f_b = 0.000	f_t = 0.000 f_b = -0.072	f_t = 0.330 f_b = 0.000	f_t = 0.000 f_b = -1.249	f_t = 0.084 f_b = 0.000	f_t = 0.000 f_b = -0.320	f_t = 0.349 f_b = 0.000	f_t = 0.000 f_b = -1.321	f_t = 0.084 f_b = 0.000	f_t = 0.000 f_b = -0.320

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Girder Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.038 f_b = 0.078	f_t = -0.047 f_b = 0.041	f_t = -0.038 f_b = 0.071	f_t = -0.045 f_b = 0.041	f_t = -0.019 f_b = 0.045	f_t = -0.025 f_b = 0.020
(SZB) 1.337	f_t = -0.149 f_b = 0.307	f_t = -0.185 f_b = 0.160	f_t = -0.150 f_b = 0.281	f_t = -0.178 f_b = 0.163	f_t = -0.074 f_b = 0.178	f_t = -0.098 f_b = 0.078
(Bar Develop.) 1.705	f_t = -0.189 f_b = 0.390	f_t = -0.234 f_b = 0.203	f_t = -0.190 f_b = 0.356	f_t = -0.226 f_b = 0.207	f_t = -0.094 f_b = 0.226	f_t = -0.125 f_b = 0.099
(PSXFR) 2.583	f_t = -0.284 f_b = 0.582	f_t = -0.350 f_b = 0.304	f_t = -0.285 f_b = 0.533	f_t = -0.338 f_b = 0.310	f_t = -0.141 f_b = 0.337	f_t = -0.186 f_b = 0.148
(Bar Develop.) 2.765	f_t = -0.303 f_b = 0.621	f_t = -0.374 f_b = 0.325	f_t = -0.304 f_b = 0.568	f_t = -0.361 f_b = 0.331	f_t = -0.150 f_b = 0.360	f_t = -0.199 f_b = 0.158
(H) 3.833	f_t = -0.414 f_b = 0.846	f_t = -0.510 f_b = 0.443	f_t = -0.416 f_b = 0.775	f_t = -0.493 f_b = 0.451	f_t = -0.205 f_b = 0.489	f_t = -0.271 f_b = 0.215

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 5.003	f_t = -0.531 f_b = 1.083	f_t = -0.653 f_b = 0.567	f_t = -0.534 f_b = 0.992	f_t = -0.632 f_b = 0.579	f_t = -0.263 f_b = 0.624	f_t = -0.346 f_b = 0.275
(1.5H) 5.583	f_t = -0.587 f_b = 1.197	f_t = -0.723 f_b = 0.627	f_t = -0.591 f_b = 1.096	f_t = -0.699 f_b = 0.640	f_t = -0.292 f_b = 0.688	f_t = -0.383 f_b = 0.304
(0.1L_s) 7.687	f_t = -0.784 f_b = 1.590	f_t = -0.962 f_b = 0.834	f_t = -0.788 f_b = 1.456	f_t = -0.931 f_b = 0.851	f_t = -0.389 f_b = 0.909	f_t = -0.508 f_b = 0.404
(SZB) 10.503	f_t = -1.026 f_b = 2.066	f_t = -1.257 f_b = 1.085	f_t = -1.032 f_b = 1.894	f_t = -1.217 f_b = 1.109	f_t = -0.509 f_b = 1.174	f_t = -0.662 f_b = 0.525
(0.2L_s) 15.374	f_t = -1.387 f_b = 2.758	f_t = -1.695 f_b = 1.451	f_t = -1.395 f_b = 2.532	f_t = -1.642 f_b = 1.486	f_t = -0.688 f_b = 1.546	f_t = -0.887 f_b = 0.700
(SZB) 18.753	f_t = -1.594 f_b = 3.139	f_t = -1.944 f_b = 1.653	f_t = -1.604 f_b = 2.885	f_t = -1.884 f_b = 1.696	f_t = -0.790 f_b = 1.756	f_t = -1.016 f_b = 0.795
(0.3L_s) 23.062	f_t = -1.806 f_b = 3.511	f_t = -2.198 f_b = 1.848	f_t = -1.818 f_b = 3.232	f_t = -2.132 f_b = 1.902	f_t = -0.894 f_b = 1.966	f_t = -1.148 f_b = 0.886
(SZB) 29.753	f_t = -2.019 f_b = 3.869	f_t = -2.456 f_b = 2.015	f_t = -2.035 f_b = 3.567	f_t = -2.385 f_b = 2.083	f_t = -0.998 f_b = 2.136	f_t = -1.275 f_b = 0.958
(HP) 30.311	f_t = -2.030 f_b = 3.885	f_t = -2.470 f_b = 2.021	f_t = -2.047 f_b = 3.582	f_t = -2.398 f_b = 2.091	f_t = -1.003 f_b = 2.142	f_t = -1.282 f_b = 0.960
(0.4L_s) 30.749	f_t = -2.038 f_b = 3.896	f_t = -2.479 f_b = 2.025	f_t = -2.055 f_b = 3.593	f_t = -2.408 f_b = 2.096	f_t = -1.007 f_b = 2.146	f_t = -1.286 f_b = 0.962
(0.5L_s) 38.436	f_t = -2.084 f_b = 3.910	f_t = -2.539 f_b = 1.979	f_t = -2.105 f_b = 3.613	f_t = -2.469 f_b = 2.068	f_t = -1.027 f_b = 2.117	f_t = -1.308 f_b = 0.926
(HP) 45.675	f_t = -1.957 f_b = 3.605	f_t = -2.398 f_b = 1.734	f_t = -1.982 f_b = 3.337	f_t = -2.335 f_b = 1.839	f_t = -0.961 f_b = 1.992	f_t = -1.244 f_b = 0.792
(0.6L_s) 46.123	f_t = -1.944 f_b = 3.576	f_t = -2.383 f_b = 1.712	f_t = -1.969 f_b = 3.310	f_t = -2.320 f_b = 1.819	f_t = -0.954 f_b = 1.977	f_t = -1.236 f_b = 0.780
(SZB) 46.234	f_t = -1.940 f_b = 3.568	f_t = -2.379 f_b = 1.706	f_t = -1.966 f_b = 3.303	f_t = -2.317 f_b = 1.814	f_t = -0.952 f_b = 1.973	f_t = -1.234 f_b = 0.777
(0.7L_s) 53.811	f_t = -1.619 f_b = 2.872	f_t = -2.007 f_b = 1.225	f_t = -1.648 f_b = 2.667	f_t = -1.959 f_b = 1.349	f_t = -0.788 f_b = 1.599	f_t = -1.042 f_b = 0.524
(Deck Bar Cutoff) 54.581	f_t = -1.576 f_b = 2.784	f_t = -1.958 f_b = 1.164	f_t = -1.606 f_b = 2.586	f_t = -1.911 f_b = 1.290	f_t = -0.767 f_b = 1.549	f_t = -1.016 f_b = 0.492
(SZB) 57.234	f_t = -1.414 f_b = 2.452	f_t = -1.773 f_b = 0.936	f_t = -1.445 f_b = 2.281	f_t = -1.733 f_b = 1.069	f_t = -0.685 f_b = 1.361	f_t = -0.919 f_b = 0.374
(0.8L_s) 61.498	f_t = -1.106 f_b = 1.834	f_t = -1.424 f_b = 0.517	f_t = -1.140 f_b = 1.713	f_t = -1.395 f_b = 0.660	f_t = -0.529 f_b = 1.009	f_t = -0.734 f_b = 0.157
(SZB) 65.484	f_t = -0.761 f_b = 1.212	f_t = -1.049 f_b = 0.044	f_t = -0.800 f_b = 1.135	f_t = -1.030 f_b = 0.200	f_t = -0.356 f_b = 0.629	f_t = -0.530 f_b = -0.076
(0.9L_s) 69.185	f_t = -0.361 f_b = 0.626	f_t = -0.666 f_b = -0.586	f_t = -0.411 f_b = 0.581	f_t = -0.654 f_b = -0.388	f_t = -0.174 f_b = 0.233	f_t = -0.313 f_b = -0.318
(1.5H) 70.404	f_t = -0.213 f_b = 0.426	f_t = -0.531 f_b = -0.832	f_t = -0.268 f_b = 0.390	f_t = -0.522 f_b = -0.616	f_t = -0.110 f_b = 0.124	f_t = -0.243 f_b = -0.404
(SZB) 70.984	f_t = -0.141 f_b = 0.329	f_t = -0.465 f_b = -0.948	f_t = -0.198 f_b = 0.298	f_t = -0.457 f_b = -0.724	f_t = -0.078 f_b = 0.087	f_t = -0.213 f_b = -0.445
(H) 72.154	f_t = 0.007 f_b = 0.131	f_t = -0.330 f_b = -1.188	f_t = -0.054 f_b = 0.109	f_t = -0.324 f_b = -0.946	f_t = -0.012 f_b = 0.011	f_t = -0.151 f_b = -0.531
(Bar Develop.) 73.222	f_t = 0.148 f_b = -0.042	f_t = -0.206 f_b = -1.416	f_t = 0.082 f_b = -0.058	f_t = -0.201 f_b = -1.157	f_t = 0.049 f_b = -0.061	f_t = -0.092 f_b = -0.611
(PSXFR) 73.404	f_t = 0.173 f_b = -0.071	f_t = -0.184 f_b = -1.456	f_t = 0.105 f_b = -0.086	f_t = -0.180 f_b = -1.194	f_t = 0.060 f_b = -0.073	f_t = -0.082 f_b = -0.625
(Bar Develop.) 74.282	f_t = 0.293 f_b = -0.213	f_t = -0.080 f_b = -1.649	f_t = 0.221 f_b = -0.224	f_t = -0.077 f_b = -1.373	f_t = 0.112 f_b = -0.134	f_t = -0.033 f_b = -0.693
(SZB) 74.650	f_t = 0.344 f_b = -0.273	f_t = -0.035 f_b = -1.731	f_t = 0.271 f_b = -0.283	f_t = -0.033 f_b = -1.449	f_t = 0.135 f_b = -0.160	f_t = -0.011 f_b = -0.722
(FoS) 75.654	f_t = 0.486 f_b = -0.439	f_t = 0.088 f_b = -1.959	f_t = 0.408 f_b = -0.444	f_t = 0.090 f_b = -1.660	f_t = 0.197 f_b = -0.232	f_t = 0.047 f_b = -0.802
75.987	f_t = 0.534 f_b = -0.495	f_t = 0.130 f_b = -2.035	f_t = 0.454 f_b = -0.499	f_t = 0.131 f_b = -1.731	f_t = 0.217 f_b = -0.257	f_t = 0.067 f_b = -0.829
(STLF) 76.404	f_t = 0.549 f_b = -0.518	f_t = 0.136 f_b = -2.085	f_t = 0.467 f_b = -0.520	f_t = 0.137 f_b = -1.774	f_t = 0.221 f_b = -0.264	f_t = 0.069 f_b = -0.840
(1.0L_s) 76.872	f_t = 0.468 f_b = -0.450	f_t = 0.119 f_b = -1.772	f_t = 0.398 f_b = -0.450	f_t = 0.119 f_b = -1.507	f_t = 0.186 f_b = -0.225	f_t = 0.059 f_b = -0.705

* Live Load values are per girder and include impact.

Deck Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000	f_t = 0.000	f_t = -0.002	f_t = -0.001

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = -0.001	f_b = -0.001
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = -0.005 f_b = -0.002
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.006 f_b = -0.003
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.013 f_b = -0.006	f_t = -0.009 f_b = -0.004
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.007	f_t = -0.009 f_b = -0.004
(H) 3.833	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(SZB) 5.003	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.024 f_b = -0.011	f_t = -0.016 f_b = -0.008
(1.5H) 5.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.026 f_b = -0.012	f_t = -0.018 f_b = -0.008
(0.1L_s) 7.687	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.034 f_b = -0.016	f_t = -0.023 f_b = -0.011
(SZB) 10.503	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.044 f_b = -0.021	f_t = -0.030 f_b = -0.014
(0.2L_s) 15.374	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.058 f_b = -0.027	f_t = -0.039 f_b = -0.019
(SZB) 18.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.065 f_b = -0.031	f_t = -0.044 f_b = -0.021
(0.3L_s) 23.062	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.071 f_b = -0.034	f_t = -0.048 f_b = -0.023
(SZB) 29.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.074 f_b = -0.035	f_t = -0.050 f_b = -0.024
(HP) 30.311	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.074 f_b = -0.035	f_t = -0.050 f_b = -0.024
(0.4L_s) 30.749	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.074 f_b = -0.035	f_t = -0.050 f_b = -0.024
(0.5L_s) 38.436	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.066 f_b = -0.031	f_t = -0.045 f_b = -0.021
(HP) 45.675	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.049 f_b = -0.023	f_t = -0.033 f_b = -0.016
(0.6L_s) 46.123	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.048 f_b = -0.022	f_t = -0.032 f_b = -0.015
(SZB) 46.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.047 f_b = -0.022	f_t = -0.032 f_b = -0.015
(0.7L_s) 53.811	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.018 f_b = -0.009	f_t = -0.012 f_b = -0.006
(Deck Bar Cutoff) 54.581	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.015 f_b = -0.007	f_t = -0.010 f_b = -0.005
(SZB) 57.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(0.8L_s) 61.498	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.022 f_b = 0.010	f_t = 0.015 f_b = 0.007
(SZB) 65.484	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.048 f_b = 0.023	f_t = 0.032 f_b = 0.015
(0.9L_s) 69.185	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.075 f_b = 0.036	f_t = 0.051 f_b = 0.024
(1.5H) 70.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.085 f_b = 0.041	f_t = 0.057 f_b = 0.028
(SZB) 70.984	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.090 f_b = 0.044	f_t = 0.060 f_b = 0.029
(H) 72.154	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.100 f_b = 0.049	f_t = 0.067 f_b = 0.033
(Bar Develop.) 73.222	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.109 f_b = 0.053	f_t = 0.074 f_b = 0.036
(PSXFR) 73.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.111 f_b = 0.054	f_t = 0.075 f_b = 0.037
(Bar Develop.) 74.282	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.119 f_b = 0.058	f_t = 0.080 f_b = 0.039
(SZB) 74.650	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.122 f_b = 0.060	f_t = 0.082 f_b = 0.040
(FoS) 75.654	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.132 f_b = 0.065	f_t = 0.089 f_b = 0.044
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.135 f_b = 0.066	f_t = 0.091 f_b = 0.045
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.139 f_b = 0.069	f_t = 0.094 f_b = 0.046
(1.0L_s) 76.872	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.119 f_b = 0.059	f_t = 0.080 f_b = 0.040

Deck Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = -0.000	f_t = 0.002 f_b = 0.001	f_t = -0.013 f_b = -0.006	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.025	f_t = 0.003 f_b = 0.001	f_t = -0.025 f_b = -0.012	f_t = 0.007 f_b = 0.003	f_t = -0.055 f_b = -0.026	f_t = 0.003 f_b = 0.001	f_t = -0.025 f_b = -0.012
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.001	f_t = 0.008 f_b = 0.004	f_t = -0.067 f_b = -0.032	f_t = 0.004 f_b = 0.002	f_t = -0.032 f_b = -0.015	f_t = 0.008 f_b = 0.004	f_t = -0.070 f_b = -0.033	f_t = 0.004 f_b = 0.002	f_t = -0.032 f_b = -0.015
(PSXFR) 2.583	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.012 f_b = 0.006	f_t = -0.100 f_b = -0.047	f_t = 0.005 f_b = 0.003	f_t = -0.047 f_b = -0.022	f_t = 0.013 f_b = 0.006	f_t = -0.104 f_b = -0.049	f_t = 0.005 f_b = 0.003	f_t = -0.047 f_b = -0.022
(Bar Develop.) 2.765	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.013 f_b = 0.006	f_t = -0.106 f_b = -0.050	f_t = 0.006 f_b = 0.003	f_t = -0.050 f_b = -0.024	f_t = 0.013 f_b = 0.006	f_t = -0.111 f_b = -0.052	f_t = 0.006 f_b = 0.003	f_t = -0.050 f_b = -0.024
(H) 3.833	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.018 f_b = 0.008	f_t = -0.144 f_b = -0.068	f_t = 0.008 f_b = 0.004	f_t = -0.068 f_b = -0.032	f_t = 0.019 f_b = 0.009	f_t = -0.150 f_b = -0.071	f_t = 0.008 f_b = 0.004	f_t = -0.068 f_b = -0.032
(SZB) 5.003	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.023 f_b = 0.011	f_t = -0.183 f_b = -0.086	f_t = 0.010 f_b = 0.005	f_t = -0.086 f_b = -0.041	f_t = 0.024 f_b = 0.011	f_t = -0.191 f_b = -0.090	f_t = 0.010 f_b = 0.005	f_t = -0.086 f_b = -0.041
(1.5H) 5.583	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.026 f_b = 0.012	f_t = -0.202 f_b = -0.095	f_t = 0.011 f_b = 0.005	f_t = -0.095 f_b = -0.045	f_t = 0.027 f_b = 0.013	f_t = -0.210 f_b = -0.099	f_t = 0.011 f_b = 0.005	f_t = -0.095 f_b = -0.045
($0.1L_s$) 7.687	f_t = 0.002 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.035 f_b = 0.017	f_t = -0.265 f_b = -0.125	f_t = 0.016 f_b = 0.007	f_t = -0.124 f_b = -0.058	f_t = 0.037 f_b = 0.017	f_t = -0.276 f_b = -0.130	f_t = 0.016 f_b = 0.007	f_t = -0.124 f_b = -0.058
(SZB) 10.503	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007	f_t = 0.048 f_b = 0.023	f_t = -0.342 f_b = -0.161	f_t = 0.022 f_b = 0.010	f_t = -0.157 f_b = -0.074	f_t = 0.050 f_b = 0.024	f_t = -0.356 f_b = -0.168	f_t = 0.022 f_b = 0.010	f_t = -0.157 f_b = -0.074
($0.2L_s$) 15.374	f_t = 0.004 f_b = 0.002	f_t = -0.019 f_b = -0.009	f_t = 0.070 f_b = 0.033	f_t = -0.448 f_b = -0.211	f_t = 0.032 f_b = 0.015	f_t = -0.202 f_b = -0.095	f_t = 0.074 f_b = 0.035	f_t = -0.467 f_b = -0.220	f_t = 0.032 f_b = 0.015	f_t = -0.202 f_b = -0.095
(SZB) 18.753	f_t = 0.004 f_b = 0.002	f_t = -0.022 f_b = -0.010	f_t = 0.085 f_b = 0.040	f_t = -0.504 f_b = -0.237	f_t = 0.038 f_b = 0.018	f_t = -0.226 f_b = -0.107	f_t = 0.090 f_b = 0.042	f_t = -0.525 f_b = -0.247	f_t = 0.038 f_b = 0.018	f_t = -0.226 f_b = -0.107
($0.3L_s$) 23.062	f_t = 0.005 f_b = 0.003	f_t = -0.025 f_b = -0.012	f_t = 0.105 f_b = 0.050	f_t = -0.553 f_b = -0.261	f_t = 0.047 f_b = 0.022	f_t = -0.251 f_b = -0.118	f_t = 0.110 f_b = 0.052	f_t = -0.578 f_b = -0.272	f_t = 0.047 f_b = 0.022	f_t = -0.251 f_b = -0.118
(SZB) 29.753	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.136 f_b = 0.064	f_t = -0.598 f_b = -0.282	f_t = 0.061 f_b = 0.029	f_t = -0.264 f_b = -0.124	f_t = 0.143 f_b = 0.067	f_t = -0.625 f_b = -0.294	f_t = 0.061 f_b = 0.029	f_t = -0.264 f_b = -0.124
(HP) 30.311	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.138 f_b = 0.065	f_t = -0.600 f_b = -0.282	f_t = 0.062 f_b = 0.029	f_t = -0.264 f_b = -0.124	f_t = 0.145 f_b = 0.068	f_t = -0.627 f_b = -0.295	f_t = 0.062 f_b = 0.029	f_t = -0.264 f_b = -0.124
($0.4L_s$) 30.749	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.140 f_b = 0.066	f_t = -0.600 f_b = -0.283	f_t = 0.063 f_b = 0.030	f_t = -0.264 f_b = -0.124	f_t = 0.147 f_b = 0.069	f_t = -0.627 f_b = -0.295	f_t = 0.063 f_b = 0.030	f_t = -0.264 f_b = -0.124
($0.5L_s$) 38.436	f_t = 0.009 f_b = 0.004	f_t = -0.027 f_b = -0.013	f_t = 0.175 f_b = 0.083	f_t = -0.588 f_b = -0.277	f_t = 0.079 f_b = 0.037	f_t = -0.250 f_b = -0.118	f_t = 0.184 f_b = 0.087	f_t = -0.615 f_b = -0.290	f_t = 0.079 f_b = 0.037	f_t = -0.250 f_b = -0.118
(HP) 45.675	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.208 f_b = 0.098	f_t = -0.532 f_b = -0.251	f_t = 0.094 f_b = 0.044	f_t = -0.238 f_b = -0.112	f_t = 0.219 f_b = 0.103	f_t = -0.556 f_b = -0.262	f_t = 0.094 f_b = 0.044	f_t = -0.238 f_b = -0.112
($0.6L_s$) 46.123	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.210 f_b = 0.099	f_t = -0.527 f_b = -0.248	f_t = 0.095 f_b = 0.045	f_t = -0.236 f_b = -0.111	f_t = 0.221 f_b = 0.104	f_t = -0.551 f_b = -0.259	f_t = 0.095 f_b = 0.045	f_t = -0.236 f_b = -0.111
(SZB) 46.234	f_t = 0.011 f_b = 0.005	f_t = -0.023 f_b = -0.011	f_t = 0.211 f_b = 0.099	f_t = -0.526 f_b = -0.248	f_t = 0.095 f_b = 0.045	f_t = -0.235 f_b = -0.111	f_t = 0.221 f_b = 0.104	f_t = -0.549 f_b = -0.259	f_t = 0.095 f_b = 0.045	f_t = -0.235 f_b = -0.111
($0.7L_s$) 53.811	f_t = 0.013 f_b = 0.006	f_t = -0.017 f_b = -0.008	f_t = 0.245 f_b = 0.116	f_t = -0.407 f_b = -0.192	f_t = 0.110 f_b = 0.052	f_t = -0.186 f_b = -0.088	f_t = 0.258 f_b = 0.121	f_t = -0.424 f_b = -0.200	f_t = 0.110 f_b = 0.052	f_t = -0.186 f_b = -0.088
(Deck Bar Cutoff) 54.581	f_t = 0.013 f_b = 0.006	f_t = -0.017 f_b = -0.008	f_t = 0.249 f_b = 0.117	f_t = -0.392 f_b = -0.185	f_t = 0.112 f_b = 0.053	f_t = -0.180 f_b = -0.085	f_t = 0.261 f_b = 0.123	f_t = -0.409 f_b = -0.193	f_t = 0.112 f_b = 0.053	f_t = -0.180 f_b = -0.085
(SZB) 57.234	f_t = 0.013 f_b = 0.006	f_t = -0.014 f_b = -0.007	f_t = 0.262 f_b = 0.124	f_t = -0.340 f_b = -0.160	f_t = 0.118 f_b = 0.056	f_t = -0.155 f_b = -0.073	f_t = 0.276 f_b = 0.130	f_t = -0.354 f_b = -0.167	f_t = 0.118 f_b = 0.056	f_t = -0.155 f_b = -0.073
($0.8L_s$) 61.498	f_t = 0.015 f_b = 0.007	f_t = -0.009 f_b = -0.004	f_t = 0.285 f_b = 0.136	f_t = -0.244 f_b = -0.116	f_t = 0.128 f_b = 0.061	f_t = -0.110 f_b = -0.052	f_t = 0.300 f_b = 0.143	f_t = -0.253 f_b = -0.120	f_t = 0.128 f_b = 0.061	f_t = -0.110 f_b = -0.052
(SZB) 65.484	f_t = 0.017 f_b = 0.008	f_t = -0.004 f_b = -0.002	f_t = 0.315 f_b = 0.151	f_t = -0.159 f_b = -0.076	f_t = 0.138 f_b = 0.066	f_t = -0.061 f_b = -0.029	f_t = 0.332 f_b = 0.159	f_t = -0.164 f_b = -0.078	f_t = 0.138 f_b = 0.066	f_t = -0.061 f_b = -0.029
($0.9L_s$) 69.185	f_t = 0.022 f_b = 0.011	f_t = -0.002 f_b = -0.001	f_t = 0.401 f_b = 0.194	f_t = -0.095 f_b = -0.046	f_t = 0.148 f_b = 0.072	f_t = -0.009 f_b = -0.005	f_t = 0.423 f_b = 0.205	f_t = -0.097 f_b = -0.047	f_t = 0.148 f_b = 0.072	f_t = -0.009 f_b = -0.005
(1.5H) 70.404	f_t = 0.024 f_b = 0.012	f_t = -0.001 f_b = -0.001	f_t = 0.442 f_b = 0.214	f_t = -0.075 f_b = -0.037	f_t = 0.152 f_b = 0.074	f_t = 0.000 f_b = 0.000	f_t = 0.466 f_b = 0.226	f_t = -0.076 f_b = -0.037	f_t = 0.152 f_b = 0.074	f_t = 0.000 f_b = 0.000
(SZB) 70.984	f_t = 0.025 f_b = 0.012	f_t = -0.001 f_b = -0.001	f_t = 0.460 f_b = 0.224	f_t = -0.066 f_b = -0.032	f_t = 0.153 f_b = 0.075	f_t = 0.000 f_b = 0.000	f_t = 0.485 f_b = 0.236	f_t = -0.067 f_b = -0.032	f_t = 0.153 f_b = 0.075	f_t = 0.000 f_b = 0.000
(H) 72.154	f_t = 0.027 f_b = 0.013	f_t = -0.001 f_b = -0.000	f_t = 0.498 f_b = 0.243	f_t = -0.047 f_b = -0.023	f_t = 0.157 f_b = 0.076	f_t = 0.000 f_b = 0.000	f_t = 0.525 f_b = 0.256	f_t = -0.047 f_b = -0.023	f_t = 0.157 f_b = 0.076	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.222	f_t = 0.030 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.534 f_b = 0.261	f_t = -0.035 f_b = -0.017	f_t = 0.160 f_b = 0.078	f_t = 0.000 f_b = 0.000	f_t = 0.564 f_b = 0.276	f_t = -0.035 f_b = -0.017	f_t = 0.160 f_b = 0.078	f_t = 0.000 f_b = 0.000
(PSXFR) 73.404	f_t = 0.030 f_b = 0.015	f_t = -0.000 f_b = -0.000	f_t = 0.541 f_b = 0.264	f_t = -0.033 f_b = -0.016	f_t = 0.160 f_b = 0.078	f_t = 0.000 f_b = 0.000	f_t = 0.571 f_b = 0.279	f_t = -0.033 f_b = -0.016	f_t = 0.160 f_b = 0.078	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.282	f_t = 0.032 f_b = 0.016	f_t = -0.000 f_b = -0.000	f_t = 0.572 f_b = 0.280	f_t = -0.024 f_b = -0.012	f_t = 0.163 f_b = 0.080	f_t = 0.000 f_b = 0.000	f_t = 0.604 f_b = 0.296	f_t = -0.024 f_b = -0.012	f_t = 0.163 f_b = 0.080	f_t = 0.000 f_b = 0.000
(SZB) 74.650	f_t = 0.033 f_b = 0.016	f_t = -0.000 f_b = -0.000	f_t = 0.585 f_b = 0.287	f_t = -0.021 f_b = -0.010	f_t = 0.164 f_b = 0.080	f_t = 0.000 f_b = 0.000	f_t = 0.618 f_b = 0.303	f_t = -0.021 f_b = -0.010	f_t = 0.164 f_b = 0.080	f_t = 0.000 f_b = 0.000
(FoS) 75.654	f_t = 0.035	f_t = -0.000	f_t = 0.622	f_t = -0.011	f_t = 0.167	f_t = 0.000	f_t = 0.657	f_t = -0.011	f_t = 0.167	f_t = 0.000

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.017	f_b = -0.000	f_b = 0.306	f_b = -0.005	f_b = 0.082	f_b = 0.000	f_b = 0.323	f_b = -0.005	f_b = 0.082	f_b = 0.000
75.987	f_t = 0.036 f_b = 0.018	f_t = -0.000 f_b = -0.000	f_t = 0.635 f_b = 0.312	f_t = -0.008 f_b = -0.004	f_t = 0.168 f_b = 0.083	f_t = 0.000 f_b = 0.000	f_t = 0.671 f_b = 0.330	f_t = -0.008 f_b = -0.004	f_t = 0.168 f_b = 0.083	f_t = 0.000 f_b = 0.000
(STLF) 76.404	f_t = 0.037 f_b = 0.018	f_t = 0.000 f_b = 0.000	f_t = 0.650 f_b = 0.321	f_t = -0.004 f_b = -0.002	f_t = 0.169 f_b = 0.084	f_t = 0.000 f_b = 0.000	f_t = 0.688 f_b = 0.339	f_t = -0.004 f_b = -0.002	f_t = 0.169 f_b = 0.084	f_t = 0.000 f_b = 0.000
($1.0L_s$) 76.872	f_t = 0.032 f_b = 0.016	f_t = 0.000 f_b = 0.000	f_t = 0.553 f_b = 0.273	f_t = 0.000 f_b = 0.000	f_t = 0.141 f_b = 0.070	f_t = 0.000 f_b = 0.000	f_t = 0.585 f_b = 0.289	f_t = 0.000 f_b = 0.000	f_t = 0.141 f_b = 0.070	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Deck Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.001 f_b = -0.001	f_t = -0.017 f_b = -0.008	f_t = -0.002 f_b = -0.001	f_t = -0.014 f_b = -0.007	f_t = -0.000 f_b = -0.000	f_t = -0.011 f_b = -0.005
(SZB) 1.337	f_t = -0.005 f_b = -0.002	f_t = -0.067 f_b = -0.032	f_t = -0.006 f_b = -0.003	f_t = -0.056 f_b = -0.026	f_t = -0.002 f_b = -0.001	f_t = -0.044 f_b = -0.021
(Bar Develop.) 1.705	f_t = -0.006 f_b = -0.003	f_t = -0.084 f_b = -0.040	f_t = -0.008 f_b = -0.004	f_t = -0.070 f_b = -0.033	f_t = -0.002 f_b = -0.001	f_t = -0.055 f_b = -0.026
(PSXFR) 2.583	f_t = -0.009 f_b = -0.004	f_t = -0.125 f_b = -0.059	f_t = -0.012 f_b = -0.005	f_t = -0.105 f_b = -0.050	f_t = -0.003 f_b = -0.001	f_t = -0.082 f_b = -0.039
(Bar Develop.) 2.765	f_t = -0.010 f_b = -0.005	f_t = -0.134 f_b = -0.063	f_t = -0.012 f_b = -0.006	f_t = -0.112 f_b = -0.053	f_t = -0.003 f_b = -0.001	f_t = -0.087 f_b = -0.041
(H) 3.833	f_t = -0.013 f_b = -0.006	f_t = -0.181 f_b = -0.086	f_t = -0.016 f_b = -0.008	f_t = -0.151 f_b = -0.072	f_t = -0.004 f_b = -0.002	f_t = -0.118 f_b = -0.056
(SZB) 5.003	f_t = -0.016 f_b = -0.007	f_t = -0.230 f_b = -0.109	f_t = -0.020 f_b = -0.010	f_t = -0.192 f_b = -0.091	f_t = -0.004 f_b = -0.002	f_t = -0.149 f_b = -0.071
(1.5H) 5.583	f_t = -0.017 f_b = -0.008	f_t = -0.254 f_b = -0.120	f_t = -0.022 f_b = -0.011	f_t = -0.212 f_b = -0.100	f_t = -0.005 f_b = -0.002	f_t = -0.164 f_b = -0.077
($0.1L_s$) 7.687	f_t = -0.021 f_b = -0.010	f_t = -0.334 f_b = -0.157	f_t = -0.028 f_b = -0.013	f_t = -0.279 f_b = -0.131	f_t = -0.005 f_b = -0.002	f_t = -0.214 f_b = -0.101
(SZB) 10.503	f_t = -0.024 f_b = -0.011	f_t = -0.430 f_b = -0.203	f_t = -0.034 f_b = -0.016	f_t = -0.359 f_b = -0.169	f_t = -0.005 f_b = -0.002	f_t = -0.273 f_b = -0.129
($0.2L_s$) 15.374	f_t = -0.024 f_b = -0.011	f_t = -0.565 f_b = -0.266	f_t = -0.039 f_b = -0.018	f_t = -0.471 f_b = -0.222	f_t = -0.001 f_b = -0.001	f_t = -0.352 f_b = -0.166
(SZB) 18.753	f_t = -0.020 f_b = -0.009	f_t = -0.635 f_b = -0.299	f_t = -0.038 f_b = -0.018	f_t = -0.530 f_b = -0.250	f_t = 0.003 f_b = 0.001	f_t = -0.394 f_b = -0.186
($0.3L_s$) 23.062	f_t = -0.009 f_b = -0.004	f_t = -0.697 f_b = -0.328	f_t = -0.031 f_b = -0.015	f_t = -0.582 f_b = -0.274	f_t = 0.011 f_b = 0.005	f_t = -0.436 f_b = -0.205
(SZB) 29.753	f_t = 0.018 f_b = 0.008	f_t = -0.750 f_b = -0.353	f_t = -0.010 f_b = -0.005	f_t = -0.625 f_b = -0.294	f_t = 0.029 f_b = 0.014	f_t = -0.458 f_b = -0.216
(HP) 30.311	f_t = 0.021 f_b = 0.010	f_t = -0.751 f_b = -0.354	f_t = -0.008 f_b = -0.004	f_t = -0.626 f_b = -0.295	f_t = 0.031 f_b = 0.015	f_t = -0.458 f_b = -0.216
($0.4L_s$) 30.749	f_t = 0.023 f_b = 0.011	f_t = -0.751 f_b = -0.354	f_t = -0.006 f_b = -0.003	f_t = -0.626 f_b = -0.295	f_t = 0.033 f_b = 0.015	f_t = -0.458 f_b = -0.216
($0.5L_s$) 38.436	f_t = 0.073 f_b = 0.035	f_t = -0.726 f_b = -0.342	f_t = 0.037 f_b = 0.017	f_t = -0.603 f_b = -0.284	f_t = 0.063 f_b = 0.030	f_t = -0.430 f_b = -0.202
(HP) 45.675	f_t = 0.137 f_b = 0.064	f_t = -0.638 f_b = -0.300	f_t = 0.093 f_b = 0.044	f_t = -0.527 f_b = -0.248	f_t = 0.100 f_b = 0.047	f_t = -0.397 f_b = -0.187
($0.6L_s$) 46.123	f_t = 0.141 f_b = 0.067	f_t = -0.630 f_b = -0.297	f_t = 0.097 f_b = 0.046	f_t = -0.520 f_b = -0.245	f_t = 0.102 f_b = 0.048	f_t = -0.393 f_b = -0.185
(SZB) 46.234	f_t = 0.142 f_b = 0.067	f_t = -0.628 f_b = -0.296	f_t = 0.098 f_b = 0.046	f_t = -0.518 f_b = -0.244	f_t = 0.103 f_b = 0.048	f_t = -0.392 f_b = -0.185
($0.7L_s$) 53.811	f_t = 0.227 f_b = 0.107	f_t = -0.455 f_b = -0.214	f_t = 0.175 f_b = 0.083	f_t = -0.370 f_b = -0.174	f_t = 0.150 f_b = 0.071	f_t = -0.295 f_b = -0.139
(Deck Bar Cutoff) 54.581	f_t = 0.237 f_b = 0.111	f_t = -0.434 f_b = -0.204	f_t = 0.184 f_b = 0.087	f_t = -0.352 f_b = -0.166	f_t = 0.155 f_b = 0.073	f_t = -0.282 f_b = -0.133
(SZB) 57.234	f_t = 0.272 f_b = 0.129	f_t = -0.357 f_b = -0.169	f_t = 0.217 f_b = 0.103	f_t = -0.286 f_b = -0.135	f_t = 0.175 f_b = 0.083	f_t = -0.235 f_b = -0.111
($0.8L_s$) 61.498	f_t = 0.336 f_b = 0.160	f_t = -0.217 f_b = -0.103	f_t = 0.276 f_b = 0.131	f_t = -0.166 f_b = -0.079	f_t = 0.211 f_b = 0.100	f_t = -0.147 f_b = -0.070
(SZB) 65.484	f_t = 0.412 f_b = 0.198	f_t = -0.084 f_b = -0.040	f_t = 0.346 f_b = 0.166	f_t = -0.051 f_b = -0.025	f_t = 0.248 f_b = 0.119	f_t = -0.052 f_b = -0.025
($0.9L_s$) 69.185	f_t = 0.549 f_b = 0.265	f_t = 0.029 f_b = 0.014	f_t = 0.464 f_b = 0.225	f_t = 0.048 f_b = 0.023	f_t = 0.285 f_b = 0.138	f_t = 0.049 f_b = 0.024
(1.5H) 70.404	f_t = 0.608 f_b = 0.295	f_t = 0.066 f_b = 0.032	f_t = 0.515 f_b = 0.250	f_t = 0.081 f_b = 0.039	f_t = 0.299 f_b = 0.145	f_t = 0.071 f_b = 0.034

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 70.984	f_t = 0.635 f_b = 0.309	f_t = 0.083 f_b = 0.041	f_t = 0.538 f_b = 0.262	f_t = 0.097 f_b = 0.047	f_t = 0.305 f_b = 0.148	f_t = 0.075 f_b = 0.036
(H) 72.154	f_t = 0.692 f_b = 0.337	f_t = 0.119 f_b = 0.058	f_t = 0.587 f_b = 0.286	f_t = 0.129 f_b = 0.063	f_t = 0.319 f_b = 0.155	f_t = 0.083 f_b = 0.041
(Bar Develop.) 73.222	f_t = 0.747 f_b = 0.365	f_t = 0.148 f_b = 0.072	f_t = 0.634 f_b = 0.310	f_t = 0.155 f_b = 0.076	f_t = 0.331 f_b = 0.162	f_t = 0.091 f_b = 0.045
(PSXFR) 73.404	f_t = 0.756 f_b = 0.370	f_t = 0.152 f_b = 0.074	f_t = 0.642 f_b = 0.314	f_t = 0.159 f_b = 0.078	f_t = 0.333 f_b = 0.163	f_t = 0.093 f_b = 0.045
(Bar Develop.) 74.282	f_t = 0.803 f_b = 0.393	f_t = 0.174 f_b = 0.086	f_t = 0.682 f_b = 0.334	f_t = 0.179 f_b = 0.088	f_t = 0.344 f_b = 0.169	f_t = 0.099 f_b = 0.049
(SZB) 74.650	f_t = 0.823 f_b = 0.404	f_t = 0.184 f_b = 0.090	f_t = 0.699 f_b = 0.343	f_t = 0.188 f_b = 0.092	f_t = 0.348 f_b = 0.171	f_t = 0.102 f_b = 0.050
(FoS) 75.654	f_t = 0.878 f_b = 0.432	f_t = 0.210 f_b = 0.103	f_t = 0.747 f_b = 0.367	f_t = 0.212 f_b = 0.104	f_t = 0.361 f_b = 0.178	f_t = 0.110 f_b = 0.054
75.987	f_t = 0.897 f_b = 0.442	f_t = 0.218 f_b = 0.107	f_t = 0.763 f_b = 0.376	f_t = 0.220 f_b = 0.108	f_t = 0.365 f_b = 0.180	f_t = 0.113 f_b = 0.056
(STLF) 76.404	f_t = 0.921 f_b = 0.454	f_t = 0.229 f_b = 0.113	f_t = 0.783 f_b = 0.386	f_t = 0.230 f_b = 0.113	f_t = 0.371 f_b = 0.183	f_t = 0.117 f_b = 0.057
($1.0L_s$) 76.872	f_t = 0.784 f_b = 0.387	f_t = 0.199 f_b = 0.098	f_t = 0.667 f_b = 0.329	f_t = 0.199 f_b = 0.098	f_t = 0.312 f_b = 0.154	f_t = 0.100 f_b = 0.049

* Live Load values are per girder and include impact.

Stress due to Prestress

Span 1 Girder A

Girder Stresses

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STRF, $0.0L_r$) 0.000	(STRF) -0.417	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI
0.417	0.000	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI
0.417	($0.0L_e$) 0.000	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI
(PSXFR) 3.000	(PSXFR) 2.583	P_e (permanent) = 1147.51 kip e_p = 7.983 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.31 kip e_p = 7.983 in f_t = -0.433 KSI f_b = -2.583 KSI	Service I P_e (permanent) = 982.40 kip e_p = 7.983 in f_t = -0.434 KSI f_b = -2.586 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				Service III P_e (permanent) = 982.40 kip e_p = 7.983 in f_t = -0.434 KSI f_b = -2.586 KSI (Fatigue I) P_e (permanent) = 982.40 kip e_p = 7.983 in f_t = -0.434 KSI f_b = -2.586 KSI
($0.1L_r$) 7.682	7.265	P_e (permanent) = 1143.84 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 982.28 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.792 KSI	Service I P_e (permanent) = 985.29 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI Service III P_e (permanent) = 985.29 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI (Fatigue I) P_e (permanent) = 985.29 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI
8.015	($0.1L_e$) 7.599	P_e (permanent) = 1143.55 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.35 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.807 KSI	Service I P_e (permanent) = 985.50 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI Service III P_e (permanent) = 985.50 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI (Fatigue I) P_e (permanent) = 985.50 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI
($0.2L_r$) 15.364	14.947	P_e (permanent) = 1136.21 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 983.61 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.136 KSI	Service I P_e (permanent) = 989.46 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.154 KSI Service III P_e (permanent) = 989.46 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.154 KSI (Fatigue I) P_e (permanent) = 989.46 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.154 KSI
15.614	($0.2L_e$) 15.197	P_e (permanent) = 1135.93 kip e_p = 12.088 in f_t = 0.134 KSI f_b = -3.634 KSI	P_e (permanent) = 983.63 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.147 KSI	Service I P_e (permanent) = 989.56 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.166 KSI Service III P_e (permanent) = 989.56 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.166 KSI (Fatigue I) P_e (permanent) = 989.56 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.166 KSI
($0.3L_r$) 23.046	22.629	P_e (permanent) = 1125.97 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 982.86 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.473 KSI	Service I P_e (permanent) = 990.84 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.501 KSI Service III P_e (permanent) = 990.84 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 14.507 in f_t = 0.443 KSI f_b = -3.501 KSI (Fatigue I) P_e (permanent) = 990.84 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.501 KSI
23.213	($0.3L_e$) 22.796	P_e (permanent) = 1125.71 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 982.80 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.480 KSI	Service I P_e (permanent) = 990.82 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.509 KSI Service III P_e (permanent) = 990.82 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.509 KSI (Fatigue I) P_e (permanent) = 990.82 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.509 KSI
(HP, $0.4L_t$) 30.728	(HP) 30.311	P_e (permanent) = 1112.44 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 978.02 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.794 KSI	Service I P_e (permanent) = 987.13 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI Service III P_e (permanent) = 987.13 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI (Fatigue I) P_e (permanent) = 987.13 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI
30.811	($0.4L_e$) 30.395	P_e (permanent) = 1112.46 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 978.07 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.794 KSI	Service I P_e (permanent) = 987.18 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI Service III P_e (permanent) = 987.18 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI (Fatigue I) P_e (permanent) = 987.18 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI
($0.5L_t$) 38.410	($0.5L_e$) 37.993	P_e (permanent) = 1113.42 kip e_p = 17.007 in f_t = 0.877 KSI f_b = -4.319 KSI	P_e (permanent) = 980.37 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI	Service I P_e (permanent) = 988.58 kip e_p = 17.007 in f_t = 0.779 KSI f_b = -3.835 KSI Service III P_e (permanent) = 988.58 kip e_p = 17.007 in f_t = 0.779 KSI f_b = -3.835 KSI (Fatigue I) P_e (permanent) = 988.58 kip e_p = 17.007 in f_t = 0.779 KSI f_b = -3.835 KSI
46.009	($0.6L_e$) 45.592	P_e (permanent) = 1112.46 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 977.88 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.793 KSI	Service I P_e (permanent) = 983.91 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.817 KSI Service III P_e (permanent) = 983.91 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.817 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				(Fatigue I) P_e (permanent) = 983.91 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.817 KSI
(HP, 0.6L_r) 46.092	(HP) 45.675	P_e (permanent) = 1112.44 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 977.82 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.793 KSI	Service I P_e (permanent) = 983.83 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI Service III P_e (permanent) = 983.83 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI (Fatigue I) P_e (permanent) = 983.83 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI
53.607	(0.7L_e) 53.191	P_e (permanent) = 1125.71 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 982.51 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI	Service I P_e (permanent) = 984.89 kip e_p = 14.561 in f_t = 0.448 KSI f_b = -3.487 KSI Service III P_e (permanent) = 984.89 kip e_p = 14.561 in f_t = 0.448 KSI f_b = -3.487 KSI (Fatigue I) P_e (permanent) = 984.89 kip e_p = 14.561 in f_t = 0.448 KSI f_b = -3.487 KSI
(0.7L_r) 53.774	53.357	P_e (permanent) = 1125.97 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 982.57 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.472 KSI	Service I P_e (permanent) = 984.86 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.480 KSI Service III P_e (permanent) = 984.86 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.480 KSI (Fatigue I) P_e (permanent) = 984.86 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.480 KSI
61.206	(0.8L_e) 60.790	P_e (permanent) = 1135.93 kip e_p = 12.088 in f_t = 0.134 KSI f_b = -3.634 KSI	P_e (permanent) = 983.36 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.146 KSI	Service I P_e (permanent) = 981.58 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.140 KSI Service III P_e (permanent) = 981.58 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.140 KSI (Fatigue I) P_e (permanent) = 981.58 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.140 KSI
(0.8L_r) 61.456	61.040	P_e (permanent) = 1136.21 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 983.34 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.135 KSI	Service I P_e (permanent) = 981.42 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.129 KSI Service III P_e (permanent) = 981.42 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.129 KSI (Fatigue I) P_e (permanent) = 981.42 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 12.007 in f_t = 0.104 KSI f_b = -3.129 KSI
68.805	($0.9L_e$) 68.388	P_e (permanent) = 1143.55 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.18 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.807 KSI	Service I P_e (permanent) = 976.08 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI Service III P_e (permanent) = 976.08 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI (Fatigue I) P_e (permanent) = 976.08 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI
($0.9L_r$) 69.138	68.722	P_e (permanent) = 1143.84 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 982.12 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.792 KSI	Service I P_e (permanent) = 975.82 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.774 KSI Service III P_e (permanent) = 975.82 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.774 KSI (Fatigue I) P_e (permanent) = 975.82 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.774 KSI
(PSXFR) 73.820	(PSXFR) 73.404	P_e (permanent) = 1147.51 kip e_p = 7.983 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.25 kip e_p = 7.983 in f_t = -0.433 KSI f_b = -2.583 KSI	Service I P_e (permanent) = 972.35 kip e_p = 7.983 in f_t = -0.429 KSI f_b = -2.559 KSI Service III P_e (permanent) = 972.35 kip e_p = 7.983 in f_t = -0.429 KSI f_b = -2.559 KSI (Fatigue I) P_e (permanent) = 972.35 kip e_p = 7.983 in f_t = -0.429 KSI f_b = -2.559 KSI
76.404	($1.0L_e$) 75.987	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.82 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.82 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.82 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI
76.404	75.987	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.82 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.82 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.82 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STLF, 1.0L_r) 76.820	(STLF) 76.404	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI

Prestressing Force and Strand Stresses

Straight strands: N_s = 18, P_{jack} = 790.97 kip, A_{ps} = 3.906 in^2

Harped strands: N_h = 10, P_{jack} = 439.43 kip, A_{ps} = 2.170 in^2

A_{ps} = 6.076 in^2

P_{jack} = 1230.39 kip

Prestress Transfer Length = 36.000 in

Effective Prestress at Mid-Span

Loss Stage	Permanent Strand			
	Effective Force (kip)	Time-Dependent Effects (KSI)	Instantaneous Effects (KSI)	f_{pe} (KSI)
At Jacking	1230.39	0.000	0.000	202.500
Before Prestress Transfer	1230.39	0.000	0.000	202.500
After Prestress Transfer	1113.42	0.000	19.251	183.249
At Lifting	1113.42	0.000	19.251	183.249
At Shipping	1066.63	7.700	19.251	175.549
After Erection	1066.63	7.700	19.251	175.549
After Deck Placement	980.37	27.711	13.437	161.352
After Superimposed Dead Loads	988.58	27.711	12.086	162.703
Final (permanent loads only)	988.58	27.711	12.086	162.703
Final with Live Load (Service I)	988.58	27.711	12.086	162.703
Final with Live Load (Service III)	988.58	27.711	12.086	162.703
Final with Live Load (Fatigue I)	988.58	27.711	12.086	162.703

Time-Dependent Effects = change in strand stress due to creep, shrinkage, and relaxation
Instantaneous Effects = change in strand stress due to elastic shortening and externally applied loads
$f_{pe} = f_{pj}$ - Time-Dependent Effects - Instantaneous Effects

Specification Check Summary

The Specification Check was Successful

Specification Checks

Specification: CDOT

Stress Limitations on Prestressing Tendons [5.9.2.2]

Strand Stresses

Loss Stage	Stress Limit (KSI)	Straight		Harped	
		Strand Stress (KSI)	Status (C/D)	Strand Stress (KSI)	Status (C/D)
At Jacking (f_{pj})	202.500	202.500	Pass (1.00)	202.500	Pass (1.00)
After All Losses and Elastic Gains including Live Load (f_{pe})	194.400	162.703	Pass (1.19)	162.703	Pass (1.19)

Required Concrete Strengths

Required f'_{ci} = 5.301 KSI ⇒ 5.400 KSI

Actual f'_{ci} = 6.000 KSI

Required f'_c = 6.692 KSI ⇒ 6.700 KSI

Actual f'_c = 8.000 KSI

Continuity [5.12.3.3.5]

	f_b (KSI)	Boundary Condition	Is Compressive?
Abut 1	0.000	Hinged	No
Pier 2	-1.224	Continuous	Yes
Abut 3	0.000	Hinged	No

f_b is the calcuated stress at the bottom of the continuity diaphragm for the combination of superimposed permanent loads and 50% live load
Continuous connections are fully effective.
Continuity is accounted for in Service and Strength Limit States.

Interval 2: Prestress Release : Service I Compression

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Compression Stresses [5.9.2.3.1a]

f'_{ci} = 6.000 KSI

Compression stress limit = -0.65f'_{ci} = -3.900 KSI

Concrete strength required to satisfy this requirement = 5.301 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
(STRF) -0.417	(STRF, 0.0L_r) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
										(∞)
(PSXFR) 2.583	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
7.265	($0.1L_t$) 7.682	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	No	Yes	Pass (1.33)
14.947	($0.2L_t$) 15.364	0.121	-3.622	-0.571	0.579	-0.450	-3.043	No	Yes	Pass (1.28)
22.629	($0.3L_t$) 23.046	0.503	-3.979	-0.750	0.761	-0.246	-3.218	No	Yes	Pass (1.21)
(HP) 30.311	(HP, $0.4L_t$) 30.728	0.876	-4.315	-0.857	0.869	0.019	-3.446	No	Yes	Pass (1.13)
37.993	($0.5L_t$) 38.410	0.877	-4.319	-0.893	0.905	-0.016	-3.413	No	Yes	Pass (1.14)
(HP) 45.675	(HP, $0.6L_t$) 46.092	0.876	-4.315	-0.857	0.869	0.019	-3.446	No	Yes	Pass (1.13)
53.357	($0.7L_t$) 53.774	0.503	-3.979	-0.750	0.761	-0.246	-3.218	No	Yes	Pass (1.21)
61.040	($0.8L_t$) 61.456	0.121	-3.622	-0.571	0.579	-0.450	-3.043	No	Yes	Pass (1.28)
68.722	($0.9L_t$) 69.138	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	No	Yes	Pass (1.33)
(PSXFR) 73.404	(PSXFR) 73.820	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
(STLF) 76.404	(STLF, $1.0L_t$) 76.820	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)

Interval 2: Prestress Release : Service I Tension

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Tension Stresses [5.9.2.3.1b]

f'_{ci} = 6.000 KSI

Tension stress limit in areas other than the precompressed tensile zone = $0.0948\lambda\sqrt{f'_{ci}}$ but not more than 0.200 KSI = 0.200 KSI

Tension stress limit in areas with sufficient bonded reinforcement = $0.2400\lambda\sqrt{f'_{ci}}$ = 0.588 KSI

Concrete strength required to satisfy this requirement = 5.301 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
(STRF) -0.417	(STRF, $0.0L_t$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)
(PSXFR) 2.583	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
7.265	($0.1L_t$) 7.682	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	0.200	-	No	Yes	Pass (-)
14.947	($0.2L_t$) 15.364	0.121	-3.622	-0.571	0.579	-0.450	-3.043	0.200	-	No	Yes	Pass (-)
22.629	($0.3L_t$) 23.046	0.503	-3.979	-0.750	0.761	-0.246	-3.218	0.200	-	No	Yes	Pass (-)
(HP) 30.311	(HP, $0.4L_t$) 30.728	0.876	-4.315	-0.857	0.869	0.019	-3.446	0.200	-	No	Yes	Pass (10+)
37.993	($0.5L_t$) 38.410	0.877	-4.319	-0.893	0.905	-0.016	-3.413	0.200	-	No	Yes	Pass (-)
(HP) 45.675	(HP, $0.6L_t$) 46.092	0.876	-4.315	-0.857	0.869	0.019	-3.446	0.200	-	No	Yes	Pass (10+)
53.357	($0.7L_t$) 53.774	0.503	-3.979	-0.750	0.761	-0.246	-3.218	0.200	-	No	Yes	Pass (-)
61.040	($0.8L_t$) 61.456	0.121	-3.622	-0.571	0.579	-0.450	-3.043	0.200	-	No	Yes	Pass (-)
68.722	($0.9L_t$) 69.138	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	0.200	-	No	Yes	Pass (-)
(PSXFR) 73.404	(PSXFR) 73.820	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
(STLF) 76.404	(STLF, $1.0L_t$) 76.820	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.45f'_c$ = -3.600 KSI

Concrete strength required to satisfy this requirement = 5.122 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.433	-2.583	-0.278	0.282	-0.712	-2.301	No	Yes	Pass (1.56)
($0.1L_s$) 7.687	-0.212	-2.811	-0.772	0.783	-0.984	-2.028	No	Yes	Pass (1.78)
($0.2L_s$) 15.374	0.123	-3.155	-1.373	1.393	-1.250	-1.762	No	Yes	Pass (2.04)
($0.3L_s$) 23.062	0.458	-3.492	-1.800	1.826	-1.342	-1.665	No	Yes	Pass (2.16)
(HP) 30.311	0.770	-3.794	-2.042	2.071	-1.272	-1.722	No	Yes	Pass (2.09)
($0.4L_s$) 30.749	0.770	-3.795	-2.052	2.081	-1.281	-1.714	No	Yes	Pass (2.10)

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.5L_s$) 38.436	0.772	-3.803	-2.126	2.157	-1.354	-1.646	No	Yes	Pass (2.19)
(HP) 45.675	0.770	-3.793	-2.035	2.064	-1.265	-1.729	No	Yes	Pass (2.08)
($0.6L_s$) 46.123	0.751	-3.775	-2.024	2.053	-1.273	-1.721	No	Yes	Pass (2.09)
($0.7L_s$) 53.811	0.420	-3.452	-1.748	1.773	-1.328	-1.679	No	Yes	Pass (2.14)
($0.8L_s$) 61.498	0.085	-3.115	-1.299	1.318	-1.215	-1.797	No	Yes	Pass (2.00)
($0.9L_s$) 69.185	-0.250	-2.771	-0.682	0.692	-0.932	-2.079	No	Yes	Pass (1.73)
(PSXFR) 73.404	-0.433	-2.583	-0.274	0.278	-0.707	-2.305	No	Yes	Pass (1.56)
75.987	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Tension

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]
f'_c = 8.000 KSI
Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI
Concrete strength required to satisfy this requirement = 5.122 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	0.537	-	Yes	No	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(PSXFR) 2.583	-0.433	-2.583	-0.278	0.282	-0.712	-2.301	-	0.537	No	Yes	Pass (-)
($0.1L_s$) 7.687	-0.212	-2.811	-0.772	0.783	-0.984	-2.028	-	0.537	No	Yes	Pass (-)
($0.2L_s$) 15.374	0.123	-3.155	-1.373	1.393	-1.250	-1.762	-	0.537	No	Yes	Pass (-)
($0.3L_s$) 23.062	0.458	-3.492	-1.800	1.826	-1.342	-1.665	-	0.537	No	Yes	Pass (-)
(HP) 30.311	0.770	-3.794	-2.042	2.071	-1.272	-1.722	-	0.537	No	Yes	Pass (-)
($0.4L_s$) 30.749	0.770	-3.795	-2.052	2.081	-1.281	-1.714	-	0.537	No	Yes	Pass (-)
($0.5L_s$) 38.436	0.772	-3.803	-2.126	2.157	-1.354	-1.646	-	0.537	No	Yes	Pass (-)
(HP) 45.675	0.770	-3.793	-2.035	2.064	-1.265	-1.729	-	0.537	No	Yes	Pass (-)
($0.6L_s$) 46.123	0.751	-3.775	-2.024	2.053	-1.273	-1.721	-	0.537	No	Yes	Pass (-)
($0.7L_s$) 53.811	0.420	-3.452	-1.748	1.773	-1.328	-1.679	-	0.537	No	Yes	Pass (-)
($0.8L_s$) 61.498	0.085	-3.115	-1.299	1.318	-1.215	-1.797	-	0.537	No	Yes	Pass (-)
($0.9L_s$) 69.185	-0.250	-2.771	-0.682	0.692	-0.932	-2.079	-	0.537	No	Yes	Pass (-)
(PSXFR) 73.404	-0.433	-2.583	-0.274	0.278	-0.707	-2.305	-	0.537	No	Yes	Pass (-)
75.987	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service I Compression without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = $-0.45f'_c$ = -3.600 KSI
Concrete strength required to satisfy this requirement = 6.692 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.586	-0.293	0.333	-0.727	-2.253	No	Yes	Pass (1.60)
($0.1L_s$) 7.687	-0.212	-2.820	-0.811	0.918	-1.024	-1.902	No	Yes	Pass (1.89)
($0.2L_s$) 15.374	0.124	-3.174	-1.440	1.620	-1.316	-1.554	No	Yes	Pass (2.32)
($0.3L_s$) 23.062	0.462	-3.520	-1.883	2.102	-1.421	-1.418	No	Yes	Pass (2.53)
(HP) 30.311	0.777	-3.829	-2.128	2.355	-1.351	-1.474	No	Yes	Pass (2.44)
($0.4L_s$) 30.749	0.778	-3.830	-2.138	2.363	-1.360	-1.467	No	Yes	Pass (2.45)
($0.5L_s$) 38.436	0.778	-3.834	-2.204	2.402	-1.426	-1.432	No	Yes	Pass (2.51)
(HP) 45.675	0.775	-3.816	-2.095	2.237	-1.320	-1.580	No	Yes	Pass (2.28)
	0.755	-3.797	-2.083	2.220	-1.328	-1.577	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.6L_s$) 46.123									(2.28)
($0.7L_s$) 53.811	0.420	-3.460	-1.775	1.817	-1.355	-1.642	No	Yes	Pass (2.19)
($0.8L_s$) 61.498	0.085	-3.108	-1.283	1.197	-1.199	-1.911	No	Yes	Pass (1.88)
($0.9L_s$) 69.185	-0.248	-2.753	-0.610	0.349	-0.858	-2.404	No	Yes	Pass (1.50)
(PSXFR) 73.404	-0.429	-2.559	-0.165	-0.216	-0.594	-2.775	No	Yes	Pass (1.30)
75.987	-0.075	-0.339	0.135	-0.595	0.060	-0.935	No	Yes	Pass (3.85)

Interval 17: Open to Traffic : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.6f'_c$ = -4.800 KSI

Concrete strength required to satisfy this requirement = 6.692 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.586	-0.350	0.304	-0.784	-2.282	No	Yes	Pass (2.10)
($0.1L_s$) 7.687	-0.212	-2.820	-0.962	0.834	-1.175	-1.987	No	Yes	Pass (2.42)
($0.2L_s$) 15.374	0.124	-3.174	-1.695	1.451	-1.571	-1.723	No	Yes	Pass (2.79)
($0.3L_s$) 23.062	0.462	-3.520	-2.198	1.848	-1.736	-1.672	No	Yes	Pass (2.77)
(HP) 30.311	0.777	-3.829	-2.470	2.021	-1.692	-1.808	No	Yes	Pass (2.65)
($0.4L_s$) 30.749	0.778	-3.830	-2.479	2.025	-1.702	-1.805	No	Yes	Pass (2.66)
($0.5L_s$) 38.436	0.778	-3.834	-2.539	1.979	-1.761	-1.855	No	Yes	Pass (2.59)
(HP) 45.675	0.775	-3.816	-2.398	1.734	-1.624	-2.083	No	Yes	Pass (2.30)
($0.6L_s$) 46.123	0.755	-3.797	-2.383	1.712	-1.628	-2.085	No	Yes	Pass (2.30)
($0.7L_s$) 53.811	0.420	-3.460	-2.007	1.225	-1.587	-2.235	No	Yes	Pass (2.15)
($0.8L_s$) 61.498	0.085	-3.108	-1.424	0.517	-1.339	-2.591	No	Yes	Pass (1.85)
($0.9L_s$) 69.185	-0.248	-2.753	-0.666	-0.586	-0.914	-3.338	No	Yes	Pass (1.44)
(PSXFR) 73.404	-0.429	-2.559	-0.184	-1.456	-0.614	-4.015	No	Yes	Pass (1.20)
75.987	-0.075	-0.339	0.130	-2.035	0.055	-2.374	No	Yes	Pass (2.02)

Interval 17: Open to Traffic : Service I Tension without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.0000\lambda\sqrt{f'_c}$ = 0.000 KSI

Concrete strength required to satisfy this requirement = 6.692 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(PSXFR) 2.583	-0.434	-2.586	-0.290	0.344	-0.724	-2.242	No	Yes	Pass (-)
($0.1L_s$) 7.687	-0.212	-2.820	-0.804	0.949	-1.016	-1.871	No	Yes	Pass (-)
($0.2L_s$) 15.374	0.124	-3.174	-1.427	1.675	-1.303	-1.499	No	Yes	Pass (-)
($0.3L_s$) 23.062	0.462	-3.520	-1.865	2.175	-1.404	-1.345	No	Yes	Pass (-)
(HP) 30.311	0.777	-3.829	-2.109	2.437	-1.331	-1.392	No	Yes	Pass (-)
($0.4L_s$) 30.749	0.778	-3.830	-2.118	2.446	-1.341	-1.384	No	Yes	Pass (-)
($0.5L_s$) 38.436	0.778	-3.834	-2.184	2.489	-1.406	-1.346	No	Yes	Pass (-)
(HP) 45.675	0.775	-3.816	-2.076	2.320	-1.301	-1.497	No	Yes	Pass (-)
($0.6L_s$) 46.123	0.755	-3.797	-2.064	2.303	-1.308	-1.495	No	Yes	Pass (-)
($0.7L_s$) 53.811	0.420	-3.460	-1.758	1.890	-1.338	-1.570	No	Yes	Pass (-)
($0.8L_s$) 61.498	0.085	-3.108	-1.270	1.252	-1.185	-1.856	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
									(-)
($0.9L_s$) 69.185	-0.248	-2.753	-0.596	0.404	-0.844	-2.349	No	Yes	Pass (-)
(PSXFR) 73.404	-0.429	-2.559	-0.147	-0.146	-0.576	-2.706	No	Yes	Pass (-)
75.987	-0.075	-0.339	0.156	-0.513	0.081	-0.852	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service III Tension

Service III
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Location from Left Support (ft)	Pre-tension		Service III		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(PSXFR) 2.583	-0.434	-2.586	-0.285	0.533	-0.719	-2.053	No	Yes	Pass (-)
($0.1L_s$) 7.687	-0.212	-2.820	-0.788	1.456	-1.001	-1.364	No	Yes	Pass (-)
($0.2L_s$) 15.374	0.124	-3.174	-1.395	2.532	-1.271	-0.642	No	Yes	Pass (-)
($0.3L_s$) 23.062	0.462	-3.520	-1.818	3.232	-1.356	-0.288	No	Yes	Pass (-)
(HP) 30.311	0.777	-3.829	-2.047	3.582	-1.269	-0.247	No	Yes	Pass (-)
($0.4L_s$) 30.749	0.778	-3.830	-2.055	3.593	-1.277	-0.237	No	Yes	Pass (-)
($0.5L_s$) 38.436	0.778	-3.834	-2.105	3.613	-1.327	-0.221	No	Yes	Pass (-)
(HP) 45.675	0.775	-3.816	-1.982	3.337	-1.207	-0.480	No	Yes	Pass (-)
($0.6L_s$) 46.123	0.755	-3.797	-1.969	3.310	-1.214	-0.488	No	Yes	Pass (-)
($0.7L_s$) 53.811	0.420	-3.460	-1.648	2.667	-1.228	-0.793	No	Yes	Pass (-)
($0.8L_s$) 61.498	0.085	-3.108	-1.140	1.713	-1.056	-1.394	No	Yes	Pass (-)
($0.9L_s$) 69.185	-0.248	-2.753	-0.411	0.581	-0.659	-2.172	No	Yes	Pass (-)
(PSXFR) 73.404	-0.429	-2.559	0.105	-0.086	-0.324	-2.645	No	Yes	Pass (-)
75.987	-0.075	-0.339	0.454	-0.499	0.379	-0.838	No	Yes	Pass (-)

Interval 17: Open to Traffic : Fatigue I Compression

Fatigue I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.4f'_c$ = -3.200 KSI

Concrete strength required to satisfy this requirement = 4.762 KSI

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.038	-0.171	Yes	No	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.586	-0.186	0.148	-0.403	-1.145	No	Yes	Pass (2.79)
($0.1L_s$) 7.687	-0.212	-2.820	-0.508	0.404	-0.614	-1.006	No	Yes	Pass (3.18)
($0.2L_s$) 15.374	0.124	-3.174	-0.887	0.700	-0.825	-0.887	No	Yes	Pass (3.61)
($0.3L_s$) 23.062	0.462	-3.520	-1.148	0.886	-0.917	-0.874	No	Yes	Pass (3.49)
(HP) 30.311	0.777	-3.829	-1.282	0.960	-0.893	-0.954	No	Yes	Pass (3.35)
($0.4L_s$) 30.749	0.778	-3.830	-1.286	0.962	-0.898	-0.953	No	Yes	Pass (3.36)
($0.5L_s$) 38.436	0.778	-3.834	-1.308	0.926	-0.919	-0.991	No	Yes	Pass (3.23)
(HP) 45.675	0.775	-3.816	-1.244	0.792	-0.856	-1.116	No	Yes	Pass (2.87)
($0.6L_s$) 46.123	0.755	-3.797	-1.236	0.780	-0.859	-1.119	No	Yes	Pass (2.86)
($0.7L_s$) 53.811	0.420	-3.460	-1.042	0.524	-0.832	-1.206	No	Yes	Pass (2.65)
($0.8L_s$) 61.498	0.085	-3.108	-0.734	0.157	-0.692	-1.397	No	Yes	Pass (2.29)
($0.9L_s$) 69.185	-0.248	-2.753	-0.313	-0.318	-0.437	-1.695	No	Yes	Pass (1.89)
(PSXFR) 73.404	-0.429	-2.559	-0.082	-0.625	-0.297	-1.905	No	Yes	Pass (1.68)

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
75.987	-0.075	-0.339	0.067	-0.829	0.030	-0.998	No	Yes	Pass (3.21)

Principal Tensile Stresses in Webs

LRFD 5.9.2.3.3 - Principal Tensile Stresses in Webs limitations are not applicable.

Ultimate Moment Capacity

Positive Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	2142.37	0.00	Pass (∞)	Pass (∞)
(0.1L_s) 7.687	1827.51	4495.16	2430.59	Pass (1.85)	Pass (2.46)
(0.2L_s) 15.374	3142.87	5417.51	3745.23	Pass (1.45)	Pass (1.72)
(0.3L_s) 23.062	3961.13	5774.41	3958.73	Pass (1.46)	Pass (1.46)
(0.4L_s) 30.749	4357.36	6105.92	4190.81	Pass (1.46)	Pass (1.40)
(0.5L_s) 38.436	4327.78	6105.93	4171.72	Pass (1.46)	Pass (1.41)
(0.6L_s) 46.123	3908.13	6085.70	4166.49	Pass (1.46)	Pass (1.56)
(0.7L_s) 53.811	3063.99	5733.18	3914.34	Pass (1.46)	Pass (1.87)
(0.8L_s) 61.498	1873.62	5365.19	2491.92	Pass (2.15)	Pass (2.86)
(0.9L_s) 69.185	613.17	4334.77	815.51	Pass (5.32)	Pass (7.07)
(1.0L_s) 76.872	-391.56	1887.98	-520.77	Pass (-)	Pass (-)

Positive Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	2142.37	0.00	Pass (∞)	Pass (∞)
(0.1L_s) 7.687	1725.17	4495.16	2430.59	Pass (1.85)	Pass (2.61)
(0.2L_s) 15.374	2946.57	5417.51	3745.23	Pass (1.45)	Pass (1.84)
(0.3L_s) 23.062	3718.35	5774.41	3958.73	Pass (1.46)	Pass (1.55)
(0.4L_s) 30.749	4085.55	6105.92	4190.81	Pass (1.46)	Pass (1.49)
(0.5L_s) 38.436	4093.75	6105.93	4171.72	Pass (1.46)	Pass (1.49)
(0.6L_s) 46.123	3658.75	6085.70	4166.49	Pass (1.46)	Pass (1.66)
(0.7L_s) 53.811	2849.76	5733.18	3914.34	Pass (1.46)	Pass (2.01)
(0.8L_s) 61.498	1704.90	5365.19	2491.92	Pass (2.15)	Pass (3.15)
(0.9L_s) 69.185	254.74	4334.77	815.51	Pass (5.32)	Pass (10+)
(1.0L_s) 76.872	-391.56	1887.98	-520.77	Pass (-)	Pass (-)

Negative Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)
(FoS) 0.333	-1.11	-3486.40	-1.47	Pass (10+)	Pass (10+)
(0.1L_s) 7.687	-40.49	-3440.25	-53.85	Pass (10+)	Pass (10+)
(0.2L_s) 15.374	-112.24	-3401.99	-149.28	Pass (10+)	Pass (10+)
(0.3L_s) 23.062	-215.26	-3373.24	-286.30	Pass (10+)	Pass (10+)
(0.4L_s) 30.749	-349.55	-3354.94	-464.90	Pass (7.22)	Pass (9.60)
(0.5L_s) 38.436	-515.10	-3348.75	-685.08	Pass (4.89)	Pass (6.50)
(0.6L_s) 46.123	-711.92	-3354.81	-946.85	Pass (3.54)	Pass (4.71)
(0.7L_s) 53.811	-940.00	-3373.31	-1196.74	Pass (2.82)	Pass (3.59)
(Deck Bar Cutoff) 54.581	-964.58	-3591.29	-1196.74	Pass (3.00)	Pass (3.72)
(0.8L_s) 61.498	-1227.29	-6413.20	-1177.10	Pass (5.45)	Pass (5.23)

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.9L_s$) 69.185	-1863.17	-6135.14	-1144.60	Pass (5.36)	Pass (3.29)
(FoS) 75.654	-2964.63	-5845.66	-1111.29	Pass (5.26)	Pass (1.97)
($1.0L_s$) 76.872	-3177.00	-3921.82	-1104.40	Pass (3.55)	Pass (1.23)

Negative Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)
(FoS) 0.333	-0.49	-3486.40	-1.47	Pass (10+)	Pass (10+)
($0.1L_s$) 7.687	-26.31	-3440.25	-53.85	Pass (10+)	Pass (10+)
($0.2L_s$) 15.374	-83.88	-3401.99	-149.28	Pass (10+)	Pass (10+)
($0.3L_s$) 23.062	-172.72	-3373.24	-286.30	Pass (10+)	Pass (10+)
($0.4L_s$) 30.749	-292.83	-3354.94	-464.90	Pass (7.22)	Pass (10+)
($0.5L_s$) 38.436	-444.20	-3348.75	-685.08	Pass (4.89)	Pass (7.54)
($0.6L_s$) 46.123	-626.84	-3354.81	-946.85	Pass (3.54)	Pass (5.35)
($0.7L_s$) 53.811	-840.74	-3373.31	-1196.74	Pass (2.82)	Pass (4.01)
(Deck Bar Cutoff) 54.581	-863.90	-3591.29	-1196.74	Pass (3.00)	Pass (4.16)
($0.8L_s$) 61.498	-1113.80	-6413.20	-1177.10	Pass (5.45)	Pass (5.76)
($0.9L_s$) 69.185	-1555.08	-6135.14	-1144.60	Pass (5.36)	Pass (3.95)
(FoS) 75.654	-2452.41	-5845.66	-1111.29	Pass (5.26)	Pass (2.38)
($1.0L_s$) 76.872	-2618.44	-3921.82	-1104.40	Pass (3.55)	Pass (1.50)

Ultimate Shear Capacity

Ultimate Shears for Strength I Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(CS) 3.924	Yes	Yes	254.30	569.37	Pass (2.24)
(SZB) 5.003	Yes	Yes	246.93	413.41	Pass (1.67)
(1.5H) 5.583	Yes	Yes	242.98	416.32	Pass (1.71)
($0.1L_s$) 7.687	Yes	Yes	228.73	400.07	Pass (1.75)
(SZB) 10.503	Yes	Yes	209.88	301.69	Pass (1.44)
($0.2L_s$) 15.374	Yes	Yes	177.95	307.47	Pass (1.73)
(SZB) 18.753	Yes	Yes	156.33	255.18	Pass (1.63)
($0.3L_s$) 23.062	Yes	Yes	129.36	240.80	Pass (1.86)
(SZB) 29.753	Yes	Yes	89.21	204.30	Pass (2.29)
(HP) 30.311	Yes	Yes	86.04	206.41	Pass (2.40)
($0.4L_s$) 30.749	Yes	Yes	83.57	173.62	Pass (2.08)
($0.5L_s$) 38.436	Yes	Yes	94.20	172.80	Pass (1.83)
(HP) 45.675	Yes	Yes	137.33	229.80	Pass (1.67)
($0.6L_s$) 46.123	Yes	Yes	139.99	230.92	Pass (1.65)
(SZB) 46.234	Yes	Yes	140.64	231.24	Pass (1.64)
($0.7L_s$) 53.811	Yes	Yes	185.40	280.38	Pass (1.51)
(Deck Bar Cutoff) 54.581	Yes	Yes	189.91	280.02	Pass (1.47)
(SZB) 57.234	Yes	Yes	205.41	279.39	Pass (1.36)
($0.8L_s$) 61.498	Yes	Yes	230.06	324.27	Pass (1.41)
(SZB) 65.484	Yes	Yes	252.78	320.27	Pass (1.27)
($0.9L_s$) 69.185	Yes	Yes	273.48	401.29	Pass (1.47)
(1.5H) 70.404	Yes	Yes	280.22	394.39	Pass (1.41)
(SZB) 70.984	Yes	Yes	283.43	398.56	Pass (1.41)
(CS) 71.847	Yes	Yes	288.18	532.91	Pass

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
					(1.85)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Ultimate Shears for Strength II Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(SZB) 5.003	Yes	Yes	236.35	415.40	Pass (1.76)
(1.5H) 5.583	Yes	Yes	232.60	418.49	Pass (1.80)
(0.1L_s) 7.687	Yes	Yes	219.03	402.69	Pass (1.84)
(SZB) 10.503	Yes	Yes	200.97	304.60	Pass (1.52)
(0.2L_s) 15.374	Yes	Yes	170.22	311.17	Pass (1.83)
(SZB) 18.753	Yes	Yes	149.21	270.17	Pass (1.81)
(0.3L_s) 23.062	Yes	Yes	122.93	274.91	Pass (2.24)
(SZB) 29.753	Yes	Yes	83.54	240.11	Pass (2.87)
(HP) 30.311	Yes	Yes	80.42	241.49	Pass (3.00)
(0.4L_s) 30.749	Yes	Yes	77.99	203.36	Pass (2.61)
(0.5L_s) 38.436	Yes	Yes	81.75	200.61	Pass (2.45)
(HP) 45.675	Yes	Yes	129.57	244.16	Pass (1.88)
(0.6L_s) 46.123	Yes	Yes	132.45	243.63	Pass (1.84)
(SZB) 46.234	Yes	Yes	133.16	243.50	Pass (1.83)
(0.7L_s) 53.811	Yes	Yes	180.43	284.17	Pass (1.57)
(Deck Bar Cutoff) 54.581	Yes	Yes	185.07	283.82	Pass (1.53)
(SZB) 57.234	Yes	Yes	200.87	283.08	Pass (1.41)
(0.8L_s) 61.498	Yes	Yes	225.44	328.06	Pass (1.46)
(SZB) 65.484	Yes	Yes	247.53	325.65	Pass (1.32)
(0.9L_s) 69.185	Yes	Yes	267.16	410.43	Pass (1.54)
(1.5H) 70.404	Yes	Yes	273.47	404.05	Pass (1.48)
(SZB) 70.984	Yes	Yes	276.46	408.83	Pass (1.48)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Longitudinal Reinforcement for Shear Check - Strength I [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 0.333	423.10	209.64	5.7.3.5-2	Pass (2.02)
(SZB) 1.337	585.13	209.64	5.7.3.5-2	Pass (2.79)
(Bar Develop.) 1.705	644.33	209.64	5.7.3.5-2	Pass (3.07)
(Bar Develop.) 2.765	779.07	209.64	5.7.3.5-2	Pass (3.72)
(H) 3.833	810.87	209.64	5.7.3.5-2	Pass (3.87)
(CS) 3.924	813.56	486.10	5.7.3.5-1	Pass (1.67)
(SZB) 5.003	845.72	561.21	5.7.3.5-1	Pass (1.51)
(1.5H) 5.583	956.24	595.53	5.7.3.5-1	Pass (1.61)
(0.1L_s) 7.687	1126.08	729.00	5.7.3.5-1	Pass (1.54)
(SZB) 10.503	1338.16	930.84	5.7.3.5-1	Pass (1.44)
(0.2L_s) 15.374	1653.23	1080.29	5.7.3.5-1	Pass (1.53)
(SZB) 18.753	1656.78	1175.33	5.7.3.5-1	Pass (1.41)
(0.3L_s) 23.062	1660.97	1199.56	5.7.3.5-1	Pass (1.38)
(SZB) 29.753	1664.32	1207.63	5.7.3.5-1	Pass (1.38)

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(HP) 30.311	1664.44	1203.92	5.7.3.5-1	Pass (1.38)
(0.4L_s) 30.749	1664.44	1247.92	5.7.3.5-1	Pass (1.33)
(0.5L_s) 38.436	1664.44	1254.42	5.7.3.5-1	Pass (1.33)
(HP) 45.675	1664.43	1189.46	5.7.3.5-1	Pass (1.40)
(0.6L_s) 46.123	1664.34	1188.82	5.7.3.5-1	Pass (1.40)
(SZB) 46.234	1664.32	1188.60	5.7.3.5-1	Pass (1.40)
(0.7L_s) 53.811	1660.18	1061.58	5.7.3.5-1	Pass (1.56)
(Deck Bar Cutoff) 54.581	1659.46	1046.86	5.7.3.5-1	Pass (1.59)
(SZB) 57.234	1656.45	984.80	5.7.3.5-1	Pass (1.68)
(0.8L_s) 61.498	1651.29	811.67	5.7.3.5-1	Pass (2.03)
(SZB) 65.484	1336.79	662.73	5.7.3.5-1	Pass (2.02)
(0.9L_s) 69.185	1900.80	651.73	5.7.3.5-1	Pass (2.92)
(1.5H) 70.404	1900.80	729.58	5.7.3.5-1	Pass (2.61)
(SZB) 70.984	1900.80	768.21	5.7.3.5-1	Pass (2.47)
(CS) 71.847	1900.80	817.44	5.7.3.5-1	Pass (2.33)
(H) 72.154	1900.80	835.38	5.7.3.5-1	Pass (2.28)
(Bar Develop.) 73.222	1900.80	904.78	5.7.3.5-1	Pass (2.10)
(Bar Develop.) 74.282	1883.20	978.91	5.7.3.5-1	Pass (1.92)
(SZB) 74.650	1868.77	1004.95	5.7.3.5-1	Pass (1.86)
(FoS) 75.654	1709.42	1070.28	5.7.3.5-1	Pass (1.60)

Longitudinal Reinforcement for Shear Check - Strength II [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 0.333	423.10	198.89	5.7.3.5-2	Pass (2.13)
(SZB) 1.337	585.13	198.89	5.7.3.5-2	Pass (2.94)
(Bar Develop.) 1.705	644.33	198.89	5.7.3.5-2	Pass (3.24)
(Bar Develop.) 2.765	779.07	198.89	5.7.3.5-2	Pass (3.92)
(H) 3.833	810.87	198.89	5.7.3.5-2	Pass (4.08)
(SZB) 5.003	845.72	532.28	5.7.3.5-1	Pass (1.59)
(1.5H) 5.583	956.24	564.49	5.7.3.5-1	Pass (1.69)
(0.1L_s) 7.687	1126.08	689.11	5.7.3.5-1	Pass (1.63)
(SZB) 10.503	1338.16	868.74	5.7.3.5-1	Pass (1.54)
(0.2L_s) 15.374	1653.23	1009.50	5.7.3.5-1	Pass (1.64)
(SZB) 18.753	1656.78	1098.08	5.7.3.5-1	Pass (1.51)
(0.3L_s) 23.062	1660.97	1128.87	5.7.3.5-1	Pass (1.47)
(SZB) 29.753	1664.32	1127.88	5.7.3.5-1	Pass (1.48)
(HP) 30.311	1664.44	1126.11	5.7.3.5-1	Pass (1.48)
(0.4L_s) 30.749	1664.44	1174.17	5.7.3.5-1	Pass (1.42)
(0.5L_s) 38.436	1664.44	1179.70	5.7.3.5-1	Pass (1.41)
(HP) 45.675	1664.43	1107.21	5.7.3.5-1	Pass (1.50)
(0.6L_s) 46.123	1664.34	1107.16	5.7.3.5-1	Pass (1.50)
(SZB) 46.234	1664.32	1107.09	5.7.3.5-1	Pass (1.50)
(0.7L_s) 53.811	1660.18	990.56	5.7.3.5-1	Pass (1.68)
(Deck Bar Cutoff) 54.581	1659.46	976.26	5.7.3.5-1	Pass (1.70)
(SZB) 57.234	1656.45	918.78	5.7.3.5-1	Pass (1.80)
(0.8L_s) 61.498	1651.29	751.19	5.7.3.5-1	Pass

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
				(2.20)
(SZB) 65.484	1336.79	579.36	5.7.3.5-1	Pass (2.31)
(0.9L_s) 69.185	1900.80	558.02	5.7.3.5-1	Pass (3.41)
(1.5H) 70.404	1900.80	622.62	5.7.3.5-1	Pass (3.05)
(SZB) 70.984	1900.80	656.03	5.7.3.5-1	Pass (2.90)
(H) 72.154	1900.80	717.94	5.7.3.5-1	Pass (2.65)
(Bar Develop.) 73.222	1900.80	777.46	5.7.3.5-1	Pass (2.44)
(Bar Develop.) 74.282	1883.20	841.24	5.7.3.5-1	Pass (2.24)
(SZB) 74.650	1868.77	863.58	5.7.3.5-1	Pass (2.16)
(FoS) 75.654	1709.42	919.64	5.7.3.5-1	Pass (1.86)

Horizontal Interface Shears/Length for Strength I Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.000	12.000	48.000	Pass	0.220	0.000	Pass	68.461	142.527	Pass (2.08)
(0.0L_s) 0.000	12.000	48.000	Pass	0.220	0.000	Pass	68.461	142.527	Pass (2.08)
(FoS) 0.333	12.000	48.000	Pass	0.220	0.000	Pass	68.483	142.528	Pass (2.08)
(SZB) 1.337	12.000	48.000	Pass	0.220	0.000	Pass	68.548	142.532	Pass (2.08)
(Bar Develop.) 1.705	12.000	48.000	Pass	0.220	0.000	Pass	68.572	142.533	Pass (2.08)
(Bar Develop.) 2.765	12.000	48.000	Pass	0.220	0.000	Pass	68.636	142.536	Pass (2.08)
(H) 3.833	12.000	48.000	Pass	0.220	0.000	Pass	68.699	142.539	Pass (2.07)
(CS) 3.924	12.000	48.000	Pass	0.220	0.000	Pass	68.704	142.539	Pass (2.07)
(SZB) 5.003	12.000	48.000	Pass	0.220	0.000	Pass	66.771	142.542	Pass (2.13)
(1.5H) 5.583	12.000	48.000	Pass	0.220	0.000	Pass	65.732	142.543	Pass (2.17)
(0.1L_s) 7.687	12.000	48.000	Pass	0.220	0.000	Pass	61.940	142.548	Pass (2.30)
(SZB) 10.503	9.000	48.000	Pass	0.293	0.000	Pass	56.836	146.515	Pass (2.58)
(0.2L_s) 15.374	9.000	48.000	Pass	0.293	0.000	Pass	48.188	146.524	Pass (3.04)
(SZB) 18.753	12.000	48.000	Pass	0.220	0.000	Pass	42.333	142.568	Pass (3.37)
(0.3L_s) 23.062	12.000	48.000	Pass	0.220	0.000	Pass	35.029	142.573	Pass (4.07)
(SZB) 29.753	18.000	48.000	Pass	0.147	0.000	Pass	24.158	138.616	Pass (5.74)
(HP) 30.311	18.000	48.000	Pass	0.147	0.000	Pass	23.300	138.616	Pass (5.95)
(0.4L_s) 30.749	18.000	48.000	Pass	0.147	0.000	Pass	22.631	138.616	Pass (6.13)
(0.5L_s) 38.436	18.000	48.000	Pass	0.147	0.000	Pass	25.510	138.614	Pass (5.43)
(HP) 45.675	18.000	48.000	Pass	0.147	0.000	Pass	37.189	138.606	Pass (3.73)
(0.6L_s) 46.123	18.000	48.000	Pass	0.147	0.000	Pass	37.908	138.605	Pass (3.66)
(SZB) 46.234	18.000	48.000	Pass	0.147	0.000	Pass	38.086	138.605	Pass (3.64)
(0.7L_s) 53.811	12.000	48.000	Pass	0.220	0.000	Pass	50.206	142.551	Pass (2.84)
(Deck Bar Cutoff) 54.581	12.000	48.000	Pass	0.220	0.000	Pass	51.426	142.549	Pass (2.77)
(SZB) 57.234	12.000	48.000	Pass	0.220	0.000	Pass	55.559	142.543	Pass (2.57)
(0.8L_s) 61.498	9.000	48.000	Pass	0.293	0.000	Pass	61.998	146.491	Pass (2.36)
(SZB) 65.484	9.000	48.000	Pass	0.293	0.000	Pass	67.847	146.478	Pass (2.16)
(0.9L_s) 69.185	12.000	48.000	Pass	0.220	0.000	Pass	73.081	142.505	Pass (1.95)
(1.5H) 70.404	12.000	48.000	Pass	0.220	0.000	Pass	74.765	142.500	Pass (1.91)
(SZB) 70.984	12.000	48.000	Pass	0.220	0.000	Pass	75.563	142.498	Pass (1.89)
(CS) 71.847	12.000	48.000	Pass	0.220	0.000	Pass	76.738	142.494	Pass (1.86)
(H) 72.154	12.000	48.000	Pass	0.220	0.000	Pass	76.705	142.493	Pass (1.86)
(Bar Develop.) 73.222	12.000	48.000	Pass	0.220	0.000	Pass	76.587	142.489	Pass (1.86)
(Bar Develop.) 74.282	12.000	48.000	Pass	0.220	0.000	Pass	76.465	142.484	Pass (1.86)
(SZB) 74.650	12.000	48.000	Pass	0.220	0.000	Pass	76.422	142.483	Pass (1.86)
(FoS) 75.654	12.000	48.000	Pass	0.220	0.000	Pass	76.301	142.478	Pass

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
									(1.87)
75.987	12.000	48.000	Pass	0.220	0.000	Pass	76.260	142.477	Pass (1.87)

Horizontal Interface Shears/Length for Strength II Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.000	12.000	48.000	Pass	0.220	0.000	Pass	65.513	142.527	Pass (2.18)
(0.0L_s) 0.000	12.000	48.000	Pass	0.220	0.000	Pass	65.513	142.527	Pass (2.18)
(FoS) 0.333	12.000	48.000	Pass	0.220	0.000	Pass	65.534	142.528	Pass (2.17)
(SZB) 1.337	12.000	48.000	Pass	0.220	0.000	Pass	65.597	142.532	Pass (2.17)
(Bar Develop.) 1.705	12.000	48.000	Pass	0.220	0.000	Pass	65.619	142.533	Pass (2.17)
(Bar Develop.) 2.765	12.000	48.000	Pass	0.220	0.000	Pass	65.681	142.536	Pass (2.17)
(H) 3.833	12.000	48.000	Pass	0.220	0.000	Pass	65.741	142.539	Pass (2.17)
(SZB) 5.003	12.000	48.000	Pass	0.220	0.000	Pass	63.912	142.542	Pass (2.23)
(1.5H) 5.583	12.000	48.000	Pass	0.220	0.000	Pass	62.925	142.543	Pass (2.27)
(0.1L_s) 7.687	12.000	48.000	Pass	0.220	0.000	Pass	59.313	142.548	Pass (2.40)
(SZB) 10.503	9.000	48.000	Pass	0.293	0.000	Pass	54.422	146.515	Pass (2.69)
(0.2L_s) 15.374	9.000	48.000	Pass	0.293	0.000	Pass	46.095	146.524	Pass (3.18)
(SZB) 18.753	12.000	48.000	Pass	0.220	0.000	Pass	40.406	142.568	Pass (3.53)
(0.3L_s) 23.062	12.000	48.000	Pass	0.220	0.000	Pass	33.290	142.573	Pass (4.28)
(SZB) 29.753	18.000	48.000	Pass	0.147	0.000	Pass	22.622	138.616	Pass (6.13)
(HP) 30.311	18.000	48.000	Pass	0.147	0.000	Pass	21.778	138.616	Pass (6.37)
(0.4L_s) 30.749	18.000	48.000	Pass	0.147	0.000	Pass	21.120	138.616	Pass (6.56)
(0.5L_s) 38.436	18.000	48.000	Pass	0.147	0.000	Pass	22.138	138.614	Pass (6.26)
(HP) 45.675	18.000	48.000	Pass	0.147	0.000	Pass	35.086	138.606	Pass (3.95)
(0.6L_s) 46.123	18.000	48.000	Pass	0.147	0.000	Pass	35.866	138.605	Pass (3.86)
(SZB) 46.234	18.000	48.000	Pass	0.147	0.000	Pass	36.059	138.605	Pass (3.84)
(0.7L_s) 53.811	12.000	48.000	Pass	0.220	0.000	Pass	48.859	142.551	Pass (2.92)
(Deck Bar Cutoff) 54.581	12.000	48.000	Pass	0.220	0.000	Pass	50.117	142.549	Pass (2.84)
(SZB) 57.234	12.000	48.000	Pass	0.220	0.000	Pass	54.331	142.543	Pass (2.62)
(0.8L_s) 61.498	9.000	48.000	Pass	0.293	0.000	Pass	60.754	146.491	Pass (2.41)
(SZB) 65.484	9.000	48.000	Pass	0.293	0.000	Pass	66.438	146.478	Pass (2.20)
(0.9L_s) 69.185	12.000	48.000	Pass	0.220	0.000	Pass	71.393	142.505	Pass (2.00)
(1.5H) 70.404	12.000	48.000	Pass	0.220	0.000	Pass	72.966	142.500	Pass (1.95)
(SZB) 70.984	12.000	48.000	Pass	0.220	0.000	Pass	73.706	142.498	Pass (1.93)
(H) 72.154	12.000	48.000	Pass	0.220	0.000	Pass	74.761	142.493	Pass (1.91)
(Bar Develop.) 73.222	12.000	48.000	Pass	0.220	0.000	Pass	74.646	142.489	Pass (1.91)
(Bar Develop.) 74.282	12.000	48.000	Pass	0.220	0.000	Pass	74.528	142.484	Pass (1.91)
(SZB) 74.650	12.000	48.000	Pass	0.220	0.000	Pass	74.485	142.483	Pass (1.91)
(FoS) 75.654	12.000	48.000	Pass	0.220	0.000	Pass	74.368	142.478	Pass (1.92)
75.987	12.000	48.000	Pass	0.220	0.000	Pass	74.328	142.477	Pass (1.92)

Live Load Deflection Check [2.5.2.6.2]
Allowable deflection span ratio = L/800
Allowable maximum deflection = ± 1.153 in
Minimum live load deflection along girder = -0.221 in
Maximum live load deflection along girder = 0.093 in
Status = Pass

Constructability Checks

Girder Dimensions Detailing Check [5.12.3.2.2]

Dimension	Minimum (in)	Actual (in)	Status
Top Flange Thickness	2.000	3.500	Pass
Web Thickness	5.000	7.000	Pass
Bottom Flange Thickness	5.000	6.500	Pass

Stirrup Detailing Check: Strength I [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.000	#4	3.000	18.000	1.500	1.600	0.000	Pass
($0.0L_s$) 0.000	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 0.333	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 1.337	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 1.705	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.765	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 3.833	#4	4.000	18.000	1.500	1.200	0.125	Pass
(CS) 3.924	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.003	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 5.583	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.687	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 10.503	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.374	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 18.753	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.062	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 29.753	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 30.311	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.749	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.436	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 45.675	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.123	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 46.234	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.811	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 54.581	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 57.234	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.498	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 65.484	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.185	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 70.404	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 70.984	#4	6.000	18.000	1.500	0.800	0.125	Pass
(CS) 71.847	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 72.154	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 73.222	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.282	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 74.650	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 75.654	#4	3.000	18.000	1.500	1.600	0.125	Pass
75.987	#4	3.000	18.000	1.500	1.600	0.125	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Stirrup Detailing Check: Strength II [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.000	#4	3.000	18.000	1.500	1.600	0.000	Pass
($0.0L_s$) 0.000	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 0.333	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 1.337	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 1.705	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.765	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 3.833	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.003	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 5.583	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.687	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 10.503	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.374	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 18.753	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.062	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 29.753	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 30.311	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.749	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.436	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 45.675	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.123	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 46.234	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.811	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 54.581	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 57.234	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.498	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 65.484	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.185	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 70.404	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 70.984	#4	6.000	18.000	1.500	0.800	0.125	Pass
(H) 72.154	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 73.222	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.282	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 74.650	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 75.654	#4	3.000	18.000	1.500	1.600	0.125	Pass
75.987	#4	3.000	18.000	1.500	1.600	0.125	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Hold Down Force

Hold Down Force (kip/strand)	Hold Down Force Limit (kip/strand)	Status
3.33	4.00	Pass

Haunch Geometry Checks

Note: Specification Checks for Haunch Geometry are Disabled in the Project Criteria. All Status values will be reported as N/A.

Slab Offset ("A" Dimension)

This table compares the input slab offset to the rounded computed slab offset required to have the least haunch depth be equal to the Fillet dimension. A failed status indicates that the top of the girder will encroach into the deck slab and the Slab Offset dimension should be refined.

Span	Girder	Provided (in)	Required (in)	Status	Notes
1	A	11.000	11.500	N/A	

Minimum Fillet Depth

This table compares the provided Fillet dimension to the minimum Fillet dimension specified in the girder library. A failed status indicates that the Fillet dimension is too small.

Span	Girder	Provided (in)	Required (in)	Status
1	A	1.000	1.000	N/A

Camber

	Camber (in)
Screed Camber, C at mid-span	1.147
Lower Bound Camber at 60 days, 50% of D_{60}	1.653
Average Camber at 60 days, 75% of D_{60}	2.479
Upper Bound Camber at 60 days, D_{60}	3.306

Bridge Description Details

Span 1 Girder A

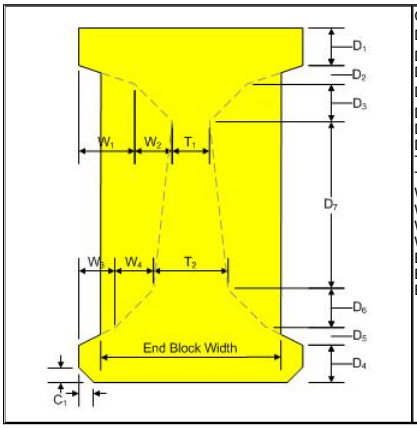
Deck and Roadway Widths

Location from Left Support (ft)	Station	Deck Width (ft)	Exterior Curb-Curb Width (ft)	Interior Curb-Curb Width (ft)	Overlay Toe-Toe Width (ft)
0.000	94+04.36	94.000	91.000	74.000	74.000
(0.0L_s) 0.000	94+04.36	94.000	91.000	74.000	74.000
(0.1L_s) 7.687	94+11.63	94.000	91.000	74.000	74.000
(0.2L_s) 15.374	94+18.91	94.000	91.000	74.000	74.000
(0.3L_s) 23.062	94+26.19	94.000	91.000	74.000	74.000
(0.4L_s) 30.749	94+33.47	94.000	91.000	74.000	74.000
(0.5L_s) 38.436	94+40.76	94.000	91.000	74.000	74.000
(0.6L_s) 46.123	94+48.04	94.000	91.000	74.000	74.000
(0.7L_s) 53.811	94+55.32	94.000	91.000	74.000	74.000
(0.8L_s) 61.498	94+62.59	94.000	91.000	74.000	74.000
(0.9L_s) 69.185	94+69.86	94.000	91.000	74.000	74.000
75.987	94+76.29	94.000	91.000	74.000	74.000
(1.0L_s) 76.872	94+77.13	94.000	91.000	74.000	74.000

Intermediate Diaphragms

No intermediate diaphragms defined

BT-42 CDOT Dimensions



C1 = 0.000 in (0")
D1 = 3.500 in (3 1/2")
D2 = 2.000 in (2")
D3 = 2.000 in (2")
D4 = 6.500 in (6 1/2")
D5 = 6.000 in (6")
D6 = 0.000 in (0")
D7 = 22.000 in (1'-10")
T1 = 7.000 in (7")
T2 = 7.000 in (7")
W1 = 16.000 in (1'-4")
W2 = 2.000 in (2")
W3 = 10.000 in (10")
W4 = 0.000 in (0")
EndBlockWidth = 0.000 in (0")
EndBlockLength = 0.000 ft (0")
EndBlockTransition = 0.000 ft (0")

Strand Locations

X = 0 is at CL Girder, Y = 0 is at Top of Girder

Straight Strands

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
1	-3.000	-40.000	-3.000	-40.000	•	•
2	3.000	-40.000	3.000	-40.000	•	•
3	-5.000	-40.000	-5.000	-40.000	•	•
4	5.000	-40.000	5.000	-40.000	•	•
5	-7.000	-40.000	-7.000	-40.000	•	•
6	7.000	-40.000	7.000	-40.000	•	•
7	-9.000	-40.000	-9.000	-40.000	•	•

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
8	9.000	-40.000	9.000	-40.000	•	•
9	-3.000	-38.000	-3.000	-38.000		
10	3.000	-38.000	3.000	-38.000		
11	-5.000	-38.000	-5.000	-38.000		
12	5.000	-38.000	5.000	-38.000		
13	-7.000	-38.000	-7.000	-38.000		
14	7.000	-38.000	7.000	-38.000		
15	-9.000	-38.000	-9.000	-38.000		
16	9.000	-38.000	9.000	-38.000		
17	-11.000	-38.000	-11.000	-38.000		
18	11.000	-38.000	11.000	-38.000		

No Temporary Strands in Girder

Harped Strand Locations at Ends of Girder

Strand	X (in)	Y (in)
1	-1.000	-12.000
2	1.000	-12.000
3	-1.000	-10.000
4	1.000	-10.000
5	-1.000	-8.000
6	1.000	-8.000
7	-1.000	-6.000
8	1.000	-6.000
9	-1.000	-4.000
10	1.000	-4.000

Harped Strand Locations at Harping Points

Strand	X (in)	Y (in)
1	-1.000	-40.000
2	1.000	-40.000
3	-1.000	-38.000
4	1.000	-38.000
5	-1.000	-36.000
6	1.000	-36.000
7	-1.000	-34.000
8	1.000	-34.000
9	-1.000	-32.000
10	1.000	-32.000

Strand Eccentricity

Strand Eccentricity: Interval 2 Prestress Release

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	18.069	-12.820	7.037	13.1692	13.1692
0.417	0.000	18.070	-12.439	7.174	13.1692	13.1692
0.417	(0.0L_e) 0.000	18.070	-12.439	7.174	13.1692	13.1692
(FoS) 0.750	(FoS) 0.333	18.071	-12.134	7.283	13.1692	13.1692
(SZB) 1.753	(SZB) 1.337	18.074	-11.217	7.613	13.1692	13.1692
(Bar Develop.) 2.121	(Bar Develop.) 1.705	18.075	-10.881	7.734	13.1692	13.1692
(PSXFR) 3.000	(PSXFR) 2.583	18.078	-10.077	8.023	13.1692	13.1692
(Bar Develop.) 3.182	(Bar Develop.) 2.765	18.079	-9.911	8.082	13.1692	13.1692
(H) 4.250	(H) 3.833	18.082	-8.934	8.433	13.1692	13.1692
(CS) 4.340	(CS) 3.924	18.082	-8.852	8.463	13.1692	13.1692
(SZB) 5.419	(SZB) 5.003	18.085	-7.865	8.817	13.1692	13.1692
(1.5H) 6.000	(1.5H) 5.583	18.087	-7.334	9.008	13.1692	13.1692
(0.1L_t) 7.682	7.265	18.092	-5.797	9.561	13.1692	13.1692
8.015	(0.1L_e) 7.599	18.093	-5.492	9.670	13.1692	13.1692
(SZB) 10.919	(SZB) 10.503	18.102	-2.837	10.624	13.1692	13.1692
(0.2L_t) 15.364	14.947	18.116	1.227	12.084	13.1692	13.1692
15.614	(0.2L_e) 15.197	18.117	1.456	12.166	13.1692	13.1692
(SZB) 19.169	(SZB) 18.753	18.128	4.706	13.334	13.1692	13.1692
(0.3L_t) 23.046	22.629	18.139	8.250	14.608	13.1692	13.1692
23.213	(0.3L_e) 22.796	18.140	8.403	14.662	13.1692	13.1692
(SZB) 30.169	(SZB) 29.753	18.161	14.763	16.948	13.1692	13.1692
(HP, 0.4L_t) 30.728	(HP) 30.311	18.163	15.274	17.131	13.1692	13.1692
30.811	(0.4L_e) 30.395	18.163	15.274	17.131	∞	∞
(0.5L_t) 38.410	(0.5L_e) 37.993	18.163	15.274	17.131	∞	∞
46.009	(0.6L_e) 45.592	18.163	15.274	17.131	∞	∞
(HP, 0.6L_t) 46.092	(HP) 45.675	18.163	15.274	17.131	13.1692	13.1692
(SZB) 46.651	(SZB) 46.234	18.161	14.763	16.948	13.1692	13.1692
53.607	(0.7L_e) 53.191	18.140	8.403	14.662	13.1692	13.1692
(0.7L_t) 53.774	53.357	18.139	8.250	14.608	13.1692	13.1692
(Deck Bar Cutoff) 54.998	(Deck Bar Cutoff) 54.581	18.136	7.132	14.206	13.1692	13.1692
(SZB) 57.651	(SZB) 57.234	18.128	4.706	13.334	13.1692	13.1692
61.206	(0.8L_e) 60.790	18.117	1.456	12.166	13.1692	13.1692
(0.8L_t) 61.456	61.040	18.116	1.227	12.084	13.1692	13.1692
(SZB) 65.901	(SZB) 65.484	18.102	-2.837	10.624	13.1692	13.1692
68.805	(0.9L_e) 68.388	18.093	-5.492	9.670	13.1692	13.1692
(0.9L_t) 69.138	68.722	18.092	-5.797	9.561	13.1692	13.1692
(1.5H) 70.820	(1.5H) 70.404	18.087	-7.334	9.008	13.1692	13.1692
(SZB) 71.401	(SZB) 70.984	18.085	-7.865	8.817	13.1692	13.1692
(CS) 72.264	(CS) 71.847	18.083	-8.654	8.534	13.1692	13.1692
(H) 72.570	(H) 72.154	18.082	-8.934	8.433	13.1692	13.1692
(Bar Develop.) 73.638	(Bar Develop.) 73.222	18.079	-9.911	8.082	13.1692	13.1692
(PSXFR) 73.820	(PSXFR) 73.404	18.078	-10.077	8.023	13.1692	13.1692
(Bar Develop.) 74.699	(Bar Develop.) 74.282	18.075	-10.881	7.734	13.1692	13.1692
(SZB) 75.067	(SZB) 74.650	18.074	-11.217	7.613	13.1692	13.1692
(FoS) 76.070	(FoS) 75.654	18.071	-12.134	7.283	13.1692	13.1692

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
76.404	($1.0L_e$) 75.987	18.070	-12.439	7.174	13.1692	13.1692
76.404	75.987	18.070	-12.439	7.174	13.1692	13.1692
(STLF, $1.0L_t$) 76.820	(STLF) 76.404	18.069	-12.820	7.037	13.1692	13.1692

Eccentricities are based on the gross non-composite girder section
Eccentricities measured from neutral axis of non-composite section based on material properties at time of prestress release
Positive e_y values indicate strands are below the centroid

Debonding Criteria
Maximum number of debonded strands = 25% of total number of strands
Maximum number of debonded strands per row = 40% of strands in any row
Maximum number of debonded strands per section. The greater of 4 strands or 40% of strands debonded at any section
Maximum distance between debond sections = 3.000 ft

Deflection Multipliers
The factors below are multiplied by the specified load case's deflections when computing deflections and excess camber

Load Cases	Factor
Erection (Girder, Prestress)	1.000
Creep	1.000
Diaphragm, Construction, Shear key	1.000
Deck Panels	1.000
Slab, User Defined Loads at Cast Deck, Apply User Defined Loads	1.000
Haunch	1.000
Railing System (Traffic Barrier, Sidewalks), Overlay, User Defined Loads at Apply User Defined Loads, Install Railing System and Overlay	1.000

Transverse Reinforcement Stirrup Zones

Primary Bars

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Vertical Legs	# Legs Extended into Deck*	Confinement Bar Size
1	0.000	1.750	#4	3.000	2	0	(None)
2	1.750	5.416	#4	4.000	2	0	(None)
3	5.416	10.916	#4	6.000	2	0	(None)
4	10.916	19.166	#4	9.000	2	0	(None)
5	19.166	30.166	#4	12.000	2	0	(None)
6	30.166	46.654	#4	18.000	2	0	(None)
7	46.654	57.654	#4	12.000	2	0	(None)
8	57.654	65.904	#4	9.000	2	0	(None)
9	65.904	71.404	#4	6.000	2	0	(None)
10	71.404	75.070	#4	4.000	2	0	(None)
11	75.070	76.820	#4	3.000	2	0	(None)

* Bars add to horizontal interface shear capacity

Additional Bars for Horizontal Interface Shear Capacity

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Legs
1	0.000	10.917	#3	12.000	2
2	10.917	19.167	#3	9.000	2
3	19.167	30.167	#3	12.000	2
4	30.167	46.654	#3	18.000	2
5	46.654	57.654	#3	12.000	2
6	57.654	65.904	#3	9.000	2
7	65.904	76.820	#3	12.000	2

Additional Splitting Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)	# of Legs
0.500	#6	4.000	2

Additional Bottom Flange Confinement Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)
6.500	#3	4.000

Longitudinal Rebar Locations
Bar start and end locations measured from left end of girder

Row	Bar Start (ft)	Bar End (ft)	Girder Face	Cover (in)	Bar Size	# of Bars	Spacing (in)
1	0.000	76.820	Top	2.375	#4	4	6.000
2	0.000	76.820	Bottom	2.500	#4	2	24.000
3	0.000	76.820	Top	2.375	#6	2	36.000

Materials

Permanent Strands

Name	Grade 270 Low Relaxation 0.6"
Type	Low Relaxation
f_{pu}	270.000 KSI
f_{py}	243.000 KSI
E_{ps}	28500.000 KSI
A_{ps}	0.217 in^2

Deck Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Transverse Reinforcing Material (Stirrups, Confinement, and Horizontal Interface Shear Bars)

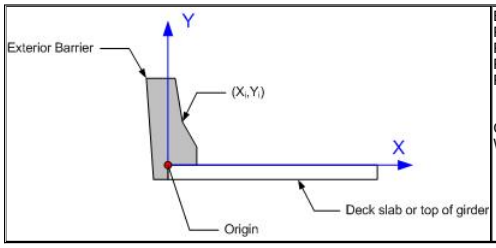
Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Longitudinal Girder Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

f_u	90.000 KSI	f_u	90.000 KSI	f_u	90.000 KSI

Parker Rail Dimensions



Barrier Points
Point 1= (0.000 in, 0.000 in)
Point 2= (0.000 in, 30.000 in)
Point 3= (18.000 in, 30.000 in)
Point 4= (18.000 in, 0.000 in)

Curb Offset = 0.000 in
Weight = 0.700 kip/ft/barrier

Project Criteria

Name: CDOT
Description: AASHTO LRFD Bridge Design Spec, 8th Ed. 2017, US Units, CDOT stress requirements
Based on: AASHTO LRFD Bridge Design Specification, Eighth Edition 2017 - US Units
Section Properties: Gross
Effective Flange Width computed in accordance with LRFD 4.6.2.6

Load Modifiers		Environmental		Structural Analysis
Ductility - η_D	1	Exposure Condition	Normal	Simple Spans Made Continuous
Importance - η_I	1	Relative Humidity	55%	
Redundancy - η_R	1			

Casting Yard Criteria

Max. Strand slope is not checked
Permissible hold down force per strand = 4.00 kip
The hold down force includes 0.00 % friction
Max. girder weight in casting yard is not checked
Girder was cured using Normal method
1 day of steam or radiant heat curing is equal to 7 days of normal curing

Concrete Stress Limits - Service I (5.9.2.3.1)
- Compressive Stress = -3.900 KSI
- Tensile Stress (w/o mild rebar) = 0.200 KSI
- Tensile Stress (w/ mild rebar) = 0.588 KSI
Splitting checks (5.9.4.4.1) are disabled.
Confinement checks (5.9.4.4.2) are disabled.

Temporary Strand Removal Criteria

Compression Stress Limits
- Service I = -5.200 KSI
Tension Stress Limits
- Service I (w/o mild rebar) = 0.537 KSI
- Service I (w/ mild rebar) = 0.679 KSI

Deck and Diaphragm Placement Stage Criteria

Compression Stress Limits
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.537 KSI

Final without Live Load Criteria

Railing system weight is distributed to 6 nearest girders
Compression Stress Limits (5.9.2.3.2a)
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.000 KSI

Effective Flange Width computed in accordance with LRFD 4.6.2.6

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1

Final with Live Load Stage Criteria

Compression Stress Limits (5.9.2.3.2a)
- Service I (permanent + live load) = -4.800 KSI
Tension Stress Limits (5.9.2.3.2b)
- Service III = 0.000 KSI
Allowable Compressive Concrete Stresses (5.5.3.1)
- Fatigue I = -3.200 KSI
LL Distribution factors are calculated in accordance with LRFD 4.6.2.2
Haunch Geometry check is disabled.

Moment Capacity Criteria

Modulus of rupture = 0.679 KSI

Shear Capacity Criteria

Shear capacity computed in accordance with LRFD 5.7.3.4.2 (General method)
Modulus of rupture = 0.566 KSI
Maximum Spacing of Transverse Reinforcement (LRFD 5.7.2.6)
Eqn 5.7.2.6-1: If $v_u < 0.125f'_c$ then $S_{max} = 0.8d_v \leq 18.000$ in
Eqn 5.7.2.6-2: If $v_u \geq 0.125f'_c$ then $S_{max} = 0.4d_v \leq 12.000$ in
Longitudinal reinforcement requirements computed in accordance with LRFD 5.7.3.5
Shear stress at girder/deck interface computed using the classical shear flow formula: $V_{ui} = (V_u Q)/(Ib)$
Maximum spacing of interface shear connectors (LRFD 5.7.4.5): 48.000 in, or the depth of the member.
Interface shear compressive force normal to shear plane, Pc, for use in LRFD Eq 5.7.4.3-3 is computed from the deck weight.

Haunch And Assumed Excess Camber Criteria

Haunch dead load is computed assuming that the top of the girder is flat (Zero assumed excess camber)
Composite section properties and capacities are computed assuming a Constant Haunch Depth equal to the Fillet value

Creep Criteria

Creep is calculated in accordance with LRFD (5.4.2.3.2)
# of hours from stressing to prestress transfer : 24
# of days from prestress transfer until removal of temporary strands / diaphram casting : 1 Min, 1 Max
# of days from prestress transfer until slab-girder continuity is achieved : 60 Min, 60 Max

Variability between upper and lower bound camber : 50

Losses Criteria

Losses calculated per Approximate Lump Sum Method in accordance with AASHTO LRFD 5.9.3.3
Assumed time at shipping = 10 day
Contribution to Elastic Gains
Slab = 100%

Haunch = 100%
Diaphragms = 100%
User DC (Before Deck Placement) = 100%
User DW (Before Deck Placement) = 100%
Railing System = 100%
Overlay = 100%
User DC (After Deck Placement) = 100%
User DW (After Deck Placement) = 100%

Stress Limits for Prestressing Tendons

Stress Limit at Jacking
- Stress Relieved Strand = $0.7f_{pu}$
- Low Relaxation Strand = $0.75f_{pu}$

Stress Limit at service limit state after all losses
- Stress Relieved Strand = $0.8f_{py}$
- Low Relaxation Strand = $0.8f_{py}$

Deflection Criteria
Live Load Deflection Limit: $L_{span}/800$

Loading Details

Uniform Loads Applied Along the Entire Girder

Load Type	w (kip/ft)
Girder	0.740
Sidewalk	0.279
Traffic Barrier	0.117
Pedestrian Live Load	0.106

Slab Load Applied Along Girder
Tributary width used to compute slab load is measured from top CL girder
Slab load is approximated with linear load segments applied along the length of the girder. Segments located outside of bearings are applied as point loads/moments at bearings.
Unit weight of Slab material is 0.150 kip/ft^3
Haunch weight includes effects of roadway geometry, and is measured along the centerline of the girder, but does not include a reduction for camber.

Location From Left Bearing (ft)	Casting Region	Main Slab Weight (kip/ft)	Assumed Haunch Depth (in)	Haunch Weight (kip/ft)	Total Slab Weight (kip/ft)
-0.417	1	0.834	2.995	0.134	0.968
0.000	1	0.837	3.000	0.134	0.971
7.599	1	0.874	3.077	0.138	1.011
15.197	1	0.901	3.136	0.140	1.041
22.796	1	0.918	3.179	0.142	1.060
30.395	1	0.924	3.204	0.144	1.068
37.993	1	0.921	3.213	0.144	1.064
45.592	1	0.906	3.204	0.144	1.050
53.191	1	0.882	3.179	0.142	1.024
60.790	1	0.848	3.136	0.140	0.988
68.388	1	0.794	3.077	0.138	0.931
75.987	1	0.769	3.000	0.134	0.903
75.987	1	0.769	3.000	0.134	0.903
76.404	1	0.767	2.995	0.134	0.901

Slab Cantilever Loads

Location	Main Slab		Haunch	
	Point Load (kip)	Point Moment (kip-ft)	Point Load (kip)	Point Moment (kip-ft)
Back Bearing	0.35	0.00	0.06	0.00
Ahead Bearing	0.32	0.00	0.06	0.00

Slab Haunch Load Details

Location From Left Bearing (ft)	Station	Offset (ft)	Casting Region	Top Slab Elevation (ft)	Girder Chord Elevation (ft)	Top Girder Elevation (ft)	Slab Thickness (in)	Assumed Haunch Depth (in)	Haunch Load (kip/ft)
-0.417	94+03.96	43.335 L	1	-0.867	-1.783	-1.783	8.000	2.995	0.134
0.000	94+04.36	43.319 L	1	-0.866	-1.783	-1.783	8.000	3.000	0.134
7.599	94+11.55	43.062 L	1	-0.861	-1.784	-1.784	8.000	3.077	0.138
15.197	94+18.74	42.877 L	1	-0.858	-1.786	-1.786	8.000	3.136	0.140
22.796	94+25.94	42.762 L	1	-0.855	-1.787	-1.787	8.000	3.179	0.142
30.395	94+33.14	42.718 L	1	-0.854	-1.788	-1.788	8.000	3.204	0.144
37.993	94+40.34	42.745 L	1	-0.855	-1.789	-1.789	8.000	3.213	0.144
45.592	94+47.54	42.843 L	1	-0.857	-1.791	-1.791	8.000	3.204	0.144
53.191	94+54.73	43.013 L	1	-0.860	-1.792	-1.792	8.000	3.179	0.142
60.790	94+61.92	43.253 L	1	-0.865	-1.793	-1.793	8.000	3.136	0.140
68.388	94+69.11	43.564 L	1	-0.871	-1.794	-1.794	8.000	3.077	0.138
75.987	94+76.29	43.946 L	1	-0.879	-1.796	-1.796	8.000	3.000	0.134
75.987	94+76.29	43.946 L	1	-0.879	-1.796	-1.796	8.000	3.000	0.134
76.404	94+76.68	43.969 L	1	-0.879	-1.796	-1.796	8.000	2.995	0.134

Overlay
Overlay load is uniform along entire girder length.

Load Type	W_{cc} (ft)	w (kip/ft)
Overlay Weight	74.000	0.227

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1
W_{cc} is the curb to curb width

Distribution of Uniform Barrier, Sidewalk, and Pedestrian Loads to Girder

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Left Ext. Barrier	0.700	0.167	0.117
Left Sidewalk	1.672	0.167	0.279
Left Pedestrian Live	0.637	0.167	0.106
Right Sidewalk	1.672	0.000	0.000
Right Ext. Barrier	0.700	0.000	0.000

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Right Pedestrian Live	0.637	0.000	0.000

Span 1

Pier Diaphragm Loads

Pier	Location	P (kip)	Moment Arm (ft)	M (kip-ft)
1	Ahead Bearing	2.93	0.000	0.00
2	Back Bearing	2.15	0.000	0.00
	Ahead Bearing	2.11	0.000	0.00

User Defined Loads

Point loads were not defined for this girder

Distributed Loads

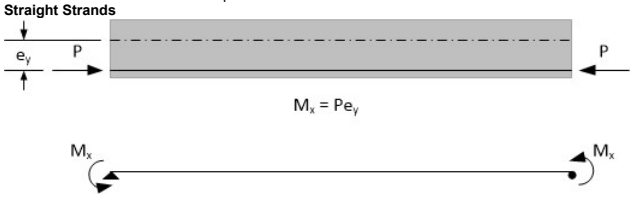
Interval	Load Case	Start Location (ft)	End Location (ft)	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Interval 11: Cast Deck, Apply User Defined Loads	DC	0.000	76.872	0.022	0.022	SIP Forms
Interval 15: Apply User Defined Loads, Install Railing System and Overlay	DW	0.000	76.872	0.040	0.040	Utility Load

Moment loads were not defined for this girder

Equivalent Pretension Loading

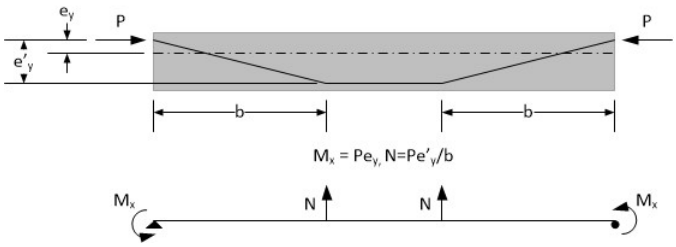
These loads are used to determine girder deflections due to pretension forces
Loads and eccentricities shown in positive directions

Straight Strands



M_x = (715.77 kip)(18.039 in) = 1075.97 kip-ft at 0.000 ft
M_x = (-715.77 kip)(18.039 in) = -1075.97 kip-ft at 76.820 ft

Harped Strands



M_x = (397.65 kip)(-12.850 in) = -425.82 kip-ft at 0.000 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.65 kip)(28.000 in)/(30.728 ft) = 30.20 kip at 30.728 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.65 kip)(28.000 in)/(30.728 ft) = 30.20 kip at 46.092 ft
M_x = (-397.65 kip)(-12.850 in) = 425.82 kip-ft at 76.820 ft

Live Loads

The following live loads were applied to the design (Service and Strength I) limit states:
HL-93

The following live loads were applied to the fatigue (Fatigue I) limit states:
Fatigue

The following live loads were applied to the permit (Strength II) limit states:
CDOT Permit

Limit State Load Factors

Limit State	γ_{DC}	γ_{DW}	γ_{LL}
Service I	1.00	1.00	1.00
Service III	1.00	1.00	0.80
Fatigue I	0.50	0.50	1.50
Strength I	1.25/ 0.90	1.50/ 0.65	1.75
Strength II	1.25/ 0.90	1.50/ 0.65	1.35

Live Load Details

Live Loads used for Design

The following live loads were applied to the design (Service and Strength I) limit states:
AASHTO LRFD 3.6.1.2: HL-93 Design Vehicular Live Load
Pedestrian live load was applied concurrently with vehicular live loads.

Live Loads Used for Fatigue Limit States

The following live loads were applied to the Fatigue I limit state:
AASHTO LRFD 3.6.1.4: Fatigue Vehicular Live Load
Pedestrian live load was not applied.

Live Loads Used for Design Permit Limit State

The following live loads were applied to the design permit (Strength II) limit state:
User-defined vehicular live load: CDOT Permit
Configuration: Truck applied only (no lane)
Usage: Use for all actions at all locations

Axle	Weight (kip)	Spacing (ft)
1	27.00	
2	25.00	14.000
3	25.00	4.000
4	25.00	12.000

Axle	Weight (kip)	Spacing (ft)
5	25.00	4.000
6	21.70	35.000
7	21.70	4.000
8	21.70	4.000

Pedestrian live load was not applied.

Transfer and Development Length Details

Transfer Length [5.9.4.3.1]

$l_t = 60d_b$

$d_b = 0.600$ in

$l_t = 36.000$ in

Development Length [5.9.4.3.2]

$$l_d \geq \kappa\left(f_{ps} - \frac{2}{3}f_{pe}\right)d_b$$

$$\frac{f_{px}}{f_{ps}} = \begin{cases} \dfrac{f_{pe}l_{px}}{f_{ps}l_t} \; for \; l_{px} < l_t \\ \dfrac{f_{pe} + \dfrac{(l_{px} - l_t)}{(l_d - l_t)}(f_{ps} - f_{pe})}{f_{ps}} \; for \; l_t < l_{px} \leq l_d \\ 1.0 \; for \; l_d < l_{px} \end{cases}$$

f_{px}/f_{ps} = Development Length Reduction Factor (See LRFD Eqn. 5.9.4.3.2-2 and -3)

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
0.000	93.273	22.423	0.600	75.191	5.000	0.033	93.273	22.423	0.600	93.989	5.000	0.033
($0.0L_e$) 0.000	93.273	22.423	0.600	75.191	5.000	0.033	93.273	22.423	0.600	93.989	5.000	0.033
(FoS) 0.333	106.149	40.369	0.600	76.068	9.000	0.095	106.149	40.369	0.600	95.084	9.000	0.095
(SZB) 1.337	144.723	94.423	0.600	78.504	21.039	0.381	144.723	94.423	0.600	98.129	21.039	0.381
(Bar Develop.) 1.705	158.814	114.269	0.600	79.329	25.456	0.509	158.814	114.269	0.600	99.162	25.456	0.509
(PSXFR) 2.583	191.925	161.685	0.600	80.769	36.000	0.842	191.925	161.685	0.600	100.961	36.000	0.842
(Bar Develop.) 2.765	193.310	161.703	0.600	82.088	38.184	0.844	193.310	161.703	0.600	102.610	38.184	0.842
(H) 3.833	201.452	161.810	0.600	89.835	51.000	0.858	201.452	161.810	0.600	112.294	51.000	0.842
(CS) 3.924	202.141	161.819	0.600	90.492	52.085	0.859	202.141	161.819	0.600	113.115	52.085	0.842
(SZB) 5.003	210.374	161.929	0.600	98.324	65.031	0.877	210.374	161.929	0.600	122.906	65.031	0.847
(1.5H) 5.583	214.802	161.988	0.600	102.537	72.000	0.887	214.802	161.988	0.600	128.171	72.000	0.850
($0.1L_e$) 7.599	230.176	162.195	0.600	117.164	96.184	0.924	230.176	162.195	0.600	146.455	96.184	0.866
(SZB) 10.503	252.334	162.481	0.600	138.253	131.031	0.975	252.334	162.481	0.600	172.816	131.031	0.891
($0.2L_e$) 15.197	268.110	162.864	0.600	153.153	187.369	1.000	268.110	162.864	0.600	191.441	187.369	0.990
(SZB) 18.753	268.726	163.041	0.600	153.630	230.031	1.000	268.726	163.041	0.600	192.038	230.031	1.000
($0.3L_e$) 22.796	269.380	163.072	0.600	154.238	278.553	1.000	269.380	163.072	0.600	192.798	278.553	1.000
(SZB) 29.753	269.968	162.544	0.600	155.141	362.031	1.000	269.968	162.544	0.600	193.926	362.031	1.000
(HP) 30.311	269.987	162.463	0.600	155.211	368.737	1.000	269.987	162.463	0.600	194.013	368.737	1.000
($0.4L_e$) 30.395	269.987	162.472	0.600	155.206	369.737	1.000	269.987	162.472	0.600	194.007	369.737	1.000
($0.5L_e$) 37.993	269.987	162.703	0.600	155.058	460.921	1.000	269.987	162.703	0.600	193.823	460.921	1.000
($0.6L_e$) 45.592	269.986	161.934	0.600	155.548	369.737	1.000	269.986	161.934	0.600	194.436	369.737	1.000
(HP) 45.675	269.986	161.920	0.600	155.557	368.737	1.000	269.986	161.920	0.600	194.447	368.737	1.000
(SZB) 46.234	269.967	161.965	0.600	155.510	362.031	1.000	269.967	161.965	0.600	194.388	362.031	1.000
($0.7L_e$) 53.191	269.371	162.096	0.600	154.855	278.553	1.000	269.371	162.096	0.600	193.569	278.553	1.000
(Deck Bar Cutoff) 54.581	269.167	162.040	0.600	154.695	261.871	1.000	269.167	162.040	0.600	193.369	261.871	1.000
(SZB) 57.234	268.672	161.873	0.600	154.326	230.031	1.000	268.672	161.873	0.600	192.908	230.031	1.000
($0.8L_e$) 60.790	267.964	161.551	0.600	153.853	187.369	1.000	267.964	161.551	0.600	192.316	187.369	0.987
(SZB) 65.484	252.072	161.010	0.600	138.943	131.031	0.972	252.072	161.010	0.600	173.679	131.031	0.888
($0.9L_e$) 68.388	229.842	160.645	0.600	117.836	96.184	0.920	229.842	160.645	0.600	147.295	96.184	0.862
(1.5H) 70.404	214.440	160.391	0.600	103.212	72.000	0.883	214.440	160.391	0.600	129.015	72.000	0.846
(SZB) 70.984	210.006	160.320	0.600	99.001	65.031	0.872	210.006	160.320	0.600	123.752	65.031	0.842
(CS) 71.847	203.422	160.215	0.600	92.748	54.676	0.858	203.422	160.215	0.600	115.935	54.676	0.837
(H) 72.154	201.086	160.178	0.600	90.528	51.000	0.853	201.086	160.178	0.600	113.161	51.000	0.836
(Bar Develop.) 73.222	192.947	160.053	0.600	82.796	38.184	0.837	192.947	160.053	0.600	103.495	38.184	0.835
(PSXFR) 73.404	191.562	160.032	0.600	81.479	36.000	0.835	191.562	160.032	0.600	101.849	36.000	0.835
(Bar Develop.) 74.282	158.429	113.090	0.600	79.715	25.456	0.505	158.429	113.090	0.600	99.643	25.456	0.505
(SZB) 74.650	144.560	93.446	0.600	78.972	21.039	0.378	144.560	93.446	0.600	98.715	21.039	0.378
(FoS) 75.654	106.108	39.947	0.600	76.297	9.000	0.094	106.108	39.947	0.600	95.371	9.000	0.094
($1.0L_e$) 75.987	93.257	22.188	0.600	75.326	5.000	0.033	93.257	22.188	0.600	94.157	5.000	0.033
75.987	93.257	22.188	0.600	75.326	5.000	0.033	93.257	22.188	0.600	94.157	5.000	0.033

Development Length of Longitudinal Rebar [5.10.8.2.1]

$$\ell_d = \ell_{db}\left(\frac{\lambda_{rl} \times \lambda_{cf} \times \lambda_{rc} \times \lambda_{er}}{\lambda}\right)$$

$$where \; \ell_{db} = 2.4d_b\frac{f_y}{\sqrt{f'_c}}$$

$$and \; \lambda_{cf} = \lambda_{rc} = \lambda_{er} = 1.0$$

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#4	0.200	0.500	60.000	8.000	1.000	1.000	1.000	25.456
#6	0.440	0.750	60.000	8.000	1.000	1.000	1.000	38.184

Development Length of Longitudinal Rebar [5.10.8.2.1] in Deck Slab

Full-length deck bars are considered to be developed along entire length of girder.

Partial-length longitudinal rebar specified using A_s are considered to be developed along entire specified bar length.

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#9	1.000	1.128	60.000	4.500	1.000	1.000	1.000	76.571

Prestress Loss Details

Approximate Estimate of Time-Dependent Losses [5.9.3.3]

Elastic Shortening - LRFD 5.9.3.2.3a

$$f_{cgp}(Permanent\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_p}{I_g} - \frac{M_g e_p}{I_g}$$

$$f_{cgp}(Temporary\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_t}{I_g} - \frac{M_g e_t}{I_g}$$

$$\Delta f_{pES} = \frac{E_p}{E_{ci}} f_{cgp}$$

A_g = 654.000 in^2
I_g = 153070.0 in^4
E_p = 28500.000 KSI
E_{ci} = 4557.295 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	1149.59	7.007	0.00	7.007	2.127	13.299
0.417	0.417	1149.31	7.143	11.78	7.143	2.134	13.344
(FoS) 0.750	(FoS) 0.333	1149.09	7.251	21.12	7.251	2.140	13.381
(SZB) 1.753	(SZB) 1.337	1148.40	7.578	48.72	7.578	2.158	13.494
(Bar Develop.) 2.121	(Bar Develop.) 1.705	1148.14	7.697	58.65	7.697	2.165	13.537
(PSXFR) 3.000	(PSXFR) 2.583	1147.51	7.983	81.97	7.983	2.181	13.640
(Bar Develop.) 3.182	(Bar Develop.) 2.765	1147.38	8.043	86.73	8.043	2.185	13.662
(H) 4.250	(H) 3.833	1146.59	8.390	114.16	8.390	2.205	13.792
(CS) 4.340	(CS) 3.924	1146.52	8.420	116.45	8.420	2.207	13.803
(SZB) 5.419	(SZB) 5.003	1145.69	8.771	143.22	8.771	2.229	13.940
(1.5H) 6.000	(1.5H) 5.583	1145.23	8.960	157.28	8.960	2.241	14.016
(0.1L_t) 7.682	7.265	1143.84	9.507	196.59	9.507	2.278	14.245
8.015	(0.1L_e) 7.599	1143.55	9.615	204.13	9.615	2.285	14.292
8.104	7.687	1143.47	9.644	206.12	9.644	2.287	14.305
(SZB) 10.919	(SZB) 10.503	1140.90	10.561	266.35	10.561	2.355	14.729
(0.2L_t) 15.364	14.947	1136.21	12.007	349.50	12.007	2.478	15.500
15.614	(0.2L_e) 15.197	1135.93	12.088	353.74	12.088	2.486	15.547
15.791	15.374	1135.72	12.146	356.72	12.146	2.491	15.581
(SZB) 19.169	(SZB) 18.753	1131.51	13.245	409.06	13.245	2.602	16.274
(0.3L_t) 23.046	22.629	1125.97	14.507	458.72	14.507	2.748	17.186
23.213	(0.3L_e) 22.796	1125.71	14.561	460.60	14.561	2.755	17.228
23.478	23.062	1125.30	14.648	463.56	14.648	2.766	17.295
(SZB) 30.169	(SZB) 29.753	1113.55	16.825	520.95	16.825	3.075	19.230
(HP, 0.4L_t) 30.728	(HP) 30.311	1112.44	17.007	524.25	17.007	3.104	19.412
30.811	(0.4L_e) 30.395	1112.46	17.007	524.72	17.007	3.104	19.408
31.166	30.749	1112.55	17.007	526.66	17.007	3.101	19.394
(0.5L_t) 38.410	(0.5L_e) 37.993	1113.42	17.007	546.09	17.007	3.078	19.251
38.853	38.436	1113.42	17.007	546.02	17.007	3.078	19.251
46.009	(0.6L_e) 45.592	1112.46	17.007	524.72	17.007	3.104	19.408
(HP, 0.6L_t) 46.092	(HP) 45.675	1112.44	17.007	524.25	17.007	3.104	19.412
46.540	46.123	1113.33	16.861	521.62	16.861	3.081	19.266
(SZB) 46.651	(SZB) 46.234	1113.55	16.825	520.95	16.825	3.075	19.230
53.607	(0.7L_e) 53.191	1125.71	14.561	460.60	14.561	2.755	17.228
(0.7L_t) 53.774	53.357	1125.97	14.507	458.72	14.507	2.748	17.186
54.227	53.811	1126.66	14.360	453.49	14.360	2.730	17.072
(Deck Bar Cutoff) 54.998	(Deck Bar Cutoff) 54.581	1127.81	14.109	444.25	14.109	2.700	16.884
(SZB) 57.651	(SZB) 57.234	1131.51	13.245	409.06	13.245	2.602	16.274
61.206	(0.8L_e) 60.790	1135.93	12.088	353.74	12.088	2.486	15.547
(0.8L_t) 61.456	61.040	1136.21	12.007	349.50	12.007	2.478	15.500
61.914	61.498	1136.73	11.858	341.60	11.858	2.465	15.414
(SZB) 65.901	(SZB) 65.484	1140.90	10.561	266.35	10.561	2.355	14.729
68.805	(0.9L_e) 68.388	1143.55	9.615	204.13	9.615	2.285	14.292
(0.9L_t) 69.138	68.722	1143.84	9.507	196.59	9.507	2.278	14.245
69.602	69.185	1144.23	9.356	185.97	9.356	2.268	14.181
(1.5H) 70.820	(1.5H) 70.404	1145.23	8.960	157.28	8.960	2.241	14.016
(SZB) 71.401	(SZB) 70.984	1145.69	8.771	143.22	8.771	2.229	13.940
(CS) 72.264	(CS) 71.847	1146.36	8.490	121.87	8.490	2.212	13.830
(H) 72.570	(H) 72.154	1146.59	8.390	114.16	8.390	2.205	13.792
(Bar Develop.) 73.638	(Bar Develop.) 73.222	1147.38	8.043	86.73	8.043	2.185	13.662
(PSXFR) 73.820	(PSXFR) 73.404	1147.51	7.983	81.97	7.983	2.181	13.640
(Bar Develop.) 74.699	(Bar Develop.) 74.282	1148.14	7.697	58.65	7.697	2.165	13.537
(SZB) 75.067	(SZB) 74.650	1148.40	7.578	48.72	7.578	2.158	13.494
(FoS) 76.070	(FoS) 75.654	1149.09	7.251	21.12	7.251	2.140	13.381
76.404	76.404 (1.0L_e) 75.987	75.987	1149.31	7.143	11.78	7.143	2.134	13.344
(STLF, 1.0L_t) 76.820	(STLF) 76.404	1149.59	7.007	0.00	7.007	2.127	13.299

P is the prestressing force after transfer : $P = A_{ps}(f_{pj} - \Delta f_{pES})$

A_{ps} = area of prestressing strands
e_p = eccentricty of permanent prestressing strands
e_{ps} = eccentricty of all prestressing strands

Approximate Lump Sum Estimate of Time Dependent Losses at Hauling

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 3\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 3\gamma_h\gamma_{st} + \frac{\Delta f_{pR}}{4}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLTH} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	7.700

Losses at Hauling

$\Delta f_{pH} = \Delta f_{pES} + \Delta f_{pLTH}$

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
(STRF, 0.0L$_t$) 0.000	(STRF) -0.417	13.299	7.700	20.999
0.417 0.417	0.000(0.0L$_e$) 0.000	13.344	7.700	21.045
(FoS) 0.750	(FoS) 0.333	13.381	7.700	21.082
(SZB) 1.753	(SZB) 1.337	13.494	7.700	21.195
(Bar Develop.) 2.121	(Bar Develop.) 1.705	13.537	7.700	21.237
(PSXFR) 3.000	(PSXFR) 2.583	13.640	7.700	21.340
(Bar Develop.) 3.182	(Bar Develop.) 2.765	13.662	7.700	21.362
(H) 4.250	(H) 3.833	13.792	7.700	21.492
(CS) 4.340	(CS) 3.924	13.803	7.700	21.504
(SZB) 5.419	(SZB) 5.003	13.940	7.700	21.641
(1.5H) 6.000	(1.5H) 5.583	14.016	7.700	21.716
(0.1L$_t$) 7.682	7.265	14.245	7.700	21.946
8.015	(0.1L$_e$) 7.599	14.292	7.700	21.993
8.104	7.687	14.305	7.700	22.005
(SZB) 10.919	(SZB) 10.503	14.729	7.700	22.429
(0.2L$_t$) 15.364	14.947	15.500	7.700	23.200
15.614	(0.2L$_e$) 15.197	15.547	7.700	23.248
15.791	15.374	15.581	7.700	23.281
(SZB) 19.169	(SZB) 18.753	16.274	7.700	23.974
(0.3L$_t$) 23.046	22.629	17.186	7.700	24.886
23.213	(0.3L$_e$) 22.796	17.228	7.700	24.928
23.478	23.062	17.295	7.700	24.996
(SZB) 30.169	(SZB) 29.753	19.230	7.700	26.930
(HP, 0.4L$_t$) 30.728	(HP) 30.311	19.412	7.700	27.112
30.811	(0.4L$_e$) 30.395	19.408	7.700	27.109
31.166	30.749	19.394	7.700	27.095
(0.5L$_t$) 38.410	(0.5L$_e$) 37.993	19.251	7.700	26.951
38.853	38.436	19.251	7.700	26.952
46.009	(0.6L$_e$) 45.592	19.408	7.700	27.109
(HP, 0.6L$_t$) 46.092	(HP) 45.675	19.412	7.700	27.112
46.540	46.123	19.266	7.700	26.966
(SZB) 46.651	(SZB) 46.234	19.230	7.700	26.930
53.607	(0.7L$_e$) 53.191	17.228	7.700	24.928
(0.7L$_t$) 53.774	53.357	17.186	7.700	24.886
54.227	53.811	17.072	7.700	24.773
(Deck Bar Cutoff) 54.998	(Deck Bar Cutoff) 54.581	16.884	7.700	24.584
(SZB) 57.651	(SZB) 57.234	16.274	7.700	23.974
61.206	(0.8L$_e$) 60.790	15.547	7.700	23.248
(0.8L$_t$) 61.456	61.040	15.500	7.700	23.200
61.914	61.498	15.414	7.700	23.114
(SZB) 65.901	(SZB) 65.484	14.729	7.700	22.429
68.805	(0.9L$_e$) 68.388	14.292	7.700	21.993
(0.9L$_t$) 69.138	68.722	14.245	7.700	21.946
69.602	69.185	14.181	7.700	21.881
(1.5H) 70.820	(1.5H) 70.404	14.016	7.700	21.716
(SZB) 71.401	(SZB) 70.984	13.940	7.700	21.641
(CS) 72.264	(CS) 71.847	13.830	7.700	21.531
(H) 72.570	(H) 72.154	13.792	7.700	21.492
(Bar Develop.) 73.638	(Bar Develop.) 73.222	13.662	7.700	21.362
(PSXFR) 73.820	(PSXFR) 73.404	13.640	7.700	21.340
(Bar Develop.) 74.699	(Bar Develop.) 74.282	13.537	7.700	21.237
(SZB) 75.067	(SZB) 74.650	13.494	7.700	21.195
(FoS) 76.070	(FoS) 75.654	13.381	7.700	21.082
76.404 76.404	(1.0L$_e$) 75.987 75.987	13.344	7.700	21.045
(STLF, 1.0L$_t$) 76.820	(STLF) 76.404	13.299	7.700	20.999

Approximate Lump Sum Estimate of Time Dependent Losses

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 10\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 12\gamma_h\gamma_{st} + \Delta f_{pR}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	27.711

Elastic Gain Due to Additional Dead Load

Change in strand stress due to loads applied to the non-composite girder

$$M_{adl} = K_s M_{slab} + K_h M_{haunch} + K_d M_{diaphragm} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$M_{Diaphragm}$ includes shear key dead load if applicable

$$\Delta f'_{cd} = \frac{M_{adl} e_p}{I_g}$$

$$\Delta f_{pED} = \frac{E_p}{E_c} \Delta f'_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

I_g = 153070.0 in^4

Slab: K_s = 1.00

Haunch: K_h = 1.00

Diaphragms: K_d = 1.00

User DC: K_{dc} = 1.00

User DW: K_{dw} = 1.00

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000
0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	0.000	0.000
(FoS) 0.333	11.24	1.77	0.00	0.28	0.00	13.29	7.251	0.008	0.043
(SZB) 1.337	44.52	7.02	0.00	1.10	0.00	52.64	7.578	0.031	0.178
(Bar Develop.) 1.705	56.52	8.92	0.00	1.39	0.00	66.83	7.697	0.040	0.229
(PSXFR) 2.583	84.69	13.36	0.00	2.09	0.00	100.14	7.983	0.063	0.356
(Bar Develop.) 2.765	90.45	14.26	0.00	2.23	0.00	106.94	8.043	0.067	0.383
(H) 3.833	123.64	19.50	0.00	3.04	0.00	146.18	8.390	0.096	0.547
(CS) 3.924	126.41	19.93	0.00	3.11	0.00	149.45	8.420	0.099	0.561
(SZB) 5.003	158.87	25.05	0.00	3.91	0.00	187.82	8.771	0.129	0.734
(1.5H) 5.583	175.93	27.73	0.00	4.32	0.00	207.98	8.960	0.146	0.831
7.265	223.69	35.25	0.00	5.49	0.00	264.43	9.507	0.197	1.121
($0.1L_e$) 7.599	232.86	36.70	0.00	5.72	0.00	275.27	9.615	0.208	1.180
7.687	235.28	37.08	0.00	5.77	0.00	278.13	9.644	0.210	1.196
(SZB) 10.503	308.65	48.63	0.00	7.56	0.00	364.85	10.561	0.302	1.718
14.947	410.18	64.63	0.00	10.04	0.00	484.85	12.007	0.456	2.596
($0.2L_e$) 15.197	415.37	65.45	0.00	10.16	0.00	490.98	12.088	0.465	2.646
15.374	419.01	66.02	0.00	10.25	0.00	495.28	12.146	0.472	2.682
(SZB) 18.753	483.01	76.13	0.00	11.81	0.00	570.94	13.245	0.593	3.372
22.629	543.67	85.73	0.00	13.28	0.00	642.68	14.507	0.731	4.157
($0.3L_e$) 22.796	545.97	86.09	0.00	13.34	0.00	645.40	14.561	0.737	4.190
23.062	549.58	86.67	0.00	13.42	0.00	649.67	14.648	0.746	4.243
(SZB) 29.753	619.17	97.80	0.00	15.13	0.00	732.10	16.825	0.966	5.492
(HP) 30.311	623.11	98.43	0.00	15.23	0.00	736.78	17.007	0.982	5.587
($0.4L_e$) 30.395	623.68	98.53	0.00	15.24	0.00	737.45	17.007	0.983	5.592
30.749	626.00	98.90	0.00	15.30	0.00	740.20	17.007	0.987	5.613
($0.5L_e$) 37.993	648.12	102.68	0.00	15.88	0.00	766.67	17.007	1.022	5.813
38.436	647.90	102.66	0.00	15.87	0.00	766.44	17.007	1.022	5.812
($0.6L_e$) 45.592	619.51	98.53	0.00	15.24	0.00	733.28	17.007	0.978	5.560
(HP) 45.675	618.90	98.43	0.00	15.23	0.00	732.57	17.007	0.977	5.555
46.123	615.54	97.93	0.00	15.15	0.00	728.62	16.861	0.963	5.478
(SZB) 46.234	614.68	97.80	0.00	15.13	0.00	727.61	16.825	0.960	5.458
($0.7L_e$) 53.191	538.66	86.09	0.00	13.34	0.00	638.09	14.561	0.728	4.143
53.357	536.31	85.73	0.00	13.28	0.00	635.32	14.507	0.723	4.109
53.811	529.80	84.72	0.00	13.12	0.00	627.64	14.360	0.707	4.018
(Deck Bar Cutoff) 54.581	518.31	82.93	0.00	12.85	0.00	614.09	14.109	0.679	3.863
(SZB) 57.234	474.80	76.12	0.00	11.80	0.00	562.73	13.245	0.584	3.323
($0.8L_e$) 60.790	406.97	65.45	0.00	10.16	0.00	482.58	12.088	0.457	2.601
61.040	401.80	64.63	0.00	10.03	0.00	476.46	12.007	0.448	2.551
61.498	392.17	63.11	0.00	9.80	0.00	465.08	11.858	0.432	2.459
(SZB) 65.484	301.07	48.63	0.00	7.56	0.00	357.27	10.561	0.296	1.682
($0.9L_e$) 68.388	226.54	36.70	0.00	5.71	0.00	268.95	9.615	0.203	1.153
68.722	217.55	35.25	0.00	5.49	0.00	258.29	9.507	0.193	1.095
69.185	204.91	33.22	0.00	5.17	0.00	243.30	9.356	0.178	1.015
(1.5H) 70.404	170.86	27.73	0.00	4.32	0.00	202.91	8.960	0.143	0.811
(SZB) 70.984	154.22	25.05	0.00	3.90	0.00	183.17	8.771	0.126	0.716
(CS) 71.847	129.01	20.97	0.00	3.27	0.00	153.25	8.490	0.102	0.580
(H) 72.154	119.92	19.50	0.00	3.04	0.00	142.45	8.390	0.094	0.533
(Bar Develop.) 73.222	87.65	14.26	0.00	2.22	0.00	104.14	8.043	0.066	0.373
(PSXFR) 73.404	82.07	13.36	0.00	2.08	0.00	97.51	7.983	0.061	0.347
(Bar Develop.) 74.282	54.73	8.92	0.00	1.39	0.00	65.04	7.697	0.039	0.223
(SZB) 74.650	43.11	7.02	0.00	1.09	0.00	51.22	7.578	0.030	0.173
(FoS) 75.654	10.88	1.77	0.00	0.27	0.00	12.93	7.251	0.007	0.042
($1.0L_e$) 75.987	0.00	0.00	0.00	-0.00	0.00	-0.00	7.143	0.000	-0.000
75.987	0.00	0.00	0.00	-0.00	0.00	-0.00	7.143	0.000	-0.000
(STLF) 76.404	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000

Elastic Gain Due to Superimposed Dead Load

Change in strand stress due to loads applied to the composite girder

$$M_{sidl} = K_r M_{railing\ system} + K_r M_{sidewalk} + K_o M_{overlay} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$$\Delta f''_{cd} = \frac{M_{sidl}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pSIDL} = \frac{E_p}{E_c} \Delta f''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

Railing System: K_r = 1.00
Overlay: K_o = 1.00
User DC: K_{dc} = 1.00
User DW: K_{dw} = 1.00

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	368520.5	33.786	21.150	0.000	0.000
0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	368750.7	33.799	21.150	0.000	0.000
(0.0L_e) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	368750.7	33.799	21.150	0.000	0.000
(FoS) 0.333	2.66	1.11	2.16	0.00	0.38	6.32	7.251	368932.4	33.810	21.150	0.004	0.023
(SZB) 1.337	10.48	4.39	8.52	0.00	1.50	24.90	7.578	369466.0	33.840	21.150	0.016	0.093
(Bar Develop.) 1.705	13.28	5.56	10.80	0.00	1.91	31.54	7.697	369656.8	33.851	21.150	0.021	0.119
(PSXFR) 2.583	19.81	8.29	16.11	0.00	2.84	47.05	7.983	370101.5	33.876	21.150	0.032	0.180
(Bar Develop.) 2.765	21.13	8.85	17.19	0.00	3.03	50.20	8.043	370191.7	33.881	21.150	0.034	0.192
(H) 3.833	28.72	12.03	23.36	0.00	4.12	68.23	8.390	370708.3	33.911	21.150	0.047	0.266
(CS) 3.924	29.35	12.29	23.87	0.00	4.21	69.73	8.420	370751.1	33.913	21.150	0.048	0.272
(SZB) 5.003	36.67	15.35	29.82	0.00	5.26	87.11	8.771	371249.0	33.941	21.150	0.061	0.345
(1.5H) 5.583	40.48	16.95	32.92	0.00	5.81	96.15	8.960	371507.9	33.956	21.150	0.068	0.384
7.265	50.97	21.34	41.45	0.00	7.32	121.07	9.507	372072.4	33.988	21.150	0.087	0.496
(0.1L_e) 7.599	52.95	22.17	43.07	0.00	7.60	125.79	9.615	372072.4	33.988	21.150	0.091	0.518
7.687	53.47	22.39	43.49	0.00	7.68	127.03	9.644	372072.4	33.988	21.150	0.092	0.524
(SZB) 10.503	68.94	28.86	56.07	0.00	9.90	163.77	10.561	372072.4	33.988	21.150	0.124	0.703
14.947	88.86	37.20	72.27	0.00	12.76	211.09	12.007	372072.4	33.988	21.150	0.169	0.962
(0.2L_e) 15.197	89.81	37.60	73.05	0.00	12.89	213.36	12.088	372072.4	33.988	21.150	0.172	0.976
15.374	90.48	37.88	73.59	0.00	12.99	214.94	12.146	372072.4	33.988	21.150	0.173	0.985
(SZB) 18.753	101.54	42.51	82.58	0.00	14.58	241.21	13.245	372072.4	33.988	21.150	0.203	1.154
22.629	110.31	46.18	89.71	0.00	15.83	262.04	14.507	372072.4	33.988	21.150	0.231	1.314
(0.3L_e) 22.796	110.59	46.30	89.94	0.00	15.88	262.71	14.561	372072.4	33.988	21.150	0.232	1.320
23.062	111.02	46.48	90.30	0.00	15.94	263.74	14.648	372072.4	33.988	21.150	0.234	1.330
(SZB) 29.753	115.50	48.36	93.94	0.00	16.58	274.37	16.825	372072.4	33.988	21.150	0.262	1.493
(HP) 30.311	115.31	48.28	93.78	0.00	16.55	273.92	17.007	372072.4	33.988	21.150	0.264	1.500
(0.4L_e) 30.395	115.27	48.26	93.75	0.00	16.55	273.84	17.007	372072.4	33.988	21.150	0.264	1.499
30.749	115.10	48.19	93.61	0.00	16.52	273.42	17.007	372072.4	33.988	21.150	0.263	1.497
(0.5L_e) 37.993	103.87	43.49	84.48	0.00	14.91	246.74	17.007	372072.4	33.988	21.150	0.238	1.351
38.436	102.71	43.00	83.53	0.00	14.74	243.99	17.007	372072.4	33.988	21.150	0.235	1.336
(0.6L_e) 45.592	76.38	31.98	62.12	0.00	10.96	181.43	17.007	372072.4	33.988	21.150	0.175	0.993
(HP) 45.675	75.98	31.81	61.80	0.00	10.91	180.50	17.007	372072.4	33.988	21.150	0.174	0.988
46.123	73.85	30.92	60.06	0.00	10.60	175.44	16.861	372072.4	33.988	21.150	0.168	0.956
(SZB) 46.234	73.31	30.70	59.63	0.00	10.52	174.16	16.825	372072.4	33.988	21.150	0.167	0.948
(0.7L_e) 53.191	32.79	13.73	26.67	0.00	4.71	77.90	14.561	372072.4	33.988	21.150	0.069	0.392
53.357	31.66	13.25	25.75	0.00	4.54	75.20	14.507	372072.4	33.988	21.150	0.066	0.377
53.811	28.53	11.94	23.20	0.00	4.10	67.77	14.360	372072.4	33.988	21.150	0.059	0.338
(Deck Bar Cutoff) 54.581	23.08	9.66	18.77	0.00	3.31	54.82	14.109	372072.4	33.988	21.150	0.048	0.271
(SZB) 57.234	3.04	1.27	2.47	0.00	0.44	7.23	13.245	371396.5	33.950	21.150	0.006	0.035
(0.8L_e) 60.790	-26.88	-11.25	-21.86	0.00	-3.86	-63.85	12.088	369693.7	33.853	21.150	-0.051	-0.292
61.040	-29.11	-12.19	-23.68	0.00	-4.18	-69.17	12.007	369564.8	33.846	21.150	-0.055	-0.316
61.498	-33.26	-13.93	-27.05	0.00	-4.77	-79.01	11.858	369325.2	33.832	21.150	-0.063	-0.358
(SZB) 65.484	-71.79	-30.06	-58.39	0.00	-10.31	-170.53	10.561	367063.9	33.703	21.150	-0.129	-0.733
(0.9L_e) 68.388	-102.64	-42.97	-83.48	0.00	-14.73	-243.83	9.615	365209.2	33.598	21.150	-0.177	-1.005
68.722	-106.33	-44.52	-86.48	0.00	-15.26	-252.60	9.507	364984.8	33.585	21.150	-0.182	-1.036
69.185	-111.52	-46.69	-90.70	0.00	-16.01	-264.91	9.356	364668.7	33.567	21.150	-0.190	-1.079
(1.5H) 70.404	-125.43	-52.52	-102.02	0.00	-18.01	-297.97	8.960	363814.9	33.519	21.150	-0.210	-1.192
(SZB) 70.984	-132.21	-55.35	-107.53	0.00	-18.98	-314.07	8.771	363396.4	33.495	21.150	-0.219	-1.245
(CS) 71.847	-142.45	-59.64	-115.86	0.00	-20.45	-338.41	8.490	362760.4	33.459	21.150	-0.233	-1.324
(H) 72.154	-146.14	-61.19	-118.86	0.00	-20.98	-347.17	8.390	362530.5	33.445	21.150	-0.238	-1.352
(Bar Develop.) 73.222	-159.20	-66.66	-129.48	0.00	-22.85	-378.19	8.043	361712.1	33.399	21.150	-0.255	-1.448
(PSXFR) 73.404	-161.46	-67.60	-131.32	0.00	-23.18	-383.55	7.983	361570.0	33.391	21.150	-0.257	-1.464
(Bar Develop.) 74.282	-172.48	-72.22	-140.28	0.00	-24.76	-409.74	7.697	360872.8	33.351	21.150	-0.271	-1.542
(SZB) 74.650	-177.17	-74.18	-144.09	0.00	-25.43	-420.87	7.578	360575.3	33.334	21.150	-0.277	-1.574
(FoS) 75.654	-190.12	-79.60	-154.63	0.00	-27.29	-451.65	7.251	359747.8	33.287	21.150	-0.292	-1.661
(1.0L_e) 75.987	-194.49	-81.43	-158.18	0.00	-27.92	-462.02	7.143	359467.4	33.271	21.150	-0.297	-1.690
75.987	-194.49	-81.43	-158.18	0.00	-27.92	-462.02	7.143	359467.4	33.271	21.150	-0.297	-1.690
(STLF) 76.404	-199.99	-83.73	-162.64	0.00	-28.71	-475.07	7.007	359113.1	33.251	21.150	-0.303	-1.725

Elastic Gain Due to Live Load

Change in strand stress due to live load applied to the composite girder

$$\Delta f'''_{cd} = \frac{K_{llim} M_{llim}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pLL} = \frac{E_p}{E_c} \Delta f'''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

K_{llim} = 0.00

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(STRF) -0.417	0.00	0.00	7.007	368520.5	33.786	21.150	0.000	0.000	0.000	0.000
0.000	0.00	0.00	7.143	368750.7	33.799	21.150	0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	7.143	368750.7	33.799	21.150	0.000	0.000	0.000	0.000
(FoS) 0.333	0.00	0.00	7.251	368932.4	33.810	21.150	0.000	0.000	0.000	0.000
(SZB) 1.337	0.00	0.00	7.578	369466.0	33.840	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 1.705	0.00	0.00	7.697	369656.8	33.851	21.150	0.000	0.000	0.000	0.000
(PSXFR) 2.583	0.00	0.00	7.983	370101.5	33.876	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 2.765	0.00	0.00	8.043	370191.7	33.881	21.150	0.000	0.000	0.000	0.000
(H) 3.833	0.00	0.00	8.390	370708.3	33.911	21.150	0.000	0.000	0.000	0.000
(CS) 3.924	0.00	0.00	8.420	370751.1	33.913	21.150	0.000	0.000	0.000	0.000
(SZB) 5.003	0.00	0.00	8.771	371249.0	33.941	21.150	0.000	0.000	0.000	0.000
(1.5H) 5.583	0.00	0.00	8.960	371507.9	33.956	21.150	0.000	0.000	0.000	0.000
7.265	0.00	0.00	9.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.1L_e$) 7.599	0.00	0.00	9.615	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
7.687	0.00	0.00	9.644	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 10.503	0.00	0.00	10.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
14.947	0.00	0.00	12.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.2L_e$) 15.197	0.00	0.00	12.088	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
15.374	0.00	0.00	12.146	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 18.753	0.00	0.00	13.245	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
22.629	0.00	0.00	14.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.3L_e$) 22.796	0.00	0.00	14.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
23.062	0.00	0.00	14.648	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 29.753	0.00	0.00	16.825	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 30.311	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.4L_e$) 30.395	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
30.749	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.5L_e$) 37.993	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
38.436	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.6L_e$) 45.592	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 45.675	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
46.123	0.00	0.00	16.861	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 46.234	0.00	0.00	16.825	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.7L_e$) 53.191	0.00	0.00	14.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
53.357	0.00	0.00	14.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
53.811	0.00	0.00	14.360	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(Deck Bar Cutoff) 54.581	0.00	0.00	14.109	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 57.234	0.00	0.00	13.245	371396.5	33.950	21.150	0.000	0.000	0.000	0.000
($0.8L_e$) 60.790	0.00	0.00	12.088	369693.7	33.853	21.150	0.000	0.000	0.000	0.000
61.040	0.00	0.00	12.007	369564.8	33.846	21.150	0.000	0.000	0.000	0.000
61.498	0.00	0.00	11.858	369325.2	33.832	21.150	0.000	0.000	0.000	0.000
(SZB) 65.484	0.00	0.00	10.561	367063.9	33.703	21.150	0.000	0.000	0.000	0.000
($0.9L_e$) 68.388	0.00	0.00	9.615	365209.2	33.598	21.150	0.000	0.000	0.000	0.000
68.722	0.00	0.00	9.507	364984.8	33.585	21.150	0.000	0.000	0.000	0.000
69.185	0.00	0.00	9.356	364668.7	33.567	21.150	0.000	0.000	0.000	0.000
(1.5H) 70.404	0.00	0.00	8.960	363814.9	33.519	21.150	0.000	0.000	0.000	0.000
(SZB) 70.984	0.00	0.00	8.771	363396.4	33.495	21.150	0.000	0.000	0.000	0.000
(CS) 71.847	0.00	0.00	8.490	362760.4	33.459	21.150	0.000	0.000	0.000	0.000
(H) 72.154	0.00	0.00	8.390	362530.5	33.445	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 73.222	0.00	0.00	8.043	361712.1	33.399	21.150	0.000	0.000	0.000	0.000
(PSXFR) 73.404	0.00	0.00	7.983	361570.0	33.391	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 74.282	0.00	0.00	7.697	360872.8	33.351	21.150	0.000	0.000	0.000	0.000
(SZB) 74.650	0.00	0.00	7.578	360575.3	33.334	21.150	0.000	0.000	0.000	0.000
(FoS) 75.654	0.00	0.00	7.251	359747.8	33.287	21.150	0.000	0.000	0.000	0.000
($1.0L_e$) 75.987	0.00	0.00	7.143	359467.4	33.271	21.150	0.000	0.000	0.000	0.000
75.987	0.00	0.00	7.143	359467.4	33.271	21.150	0.000	0.000	0.000	0.000
(STLF) 76.404	0.00	0.00	7.007	359113.1	33.251	21.150	0.000	0.000	0.000	0.000

Effective Prestress

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL}$

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL} + \Delta f_{pLL}$

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(STRF) -0.417	202.500	13.299	27.711	0.000	0.000	41.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
($0.0L_e$) 0.000	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
(FoS) 0.333	202.500	13.381	27.711	0.043	0.023	41.026	0.250	40.369	0.000	0.000	40.369	40.369	40.369
(SZB) 1.337	202.500	13.494	27.711	0.178	0.093	40.934	0.584	94.423	0.000	0.000	94.423	94.423	94.423
(Bar Develop.) 1.705	202.500	13.537	27.711	0.229	0.119	40.899	0.707	114.269	0.000	0.000	114.269	114.269	114.269
(PSXFR) 2.583	202.500	13.640	27.711	0.356	0.180	40.815	1.000	161.685	0.000	0.000	161.685	161.685	161.685
(Bar Develop.) 2.765	202.500	13.662	27.711	0.383	0.192	40.797	1.000	161.703	0.000	0.000	161.703	161.703	161.703
(H) 3.833	202.500	13.792	27.711	0.547	0.266	40.690	1.000	161.810	0.000	0.000	161.810	161.810	161.810
(CS) 3.924	202.500	13.803	27.711	0.561	0.272	40.681	1.000	161.819	0.000	0.000	161.819	161.819	161.819
(SZB) 5.003	202.500	13.940	27.711	0.734	0.345	40.571	1.000	161.929	0.000	0.000	161.929	161.929	161.929
(1.5H) 5.583	202.500	14.016	27.711	0.831	0.384	40.512	1.000	161.988	0.000	0.000	161.988	161.988	161.988
7.265	202.500	14.245	27.711	1.121	0.496	40.339	1.000	162.161	0.000	0.000	162.161	162.161	162.161
($0.1L_e$) 7.599	202.500	14.292	27.711	1.180	0.518	40.305	1.000	162.195	0.000	0.000	162.195	162.195	162.195
7.687	202.500	14.305	27.711	1.196	0.524	40.296	1.000	162.204	0.000	0.000	162.204	162.204	162.204

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(SZB) 10.503	202.500	14.729	27.711	1.718	0.703	40.019	1.000	162.481	0.000	0.000	162.481	162.481	162.481
14.947	202.500	15.500	27.711	2.596	0.962	39.653	1.000	162.847	0.000	0.000	162.847	162.847	162.847
(0.2L_e) 15.197	202.500	15.547	27.711	2.646	0.976	39.636	1.000	162.864	0.000	0.000	162.864	162.864	162.864
15.374	202.500	15.581	27.711	2.682	0.985	39.625	1.000	162.875	0.000	0.000	162.875	162.875	162.875
(SZB) 18.753	202.500	16.274	27.711	3.372	1.154	39.459	1.000	163.041	0.000	0.000	163.041	163.041	163.041
22.629	202.500	17.186	27.711	4.157	1.314	39.425	1.000	163.075	0.000	0.000	163.075	163.075	163.075
(0.3L_e) 22.796	202.500	17.228	27.711	4.190	1.320	39.428	1.000	163.072	0.000	0.000	163.072	163.072	163.072
23.062	202.500	17.295	27.711	4.243	1.330	39.434	1.000	163.066	0.000	0.000	163.066	163.066	163.066
(SZB) 29.753	202.500	19.230	27.711	5.492	1.493	39.956	1.000	162.544	0.000	0.000	162.544	162.544	162.544
(HP) 30.311	202.500	19.412	27.711	5.587	1.500	40.037	1.000	162.463	0.000	0.000	162.463	162.463	162.463
(0.4L_e) 30.395	202.500	19.408	27.711	5.592	1.499	40.028	1.000	162.472	0.000	0.000	162.472	162.472	162.472
30.749	202.500	19.394	27.711	5.613	1.497	39.995	1.000	162.505	0.000	0.000	162.505	162.505	162.505
(0.5L_e) 37.993	202.500	19.251	27.711	5.813	1.351	39.797	1.000	162.703	0.000	0.000	162.703	162.703	162.703
38.436	202.500	19.251	27.711	5.812	1.336	39.815	1.000	162.685	0.000	0.000	162.685	162.685	162.685
(0.6L_e) 45.592	202.500	19.408	27.711	5.560	0.993	40.566	1.000	161.934	0.000	0.000	161.934	161.934	161.934
(HP) 45.675	202.500	19.412	27.711	5.555	0.988	40.580	1.000	161.920	0.000	0.000	161.920	161.920	161.920
46.123	202.500	19.266	27.711	5.478	0.956	40.543	1.000	161.957	0.000	0.000	161.957	161.957	161.957
(SZB) 46.234	202.500	19.230	27.711	5.458	0.948	40.535	1.000	161.965	0.000	0.000	161.965	161.965	161.965
(0.7L_e) 53.191	202.500	17.228	27.711	4.143	0.392	40.404	1.000	162.096	0.000	0.000	162.096	162.096	162.096
53.357	202.500	17.186	27.711	4.109	0.377	40.410	1.000	162.090	0.000	0.000	162.090	162.090	162.090
53.811	202.500	17.072	27.711	4.018	0.338	40.427	1.000	162.073	0.000	0.000	162.073	162.073	162.073
(Deck Bar Cutoff) 54.581	202.500	16.884	27.711	3.863	0.271	40.460	1.000	162.040	0.000	0.000	162.040	162.040	162.040
(SZB) 57.234	202.500	16.274	27.711	3.323	0.035	40.627	1.000	161.873	0.000	0.000	161.873	161.873	161.873
(0.8L_e) 60.790	202.500	15.547	27.711	2.601	-0.292	40.949	1.000	161.551	0.000	0.000	161.551	161.551	161.551
61.040	202.500	15.500	27.711	2.551	-0.316	40.975	1.000	161.525	0.000	0.000	161.525	161.525	161.525
61.498	202.500	15.414	27.711	2.459	-0.358	41.024	1.000	161.476	0.000	0.000	161.476	161.476	161.476
(SZB) 65.484	202.500	14.729	27.711	1.682	-0.733	41.490	1.000	161.010	0.000	0.000	161.010	161.010	161.010
(0.9L_e) 68.388	202.500	14.292	27.711	1.153	-1.005	41.855	1.000	160.645	0.000	0.000	160.645	160.645	160.645
68.722	202.500	14.245	27.711	1.095	-1.036	41.898	1.000	160.602	0.000	0.000	160.602	160.602	160.602
69.185	202.500	14.181	27.711	1.015	-1.079	41.956	1.000	160.544	0.000	0.000	160.544	160.544	160.544
(1.5H) 70.404	202.500	14.016	27.711	0.811	-1.192	42.109	1.000	160.391	0.000	0.000	160.391	160.391	160.391
(SZB) 70.984	202.500	13.940	27.711	0.716	-1.245	42.180	1.000	160.320	0.000	0.000	160.320	160.320	160.320
(CS) 71.847	202.500	13.830	27.711	0.580	-1.324	42.285	1.000	160.215	0.000	0.000	160.215	160.215	160.215
(H) 72.154	202.500	13.792	27.711	0.533	-1.352	42.322	1.000	160.178	0.000	0.000	160.178	160.178	160.178
(Bar Develop.) 73.222	202.500	13.662	27.711	0.373	-1.448	42.447	1.000	160.053	0.000	0.000	160.053	160.053	160.053
(PSXFR) 73.404	202.500	13.640	27.711	0.347	-1.464	42.468	1.000	160.032	0.000	0.000	160.032	160.032	160.032
(Bar Develop.) 74.282	202.500	13.537	27.711	0.223	-1.542	42.566	0.707	113.090	0.000	0.000	113.090	113.090	113.090
(SZB) 74.650	202.500	13.494	27.711	0.173	-1.574	42.606	0.584	93.446	0.000	0.000	93.446	93.446	93.446
(FoS) 75.654	202.500	13.381	27.711	0.042	-1.661	42.711	0.250	39.947	0.000	0.000	39.947	39.947	39.947
(1.0L_e) 75.987	202.500	13.344	27.711	-0.000	-1.690	42.745	0.139	22.188	0.000	0.000	22.188	22.188	22.188
75.987	202.500	13.344	27.711	-0.000	-1.690	42.745	0.139	22.188	0.000	0.000	22.188	22.188	22.188
(STLF) 76.404	202.500	13.299	27.711	0.000	-1.725	42.735	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Prestress Loss

% Loss Initial = $(\Delta f_{pES})/f_{pj}$

% Loss Final (Time dependent losses only) = $(\Delta f_{pLT})/f_{pj}$

% Loss Total (Time dependent losses and instantaneous effects) = $(f_{pj} - f_{pe})/f_{pj}$

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(STRF) -0.417	13.299	100.0	27.711	100.0	41.010	0.000	100.0
0.000	13.344	87.0	27.711	88.0	41.055	22.423	88.9
(0.0L_e) 0.000	13.344	87.0	27.711	88.0	41.055	22.423	88.9
(FoS) 0.333	13.381	76.7	27.711	78.4	41.026	40.369	80.1
(SZB) 1.337	13.494	45.5	27.711	49.6	40.934	94.423	53.4
(Bar Develop.) 1.705	13.537	34.0	27.711	39.0	40.899	114.269	43.6
(PSXFR) 2.583	13.640	6.7	27.711	13.7	40.815	161.685	20.2
(Bar Develop.) 2.765	13.662	6.7	27.711	13.7	40.797	161.703	20.1
(H) 3.833	13.792	6.8	27.711	13.7	40.690	161.810	20.1
(CS) 3.924	13.803	6.8	27.711	13.7	40.681	161.819	20.1
(SZB) 5.003	13.940	6.9	27.711	13.7	40.571	161.929	20.0
(1.5H) 5.583	14.016	6.9	27.711	13.7	40.512	161.988	20.0
7.265	14.245	7.0	27.711	13.7	40.339	162.161	19.9
(0.1L_e) 7.599	14.292	7.1	27.711	13.7	40.305	162.195	19.9
7.687	14.305	7.1	27.711	13.7	40.296	162.204	19.9
(SZB) 10.503	14.729	7.3	27.711	13.7	40.019	162.481	19.8
14.947	15.500	7.7	27.711	13.7	39.653	162.847	19.6
(0.2L_e) 15.197	15.547	7.7	27.711	13.7	39.636	162.864	19.6
15.374	15.581	7.7	27.711	13.7	39.625	162.875	19.6
(SZB) 18.753	16.274	8.0	27.711	13.7	39.459	163.041	19.5
22.629	17.186	8.5	27.711	13.7	39.425	163.075	19.5
(0.3L_e) 22.796	17.228	8.5	27.711	13.7	39.428	163.072	19.5
23.062	17.295	8.5	27.711	13.7	39.434	163.066	19.5
(SZB) 29.753	19.230	9.5	27.711	13.7	39.956	162.544	19.7
(HP) 30.311	19.412	9.6	27.711	13.7	40.037	162.463	19.8
(0.4L_e) 30.395	19.408	9.6	27.711	13.7	40.028	162.472	19.8
30.749	19.394	9.6	27.711	13.7	39.995	162.505	19.8
(0.5L_e) 37.993	19.251	9.5	27.711	13.7	39.797	162.703	19.7
38.436	19.251	9.5	27.711	13.7	39.815	162.685	19.7
(0.6L_e) 45.592	19.408	9.6	27.711	13.7	40.566	161.934	20.0

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(HP) 45.675	19.412	9.6	27.711	13.7	40.580	161.920	20.0
46.123	19.266	9.5	27.711	13.7	40.543	161.957	20.0
(SZB) 46.234	19.230	9.5	27.711	13.7	40.535	161.965	20.0
($0.7L_e$) 53.191	17.228	8.5	27.711	13.7	40.404	162.096	20.0
53.357	17.186	8.5	27.711	13.7	40.410	162.090	20.0
53.811	17.072	8.4	27.711	13.7	40.427	162.073	20.0
(Deck Bar Cutoff) 54.581	16.884	8.3	27.711	13.7	40.460	162.040	20.0
(SZB) 57.234	16.274	8.0	27.711	13.7	40.627	161.873	20.1
($0.8L_e$) 60.790	15.547	7.7	27.711	13.7	40.949	161.551	20.2
61.040	15.500	7.7	27.711	13.7	40.975	161.525	20.2
61.498	15.414	7.6	27.711	13.7	41.024	161.476	20.3
(SZB) 65.484	14.729	7.3	27.711	13.7	41.490	161.010	20.5
($0.9L_e$) 68.388	14.292	7.1	27.711	13.7	41.855	160.645	20.7
68.722	14.245	7.0	27.711	13.7	41.898	160.602	20.7
69.185	14.181	7.0	27.711	13.7	41.956	160.544	20.7
(1.5H) 70.404	14.016	6.9	27.711	13.7	42.109	160.391	20.8
(SZB) 70.984	13.940	6.9	27.711	13.7	42.180	160.320	20.8
(CS) 71.847	13.830	6.8	27.711	13.7	42.285	160.215	20.9
(H) 72.154	13.792	6.8	27.711	13.7	42.322	160.178	20.9
(Bar Develop.) 73.222	13.662	6.7	27.711	13.7	42.447	160.053	21.0
(PSXFR) 73.404	13.640	6.7	27.711	13.7	42.468	160.032	21.0
(Bar Develop.) 74.282	13.537	34.0	27.711	39.0	42.566	113.090	44.2
(SZB) 74.650	13.494	45.5	27.711	49.6	42.606	93.446	53.9
(FoS) 75.654	13.381	76.7	27.711	78.4	42.711	39.947	80.3
($1.0L_e$) 75.987	13.344	87.0	27.711	88.0	42.745	22.188	89.0
75.987	13.344	87.0	27.711	88.0	42.745	22.188	89.0
(STLF) 76.404	13.299	100.0	27.711	100.0	42.735	0.000	100.0

Reinforcement Requirements for Tension Limits

Minimum amount of bonded reinforcement sufficent to resist the tensile force in the concrete [5.9.2.3][C5.9.2.3.1b]

Reinforcement required for tension stress limit, Interval 2 - Prestress Release, [C5.9.2.3.1b]

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
(STRF, $0.0L_r$) 0.000	0.000	0.000	0.000	0.000	0.00	0.000	-
(PSXFR) 3.000	11.994	-0.641	-2.884	0.000	0.00	0.000	-
($0.1L_r$) 7.682	10.589	-0.589	-2.926	0.000	0.00	0.000	-
($0.2L_r$) 15.364	7.295	-0.450	-3.043	0.000	0.00	0.000	-
($0.3L_r$) 23.046	3.484	-0.246	-3.218	0.000	0.00	0.000	-
(HP, $0.4L_r$) 30.728	-0.232	0.019	-3.446	9.989	0.10	0.000	0.003
($0.5L_r$) 38.410	0.195	-0.016	-3.413	0.000	0.00	0.000	-
(HP, $0.6L_r$) 46.092	-0.232	0.019	-3.446	9.989	0.10	0.000	0.003
($0.7L_r$) 53.774	3.484	-0.246	-3.218	0.000	0.00	0.000	-
($0.8L_r$) 61.456	7.295	-0.450	-3.043	0.000	0.00	0.000	-
($0.9L_r$) 69.138	10.589	-0.589	-2.926	0.000	0.00	0.000	-
(PSXFR) 73.820	11.994	-0.641	-2.884	0.000	0.00	0.000	-
(STLF, $1.0L_r$) 76.820	0.000	0.000	0.000	0.000	0.00	0.000	-

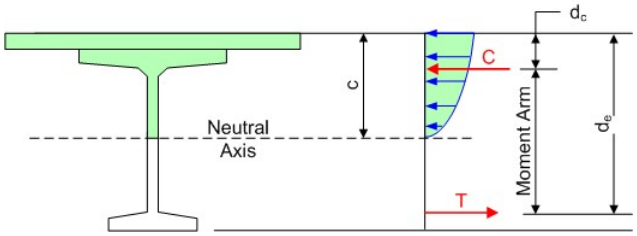
Y_{na}, the location of the neutral axis, is measured from the top of the non-composite girder

* to be considered sufficient, reinforcement must be fully developed and lie within the tension area of the section

** minimum area of sufficiently bonded reinforcement needed to use the alternative tensile stress limit

Moment Capacity Details

Positive Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(STRF) -0.417	1.214	0.607	49.000	49.000	48.000	0.116	0.000	0.000	77.143	1.000	48.393	468.72	468.72	1890.24
0.000	1.464	0.732	46.095	48.811	48.000	0.095	22.423	0.787	93.273	1.000	45.363	566.73	566.73	2142.37
($0.0L_s$) 0.000	1.464	0.732	46.095	48.811	48.000	0.095	22.423	0.787	93.273	1.000	45.363	566.73	566.73	2142.37
(FoS) 0.333	1.664	0.832	44.456	48.683	48.000	0.084	40.369	1.416	106.149	1.000	43.625	644.96	644.96	2344.69
1.333	2.255	1.128	41.481	48.389	48.000	0.061	94.247	3.307	144.598	1.000	40.354	878.57	878.57	2954.48
(SZB) 1.337	2.257	1.129	41.475	48.389	48.000	0.061	94.423	3.313	144.723	1.000	40.346	879.34	879.34	2956.49
(Bar Develop.) 1.705	2.473	1.236	40.807	48.305	48.000	0.055	114.269	4.009	158.814	1.000	39.571	964.95	964.95	3182.01
(PSXFR) 2.583	3.409	1.435	39.760	48.141	48.000	0.039	161.685	5.673	191.925	1.000	38.325	1166.13	1166.13	3724.36
2.625	3.416	1.437	39.761	48.139	48.000	0.039	161.689	5.673	192.242	1.000	38.324	1168.06	1168.06	3730.38
(Bar Develop.) 2.765	3.440	1.446	39.765	48.135	48.000	0.039	161.703	5.674	193.310	1.000	38.319	1174.55	1174.55	3750.68

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(H) 3.833	3.616	1.510	39.814	48.101	48.000	0.037	161.810	5.678	201.452	1.000	38.304	1224.02	1224.02	3907.02
(CS) 3.924	3.630	1.516	39.819	48.099	48.000	0.037	161.819	5.678	202.141	1.000	38.304	1228.21	1228.21	3920.41
4.583	3.733	1.557	39.867	46.204	48.000	0.036	161.886	5.680	207.175	1.000	38.311	1258.79	1258.79	4018.76
(SZB) 5.003	3.800	1.585	39.904	46.203	48.000	0.035	161.929	5.682	210.374	1.000	38.320	1278.23	1278.23	4081.78
(1.5H) 5.583	3.894	1.626	39.963	46.204	48.000	0.034	161.988	5.684	214.802	1.000	38.337	1305.14	1305.14	4169.61
7.265	4.160	1.749	40.177	44.575	48.000	0.032	162.161	5.690	227.635	1.000	38.428	1383.11	1383.11	4429.17
7.599	4.215	1.776	40.227	44.594	48.000	0.031	162.195	5.691	230.176	1.000	38.451	1398.55	1398.55	4481.27
($0.1L_s$) 7.687	4.230	1.783	40.241	44.599	48.000	0.031	162.204	5.691	230.850	1.000	38.457	1402.65	1402.65	4495.16
8.665	4.388	1.862	40.401	44.663	48.000	0.030	162.303	5.695	238.310	1.000	38.538	1447.97	1447.97	4650.19
(SZB) 10.503	4.672	2.009	40.745	43.392	48.000	0.028	162.481	5.701	252.334	1.000	38.735	1533.18	1533.18	4949.03
11.265	4.787	2.070	40.903	42.174	48.000	0.027	162.551	5.704	258.161	1.000	38.833	1568.58	1568.58	5076.05
14.947	4.977	2.172	41.941	41.941	48.000	0.026	162.847	5.714	268.066	1.000	39.769	1628.77	1628.77	5397.89
15.197	4.978	2.173	42.020	42.020	48.000	0.026	162.864	5.715	268.110	1.000	39.847	1629.04	1629.04	5409.37
($0.2L_s$) 15.374	4.978	2.173	42.075	42.075	48.000	0.026	162.875	5.715	268.141	1.000	39.902	1629.23	1629.23	5417.51
15.997	4.980	2.174	42.271	42.271	48.000	0.026	162.914	5.716	268.250	1.000	40.097	1629.89	1629.89	5446.17
17.947	4.987	2.178	42.887	42.887	48.000	0.026	163.012	5.720	268.587	1.000	40.709	1631.94	1631.94	5536.27
(SZB) 18.753	4.989	2.179	43.142	43.142	48.000	0.026	163.041	5.721	268.726	1.000	40.963	1632.78	1632.78	5573.64
22.629	5.001	2.186	44.378	44.378	48.000	0.026	163.075	5.722	269.357	1.000	42.192	1636.61	1636.61	5754.34
22.796	5.002	2.186	44.431	44.431	48.000	0.026	163.072	5.722	269.380	1.000	42.245	1636.75	1636.75	5762.07
($0.3L_s$) 23.062	5.002	2.186	44.516	44.516	48.000	0.026	163.066	5.722	269.416	1.000	42.330	1636.97	1636.97	5774.41
23.329	5.003	2.186	44.602	44.602	48.000	0.026	163.059	5.721	269.452	1.000	42.415	1637.19	1637.19	5786.85
24.629	5.006	2.188	45.020	45.020	48.000	0.026	163.012	5.720	269.608	1.000	42.832	1638.14	1638.14	5846.99
(SZB) 29.753	5.013	2.192	46.676	46.676	48.000	0.026	162.544	5.703	269.968	1.000	44.484	1640.32	1640.32	6080.72
(HP) 30.311	5.013	2.192	46.857	46.857	48.000	0.026	162.463	5.700	269.987	1.000	44.665	1640.44	1640.44	6105.92
30.316	5.013	2.192	46.857	46.857	48.000	0.026	162.464	5.700	269.987	1.000	44.665	1640.44	1640.44	6105.92
30.395	5.013	2.192	46.857	46.857	48.000	0.026	162.472	5.701	269.987	1.000	44.665	1640.44	1640.44	6105.92
30.661	5.013	2.192	46.857	46.857	48.000	0.026	162.497	5.702	269.987	1.000	44.665	1640.44	1640.44	6105.92
($0.4L_s$) 30.749	5.013	2.192	46.857	46.857	48.000	0.026	162.505	5.702	269.987	1.000	44.665	1640.44	1640.44	6105.92
31.311	5.013	2.192	46.857	46.857	48.000	0.026	162.553	5.704	269.987	1.000	44.665	1640.44	1640.44	6105.92
37.993	5.013	2.192	46.857	46.857	48.000	0.026	162.703	5.709	269.987	1.000	44.665	1640.44	1640.44	6105.93
($0.5L_s$) 38.436	5.013	2.192	46.857	46.857	48.000	0.026	162.685	5.708	269.987	1.000	44.665	1640.44	1640.44	6105.93
44.675	5.013	2.192	46.857	46.857	48.000	0.026	162.080	5.687	269.986	1.000	44.665	1640.44	1640.44	6105.90
45.325	5.013	2.192	46.857	46.857	48.000	0.026	161.978	5.683	269.986	1.000	44.666	1640.43	1640.43	6105.90
45.592	5.013	2.192	46.857	46.857	48.000	0.026	161.934	5.682	269.986	1.000	44.666	1640.43	1640.43	6105.90
45.671	5.013	2.192	46.857	46.857	48.000	0.026	161.921	5.681	269.986	1.000	44.666	1640.43	1640.43	6105.90
(HP) 45.675	5.013	2.192	46.857	46.857	48.000	0.026	161.920	5.681	269.986	1.000	44.666	1640.43	1640.43	6105.90
($0.6L_s$) 46.123	5.013	2.192	46.712	46.712	48.000	0.026	161.957	5.683	269.970	1.000	44.520	1640.34	1640.34	6085.70
(SZB) 46.234	5.013	2.192	46.676	46.676	48.000	0.026	161.965	5.683	269.967	1.000	44.484	1640.32	1640.32	6080.70
51.357	5.006	2.188	45.020	45.020	48.000	0.026	162.132	5.689	269.602	1.000	42.832	1638.10	1638.10	5846.89
52.657	5.003	2.186	44.602	44.602	48.000	0.026	162.111	5.688	269.444	1.000	42.416	1637.14	1637.14	5786.71
53.191	5.002	2.186	44.431	44.431	48.000	0.026	162.096	5.688	269.371	1.000	42.246	1636.70	1636.70	5761.93
53.357	5.001	2.185	44.378	44.378	48.000	0.026	162.090	5.687	269.348	1.000	42.192	1636.56	1636.56	5754.20
($0.7L_s$) 53.811	5.000	2.185	44.233	44.233	48.000	0.026	162.073	5.687	269.286	1.000	42.048	1636.18	1636.18	5733.18
54.576	4.998	2.184	43.988	43.988	48.000	0.026	162.040	5.686	269.168	1.000	41.805	1635.47	1635.47	5697.49
(Deck Bar Cutoff) 54.581	4.998	2.184	43.987	43.987	48.000	0.026	162.040	5.686	269.167	1.000	41.803	1635.46	1635.46	5697.26
(SZB) 57.234	5.020	2.196	43.144	43.144	48.000	0.026	161.873	5.680	268.672	1.000	40.948	1632.45	1632.45	5570.49
58.040	5.034	2.203	42.890	42.890	48.000	0.026	161.809	5.678	268.512	1.000	40.686	1631.48	1631.48	5531.57
59.990	5.071	2.223	42.276	42.276	48.000	0.025	161.632	5.671	268.124	1.000	40.053	1629.12	1629.12	5437.60
60.790	5.087	2.232	42.026	42.026	48.000	0.025	161.551	5.668	267.964	1.000	39.794	1628.15	1628.15	5399.17
61.040	5.092	2.235	41.947	41.947	48.000	0.025	161.525	5.668	267.914	1.000	39.713	1627.85	1627.85	5387.17
($0.8L_s$) 61.498	5.102	2.240	41.804	41.804	48.000	0.025	161.476	5.666	267.822	1.000	39.564	1627.29	1627.29	5365.19
64.722	4.994	2.182	40.915	42.186	48.000	0.026	161.103	5.653	257.917	1.000	38.734	1567.10	1567.10	5058.31
(SZB) 65.484	4.899	2.130	40.759	43.403	48.000	0.026	161.010	5.649	252.072	1.000	38.629	1531.59	1531.59	4930.26
67.322	4.664	2.005	40.420	44.674	48.000	0.028	160.779	5.641	238.003	1.000	38.415	1446.11	1446.11	4629.30
68.388	4.523	1.931	40.250	44.607	48.000	0.029	160.645	5.637	229.842	1.000	38.319	1396.52	1396.52	4459.39
68.722	4.478	1.908	40.201	44.589	48.000	0.029	160.602	5.635	227.293	1.000	38.293	1381.03	1381.03	4407.02
($0.9L_s$) 69.185	4.414	1.876	40.138	44.565	48.000	0.030	160.544	5.633	223.750	1.000	38.262	1359.51	1359.51	4334.77
(1.5H) 70.404	4.242	1.790	39.992	46.214	48.000	0.031	160.391	5.628	214.440	1.000	38.203	1302.94	1302.94	4147.98
(SZB) 70.984	4.158	1.748	39.935	46.214	48.000	0.032	160.320	5.625	210.006	1.000	38.187	1276.00	1276.00	4060.55
71.404	4.095	1.718	39.900	46.215	48.000	0.032	160.268	5.623	206.806	1.000	38.181	1256.56	1256.56	3998.07
(CS) 71.847	4.028	1.687	39.867	48.092	48.000	0.033	160.215	5.622	203.422	1.000	38.180	1235.99	1235.99	3932.54
(H) 72.154	3.980	1.665	39.848	48.101	48.000	0.033	160.178	5.620	201.086	1.000	38.183	1221.80	1221.80	3887.64
(Bar Develop.) 73.222	3.809	1.589	39.802	48.135	48.000	0.035	160.053	5.616	192.947	1.000	38.213	1172.35	1172.35	3733.28
73.362	3.785	1.579	39.799	48.139	48.000	0.035	160.037	5.615	191.879	1.000	38.220	1165.86	1165.86	3713.25
(PSXFR) 73.404	3.778	1.576	39.798	48.141	48.000	0.035	160.032	5.615	191.562	1.000	38.222	1163.93	1163.93	3707.31
(Bar Develop.) 74.282	2.845	1.296	40.860	48.305	48.000	0.048	113.090	3.968	158.429	1.000	39.564	962.62	962.62	3173.76
(SZB) 74.650	2.448	1.224	41.502	48.389	48.000	0.056	93.446	3.279	144.560	1.000	40.277	878.35	878.35	2948.13
74.654	2.446	1.223	41.508	48.389	48.000	0.056	93.271	3.273	144.434	1.000	40.285	877.58	877.58	2946.13
(FoS) 75.654	1.811	0.905	44.468	48.683	48.000	0.077	39.947	1.402	106.108	1.000	43.563	644.71	644.71	2340.44
75.987	1.596	0.798	46.101	48.811	48.000	0.087	22.188	0.779	93.257	1.000	45.303	566.63	566.63	2139.17
75.987	1.596	0.798	46.101	48.811	48.000	0.087	22.188	0.779	93.257	1.000	45.303	566.63	566.63	2139.17
(STLF) 76.404	1.324	0.662	49.000	49.000	48.000	0.106	0.000	0.000	77.143	1.000	48.338	468.72	468.72	1888.08
($1.0L_s$) 76.872	1.329	0.665	49.000	49.000	48.000	0.105	0.000	0.000	77.143	1.000	48.335	468.72	468.72	1887.98

* Used to compute d_v for shear. Depth to resultant tension force for strands in tension. See PCI Bridge Design Manual, 3rd Edition, MNL-133-11, §8.4.1.2

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.25(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 1.0$$

Positive Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STRF) -0.417	0.679	0.000	7237.4	10907.4	0.00	987.23
0.000	0.679	0.343	7237.4	10910.0	0.00	1330.26
($0.0L_s$) 0.000	0.679	0.343	7237.4	10910.0	0.00	1330.26
(FoS) 0.333	0.679	0.621	7237.4	10912.0	22.63	1597.11
1.333	0.679	1.475	7237.4	10918.0	89.36	2419.02
(SZB) 1.337	0.679	1.478	7237.4	10918.0	89.58	2421.77
(Bar Develop.) 1.705	0.679	1.800	7237.4	10920.2	113.69	2732.39
(PSXFR) 2.583	0.679	2.586	7237.4	10925.1	170.32	3491.63
2.625	0.679	2.588	7237.4	10925.4	172.98	3492.26
(Bar Develop.) 2.765	0.679	2.594	7237.4	10926.1	181.88	3494.39
(H) 3.833	0.679	2.643	7237.4	10931.9	248.56	3511.13
(CS) 3.924	0.679	2.647	7237.4	10932.4	254.11	3512.59
4.583	0.679	2.677	7237.4	10935.8	294.19	3523.48
(SZB) 5.003	0.679	2.697	7237.4	10938.0	319.26	3530.59
(1.5H) 5.583	0.679	2.723	7237.4	10940.8	353.48	3540.70
7.265	0.679	2.801	7237.4	10947.1	449.24	3571.14
7.599	0.679	2.816	7237.4	10947.1	467.62	3577.13
($0.1L_s$) 7.687	0.679	2.820	7237.4	10947.1	472.47	3578.74
8.665	0.679	2.865	7237.4	10947.1	525.12	3597.00
(SZB) 10.503	0.679	2.950	7237.4	10947.1	619.42	3633.67
11.265	0.679	2.985	7237.4	10947.1	656.79	3649.79
14.947	0.679	3.154	7237.4	10947.1	822.56	3734.65
15.197	0.679	3.166	7237.4	10947.1	832.94	3740.83
($0.2L_s$) 15.374	0.679	3.174	7237.4	10947.1	840.21	3745.23
15.997	0.679	3.202	7237.4	10947.1	865.37	3760.91
17.947	0.679	3.291	7237.4	10947.1	939.58	3811.96
(SZB) 18.753	0.679	3.328	7237.4	10947.1	968.21	3833.87
22.629	0.679	3.501	7237.4	10947.1	1089.61	3945.66
22.796	0.679	3.509	7237.4	10947.1	1094.22	3950.68
($0.3L_s$) 23.062	0.679	3.520	7237.4	10947.1	1101.45	3958.73
23.329	0.679	3.532	7237.4	10947.1	1108.62	3966.88
24.629	0.679	3.589	7237.4	10947.1	1141.54	4007.06
(SZB) 29.753	0.679	3.806	7237.4	10947.1	1241.26	4173.93
(HP) 30.311	0.679	3.829	7237.4	10947.1	1249.24	4192.84
30.316	0.679	3.829	7237.4	10947.1	1249.31	4192.81
30.395	0.679	3.829	7237.4	10947.1	1250.38	4192.44
30.661	0.679	3.830	7237.4	10947.1	1253.94	4191.21
($0.4L_s$) 30.749	0.679	3.830	7237.4	10947.1	1255.08	4190.81
31.311	0.679	3.831	7237.4	10947.1	1262.09	4188.36
37.993	0.679	3.835	7237.4	10947.1	1300.98	4171.97
($0.5L_s$) 38.436	0.679	3.834	7237.4	10947.1	1300.67	4171.72
44.675	0.679	3.820	7237.4	10947.1	1258.38	4179.07
45.325	0.679	3.818	7237.4	10947.1	1249.91	4181.01
45.592	0.679	3.817	7237.4	10947.1	1246.21	4181.87
45.671	0.679	3.816	7237.4	10947.1	1245.10	4182.13
(HP) 45.675	0.679	3.816	7237.4	10947.1	1245.03	4182.14
($0.6L_s$) 46.123	0.679	3.797	7237.4	10947.1	1238.46	4166.49
(SZB) 46.234	0.679	3.793	7237.4	10947.1	1236.78	4162.63
51.357	0.679	3.569	7237.4	10947.1	1134.84	3991.06
52.657	0.679	3.511	7237.4	10947.1	1101.47	3949.92
53.191	0.679	3.487	7237.4	10947.1	1086.90	3933.35
53.357	0.679	3.480	7237.4	10947.1	1082.25	3928.22
($0.7L_s$) 53.811	0.679	3.460	7237.4	10947.1	1069.34	3914.34
54.576	0.679	3.425	7237.4	10947.1	1046.70	3891.22
(Deck Bar Cutoff) 54.581	0.679	3.425	7237.4	10947.1	1046.56	3891.07
(SZB) 57.234	0.679	3.304	7237.4	10939.6	960.00	3812.19
58.040	0.679	3.267	7237.4	10935.5	931.27	3788.82
59.990	0.679	3.177	7237.4	10925.1	856.95	3734.13
60.790	0.679	3.140	7237.4	10920.6	824.54	3712.50
61.040	0.679	3.129	7237.4	10919.1	814.17	3705.83
($0.8L_s$) 61.498	0.679	3.108	7237.4	10916.4	794.90	3693.74
64.722	0.679	2.959	7237.4	10896.2	648.99	3613.23
(SZB) 65.484	0.679	2.923	7237.4	10891.0	611.84	3595.37
67.322	0.679	2.838	7237.4	10878.0	518.26	3554.23
68.388	0.679	2.789	7237.4	10870.0	461.30	3531.58
68.722	0.679	2.774	7237.4	10867.4	443.10	3524.68
($0.9L_s$) 69.185	0.679	2.753	7237.4	10863.9	417.49	3515.25
(1.5H) 70.404	0.679	2.697	7237.4	10854.1	348.41	3491.27
(SZB) 70.984	0.679	2.670	7237.4	10849.4	314.61	3480.26
71.404	0.679	2.651	7237.4	10845.9	289.85	3472.47
(CS) 71.847	0.679	2.630	7237.4	10842.1	263.34	3464.40
(H) 72.154	0.679	2.616	7237.4	10839.5	244.83	3458.91
(Bar Develop.) 73.222	0.679	2.568	7237.4	10830.1	179.09	3440.37
73.362	0.679	2.561	7237.4	10828.8	170.31	3438.00
(PSXFR) 73.404	0.679	2.559	7237.4	10828.5	167.70	3437.30
(Bar Develop.) 74.282	0.679	1.781	7237.4	10820.4	111.91	2690.95
(SZB) 74.650	0.679	1.463	7237.4	10817.0	88.16	2385.73
74.654	0.679	1.460	7237.4	10817.0	87.94	2383.02
(FoS) 75.654	0.679	0.614	7237.4	10807.5	22.26	1575.79
75.987	0.679	0.339	7237.4	10804.2	-0.00	1313.82
75.987	0.679	0.339	7237.4	10804.2	-0.00	1313.82
(STLF) 76.404	0.679	0.000	7237.4	10800.1	0.00	977.52

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(1.0L_s) 76.872	0.509	0.000	13052.7	13052.7	0.00	886.05

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement,γ_3 = 1

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

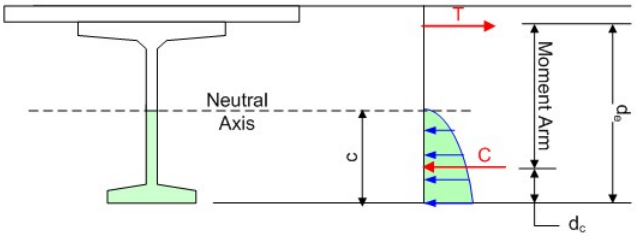
Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(STRF) -0.417	987.23	Strength II	0.00	0.00	0.00
0.000	1330.26	Strength II	0.00	0.00	0.00
(0.0L_s) 0.000	1330.26	Strength II	0.00	0.00	0.00
(FoS) 0.333	1597.11	Strength I	89.97	119.67	119.67
1.333	2419.02	Strength I	354.04	470.87	470.87
(SZB) 1.337	2421.77	Strength I	354.89	472.00	472.00
(Bar Develop.) 1.705	2732.39	Strength I	449.85	598.30	598.30
(PSXFR) 2.583	3491.63	Strength I	671.78	893.47	893.47
2.625	3492.26	Strength I	682.14	907.24	907.24
(Bar Develop.) 2.765	3494.39	Strength I	716.90	953.47	953.47
(H) 3.833	3511.13	Strength I	975.84	1297.87	1297.87
(CS) 3.924	3512.59	Strength I	997.31	1326.43	1326.43
4.583	3523.48	Strength I	1151.73	1531.80	1531.80
(SZB) 5.003	3530.59	Strength I	1247.93	1659.74	1659.74
(1.5H) 5.583	3540.70	Strength I	1378.64	1833.59	1833.59
7.265	3571.14	Strength I	1740.60	2315.00	2315.00
7.599	3577.13	Strength I	1809.40	2406.50	2406.50
(0.1L_s) 7.687	3578.74	Strength I	1827.51	2430.59	2430.59
8.665	3597.00	Strength I	2023.03	2690.63	2690.63
(SZB) 10.503	3633.67	Strength I	2367.98	3149.41	3149.41
11.265	3649.79	Strength I	2502.80	3328.72	3328.72
14.947	3734.65	Strength I	3083.12	4100.55	3734.65
15.197	3740.83	Strength I	3118.29	4147.32	3740.83
(0.2L_s) 15.374	3745.23	Strength I	3142.87	4180.01	3745.23
15.997	3760.91	Strength I	3227.27	4292.26	3760.91
17.947	3811.96	Strength I	3470.93	4616.34	3811.96
(SZB) 18.753	3833.87	Strength I	3562.53	4738.17	3833.87
22.629	3945.66	Strength I	3927.24	5223.23	3945.66
22.796	3950.68	Strength I	3940.09	5240.31	3950.68
(0.3L_s) 23.062	3958.73	Strength I	3961.13	5268.30	3958.73
23.329	3966.88	Strength I	3982.91	5297.27	3966.88
24.629	4007.06	Strength I	4080.58	5427.17	4007.06
(SZB) 29.753	4173.93	Strength I	4333.28	5763.27	4173.93
(HP) 30.311	4192.84	Strength I	4347.75	5782.51	4192.84
30.316	4192.81	Strength I	4347.87	5782.66	4192.81
30.395	4192.44	Strength I	4349.69	5785.08	4192.44
30.661	4191.21	Strength I	4355.51	5792.82	4191.21
(0.4L_s) 30.749	4190.81	Strength I	4357.36	5795.29	4190.81
31.311	4188.36	Strength I	4367.86	5809.26	4188.36
37.993	4171.97	Strength I	4338.32	5769.97	4171.97
(0.5L_s) 38.436	4171.72	Strength I	4327.78	5755.95	4171.72
44.675	4179.07	Strength I	4020.22	5346.89	4179.07
45.325	4181.01	Strength I	3971.47	5282.06	4181.01
45.592	4181.87	Strength I	3950.83	5254.61	4181.87
45.671	4182.13	Strength I	3944.66	5246.40	4182.13
(HP) 45.675	4182.14	Strength I	3944.27	5245.88	4182.14
(0.6L_s) 46.123	4166.49	Strength I	3908.13	5197.81	4166.49
(SZB) 46.234	4162.63	Strength I	3898.95	5185.61	4162.63
51.357	3991.06	Strength I	3376.17	4490.31	3991.06
52.657	3949.92	Strength I	3214.57	4275.38	3949.92
53.191	3933.35	Strength I	3145.78	4183.88	3933.35
53.357	3928.22	Strength I	3123.87	4154.75	3928.22
(0.7L_s) 53.811	3914.34	Strength I	3063.99	4075.11	3914.34
54.576	3891.22	Strength I	2960.66	3937.67	3891.22
(Deck Bar Cutoff) 54.581	3891.07	Strength I	2959.98	3936.77	3891.07
(SZB) 57.234	3812.19	Strength I	2568.87	3416.60	3416.60
58.040	3788.82	Strength I	2443.06	3249.27	3249.27
59.990	3734.13	Strength I	2129.44	2832.16	2832.16
60.790	3712.50	Strength I	1995.42	2653.90	2653.90
61.040	3705.83	Strength I	1952.80	2597.22	2597.22
(0.8L_s) 61.498	3693.74	Strength I	1873.62	2491.92	2491.92
64.722	3613.23	Strength I	1325.38	1762.76	1762.76
(SZB) 65.484	3595.37	Strength I	1204.80	1602.39	1602.39
67.322	3554.23	Strength I	913.43	1214.87	1214.87

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
68.388	3531.58	Strength I	741.91	986.74	986.74
68.722	3524.68	Strength I	687.91	914.92	914.92
($0.9L_s$) 69.185	3515.25	Strength I	613.17	815.51	815.51
(1.5H) 70.404	3491.27	Strength I	415.78	552.99	552.99
(SZB) 70.984	3480.26	Strength I	320.89	426.79	426.79
71.404	3472.47	Strength I	252.08	335.26	335.26
(CS) 71.847	3464.40	Strength I	179.33	238.51	238.51
(H) 72.154	3458.91	Strength I	128.88	171.41	171.41
(Bar Develop.) 73.222	3440.37	Strength II	-141.11	-187.67	-187.67
73.362	3438.00	Strength II	-152.31	-202.57	-202.57
(PSXFR) 73.404	3437.30	Strength II	-155.65	-207.01	-207.01
(Bar Develop.) 74.282	2690.95	Strength II	-226.79	-301.63	-301.63
(SZB) 74.650	2385.73	Strength II	-257.06	-341.89	-341.89
74.654	2383.02	Strength II	-257.33	-342.25	-342.25
(FoS) 75.654	1575.79	Strength II	-340.97	-453.48	-453.48
75.987	1313.82	Strength II	-369.30	-491.16	-491.16
75.987	1313.82	Strength II	-369.30	-491.16	-491.16
(STLF) 76.404	977.52	Strength II	-379.73	-505.04	-505.04
($1.0L_s$) 76.872	886.05	Strength II	-391.56	-520.77	-520.77

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Negative Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(STRF) -0.417	6.339	2.545	51.041	51.041	0.021	0.900	48.496	960.00	960.00	-3879.67
0.000	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
($0.0L_s$) 0.000	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
(FoS) 0.333	6.341	2.545	50.967	50.967	0.021	0.900	48.422	960.00	960.00	-3873.78
1.333	6.342	2.545	50.872	50.872	0.021	0.900	48.327	960.00	960.00	-3866.13
(SZB) 1.337	6.342	2.545	50.871	50.871	0.021	0.900	48.326	960.00	960.00	-3866.11
(Bar Develop.) 1.705	6.343	2.545	50.837	50.837	0.021	0.900	48.292	960.00	960.00	-3863.35
(PSXFR) 2.583	6.345	2.545	50.756	50.756	0.021	0.900	48.211	960.00	960.00	-3856.88
2.625	6.345	2.545	50.752	50.752	0.021	0.900	48.207	960.00	960.00	-3856.58
(Bar Develop.) 2.765	6.345	2.545	50.739	50.739	0.021	0.900	48.195	960.00	960.00	-3855.56
(H) 3.833	6.347	2.545	50.644	50.644	0.021	0.900	48.100	960.00	960.00	-3847.97
(CS) 3.924	6.347	2.545	50.637	50.637	0.021	0.900	48.092	960.00	960.00	-3847.34
4.583	6.348	2.545	50.579	50.579	0.021	0.900	48.035	960.00	960.00	-3842.78
(SZB) 5.003	6.349	2.545	50.544	50.544	0.021	0.900	47.999	960.00	960.00	-3839.93
(1.5H) 5.583	6.350	2.545	50.495	50.495	0.021	0.900	47.950	960.00	960.00	-3836.04
7.265	6.352	2.545	50.359	50.359	0.021	0.900	47.814	960.00	960.00	-3825.15
7.599	6.353	2.545	50.333	50.333	0.021	0.900	47.788	960.00	960.00	-3823.05
($0.1L_s$) 7.687	6.353	2.545	50.326	50.326	0.021	0.900	47.781	960.00	960.00	-3822.50
8.665	6.354	2.544	50.251	50.251	0.021	0.900	47.706	960.00	960.00	-3816.49
(SZB) 10.503	6.357	2.544	50.115	50.115	0.021	0.900	47.571	960.00	960.00	-3805.69
11.265	6.358	2.544	50.062	50.062	0.021	0.900	47.517	960.00	960.00	-3801.39
14.947	6.363	2.544	49.820	49.820	0.020	0.900	47.276	960.00	960.00	-3782.07
15.197	6.363	2.544	49.805	49.805	0.020	0.900	47.261	960.00	960.00	-3780.85
($0.2L_s$) 15.374	6.363	2.544	49.794	49.794	0.020	0.900	47.250	960.00	960.00	-3779.99
15.997	6.364	2.544	49.757	49.757	0.020	0.900	47.213	960.00	960.00	-3777.00
17.947	6.366	2.544	49.645	49.645	0.020	0.900	47.101	960.00	960.00	-3768.11
(SZB) 18.753	6.367	2.544	49.602	49.602	0.020	0.900	47.058	960.00	960.00	-3764.63
22.629	6.370	2.544	49.413	49.413	0.020	0.900	46.869	960.00	960.00	-3749.55
22.796	6.371	2.544	49.406	49.406	0.020	0.900	46.862	960.00	960.00	-3748.96
($0.3L_s$) 23.062	6.371	2.544	49.395	49.395	0.020	0.900	46.851	960.00	960.00	-3748.04
23.329	6.371	2.544	49.383	49.383	0.020	0.900	46.839	960.00	960.00	-3747.13
24.629	6.372	2.544	49.330	49.330	0.020	0.900	46.786	960.00	960.00	-3742.89
(SZB) 29.753	6.375	2.544	49.164	49.164	0.020	0.900	46.620	960.00	960.00	-3729.61
(HP) 30.311	6.375	2.544	49.150	49.150	0.020	0.900	46.606	960.00	960.00	-3728.51
30.316	6.375	2.544	49.150	49.150	0.020	0.900	46.606	960.00	960.00	-3728.51
30.395	6.376	2.544	49.149	49.149	0.020	0.900	46.604	960.00	960.00	-3728.36
30.661	6.376	2.544	49.142	49.142	0.020	0.900	46.598	960.00	960.00	-3727.87
($0.4L_s$) 30.749	6.376	2.544	49.140	49.140	0.020	0.900	46.596	960.00	960.00	-3727.71
31.311	6.376	2.544	49.128	49.128	0.020	0.900	46.584	960.00	960.00	-3726.74
37.993	6.377	2.544	49.055	49.055	0.020	0.900	46.511	960.00	960.00	-3720.86
($0.5L_s$) 38.436	6.377	2.544	49.055	49.055	0.020	0.900	46.510	960.00	960.00	-3720.83
44.675	6.376	2.544	49.109	49.109	0.020	0.900	46.565	960.00	960.00	-3725.23
45.325	6.376	2.544	49.122	49.122	0.020	0.900	46.578	960.00	960.00	-3726.22
45.592	6.376	2.544	49.127	49.127	0.020	0.900	46.583	960.00	960.00	-3726.65

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
45.671	6.376	2.544	49.129	49.129	0.020	0.900	46.585	960.00	960.00	-3726.78
(HP) 45.675	6.376	2.544	49.129	49.129	0.020	0.900	46.585	960.00	960.00	-3726.79
($0.6L_s$) 46.123	6.376	2.544	49.139	49.139	0.020	0.900	46.595	960.00	960.00	-3727.57
(SZB) 46.234	6.376	2.544	49.141	49.141	0.020	0.900	46.597	960.00	960.00	-3727.77
51.357	6.373	2.544	49.296	49.296	0.020	0.900	46.752	960.00	960.00	-3740.15
52.657	6.372	2.544	49.347	49.347	0.020	0.900	46.803	960.00	960.00	-3744.22
53.191	6.371	2.544	49.369	49.369	0.020	0.900	46.825	960.00	960.00	-3745.99
53.357	6.371	2.544	49.376	49.376	0.020	0.900	46.832	960.00	960.00	-3746.55
($0.7L_s$) 53.811	6.371	2.544	49.396	49.396	0.020	0.900	46.852	960.00	960.00	-3748.12
54.576	6.862	2.718	49.430	49.430	0.019	0.900	46.711	1024.44	1024.44	-3987.76
(Deck Bar Cutoff) 54.581	6.867	2.720	49.430	49.430	0.019	0.900	46.710	1025.14	1025.14	-3990.32
(SZB) 57.234	9.848	3.819	49.560	49.560	0.012	0.900	45.741	1399.19	1399.19	-5333.35
58.040	10.877	4.116	49.603	49.603	0.011	0.900	45.488	1512.61	1512.61	-5733.76
59.990	14.005	4.883	49.714	49.714	0.008	0.900	44.831	1787.08	1787.08	-6676.37
60.790	15.715	5.207	49.763	49.763	0.006	0.900	44.555	1899.61	1899.61	-7053.16
61.040	16.057	5.270	49.778	49.778	0.006	0.900	44.508	1920.00	1920.00	-7121.22
($0.8L_s$) 61.498	16.057	5.270	49.807	49.807	0.006	0.900	44.536	1920.00	1920.00	-7125.78
64.722	16.058	5.271	50.023	50.023	0.006	0.900	44.752	1920.00	1920.00	-7160.28
(SZB) 65.484	14.185	4.920	50.078	50.078	0.008	0.900	45.158	1800.00	1800.00	-6773.65
67.322	14.185	4.921	50.217	50.217	0.008	0.900	45.296	1800.00	1800.00	-6794.40
68.388	14.185	4.921	50.301	50.301	0.008	0.900	45.380	1800.00	1800.00	-6807.06
68.722	14.184	4.921	50.328	50.328	0.008	0.900	45.407	1800.00	1800.00	-6811.11
($0.9L_s$) 69.185	14.184	4.921	50.367	50.367	0.008	0.900	45.445	1800.00	1800.00	-6816.82
(1.5H) 70.404	14.184	4.922	50.470	50.470	0.008	0.900	45.548	1800.00	1800.00	-6832.27
(SZB) 70.984	14.184	4.922	50.521	50.521	0.008	0.900	45.599	1800.00	1800.00	-6839.85
71.404	14.184	4.922	50.558	50.558	0.008	0.900	45.636	1800.00	1800.00	-6845.42
(CS) 71.847	14.184	4.922	50.598	50.598	0.008	0.900	45.676	1800.00	1800.00	-6851.39
(H) 72.154	14.183	4.922	50.626	50.626	0.008	0.900	45.704	1800.00	1800.00	-6855.57
(Bar Develop.) 73.222	14.183	4.922	50.725	50.725	0.008	0.900	45.803	1800.00	1800.00	-6870.46
73.362	14.183	4.922	50.739	50.739	0.008	0.900	45.816	1800.00	1800.00	-6872.46
(PSXFR) 73.404	14.183	4.922	50.743	50.743	0.008	0.900	45.820	1800.00	1800.00	-6873.05
(Bar Develop.) 74.282	14.183	4.923	50.828	50.828	0.008	0.900	45.905	1800.00	1800.00	-6885.78
(SZB) 74.650	14.183	4.923	50.864	50.864	0.008	0.900	45.941	1800.00	1800.00	-6891.22
74.654	14.183	4.923	50.865	50.865	0.008	0.900	45.942	1800.00	1800.00	-6891.27
(FoS) 75.654	12.626	4.572	50.966	50.966	0.009	0.900	46.394	1680.00	1680.00	-6495.18
75.987	12.626	4.572	51.000	51.000	0.009	0.900	46.429	1680.00	1680.00	-6500.01
75.987	12.626	4.572	51.000	51.000	0.009	0.900	46.429	1680.00	1680.00	-6500.01
(STLF) 76.404	12.625	4.571	51.044	51.044	0.009	0.900	46.472	1680.00	1680.00	-6506.11
($1.0L_s$) 76.872	31.578	9.086	50.990	50.990	0.002	0.750	41.904	1497.46	1497.46	-5229.10

ε_{cl} = 0.002
ε_{tl} = 0.005

$$0.75 \le \phi = 0.75 + \frac{0.15(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 0.9$$

Negative Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STRF) -0.417	0.509	0.000	-25884.9	-25884.9	0.00	-1171.42
0.000	0.509	0.000	-25920.8	-25920.8	0.00	-1173.04
($0.0L_s$) 0.000	0.509	0.000	-25920.8	-25920.8	0.00	-1173.04
(FoS) 0.333	0.509	0.000	-25949.1	-25949.1	0.00	-1174.32
1.333	0.509	0.000	-26032.3	-26032.3	0.00	-1178.09
(SZB) 1.337	0.509	0.000	-26032.6	-26032.6	0.00	-1178.10
(Bar Develop.) 1.705	0.509	0.000	-26062.5	-26062.5	0.00	-1179.45
(PSXFR) 2.583	0.509	0.000	-26132.4	-26132.4	0.00	-1182.62
2.625	0.509	0.000	-26135.6	-26135.6	0.00	-1182.76
(Bar Develop.) 2.765	0.509	0.000	-26146.6	-26146.6	0.00	-1183.26
(H) 3.833	0.509	0.000	-26228.1	-26228.1	0.00	-1186.95
(CS) 3.924	0.509	0.000	-26234.8	-26234.8	0.00	-1187.25
4.583	0.509	0.000	-26283.4	-26283.4	0.00	-1189.45
(SZB) 5.003	0.509	0.000	-26313.6	-26313.6	0.00	-1190.82
(1.5H) 5.583	0.509	0.000	-26354.7	-26354.7	0.00	-1192.68
7.265	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
7.599	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.1L_s$) 7.687	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
8.665	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 10.503	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
11.265	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
14.947	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
15.197	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.2L_s$) 15.374	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
15.997	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
17.947	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 18.753	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
22.629	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
22.796	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.3L_s$) 23.062	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
23.329	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
24.629	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 29.753	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(HP) 30.311	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
30.316	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
30.395	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
30.661	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.4L_s$) 30.749	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
31.311	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
37.993	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.5L_s$) 38.436	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
44.675	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
45.325	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
45.592	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
45.671	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(HP) 45.675	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.6L_s$) 46.123	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 46.234	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
51.357	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
52.657	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
53.191	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
53.357	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.7L_s$) 53.811	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
54.576	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(Deck Bar Cutoff) 54.581	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 57.234	0.509	0.000	-26337.0	-26337.0	0.00	-1191.88
58.040	0.509	0.000	-26279.2	-26279.2	0.00	-1189.26
59.990	0.509	0.000	-26131.9	-26131.9	0.00	-1182.59
60.790	0.509	0.000	-26068.3	-26068.3	0.00	-1179.72
61.040	0.509	0.000	-26048.1	-26048.1	0.00	-1178.80
($0.8L_s$) 61.498	0.509	0.000	-26010.6	-26010.6	0.00	-1177.10
64.722	0.509	0.000	-25729.8	-25729.8	0.00	-1164.40
(SZB) 65.484	0.509	0.000	-25659.1	-25659.1	0.00	-1161.20
67.322	0.509	0.000	-25481.9	-25481.9	0.00	-1153.18
68.388	0.509	0.000	-25374.7	-25374.7	0.00	-1148.33
68.722	0.509	0.000	-25340.5	-25340.5	0.00	-1146.78
($0.9L_s$) 69.185	0.509	0.000	-25292.4	-25292.4	0.00	-1144.60
(1.5H) 70.404	0.509	0.000	-25163.0	-25163.0	0.00	-1138.75
(SZB) 70.984	0.509	0.000	-25099.9	-25099.9	0.00	-1135.89
71.404	0.509	0.000	-25053.7	-25053.7	0.00	-1133.80
(CS) 71.847	0.509	0.000	-25004.2	-25004.2	0.00	-1131.56
(H) 72.154	0.509	0.000	-24969.7	-24969.7	0.00	-1130.00
(Bar Develop.) 73.222	0.509	0.000	-24847.4	-24847.4	0.00	-1124.47
73.362	0.509	0.000	-24831.1	-24831.1	0.00	-1123.73
(PSXFR) 73.404	0.509	0.000	-24826.2	-24826.2	0.00	-1123.51
(Bar Develop.) 74.282	0.509	0.000	-24722.6	-24722.6	0.00	-1118.82
(SZB) 74.650	0.509	0.000	-24678.5	-24678.5	0.00	-1116.82
74.654	0.509	0.000	-24678.1	-24678.1	0.00	-1116.80
(FoS) 75.654	0.509	0.000	-24556.4	-24556.4	0.00	-1111.29
75.987	0.509	0.000	-24515.1	-24515.1	0.00	-1109.43
75.987	0.509	0.000	-24515.1	-24515.1	0.00	-1109.43
(STLF) 76.404	0.509	0.000	-24463.1	-24463.1	0.00	-1107.07
($1.0L_s$) 76.872	0.509	0.000	-24404.0	-24404.0	0.00	-1104.40

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, γ_3 = 0.67

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

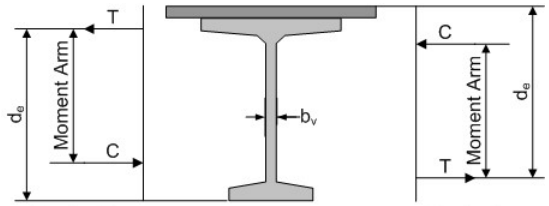
Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(STRF) -0.417	-1171.42	Strength II	0.00	0.00	0.00
0.000	-1173.04	Strength II	0.00	0.00	0.00
($0.0L_s$) 0.000	-1173.04	Strength II	0.00	0.00	0.00
(FoS) 0.333	-1174.32	Strength I	-1.11	-1.47	-1.47
1.333	-1178.09	Strength I	-4.78	-6.36	-6.36
(SZB) 1.337	-1178.10	Strength I	-4.79	-6.38	-6.38
(Bar Develop.) 1.705	-1179.45	Strength I	-6.28	-8.35	-8.35
(PSXFR) 2.583	-1182.62	Strength I	-10.12	-13.46	-13.46
2.625	-1182.76	Strength I	-10.31	-13.71	-13.71
(Bar Develop.) 2.765	-1183.26	Strength I	-10.96	-14.58	-14.58
(H) 3.833	-1186.95	Strength I	-16.28	-21.66	-21.66
(CS) 3.924	-1187.25	Strength I	-16.76	-22.29	-22.29
4.583	-1189.45	Strength I	-20.38	-27.10	-27.10
(SZB) 5.003	-1190.82	Strength I	-22.80	-30.32	-30.32
(1.5H) 5.583	-1192.68	Strength I	-26.30	-34.98	-34.98

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
7.265	-1196.74	Strength I	-37.46	-49.82	-49.82
7.599	-1196.74	Strength I	-39.84	-52.99	-52.99
($0.1L_s$) 7.687	-1196.74	Strength I	-40.49	-53.85	-53.85
8.665	-1196.74	Strength I	-47.88	-63.68	-63.68
(SZB) 10.503	-1196.74	Strength I	-63.14	-83.98	-83.98
11.265	-1196.74	Strength I	-70.00	-93.10	-93.10
14.947	-1196.74	Strength I	-107.44	-142.89	-142.89
15.197	-1196.74	Strength I	-110.24	-146.62	-146.62
($0.2L_s$) 15.374	-1196.74	Strength I	-112.24	-149.28	-149.28
15.997	-1196.74	Strength I	-119.43	-158.84	-158.84
17.947	-1196.74	Strength I	-143.24	-190.51	-190.51
(SZB) 18.753	-1196.74	Strength I	-153.66	-204.37	-204.37
22.629	-1196.74	Strength I	-208.64	-277.49	-277.49
22.796	-1196.74	Strength I	-211.18	-280.87	-280.87
($0.3L_s$) 23.062	-1196.74	Strength I	-215.26	-286.30	-286.30
23.329	-1196.74	Strength I	-219.41	-291.82	-291.82
24.629	-1196.74	Strength I	-240.11	-319.35	-319.35
(SZB) 29.753	-1196.74	Strength I	-330.38	-439.41	-439.41
(HP) 30.311	-1196.74	Strength I	-341.07	-453.62	-453.62
30.316	-1196.74	Strength I	-341.16	-453.75	-453.75
30.395	-1196.74	Strength I	-342.68	-455.76	-455.76
30.661	-1196.74	Strength I	-347.84	-462.63	-462.63
($0.4L_s$) 30.749	-1196.74	Strength I	-349.55	-464.90	-464.90
31.311	-1196.74	Strength I	-360.60	-479.60	-479.60
37.993	-1196.74	Strength I	-504.72	-671.27	-671.27
($0.5L_s$) 38.436	-1196.74	Strength I	-515.10	-685.08	-685.08
44.675	-1196.74	Strength I	-672.46	-894.37	-894.37
45.325	-1196.74	Strength I	-690.03	-917.75	-917.75
45.592	-1196.74	Strength I	-697.31	-927.42	-927.42
45.671	-1196.74	Strength I	-699.46	-930.28	-930.28
(HP) 45.675	-1196.74	Strength I	-699.59	-930.46	-930.46
($0.6L_s$) 46.123	-1196.74	Strength I	-711.92	-946.85	-946.85
(SZB) 46.234	-1196.74	Strength I	-714.99	-950.93	-950.93
51.357	-1196.74	Strength I	-863.82	-1148.88	-1148.88
52.657	-1196.74	Strength I	-903.79	-1202.05	-1196.74
53.191	-1196.74	Strength I	-920.45	-1224.20	-1196.74
53.357	-1196.74	Strength I	-925.69	-1231.17	-1196.74
($0.7L_s$) 53.811	-1196.74	Strength I	-940.00	-1250.20	-1196.74
54.576	-1196.74	Strength I	-964.42	-1282.68	-1196.74
(Deck Bar Cutoff) 54.581	-1196.74	Strength I	-964.58	-1282.89	-1196.74
(SZB) 57.234	-1191.88	Strength I	-1052.47	-1399.79	-1191.88
58.040	-1189.26	Strength I	-1082.43	-1439.63	-1189.26
59.990	-1182.59	Strength I	-1163.00	-1546.79	-1182.59
60.790	-1179.72	Strength I	-1196.88	-1591.86	-1179.72
61.040	-1178.80	Strength I	-1207.57	-1606.07	-1178.80
($0.8L_s$) 61.498	-1177.10	Strength I	-1227.29	-1632.29	-1177.10
64.722	-1164.40	Strength I	-1392.06	-1851.44	-1164.40
(SZB) 65.484	-1161.20	Strength I	-1438.21	-1912.81	-1161.20
67.322	-1153.18	Strength I	-1611.66	-2143.51	-1153.18
68.388	-1148.33	Strength I	-1749.04	-2326.22	-1148.33
68.722	-1146.78	Strength I	-1796.50	-2389.34	-1146.78
($0.9L_s$) 69.185	-1144.60	Strength I	-1863.17	-2478.02	-1144.60
(1.5H) 70.404	-1138.75	Strength I	-2049.79	-2726.21	-1138.75
(SZB) 70.984	-1135.89	Strength I	-2134.37	-2838.71	-1135.89
71.404	-1133.80	Strength I	-2196.15	-2920.88	-1133.80
(CS) 71.847	-1131.56	Strength I	-2262.18	-3008.71	-1131.56
(H) 72.154	-1130.00	Strength I	-2308.26	-3069.99	-1130.00
(Bar Develop.) 73.222	-1124.47	Strength I	-2554.71	-3397.76	-1124.47
73.362	-1123.73	Strength I	-2577.84	-3428.52	-1123.73
(PSXFR) 73.404	-1123.51	Strength I	-2584.72	-3437.68	-1123.51
(Bar Develop.) 74.282	-1118.82	Strength I	-2731.15	-3632.43	-1118.82
(SZB) 74.650	-1116.82	Strength I	-2793.23	-3715.00	-1116.82
74.654	-1116.80	Strength I	-2793.79	-3715.73	-1116.80
(FoS) 75.654	-1111.29	Strength I	-2964.63	-3942.96	-1111.29
75.987	-1109.43	Strength I	-3022.27	-4019.63	-1109.43
75.987	-1109.43	Strength I	-3022.27	-4019.63	-1109.43
(STLF) 76.404	-1107.07	Strength I	-3094.78	-4116.05	-1107.07
($1.0L_s$) 76.872	-1104.40	Strength I	-3177.00	-4225.41	-1104.40

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Shear Capacity Details

Effective Shear Dimensions for Strength I [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 3.924	7.000	48.099	51.000	43.289	36.720	38.304	43.289	Bottom
4.583	7.000	46.204	51.000	41.584	36.720	38.311	41.584	Bottom
(SZB) 5.003	7.000	46.203	51.000	41.583	36.720	38.320	41.583	Bottom
(1.5H) 5.583	7.000	46.204	51.000	41.584	36.720	38.337	41.584	Bottom
7.265	7.000	44.575	51.000	40.117	36.720	38.428	40.117	Bottom
7.599	7.000	44.594	51.000	40.134	36.720	38.451	40.134	Bottom
($0.1L_s$) 7.687	7.000	44.599	51.000	40.139	36.720	38.457	40.139	Bottom
8.665	7.000	44.663	51.000	40.197	36.720	38.538	40.197	Bottom
(SZB) 10.503	7.000	43.392	51.000	39.053	36.720	38.735	39.053	Bottom
11.265	7.000	42.174	51.000	37.957	36.720	38.833	38.833	Bottom
14.947	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
15.197	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
($0.2L_s$) 15.374	7.000	42.075	51.000	37.868	36.720	39.902	39.902	Bottom
15.997	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
17.947	7.000	42.887	51.000	38.598	36.720	40.709	40.709	Bottom
(SZB) 18.753	7.000	43.142	51.000	38.828	36.720	40.963	40.963	Bottom
22.629	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
22.796	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
($0.3L_s$) 23.062	7.000	44.516	51.000	40.064	36.720	42.330	42.330	Bottom
23.329	7.000	44.602	51.000	40.142	36.720	42.415	42.415	Bottom
24.629	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
(SZB) 29.753	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
(HP) 30.311	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
30.316	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
30.395	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
30.661	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.4L_s$) 30.749	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.311	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
37.993	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.436	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
44.675	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
45.325	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.592	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.671	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
(HP) 45.675	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
($0.6L_s$) 46.123	7.000	46.712	51.000	42.041	36.720	44.520	44.520	Bottom
(SZB) 46.234	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
51.357	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
52.657	7.000	44.602	51.000	40.142	36.720	42.416	42.416	Bottom
53.191	7.000	44.431	51.000	39.988	36.720	42.246	42.246	Bottom
53.357	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
($0.7L_s$) 53.811	7.000	44.233	51.000	39.809	36.720	42.048	42.048	Bottom
54.576	7.000	43.988	51.000	39.589	36.720	41.805	41.805	Bottom
(Deck Bar Cutoff) 54.581	7.000	43.987	51.000	39.588	36.720	41.803	41.803	Bottom
(SZB) 57.234	7.000	43.144	51.000	38.829	36.720	40.948	40.948	Bottom
58.040	7.000	42.890	51.000	38.601	36.720	40.686	40.686	Bottom
59.990	7.000	42.276	51.000	38.049	36.720	40.053	40.053	Bottom
60.790	7.000	42.026	51.000	37.823	36.720	39.794	39.794	Bottom
61.040	7.000	41.947	51.000	37.753	36.720	39.713	39.713	Bottom
($0.8L_s$) 61.498	7.000	41.804	51.000	37.624	36.720	39.564	39.564	Bottom
64.722	7.000	42.186	51.000	37.967	36.720	38.734	38.734	Bottom
(SZB) 65.484	7.000	43.403	51.000	39.063	36.720	38.629	39.063	Bottom
67.322	7.000	50.217	51.000	45.195	36.720	45.296	45.296	Top
68.388	7.000	50.301	51.000	45.271	36.720	45.380	45.380	Top
68.722	7.000	50.328	51.000	45.296	36.720	45.407	45.407	Top
($0.9L_s$) 69.185	7.000	50.367	51.000	45.330	36.720	45.445	45.445	Top
(1.5H) 70.404	7.000	50.470	51.000	45.423	36.720	45.548	45.548	Top
(SZB) 70.984	7.000	50.521	51.000	45.469	36.720	45.599	45.599	Top
71.404	7.000	50.558	51.000	45.502	36.720	45.636	45.636	Top
(CS) 71.847	7.000	50.598	51.000	45.538	36.720	45.676	45.676	Top

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength I

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 3.924	0.9	254.30	26.59	43.289	7.000	0.845
4.583	0.9	249.79	26.60	41.584	7.000	0.862
(SZB) 5.003	0.9	246.93	26.61	41.583	7.000	0.851
(1.5H) 5.583	0.9	242.98	26.62	41.584	7.000	0.836
7.265	0.9	231.58	26.64	40.117	7.000	0.821
7.599	0.9	229.33	26.65	40.134	7.000	0.812
($0.1L_s$) 7.687	0.9	228.73	26.65	40.139	7.000	0.810
8.665	0.9	222.15	26.67	40.197	7.000	0.782
(SZB) 10.503	0.9	209.88	26.70	39.053	7.000	0.755
11.265	0.9	204.84	26.71	38.833	7.000	0.739
14.947	0.9	180.73	26.76	39.769	7.000	0.625
15.197	0.9	179.10	26.76	39.847	7.000	0.618
($0.2L_s$) 15.374	0.9	177.95	26.76	39.902	7.000	0.612
15.997	0.9	173.92	26.77	40.097	7.000	0.593
17.947	0.9	161.43	26.78	40.709	7.000	0.535
(SZB) 18.753	0.9	156.33	26.79	40.963	7.000	0.512
22.629	0.9	132.04	26.79	42.192	7.000	0.406
22.796	0.9	131.00	26.79	42.245	7.000	0.402
($0.3L_s$) 23.062	0.9	129.36	26.79	42.330	7.000	0.395
23.329	0.9	127.70	26.79	42.415	7.000	0.388
24.629	0.9	119.71	26.78	42.832	7.000	0.354
(SZB) 29.753	0.9	89.21	26.71	44.484	7.000	0.233
(HP) 30.311	0.9	86.04	26.69	44.665	7.000	0.220
30.316	0.9	86.02	0.00	44.665	7.000	0.306
30.395	0.9	85.57	0.00	44.665	7.000	0.304
30.661	0.9	84.06	0.00	44.665	7.000	0.299
($0.4L_s$) 30.749	0.9	83.57	0.00	44.665	7.000	0.297
31.311	0.9	80.42	0.00	44.665	7.000	0.286
37.993	0.9	91.57	0.00	44.665	7.000	0.325
($0.5L_s$) 38.436	0.9	94.20	0.00	44.665	7.000	0.335
44.675	0.9	131.39	0.00	44.665	7.000	0.467
45.325	0.9	135.26	0.00	44.666	7.000	0.481
45.592	0.9	136.84	0.00	44.666	7.000	0.486
45.671	0.9	137.30	0.00	44.666	7.000	0.488
(HP) 45.675	0.9	137.33	26.60	44.666	7.000	0.403
($0.6L_s$) 46.123	0.9	139.99	26.61	44.520	7.000	0.414
(SZB) 46.234	0.9	140.64	26.61	44.484	7.000	0.416
51.357	0.9	170.99	26.64	42.832	7.000	0.545
52.657	0.9	178.65	26.64	42.416	7.000	0.579
53.191	0.9	181.78	26.63	42.246	7.000	0.593
53.357	0.9	182.75	26.63	42.192	7.000	0.597
($0.7L_s$) 53.811	0.9	185.40	26.63	42.048	7.000	0.609
54.576	0.9	189.88	26.62	41.805	7.000	0.630
(Deck Bar Cutoff) 54.581	0.9	189.91	26.62	41.803	7.000	0.630
(SZB) 57.234	0.9	205.41	26.60	40.948	7.000	0.703
58.040	0.9	210.11	26.59	40.686	7.000	0.726
59.990	0.9	221.40	26.56	40.053	7.000	0.783
60.790	0.9	226.00	26.54	39.794	7.000	0.806
61.040	0.9	227.43	26.54	39.713	7.000	0.814
($0.8L_s$) 61.498	0.9	230.06	26.53	39.564	7.000	0.827
64.722	0.9	248.45	26.47	38.734	7.000	0.921
(SZB) 65.484	0.9	252.78	26.45	39.063	7.000	0.930
67.322	0.9	263.10	26.42	45.296	7.000	0.839
68.388	0.9	269.05	26.39	45.380	7.000	0.858
68.722	0.9	270.91	26.39	45.407	7.000	0.864
($0.9L_s$) 69.185	0.9	273.48	26.38	45.445	7.000	0.872
(1.5H) 70.404	0.9	280.22	26.35	45.548	7.000	0.894
(SZB) 70.984	0.9	283.43	26.34	45.599	7.000	0.904
71.404	0.9	285.74	26.33	45.636	7.000	0.911
(CS) 71.847	0.9	288.18	26.32	45.676	7.000	0.919

f_{po} - Strength I

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength I

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps} + E_c A_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 3.924	997.31	254.30	26.59	227.71	43.289	0.400	29000.000	3.601	28500.000	365.000	5011.145	-0.0908
4.583	1151.73	249.79	26.60	223.19	41.584	0.400	29000.000	3.624	28500.000	365.000	5011.145	-0.0665
(SZB) 5.003	1247.93	246.93	26.61	220.32	41.583	0.400	29000.000	3.639	28500.000	365.000	5011.145	-0.0552
(1.5H) 5.583	1378.64	242.98	26.62	216.36	41.584	0.400	29000.000	4.046	28500.000	365.000	5011.145	-0.077
7.265	1740.60	231.58	26.64	204.94	40.117	0.400	29000.000	4.524	28500.000	365.000	5011.145	-0.0657

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
7.599	1809.40	229.33	26.65	202.68	40.134	0.400	29000.000	4.542	28500.000	365.000	5011.145	-0.0583
($0.1L_s$) 7.687	1827.51	228.73	26.65	202.08	40.139	0.400	29000.000	4.547	28500.000	365.000	5011.145	-0.0563
8.665	2023.03	222.15	26.67	195.48	40.197	0.400	29000.000	4.600	28500.000	365.000	5011.145	-0.0355
(SZB) 10.503	2367.98	209.88	26.70	183.19	39.053	0.400	29000.000	5.121	28500.000	365.000	5011.145	-0.0287
11.265	2502.80	204.84	26.71	178.13	38.833	0.400	29000.000	5.165	28500.000	365.000	5011.145	-0.0124
14.947	3083.12	180.73	26.76	153.97	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0318
15.197	3118.29	179.10	26.76	152.34	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0283
($0.2L_s$) 15.374	3142.87	177.95	26.76	151.19	39.902	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0258
15.997	3227.27	173.92	26.77	147.15	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0176
17.947	3470.93	161.43	26.78	134.65	40.709	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.051
(SZB) 18.753	3562.53	156.33	26.79	129.54	40.963	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.134
22.629	3927.24	132.04	26.79	105.24	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.4
22.796	3940.09	131.00	26.79	104.21	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.406
($0.3L_s$) 23.062	3961.13	129.36	26.79	102.56	42.330	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.417
23.329	3982.91	127.70	26.79	100.91	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.43
24.629	4080.58	119.71	26.78	92.93	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.475
(SZB) 29.753	4333.28	89.21	26.71	62.51	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.45
(HP) 30.311	4347.75	86.04	26.69	59.35	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.428
30.316	4347.87	86.02	0.00	86.02	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.572
30.395	4349.69	85.57	0.00	85.57	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.573
30.661	4355.51	84.06	0.00	84.06	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.573
($0.4L_s$) 30.749	4357.36	83.57	0.00	83.57	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.573
31.311	4367.86	80.42	0.00	80.42	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.571
37.993	4338.32	91.57	0.00	91.57	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.589
($0.5L_s$) 38.436	4327.78	94.20	0.00	94.20	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.588
44.675	4020.22	131.39	0.00	131.39	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.342
45.325	3971.47	135.26	0.00	135.26	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.292
45.592	3950.83	136.84	0.00	136.84	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.27
45.671	3944.66	137.30	0.00	137.30	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.264
(HP) 45.675	3944.27	137.33	26.60	110.73	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.119
($0.6L_s$) 46.123	3908.13	139.99	26.61	113.38	44.520	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0996
(SZB) 46.234	3898.95	140.64	26.61	114.03	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0944
51.357	3376.17	170.99	26.64	144.35	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0289
52.657	3214.57	178.65	26.64	152.02	42.416	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0432
53.191	3145.78	181.78	26.63	155.14	42.246	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0495
53.357	3123.87	182.75	26.63	156.12	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0515
($0.7L_s$) 53.811	3063.99	185.40	26.63	158.77	42.048	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0572
54.576	2960.66	189.88	26.62	163.26	41.805	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0672
(Deck Bar Cutoff) 54.581	2959.98	189.91	26.62	163.29	41.803	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0672
(SZB) 57.234	2568.87	205.41	26.60	178.81	40.948	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.108
58.040	2443.06	210.11	26.59	183.52	40.686	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.121
59.990	2129.44	221.40	26.56	194.85	40.053	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.157
60.790	1995.42	226.00	26.54	199.45	39.794	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.172
61.040	1952.80	227.43	26.54	200.89	39.713	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.177
($0.8L_s$) 61.498	1873.62	230.06	26.53	203.52	39.564	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.187
64.722	1325.38	248.45	26.47	221.98	38.734	0.400	29000.000	5.156	28500.000	365.000	5011.145	-0.172
(SZB) 65.484	1204.80	252.78	26.45	226.32	39.063	0.400	29000.000	5.112	28500.000	365.000	5011.145	-0.186
67.322	1145.22	263.10	26.42	236.69	45.296	31.680	29000.000	1.224	28500.000	912.195	5011.145	0.324
68.388	1333.87	269.05	26.39	242.66	45.380	31.680	29000.000	1.198	28500.000	908.388	5011.145	0.387
68.722	1397.71	270.91	26.39	244.52	45.407	31.680	29000.000	1.190	28500.000	907.175	5011.145	0.408
($0.9L_s$) 69.185	1487.44	273.48	26.38	247.10	45.445	31.680	29000.000	1.572	28500.000	905.472	5011.145	0.356
(1.5H) 70.404	1736.21	280.22	26.35	253.87	45.548	31.680	29000.000	1.533	28500.000	900.892	5011.145	0.438
(SZB) 70.984	1851.22	283.43	26.34	257.09	45.599	31.680	29000.000	1.893	28500.000	898.659	5011.145	0.397
71.404	1935.28	285.74	26.33	259.40	45.636	31.680	29000.000	1.877	28500.000	897.026	5011.145	0.425
(CS) 71.847	2025.18	288.18	26.32	261.85	45.676	31.680	29000.000	1.861	28500.000	895.280	5011.145	0.455

Shear Parameter Summary - Strength I [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 3.924	Yes	1	---	---	0.106	-0.0908	5.15	28.68
4.583	Yes	1	---	---	0.108	-0.0665	5.05	28.77
(SZB) 5.003	Yes	1	---	---	0.106	-0.0552	5.01	28.81
(1.5H) 5.583	Yes	1	---	---	0.105	-0.077	5.09	28.73
7.265	Yes	1	---	---	0.103	-0.0657	5.05	28.77
7.599	Yes	1	---	---	0.102	-0.0583	5.02	28.80
($0.1L_s$) 7.687	Yes	1	---	---	0.101	-0.0563	5.01	28.80
8.665	Yes	1	---	---	0.0978	-0.0355	4.93	28.88
(SZB) 10.503	Yes	1	---	---	0.0944	-0.0287	4.91	28.90
11.265	Yes	1	---	---	0.0924	-0.0124	4.85	28.96
14.947	Yes	1	---	---	0.0782	-0.0318	4.92	28.89
15.197	Yes	1	---	---	0.0772	-0.0283	4.9	28.90

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(0.2L_s) 15.374	Yes	1	---	---	0.0765	-0.0258	4.89	28.91
15.997	Yes	1	---	---	0.0741	-0.0176	4.86	28.94
17.947	Yes	1	---	---	0.0669	0.051	4.62	29.18
(SZB) 18.753	Yes	1	---	---	0.064	0.134	4.36	29.47
22.629	Yes	1	---	---	0.0508	0.4	3.69	30.40
22.796	Yes	1	---	---	0.0502	0.406	3.68	30.42
(0.3L_s) 23.062	Yes	1	---	---	0.0493	0.417	3.66	30.46
23.329	Yes	1	---	---	0.0485	0.43	3.63	30.50
24.629	Yes	1	---	---	0.0443	0.475	3.54	30.66
(SZB) 29.753	Yes	1	---	---	0.0291	0.45	3.59	30.57
(HP) 30.311	Yes	1	---	---	0.0276	0.428	3.63	30.50
30.316	Yes	1	---	---	0.0382	0.572	3.36	31.00
30.395	Yes	1	---	---	0.038	0.573	3.36	31.00
30.661	Yes	1	---	---	0.0373	0.573	3.36	31.01
(0.4L_s) 30.749	Yes	1	---	---	0.0371	0.573	3.36	31.01
31.311	Yes	1	---	---	0.0357	0.571	3.36	31.00
37.993	Yes	1	---	---	0.0407	0.589	3.33	31.06
(0.5L_s) 38.436	Yes	1	---	---	0.0418	0.588	3.33	31.06
44.675	Yes	1	---	---	0.0584	0.342	3.82	30.20
45.325	Yes	1	---	---	0.0601	0.292	3.94	30.02
45.592	Yes	1	---	---	0.0608	0.27	3.99	29.95
45.671	Yes	1	---	---	0.061	0.264	4.01	29.92
(HP) 45.675	Yes	1	---	---	0.0504	0.119	4.41	29.42
(0.6L_s) 46.123	Yes	1	---	---	0.0517	0.0996	4.47	29.35
(SZB) 46.234	Yes	1	---	---	0.052	0.0944	4.48	29.33
51.357	Yes	1	---	---	0.0681	-0.0289	4.91	28.90
52.657	Yes	1	---	---	0.0724	-0.0432	4.96	28.85
53.191	Yes	1	---	---	0.0741	-0.0495	4.99	28.83
53.357	Yes	1	---	---	0.0747	-0.0515	4.99	28.82
(0.7L_s) 53.811	Yes	1	---	---	0.0762	-0.0572	5.02	28.80
54.576	Yes	1	---	---	0.0787	-0.0672	5.05	28.76
(Deck Bar Cutoff) 54.581	Yes	1	---	---	0.0788	-0.0672	5.05	28.76
(SZB) 57.234	Yes	1	---	---	0.0879	-0.108	5.22	28.62
58.040	Yes	1	---	---	0.0908	-0.121	5.28	28.58
59.990	Yes	1	---	---	0.0978	-0.157	5.44	28.45
60.790	Yes	1	---	---	0.101	-0.172	5.51	28.40
61.040	Yes	1	---	---	0.102	-0.177	5.54	28.38
(0.8L_s) 61.498	Yes	1	---	---	0.103	-0.187	5.58	28.35
64.722	Yes	1	---	---	0.115	-0.172	5.51	28.40
(SZB) 65.484	Yes	1	---	---	0.116	-0.186	5.58	28.35
67.322	Yes	1	---	---	0.105	0.324	3.86	30.13
68.388	Yes	1	---	---	0.107	0.387	3.72	30.36
68.722	Yes	1	---	---	0.108	0.408	3.67	30.43
(0.9L_s) 69.185	Yes	1	---	---	0.109	0.356	3.79	30.25
(1.5H) 70.404	Yes	1	---	---	0.112	0.438	3.61	30.53
(SZB) 70.984	Yes	1	---	---	0.113	0.397	3.7	30.39
71.404	Yes	1	---	---	0.114	0.425	3.64	30.49
(CS) 71.847	Yes	1	---	---	0.115	0.455	3.58	30.59

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength I

$$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 3.924	5.15	8.000	-	7.000	43.289	139.50
4.583	5.05	8.000	-	7.000	41.584	131.44
(SZB) 5.003	5.01	8.000	-	7.000	41.583	130.27
(1.5H) 5.583	5.09	8.000	-	7.000	41.584	132.53
7.265	5.05	8.000	-	7.000	40.117	126.72
7.599	5.02	8.000	-	7.000	40.134	126.03
(0.1L_s) 7.687	5.01	8.000	-	7.000	40.139	125.86
8.665	4.93	8.000	-	7.000	40.197	124.02
(SZB) 10.503	4.91	8.000	-	7.000	39.053	119.86
11.265	4.85	8.000	-	7.000	38.833	117.71
14.947	4.92	8.000	-	7.000	39.769	122.35
15.197	4.9	8.000	-	7.000	39.847	122.26
(0.2L_s) 15.374	4.89	8.000	-	7.000	39.902	122.20
15.997	4.86	8.000	-	7.000	40.097	122.02
17.947	4.62	8.000	-	7.000	40.709	117.75
(SZB) 18.753	4.36	8.000	-	7.000	40.963	111.76
22.629	3.69	8.000	-	7.000	42.192	97.49
22.796	3.68	8.000	-	7.000	42.245	97.24
(0.3L_s) 23.062	3.66	8.000	-	7.000	42.330	96.81
23.329	3.63	8.000	-	7.000	42.415	96.34
24.629	3.54	8.000	-	7.000	42.832	94.83
(SZB) 29.753	3.59	8.000	-	7.000	44.484	99.90
(HP) 30.311	3.63	8.000	-	7.000	44.665	101.54
30.316	3.36	8.000	-	7.000	44.665	93.85
30.395	3.36	8.000	-	7.000	44.665	93.83

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
30.661	3.36	8.000	-	7.000	44.665	93.82
(0.4L_s) 30.749	3.36	8.000	-	7.000	44.665	93.82
31.311	3.36	8.000	-	7.000	44.665	93.90
37.993	3.33	8.000	-	7.000	44.665	93.06
(0.5L_s) 38.436	3.33	8.000	-	7.000	44.665	93.11
44.675	3.82	8.000	-	7.000	44.665	106.78
45.325	3.94	8.000	-	7.000	44.666	110.06
45.592	3.99	8.000	-	7.000	44.666	111.53
45.671	4.01	8.000	-	7.000	44.666	111.99
(HP) 45.675	4.41	8.000	-	7.000	44.666	123.12
(0.6L_s) 46.123	4.47	8.000	-	7.000	44.520	124.40
(SZB) 46.234	4.48	8.000	-	7.000	44.484	124.76
51.357	4.91	8.000	-	7.000	42.832	131.47
52.657	4.96	8.000	-	7.000	42.416	131.64
53.191	4.99	8.000	-	7.000	42.246	131.76
53.357	4.99	8.000	-	7.000	42.192	131.80
(0.7L_s) 53.811	5.02	8.000	-	7.000	42.048	131.93
54.576	5.05	8.000	-	7.000	41.805	132.20
(Deck Bar Cutoff) 54.581	5.05	8.000	-	7.000	41.803	132.20
(SZB) 57.234	5.22	8.000	-	7.000	40.948	133.77
58.040	5.28	8.000	-	7.000	40.686	134.41
59.990	5.44	8.000	-	7.000	40.053	136.30
60.790	5.51	8.000	-	7.000	39.794	137.25
61.040	5.54	8.000	-	7.000	39.713	137.57
(0.8L_s) 61.498	5.58	8.000	-	7.000	39.564	138.20
64.722	5.51	8.000	-	7.000	38.734	133.55
(SZB) 65.484	5.58	8.000	-	7.000	39.063	136.34
67.322	3.86	8.000	-	7.000	45.296	109.45
68.388	3.72	8.000	-	7.000	45.380	105.62
68.722	3.67	8.000	-	7.000	45.407	104.40
(0.9L_s) 69.185	3.79	8.000	-	7.000	45.445	107.74
(1.5H) 70.404	3.61	8.000	-	7.000	45.548	102.96
(SZB) 70.984	3.7	8.000	-	7.000	45.599	105.50
71.404	3.64	8.000	-	7.000	45.636	103.91
(CS) 71.847	3.58	8.000	-	7.000	45.676	102.27

Shear Resistance Provided By Shear Reinforcement - Strength I

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 3.924	60.000	0.400	4.000	1.200	43.289	28.68	90.00	474.76
4.583	60.000	0.400	4.000	1.200	41.584	28.77	90.00	454.46
(SZB) 5.003	60.000	0.400	6.000	0.800	41.583	28.81	90.00	302.47
(1.5H) 5.583	60.000	0.400	6.000	0.800	41.584	28.73	90.00	303.43
7.265	60.000	0.400	6.000	0.800	40.117	28.77	90.00	292.25
7.599	60.000	0.400	6.000	0.800	40.134	28.80	90.00	292.06
(0.1L_s) 7.687	60.000	0.400	6.000	0.800	40.139	28.80	90.00	292.02
8.665	60.000	0.400	6.000	0.800	40.197	28.88	90.00	291.56
(SZB) 10.503	60.000	0.400	9.000	0.533	39.053	28.90	90.00	188.65
11.265	60.000	0.400	9.000	0.533	38.833	28.96	90.00	187.15
14.947	60.000	0.400	9.000	0.533	39.769	28.89	90.00	192.20
15.197	60.000	0.400	9.000	0.533	39.847	28.90	90.00	192.48
(0.2L_s) 15.374	60.000	0.400	9.000	0.533	39.902	28.91	90.00	192.68
15.997	60.000	0.400	9.000	0.533	40.097	28.94	90.00	193.39
17.947	60.000	0.400	9.000	0.533	40.709	29.18	90.00	194.41
(SZB) 18.753	60.000	0.400	12.000	0.400	40.963	29.47	90.00	144.98
22.629	60.000	0.400	12.000	0.400	42.192	30.40	90.00	143.84
22.796	60.000	0.400	12.000	0.400	42.245	30.42	90.00	143.89
(0.3L_s) 23.062	60.000	0.400	12.000	0.400	42.330	30.46	90.00	143.95
23.329	60.000	0.400	12.000	0.400	42.415	30.50	90.00	143.99
24.629	60.000	0.400	12.000	0.400	42.832	30.66	90.00	144.48
(SZB) 29.753	60.000	0.400	18.000	0.267	44.484	30.57	90.00	100.40
(HP) 30.311	60.000	0.400	18.000	0.267	44.665	30.50	90.00	101.11
30.316	60.000	0.400	18.000	0.267	44.665	31.00	90.00	99.10
30.395	60.000	0.400	18.000	0.267	44.665	31.00	90.00	99.10
30.661	60.000	0.400	18.000	0.267	44.665	31.01	90.00	99.09
(0.4L_s) 30.749	60.000	0.400	18.000	0.267	44.665	31.01	90.00	99.09
31.311	60.000	0.400	18.000	0.267	44.665	31.00	90.00	99.12
37.993	60.000	0.400	18.000	0.267	44.665	31.06	90.00	98.88
(0.5L_s) 38.436	60.000	0.400	18.000	0.267	44.665	31.06	90.00	98.89
44.675	60.000	0.400	18.000	0.267	44.665	30.20	90.00	102.34
45.325	60.000	0.400	18.000	0.267	44.666	30.02	90.00	103.06
45.592	60.000	0.400	18.000	0.267	44.666	29.95	90.00	103.38
45.671	60.000	0.400	18.000	0.267	44.666	29.92	90.00	103.47
(HP) 45.675	60.000	0.400	18.000	0.267	44.666	29.42	90.00	105.62
(0.6L_s) 46.123	60.000	0.400	18.000	0.267	44.520	29.35	90.00	105.57
(SZB) 46.234	60.000	0.400	18.000	0.267	44.484	29.33	90.00	105.56
51.357	60.000	0.400	12.000	0.400	42.832	28.90	90.00	155.19
52.657	60.000	0.400	12.000	0.400	42.416	28.85	90.00	154.00

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
53.191	60.000	0.400	12.000	0.400	42.246	28.83	90.00	153.52
53.357	60.000	0.400	12.000	0.400	42.192	28.82	90.00	153.37
($0.7L_s$) 53.811	60.000	0.400	12.000	0.400	42.048	28.80	90.00	152.97
54.576	60.000	0.400	12.000	0.400	41.805	28.76	90.00	152.31
(Deck Bar Cutoff) 54.581	60.000	0.400	12.000	0.400	41.803	28.76	90.00	152.30
(SZB) 57.234	60.000	0.400	12.000	0.400	40.948	28.62	90.00	150.06
58.040	60.000	0.400	9.000	0.533	40.686	28.58	90.00	199.20
59.990	60.000	0.400	9.000	0.533	40.053	28.45	90.00	197.11
60.790	60.000	0.400	9.000	0.533	39.794	28.40	90.00	196.29
61.040	60.000	0.400	9.000	0.533	39.713	28.38	90.00	196.03
($0.8L_s$) 61.498	60.000	0.400	9.000	0.533	39.564	28.35	90.00	195.57
64.722	60.000	0.400	9.000	0.533	38.734	28.40	90.00	191.05
(SZB) 65.484	60.000	0.400	9.000	0.533	39.063	28.35	90.00	193.07
67.322	60.000	0.400	6.000	0.800	45.296	30.13	90.00	312.14
68.388	60.000	0.400	6.000	0.800	45.380	30.36	90.00	309.95
68.722	60.000	0.400	6.000	0.800	45.407	30.43	90.00	309.22
($0.9L_s$) 69.185	60.000	0.400	6.000	0.800	45.445	30.25	90.00	311.77
(1.5H) 70.404	60.000	0.400	6.000	0.800	45.548	30.53	90.00	308.89
(SZB) 70.984	60.000	0.400	6.000	0.800	45.599	30.39	90.00	311.00
71.404	60.000	0.400	4.000	1.200	45.636	30.49	90.00	465.06
(CS) 71.847	60.000	0.400	4.000	1.200	45.676	30.59	90.00	463.54

Nominal Shear Resistance - Strength I

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	$V_{n1}$$ (kip)	V_{n2}# (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 3.924	8.000	7.000	43.289	26.59	139.50	474.76	640.85	632.63	632.63	0.9	569.37
4.583	8.000	7.000	41.584	26.60	131.44	454.46	612.50	608.77	608.77	0.9	547.89
(SZB) 5.003	8.000	7.000	41.583	26.61	130.27	302.47	459.35	608.76	459.35	0.9	413.41
(1.5H) 5.583	8.000	7.000	41.584	26.62	132.53	303.43	462.58	608.79	462.58	0.9	416.32
7.265	8.000	7.000	40.117	26.64	126.72	292.25	445.61	588.28	445.61	0.9	401.05
7.599	8.000	7.000	40.134	26.65	126.03	292.06	444.75	588.53	444.75	0.9	400.27
($0.1L_s$) 7.687	8.000	7.000	40.139	26.65	125.86	292.02	444.52	588.60	444.52	0.9	400.07
8.665	8.000	7.000	40.197	26.67	124.02	291.56	442.25	589.42	442.25	0.9	398.02
(SZB) 10.503	8.000	7.000	39.053	26.70	119.86	188.65	335.21	573.44	335.21	0.9	301.69
11.265	8.000	7.000	38.833	26.71	117.71	187.15	331.57	570.37	331.57	0.9	298.41
14.947	8.000	7.000	39.769	26.76	122.35	192.20	341.31	583.52	341.31	0.9	307.18
15.197	8.000	7.000	39.847	26.76	122.26	192.48	341.50	584.62	341.50	0.9	307.35
($0.2L_s$) 15.374	8.000	7.000	39.902	26.76	122.20	192.68	341.64	585.40	341.64	0.9	307.47
15.997	8.000	7.000	40.097	26.77	122.02	193.39	342.18	588.13	342.18	0.9	307.96
17.947	8.000	7.000	40.709	26.78	117.75	194.41	338.95	596.72	338.95	0.9	305.06
(SZB) 18.753	8.000	7.000	40.963	26.79	111.76	144.98	283.53	600.27	283.53	0.9	255.18
22.629	8.000	7.000	42.192	26.79	97.49	143.84	268.12	617.48	268.12	0.9	241.31
22.796	8.000	7.000	42.245	26.79	97.24	143.89	267.92	618.23	267.92	0.9	241.13
($0.3L_s$) 23.062	8.000	7.000	42.330	26.79	96.81	143.95	267.55	619.41	267.55	0.9	240.80
23.329	8.000	7.000	42.415	26.79	96.34	143.99	267.12	620.61	267.12	0.9	240.41
24.629	8.000	7.000	42.832	26.78	94.83	144.48	266.09	626.43	266.09	0.9	239.48
(SZB) 29.753	8.000	7.000	44.484	26.71	99.90	100.40	227.00	649.49	227.00	0.9	204.30
(HP) 30.311	8.000	7.000	44.665	26.69	101.54	101.11	229.35	652.01	229.35	0.9	206.41
30.316	8.000	7.000	44.665	0.00	93.85	99.10	192.95	625.32	192.95	0.9	173.65
30.395	8.000	7.000	44.665	0.00	93.83	99.10	192.93	625.32	192.93	0.9	173.64
30.661	8.000	7.000	44.665	0.00	93.82	99.09	192.91	625.32	192.91	0.9	173.62
($0.4L_s$) 30.749	8.000	7.000	44.665	0.00	93.82	99.09	192.91	625.32	192.91	0.9	173.62
31.311	8.000	7.000	44.665	0.00	93.90	99.12	193.02	625.32	193.02	0.9	173.72
37.993	8.000	7.000	44.665	0.00	93.06	98.88	191.94	625.32	191.94	0.9	172.74
($0.5L_s$) 38.436	8.000	7.000	44.665	0.00	93.11	98.89	192.00	625.32	192.00	0.9	172.80
44.675	8.000	7.000	44.665	0.00	106.78	102.34	209.12	625.32	209.12	0.9	188.21
45.325	8.000	7.000	44.666	0.00	110.06	103.06	213.13	625.32	213.13	0.9	191.81
45.592	8.000	7.000	44.666	0.00	111.53	103.38	214.91	625.32	214.91	0.9	193.42
45.671	8.000	7.000	44.666	0.00	111.99	103.47	215.46	625.32	215.46	0.9	193.91
(HP) 45.675	8.000	7.000	44.666	26.60	123.12	105.62	255.34	651.92	255.34	0.9	229.80
($0.6L_s$) 46.123	8.000	7.000	44.520	26.61	124.40	105.57	256.58	649.89	256.58	0.9	230.92
(SZB) 46.234	8.000	7.000	44.484	26.61	124.76	105.56	256.93	649.39	256.93	0.9	231.24
51.357	8.000	7.000	42.832	26.64	131.47	155.19	313.30	626.28	313.30	0.9	281.97
52.657	8.000	7.000	42.416	26.64	131.64	154.00	312.27	620.46	312.27	0.9	281.04
53.191	8.000	7.000	42.246	26.63	131.76	153.52	311.91	618.07	311.91	0.9	280.72
53.357	8.000	7.000	42.192	26.63	131.80	153.37	311.81	617.33	311.81	0.9	280.63
($0.7L_s$) 53.811	8.000	7.000	42.048	26.63	131.93	152.97	311.53	615.30	311.53	0.9	280.38
54.576	8.000	7.000	41.805	26.62	132.20	152.31	311.13	611.89	311.13	0.9	280.02
(Deck Bar Cutoff) 54.581	8.000	7.000	41.803	26.62	132.20	152.30	311.13	611.87	311.13	0.9	280.02
(SZB) 57.234	8.000	7.000	40.948	26.60	133.77	150.06	310.43	599.87	310.43	0.9	279.39
58.040	8.000	7.000	40.686	26.59	134.41	199.20	360.20	596.19	360.20	0.9	324.18
59.990	8.000	7.000	40.053	26.56	136.30	197.11	359.97	587.30	359.97	0.9	323.97
60.790	8.000	7.000	39.794	26.54	137.25	196.29	360.08	583.65	360.08	0.9	324.07
61.040	8.000	7.000	39.713	26.54	137.57	196.03	360.14	582.52	360.14	0.9	324.13
($0.8L_s$) 61.498	8.000	7.000	39.564	26.53	138.20	195.57	360.30	580.43	360.30	0.9	324.27
64.722	8.000	7.000	38.734	26.47	133.55	191.05	351.07	568.74	351.07	0.9	315.96
(SZB) 65.484	8.000	7.000	39.063	26.45	136.34	193.07	355.86	573.33	355.86	0.9	320.27
67.322	8.000	7.000	45.296	26.42	109.45	312.14	448.00	660.56	448.00	0.9	403.20
68.388	8.000	7.000	45.380	26.39	105.62	309.95	441.96	661.72	441.96	0.9	397.77
68.722	8.000	7.000	45.407	26.39	104.40	309.22	440.01	662.09	440.01	0.9	396.01

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(0.9L_s) 69.185	8.000	7.000	45.445	26.38	107.74	311.77	445.88	662.62	445.88	0.9	401.29
(1.5H) 70.404	8.000	7.000	45.548	26.35	102.96	308.89	438.21	664.03	438.21	0.9	394.39
(SZB) 70.984	8.000	7.000	45.599	26.34	105.50	311.00	442.85	664.73	442.85	0.9	398.56
71.404	8.000	7.000	45.636	26.33	103.91	465.06	595.30	665.24	595.30	0.9	535.77
(CS) 71.847	8.000	7.000	45.676	26.32	102.27	463.54	592.13	665.79	592.13	0.9	532.91

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength I

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v cot\theta}$$

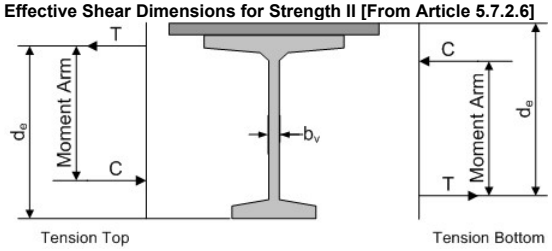
Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 3.924	282.55	139.50	26.59	116.47	60.000	43.289	28.68	0.294
4.583	277.54	131.44	26.60	119.51	60.000	41.584	28.77	0.316
(SZB) 5.003	274.37	130.27	26.61	117.49	60.000	41.583	28.81	0.311
(1.5H) 5.583	269.98	132.53	26.62	110.83	60.000	41.584	28.73	0.292
7.265	257.31	126.72	26.64	103.95	60.000	40.117	28.77	0.285
7.599	254.81	126.03	26.65	102.13	60.000	40.134	28.80	0.280
(0.1L_s) 7.687	254.15	125.86	26.65	101.64	60.000	40.139	28.80	0.278
8.665	246.83	124.02	26.67	96.15	60.000	40.197	28.88	0.264
(SZB) 10.503	233.21	119.86	26.70	86.65	60.000	39.053	28.90	0.245
11.265	227.60	117.71	26.71	83.18	60.000	38.833	28.96	0.237
14.947	200.81	122.35	26.76	51.70	60.000	39.769	28.89	0.143
15.197	199.00	122.26	26.76	49.98	60.000	39.847	28.90	0.138
(0.2L_s) 15.374	197.72	122.20	26.76	48.77	60.000	39.902	28.91	0.135
15.997	193.25	122.02	26.77	44.45	60.000	40.097	28.94	0.123
17.947	179.37	117.75	26.78	34.83	60.000	40.709	29.18	0.096
(SZB) 18.753	173.70	111.76	26.79	35.15	60.000	40.963	29.47	0.097
22.629	146.71	97.49	26.79	22.43	60.000	42.192	30.40	0.062
22.796	145.56	97.24	26.79	21.52	60.000	42.245	30.42	0.060
(0.3L_s) 23.062	143.73	96.81	26.79	20.12	60.000	42.330	30.46	0.056
23.329	141.89	96.34	26.79	18.76	60.000	42.415	30.50	0.052
24.629	133.02	94.83	26.78	11.40	60.000	42.832	30.66	0.032
(SZB) 29.753	99.13	99.90	26.71	0.00	60.000	44.484	30.57	0.000
(HP) 30.311	95.60	101.54	26.69	0.00	60.000	44.665	30.50	0.000
30.316	95.57	93.85	0.00	1.73	60.000	44.665	31.00	0.005
30.395	95.08	93.83	0.00	1.25	60.000	44.665	31.00	0.003
30.661	93.41	93.82	0.00	0.00	60.000	44.665	31.01	0.000
(0.4L_s) 30.749	92.86	93.82	0.00	0.00	60.000	44.665	31.01	0.000
31.311	89.35	93.90	0.00	0.00	60.000	44.665	31.00	0.000
37.993	101.74	93.06	0.00	8.68	60.000	44.665	31.06	0.023
(0.5L_s) 38.436	104.67	93.11	0.00	11.56	60.000	44.665	31.06	0.031
44.675	145.99	106.78	0.00	39.21	60.000	44.665	30.20	0.102
45.325	150.29	110.06	0.00	40.23	60.000	44.666	30.02	0.104
45.592	152.04	111.53	0.00	40.51	60.000	44.666	29.95	0.104
45.671	152.56	111.99	0.00	40.57	60.000	44.666	29.92	0.105
(HP) 45.675	152.59	123.12	26.60	2.87	60.000	44.666	29.42	0.007
(0.6L_s) 46.123	155.54	124.40	26.61	4.53	60.000	44.520	29.35	0.011
(SZB) 46.234	156.27	124.76	26.61	4.90	60.000	44.484	29.33	0.012
51.357	189.98	131.47	26.64	31.87	60.000	42.832	28.90	0.082
52.657	198.50	131.64	26.64	40.23	60.000	42.416	28.85	0.104
53.191	201.97	131.76	26.63	43.58	60.000	42.246	28.83	0.114
53.357	203.06	131.80	26.63	44.62	60.000	42.192	28.82	0.116
(0.7L_s) 53.811	206.00	131.93	26.63	47.44	60.000	42.048	28.80	0.124
54.576	210.98	132.20	26.62	52.15	60.000	41.805	28.76	0.137
(Deck Bar Cutoff) 54.581	211.01	132.20	26.62	52.18	60.000	41.803	28.76	0.137
(SZB) 57.234	228.23	133.77	26.60	67.87	60.000	40.948	28.62	0.181
58.040	233.45	134.41	26.59	72.45	60.000	40.686	28.58	0.194
59.990	246.00	136.30	26.56	83.15	60.000	40.053	28.45	0.225
60.790	251.11	137.25	26.54	87.31	60.000	39.794	28.40	0.237
61.040	252.70	137.57	26.54	88.59	60.000	39.713	28.38	0.241
(0.8L_s) 61.498	255.62	138.20	26.53	90.89	60.000	39.564	28.35	0.248
64.722	276.06	133.55	26.47	116.03	60.000	38.734	28.40	0.324
(SZB) 65.484	280.87	136.34	26.45	118.07	60.000	39.063	28.35	0.326
67.322	292.34	109.45	26.42	156.47	60.000	45.296	30.13	0.401
68.388	298.95	105.62	26.39	166.94	60.000	45.380	30.36	0.431
68.722	301.01	104.40	26.39	170.22	60.000	45.407	30.43	0.440
(0.9L_s) 69.185	303.86	107.74	26.38	169.75	60.000	45.445	30.25	0.436
(1.5H) 70.404	311.35	102.96	26.35	182.04	60.000	45.548	30.53	0.471
(SZB) 70.984	314.92	105.50	26.34	183.08	60.000	45.599	30.39	0.471
71.404	317.49	103.91	26.33	187.25	60.000	45.636	30.49	0.483
(CS) 71.847	320.20	102.27	26.32	191.60	60.000	45.676	30.59	0.496

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength I

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 3.924	1.200	0.294	8.968	16.305	25.273
4.583	1.200	0.316	8.366	15.211	23.578
(SZB) 5.003	0.800	0.311	8.496	15.447	23.942
(1.5H) 5.583	0.800	0.292	9.035	16.427	25.462
7.265	0.800	0.285	9.278	16.869	26.147
7.599	0.800	0.280	9.437	17.158	26.596
($0.1L_s$) 7.687	0.800	0.278	9.481	17.238	26.719
8.665	0.800	0.264	10.007	18.195	28.202
(SZB) 10.503	0.533	0.245	10.777	19.595	30.372
11.265	0.533	0.237	11.137	20.249	31.387
14.947	0.533	0.143	18.403	33.459	51.862
15.197	0.533	0.138	19.062	34.657	53.719
($0.2L_s$) 15.374	0.533	0.135	19.558	35.560	55.119
15.997	0.533	0.123	21.535	39.154	60.688
17.947	0.533	0.096	27.630	50.236	77.866
(SZB) 18.753	0.400	0.097	27.224	49.499	76.723
22.629	0.400	0.062	42.329	76.962	119.291
22.796	0.400	0.060	44.123	80.223	124.346
($0.3L_s$) 23.062	0.400	0.056	47.208	85.833	133.041
23.329	0.400	0.052	50.669	92.126	142.795
24.629	0.400	0.032	83.614	152.025	235.638
(SZB) 29.753	0.267	0.000	N/A	N/A	N/A
(HP) 30.311	0.267	0.000	N/A	N/A	N/A
30.316	0.267	0.005	N/A	N/A	N/A
30.395	0.267	0.003	N/A	N/A	N/A
30.661	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.749	0.267	0.000	N/A	N/A	N/A
31.311	0.267	0.000	N/A	N/A	N/A
37.993	0.267	0.023	112.721	204.947	317.669
($0.5L_s$) 38.436	0.267	0.031	84.658	153.924	238.582
44.675	0.267	0.102	25.839	46.980	72.819
45.325	0.267	0.104	25.365	46.119	71.484
45.592	0.267	0.104	25.264	45.935	71.200
45.671	0.267	0.105	25.247	45.903	71.150
(HP) 45.675	0.267	0.007	364.261	662.293	1026.555
($0.6L_s$) 46.123	0.267	0.011	230.829	419.690	650.519
(SZB) 46.234	0.267	0.012	213.214	387.662	600.877
51.357	0.400	0.082	32.137	58.432	90.569
52.657	0.400	0.104	25.265	45.937	71.203
53.191	0.400	0.114	23.249	42.271	65.520
53.357	0.400	0.116	22.685	41.246	63.931
($0.7L_s$) 53.811	0.400	0.124	21.282	38.694	59.976
54.576	0.400	0.137	19.275	35.045	54.320
(Deck Bar Cutoff) 54.581	0.400	0.137	19.263	35.024	54.287
(SZB) 57.234	0.400	0.181	14.593	26.533	41.127
58.040	0.533	0.194	13.610	24.745	38.355
59.990	0.533	0.225	11.735	21.336	33.071
60.790	0.533	0.237	11.128	20.232	31.360
61.040	0.533	0.241	10.953	19.915	30.869
($0.8L_s$) 61.498	0.533	0.248	10.651	19.366	30.017
64.722	0.533	0.324	8.150	14.819	22.969
(SZB) 65.484	0.533	0.326	8.094	14.716	22.810
67.322	0.800	0.401	6.583	11.969	18.552
68.388	0.800	0.431	6.127	11.140	17.267
68.722	0.800	0.440	5.995	10.899	16.894
($0.9L_s$) 69.185	0.800	0.436	6.061	11.020	17.081
(1.5H) 70.404	0.800	0.471	5.600	10.181	15.781
(SZB) 70.984	0.800	0.471	5.606	10.193	15.799
71.404	1.200	0.483	5.464	9.935	15.399
(CS) 71.847	1.200	0.496	5.322	9.677	14.999

Effective Shear Dimensions for Strength II [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 3.924	7.000	48.099	51.000	43.289	36.720	38.304	43.289	Bottom
4.583	7.000	46.204	51.000	41.584	36.720	38.311	41.584	Bottom

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(SZB) 5.003	7.000	46.203	51.000	41.583	36.720	38.320	41.583	Bottom
(1.5H) 5.583	7.000	46.204	51.000	41.584	36.720	38.337	41.584	Bottom
7.265	7.000	44.575	51.000	40.117	36.720	38.428	40.117	Bottom
7.599	7.000	44.594	51.000	40.134	36.720	38.451	40.134	Bottom
($0.1L_s$) 7.687	7.000	44.599	51.000	40.139	36.720	38.457	40.139	Bottom
8.665	7.000	44.663	51.000	40.197	36.720	38.538	40.197	Bottom
(SZB) 10.503	7.000	43.392	51.000	39.053	36.720	38.735	39.053	Bottom
11.265	7.000	42.174	51.000	37.957	36.720	38.833	38.833	Bottom
14.947	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
15.197	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
($0.2L_s$) 15.374	7.000	42.075	51.000	37.868	36.720	39.902	39.902	Bottom
15.997	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
17.947	7.000	42.887	51.000	38.598	36.720	40.709	40.709	Bottom
(SZB) 18.753	7.000	43.142	51.000	38.828	36.720	40.963	40.963	Bottom
22.629	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
22.796	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
($0.3L_s$) 23.062	7.000	44.516	51.000	40.064	36.720	42.330	42.330	Bottom
23.329	7.000	44.602	51.000	40.142	36.720	42.415	42.415	Bottom
24.629	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
(SZB) 29.753	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
(HP) 30.311	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
30.316	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
30.395	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
30.661	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.4L_s$) 30.749	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.311	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
37.993	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.436	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
44.675	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
45.325	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.592	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.671	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
(HP) 45.675	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
($0.6L_s$) 46.123	7.000	46.712	51.000	42.041	36.720	44.520	44.520	Bottom
(SZB) 46.234	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
51.357	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
52.657	7.000	44.602	51.000	40.142	36.720	42.416	42.416	Bottom
53.191	7.000	44.431	51.000	39.988	36.720	42.246	42.246	Bottom
53.357	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
($0.7L_s$) 53.811	7.000	44.233	51.000	39.809	36.720	42.048	42.048	Bottom
54.576	7.000	43.988	51.000	39.589	36.720	41.805	41.805	Bottom
(Deck Bar Cutoff) 54.581	7.000	43.987	51.000	39.588	36.720	41.803	41.803	Bottom
(SZB) 57.234	7.000	43.144	51.000	38.829	36.720	40.948	40.948	Bottom
58.040	7.000	42.890	51.000	38.601	36.720	40.686	40.686	Bottom
59.990	7.000	42.276	51.000	38.049	36.720	40.053	40.053	Bottom
60.790	7.000	42.026	51.000	37.823	36.720	39.794	39.794	Bottom
61.040	7.000	41.947	51.000	37.753	36.720	39.713	39.713	Bottom
($0.8L_s$) 61.498	7.000	41.804	51.000	37.624	36.720	39.564	39.564	Bottom
64.722	7.000	42.186	51.000	37.967	36.720	38.734	38.734	Bottom
(SZB) 65.484	7.000	43.403	51.000	39.063	36.720	38.629	39.063	Bottom
67.322	7.000	50.217	51.000	45.195	36.720	45.296	45.296	Top
68.388	7.000	50.301	51.000	45.271	36.720	45.380	45.380	Top
68.722	7.000	50.328	51.000	45.296	36.720	45.407	45.407	Top
($0.9L_s$) 69.185	7.000	50.367	51.000	45.330	36.720	45.445	45.445	Top
(1.5H) 70.404	7.000	50.470	51.000	45.423	36.720	45.548	45.548	Top
(SZB) 70.984	7.000	50.521	51.000	45.469	36.720	45.599	45.599	Top
71.404	7.000	50.558	51.000	45.502	36.720	45.636	45.636	Top
(CS) 71.847	7.000	50.598	51.000	45.538	36.720	45.676	45.676	Top

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength II

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 3.924	0.9	243.35	26.59	43.289	7.000	0.805
4.583	0.9	239.06	26.60	41.584	7.000	0.821
(SZB) 5.003	0.9	236.35	26.61	41.583	7.000	0.811
(1.5H) 5.583	0.9	232.60	26.62	41.584	7.000	0.796
7.265	0.9	221.75	26.64	40.117	7.000	0.783
7.599	0.9	219.60	26.65	40.134	7.000	0.774
($0.1L_s$) 7.687	0.9	219.03	26.65	40.139	7.000	0.771
8.665	0.9	212.74	26.67	40.197	7.000	0.745
(SZB) 10.503	0.9	200.97	26.70	39.053	7.000	0.719
11.265	0.9	196.11	26.71	38.833	7.000	0.703
14.947	0.9	172.90	26.76	39.769	7.000	0.594
15.197	0.9	171.33	26.76	39.847	7.000	0.587
($0.2L_s$) 15.374	0.9	170.22	26.76	39.902	7.000	0.581
15.997	0.9	166.33	26.77	40.097	7.000	0.563

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
17.947	0.9	154.19	26.78	40.709	7.000	0.507
(SZB) 18.753	0.9	149.21	26.79	40.963	7.000	0.485
22.629	0.9	125.55	26.79	42.192	7.000	0.382
22.796	0.9	124.54	26.79	42.245	7.000	0.377
($0.3L_s$) 23.062	0.9	122.93	26.79	42.330	7.000	0.371
23.329	0.9	121.32	26.79	42.415	7.000	0.364
24.629	0.9	113.51	26.78	42.832	7.000	0.331
(SZB) 29.753	0.9	83.54	26.71	44.484	7.000	0.212
(HP) 30.311	0.9	80.42	26.69	44.665	7.000	0.200
30.316	0.9	80.39	0.00	44.665	7.000	0.286
30.395	0.9	79.96	0.00	44.665	7.000	0.284
30.661	0.9	78.48	0.00	44.665	7.000	0.279
($0.4L_s$) 30.749	0.9	77.99	0.00	44.665	7.000	0.277
31.311	0.9	74.88	0.00	44.665	7.000	0.266
37.993	0.9	78.76	0.00	44.665	7.000	0.280
($0.5L_s$) 38.436	0.9	81.75	0.00	44.665	7.000	0.291
44.675	0.9	123.10	0.00	44.665	7.000	0.437
45.325	0.9	127.31	0.00	44.666	7.000	0.452
45.592	0.9	129.03	0.00	44.666	7.000	0.459
45.671	0.9	129.54	0.00	44.666	7.000	0.460
(HP) 45.675	0.9	129.57	26.60	44.666	7.000	0.375
($0.6L_s$) 46.123	0.9	132.45	26.61	44.520	7.000	0.387
(SZB) 46.234	0.9	133.16	26.61	44.484	7.000	0.390
51.357	0.9	165.42	26.64	42.832	7.000	0.524
52.657	0.9	173.40	26.64	42.416	7.000	0.559
53.191	0.9	176.66	26.63	42.246	7.000	0.574
53.357	0.9	177.68	26.63	42.192	7.000	0.578
($0.7L_s$) 53.811	0.9	180.43	26.63	42.048	7.000	0.591
54.576	0.9	185.04	26.62	41.805	7.000	0.612
(Deck Bar Cutoff) 54.581	0.9	185.07	26.62	41.803	7.000	0.612
(SZB) 57.234	0.9	200.87	26.60	40.948	7.000	0.686
58.040	0.9	205.60	26.59	40.686	7.000	0.709
59.990	0.9	216.85	26.56	40.053	7.000	0.765
60.790	0.9	221.42	26.54	39.794	7.000	0.788
61.040	0.9	222.84	26.54	39.713	7.000	0.795
($0.8L_s$) 61.498	0.9	225.44	26.53	39.564	7.000	0.809
64.722	0.9	243.38	26.47	38.734	7.000	0.900
(SZB) 65.484	0.9	247.53	26.45	39.063	7.000	0.909
67.322	0.9	257.36	26.42	45.296	7.000	0.819
68.388	0.9	262.99	26.39	45.380	7.000	0.837
68.722	0.9	264.74	26.39	45.407	7.000	0.842
($0.9L_s$) 69.185	0.9	267.16	26.38	45.445	7.000	0.850
(1.5H) 70.404	0.9	273.47	26.35	45.548	7.000	0.870
(SZB) 70.984	0.9	276.46	26.34	45.599	7.000	0.880
71.404	0.9	278.61	26.33	45.636	7.000	0.887
(CS) 71.847	0.9	280.87	26.32	45.676	7.000	0.894

f_{po} - Strength II

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength II

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \; for\; \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \; for\; \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 3.924	947.27	243.35	26.59	216.76	43.289	0.400	29000.000	3.601	28500.000	365.000	5011.145	-0.104
4.583	1092.77	239.06	26.60	212.47	41.584	0.400	29000.000	3.624	28500.000	365.000	5011.145	-0.0808
(SZB) 5.003	1183.27	236.35	26.61	209.75	41.583	0.400	29000.000	3.639	28500.000	365.000	5011.145	-0.0702
(1.5H) 5.583	1305.99	232.60	26.62	205.99	41.584	0.400	29000.000	4.046	28500.000	365.000	5011.145	-0.093
7.265	1644.29	221.75	26.64	195.11	40.117	0.400	29000.000	4.524	28500.000	365.000	5011.145	-0.0853
7.599	1708.33	219.60	26.65	192.95	40.134	0.400	29000.000	4.542	28500.000	365.000	5011.145	-0.0785
($0.1L_s$) 7.687	1725.17	219.03	26.65	192.38	40.139	0.400	29000.000	4.547	28500.000	365.000	5011.145	-0.0768
8.665	1906.52	212.74	26.67	186.08	40.197	0.400	29000.000	4.600	28500.000	365.000	5011.145	-0.058
(SZB) 10.503	2224.11	200.97	26.70	174.27	39.053	0.400	29000.000	5.121	28500.000	365.000	5011.145	-0.0554
11.265	2347.28	196.11	26.71	169.40	38.833	0.400	29000.000	5.165	28500.000	365.000	5011.145	-0.041
14.947	2888.93	172.90	26.76	146.14	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0648
15.197	2922.86	171.33	26.76	144.57	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0614
($0.2L_s$) 15.374	2946.57	170.22	26.76	143.46	39.902	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.059
15.997	3027.93	166.33	26.77	139.56	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.051
17.947	3261.00	154.19	26.78	127.40	40.709	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0297
(SZB) 18.753	3347.64	149.21	26.79	122.42	40.963	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0225
22.629	3687.91	125.55	26.79	98.75	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.000357
22.796	3699.82	124.54	26.79	97.74	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.00183
	3718.35	122.93	26.79	96.14	42.330	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0102

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.3L_s$) 23.062												
23.329	3736.42	121.32	26.79	94.53	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0176
24.629	3815.64	113.51	26.78	86.72	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0399
(SZB) 29.753	4049.41	83.54	26.71	56.83	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.00448
(HP) 30.311	4070.74	80.42	26.69	53.73	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.000484
30.316	4070.92	80.39	0.00	80.39	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.139
30.395	4073.69	79.96	0.00	79.96	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.141
30.661	4082.72	78.48	0.00	78.48	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.146
($0.4L_s$) 30.749	4085.55	77.99	0.00	77.99	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.148
31.311	4102.28	74.88	0.00	74.88	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.155
37.993	4105.94	78.76	0.00	78.76	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.181
($0.5L_s$) 38.436	4093.75	81.75	0.00	81.75	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.18
44.675	3769.97	123.10	0.00	123.10	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00616
45.325	3720.26	127.31	0.00	127.31	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0107
45.592	3699.91	129.03	0.00	129.03	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0126
45.671	3693.95	129.54	0.00	129.54	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0131
(HP) 45.675	3693.57	129.57	26.60	102.96	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0264
($0.6L_s$) 46.123	3658.75	132.45	26.61	105.84	44.520	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.028
(SZB) 46.234	3649.93	133.16	26.61	106.55	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0284
51.357	3149.95	165.42	26.64	138.78	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0631
52.657	2996.31	173.40	26.64	146.76	42.416	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0764
53.191	2929.61	176.66	26.63	150.03	42.246	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0825
53.357	2908.35	177.68	26.63	151.04	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0845
($0.7L_s$) 53.811	2849.76	180.43	26.63	153.80	42.048	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.09
54.576	2747.99	185.04	26.62	158.42	41.805	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0999
(Deck Bar Cutoff) 54.581	2747.32	185.07	26.62	158.45	41.803	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0999
(SZB) 57.234	2373.82	200.87	26.60	174.27	40.948	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.138
58.040	2253.68	205.60	26.59	179.01	40.686	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.151
59.990	1954.60	216.85	26.56	190.29	40.053	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.185
60.790	1823.98	221.42	26.54	194.88	39.794	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.2
61.040	1782.37	222.84	26.54	196.30	39.713	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.205
($0.8L_s$) 61.498	1704.90	225.44	26.53	198.91	39.564	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.215
64.722	1117.29	243.38	26.47	216.91	38.734	0.400	29000.000	5.156	28500.000	365.000	5011.145	-0.207
(SZB) 65.484	966.66	247.53	26.45	221.08	39.063	0.400	29000.000	5.112	28500.000	365.000	5011.145	-0.226
67.322	900.99	257.36	26.42	230.95	45.296	31.680	29000.000	1.224	28500.000	912.195	5011.145	0.25
68.388	1044.35	262.99	26.39	236.59	45.380	31.680	29000.000	1.198	28500.000	908.388	5011.145	0.3
68.722	1100.64	264.74	26.39	238.35	45.407	31.680	29000.000	1.190	28500.000	907.175	5011.145	0.319
($0.9L_s$) 69.185	1179.34	267.16	26.38	240.78	45.445	31.680	29000.000	1.572	28500.000	905.472	5011.145	0.265
(1.5H) 70.404	1389.18	273.47	26.35	247.12	45.548	31.680	29000.000	1.533	28500.000	900.892	5011.145	0.336
(SZB) 70.984	1490.54	276.46	26.34	250.12	45.599	31.680	29000.000	1.893	28500.000	898.659	5011.145	0.293
71.404	1564.24	278.61	26.33	252.28	45.636	31.680	29000.000	1.877	28500.000	897.026	5011.145	0.318
(CS) 71.847	1642.65	280.87	26.32	254.55	45.676	31.680	29000.000	1.861	28500.000	895.280	5011.145	0.344

Shear Parameter Summary - Strength II [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 3.924	Yes	1	---	---	0.101	-0.104	5.2	28.64
4.583	Yes	1	---	---	0.103	-0.0808	5.11	28.72
(SZB) 5.003	Yes	1	---	---	0.101	-0.0702	5.07	28.75
(1.5H) 5.583	Yes	1	---	---	0.0996	-0.093	5.16	28.67
7.265	Yes	1	---	---	0.0978	-0.0853	5.13	28.70
7.599	Yes	1	---	---	0.0967	-0.0785	5.1	28.73
($0.1L_s$) 7.687	Yes	1	---	---	0.0964	-0.0768	5.09	28.73
8.665	Yes	1	---	---	0.0932	-0.058	5.02	28.80
(SZB) 10.503	Yes	1	---	---	0.0899	-0.0554	5.01	28.81
11.265	Yes	1	---	---	0.0879	-0.041	4.95	28.86
14.947	Yes	1	---	---	0.0742	-0.0648	5.05	28.77
15.197	Yes	1	---	---	0.0733	-0.0614	5.03	28.79
($0.2L_s$) 15.374	Yes	1	---	---	0.0727	-0.059	5.02	28.79
15.997	Yes	1	---	---	0.0704	-0.051	4.99	28.82
17.947	Yes	1	---	---	0.0634	-0.0297	4.91	28.90
(SZB) 18.753	Yes	1	---	---	0.0606	-0.0225	4.88	28.92
22.629	Yes	1	---	---	0.0477	-0.000357	4.8	29.00
22.796	Yes	1	---	---	0.0472	0.00183	4.79	29.01
($0.3L_s$) 23.062	Yes	1	---	---	0.0463	0.0102	4.76	29.04
23.329	Yes	1	---	---	0.0455	0.0176	4.74	29.06
24.629	Yes	1	---	---	0.0414	0.0399	4.66	29.14
(SZB) 29.753	Yes	1	---	---	0.0265	0.00448	4.78	29.02
(HP) 30.311	Yes	1	---	---	0.0251	-0.000484	4.8	29.00
30.316	Yes	1	---	---	0.0357	0.139	4.35	29.49
30.395	Yes	1	---	---	0.0355	0.141	4.34	29.49

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
30.661	Yes	1	---	---	0.0349	0.146	4.33	29.51
(0.4L_s) 30.749	Yes	1	---	---	0.0346	0.148	4.32	29.52
31.311	Yes	1	---	---	0.0333	0.155	4.3	29.54
37.993	Yes	1	---	---	0.035	0.181	4.23	29.63
(0.5L_s) 38.436	Yes	1	---	---	0.0363	0.18	4.23	29.63
44.675	Yes	1	---	---	0.0547	-0.00616	4.82	28.98
45.325	Yes	1	---	---	0.0566	-0.0107	4.84	28.96
45.592	Yes	1	---	---	0.0573	-0.0126	4.85	28.96
45.671	Yes	1	---	---	0.0575	-0.0131	4.85	28.95
(HP) 45.675	Yes	1	---	---	0.0469	-0.0264	4.9	28.91
(0.6L_s) 46.123	Yes	1	---	---	0.0484	-0.028	4.9	28.90
(SZB) 46.234	Yes	1	---	---	0.0487	-0.0284	4.9	28.90
51.357	Yes	1	---	---	0.0655	-0.0631	5.04	28.78
52.657	Yes	1	---	---	0.0699	-0.0764	5.09	28.73
53.191	Yes	1	---	---	0.0717	-0.0825	5.12	28.71
53.357	Yes	1	---	---	0.0723	-0.0845	5.12	28.70
(0.7L_s) 53.811	Yes	1	---	---	0.0738	-0.09	5.15	28.68
54.576	Yes	1	---	---	0.0765	-0.0999	5.19	28.65
(Deck Bar Cutoff) 54.581	Yes	1	---	---	0.0765	-0.0999	5.19	28.65
(SZB) 57.234	Yes	1	---	---	0.0857	-0.138	5.36	28.52
58.040	Yes	1	---	---	0.0886	-0.151	5.41	28.47
59.990	Yes	1	---	---	0.0956	-0.185	5.57	28.35
60.790	Yes	1	---	---	0.0985	-0.2	5.65	28.30
61.040	Yes	1	---	---	0.0994	-0.205	5.67	28.28
(0.8L_s) 61.498	Yes	1	---	---	0.101	-0.215	5.72	28.25
64.722	Yes	1	---	---	0.112	-0.207	5.68	28.28
(SZB) 65.484	Yes	1	---	---	0.114	-0.226	5.78	28.21
67.322	Yes	1	---	---	0.102	0.25	4.04	29.87
68.388	Yes	1	---	---	0.105	0.3	3.92	30.05
68.722	Yes	1	---	---	0.105	0.319	3.87	30.12
(0.9L_s) 69.185	Yes	1	---	---	0.106	0.265	4	29.93
(1.5H) 70.404	Yes	1	---	---	0.109	0.336	3.83	30.18
(SZB) 70.984	Yes	1	---	---	0.11	0.293	3.94	30.02
71.404	Yes	1	---	---	0.111	0.318	3.88	30.11
(CS) 71.847	Yes	1	---	---	0.112	0.344	3.82	30.20

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength II

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 3.924	5.2	8.000	-	7.000	43.289	140.95
4.583	5.11	8.000	-	7.000	41.584	132.94
(SZB) 5.003	5.07	8.000	-	7.000	41.583	131.82
(1.5H) 5.583	5.16	8.000	-	7.000	41.584	134.24
7.265	5.13	8.000	-	7.000	40.117	128.71
7.599	5.1	8.000	-	7.000	40.134	128.07
(0.1L_s) 7.687	5.09	8.000	-	7.000	40.139	127.91
8.665	5.02	8.000	-	7.000	40.197	126.20
(SZB) 10.503	5.01	8.000	-	7.000	39.053	122.37
11.265	4.95	8.000	-	7.000	38.833	120.31
14.947	5.05	8.000	-	7.000	39.769	125.53
15.197	5.03	8.000	-	7.000	39.847	125.44
(0.2L_s) 15.374	5.02	8.000	-	7.000	39.902	125.38
15.997	4.99	8.000	-	7.000	40.097	125.20
17.947	4.91	8.000	-	7.000	40.709	125.04
(SZB) 18.753	4.88	8.000	-	7.000	40.963	125.13
22.629	4.8	8.000	-	7.000	42.192	126.74
22.796	4.79	8.000	-	7.000	42.245	126.69
(0.3L_s) 23.062	4.76	8.000	-	7.000	42.330	126.16
23.329	4.74	8.000	-	7.000	42.415	125.72
24.629	4.66	8.000	-	7.000	42.832	124.89
(SZB) 29.753	4.78	8.000	-	7.000	44.484	133.14
(HP) 30.311	4.8	8.000	-	7.000	44.665	134.18
30.316	4.35	8.000	-	7.000	44.665	121.45
30.395	4.34	8.000	-	7.000	44.665	121.31
30.661	4.33	8.000	-	7.000	44.665	120.89
(0.4L_s) 30.749	4.32	8.000	-	7.000	44.665	120.77
31.311	4.3	8.000	-	7.000	44.665	120.16
37.993	4.23	8.000	-	7.000	44.665	118.07
(0.5L_s) 38.436	4.23	8.000	-	7.000	44.665	118.19
44.675	4.82	8.000	-	7.000	44.665	134.76
45.325	4.84	8.000	-	7.000	44.666	135.22
45.592	4.85	8.000	-	7.000	44.666	135.41
45.671	4.85	8.000	-	7.000	44.666	135.47
(HP) 45.675	4.9	8.000	-	7.000	44.666	136.84
(0.6L_s) 46.123	4.9	8.000	-	7.000	44.520	136.57
(SZB) 46.234	4.9	8.000	-	7.000	44.484	136.50
51.357	5.04	8.000	-	7.000	42.832	135.02

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
52.657	5.09	8.000	-	7.000	42.416	135.12
53.191	5.12	8.000	-	7.000	42.246	135.24
53.357	5.12	8.000	-	7.000	42.192	135.28
($0.7L_s$) 53.811	5.15	8.000	-	7.000	42.048	135.42
54.576	5.19	8.000	-	7.000	41.805	135.71
(Deck Bar Cutoff) 54.581	5.19	8.000	-	7.000	41.803	135.71
(SZB) 57.234	5.36	8.000	-	7.000	40.948	137.20
58.040	5.41	8.000	-	7.000	40.686	137.82
59.990	5.57	8.000	-	7.000	40.053	139.66
60.790	5.65	8.000	-	7.000	39.794	140.64
61.040	5.67	8.000	-	7.000	39.713	140.97
($0.8L_s$) 61.498	5.72	8.000	-	7.000	39.564	141.62
64.722	5.68	8.000	-	7.000	38.734	137.70
(SZB) 65.484	5.78	8.000	-	7.000	39.063	141.20
67.322	4.04	8.000	-	7.000	45.296	114.55
68.388	3.92	8.000	-	7.000	45.380	111.22
68.722	3.87	8.000	-	7.000	45.407	110.01
($0.9L_s$) 69.185	4	8.000	-	7.000	45.445	113.87
(1.5H) 70.404	3.83	8.000	-	7.000	45.548	109.25
(SZB) 70.984	3.94	8.000	-	7.000	45.599	112.30
71.404	3.88	8.000	-	7.000	45.636	110.68
(CS) 71.847	3.82	8.000	-	7.000	45.676	109.03

Shear Resistance Provided By Shear Reinforcement - Strength II

$$V_s = \frac{A_v f_y d_v (\cot\theta + \cot\alpha)\sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 3.924	60.000	0.400	4.000	1.200	43.289	28.64	90.00	475.64
4.583	60.000	0.400	4.000	1.200	41.584	28.72	90.00	455.40
(SZB) 5.003	60.000	0.400	6.000	0.800	41.583	28.75	90.00	303.13
(1.5H) 5.583	60.000	0.400	6.000	0.800	41.584	28.67	90.00	304.14
7.265	60.000	0.400	6.000	0.800	40.117	28.70	90.00	293.08
7.599	60.000	0.400	6.000	0.800	40.134	28.73	90.00	292.92
($0.1L_s$) 7.687	60.000	0.400	6.000	0.800	40.139	28.73	90.00	292.88
8.665	60.000	0.400	6.000	0.800	40.197	28.80	90.00	292.51
(SZB) 10.503	60.000	0.400	9.000	0.533	39.053	28.81	90.00	189.39
11.265	60.000	0.400	9.000	0.533	38.833	28.86	90.00	187.92
14.947	60.000	0.400	9.000	0.533	39.769	28.77	90.00	193.12
15.197	60.000	0.400	9.000	0.533	39.847	28.79	90.00	193.40
($0.2L_s$) 15.374	60.000	0.400	9.000	0.533	39.902	28.79	90.00	193.60
15.997	60.000	0.400	9.000	0.533	40.097	28.82	90.00	194.32
17.947	60.000	0.400	9.000	0.533	40.709	28.90	90.00	196.68
(SZB) 18.753	60.000	0.400	12.000	0.400	40.963	28.92	90.00	148.28
22.629	60.000	0.400	12.000	0.400	42.192	29.00	90.00	152.24
22.796	60.000	0.400	12.000	0.400	42.245	29.01	90.00	152.38
($0.3L_s$) 23.062	60.000	0.400	12.000	0.400	42.330	29.04	90.00	152.51
23.329	60.000	0.400	12.000	0.400	42.415	29.06	90.00	152.65
24.629	60.000	0.400	12.000	0.400	42.832	29.14	90.00	153.66
(SZB) 29.753	60.000	0.400	18.000	0.267	44.484	29.02	90.00	106.93
(HP) 30.311	60.000	0.400	18.000	0.267	44.665	29.00	90.00	107.45
30.316	60.000	0.400	18.000	0.267	44.665	29.49	90.00	105.31
30.395	60.000	0.400	18.000	0.267	44.665	29.49	90.00	105.29
30.661	60.000	0.400	18.000	0.267	44.665	29.51	90.00	105.21
($0.4L_s$) 30.749	60.000	0.400	18.000	0.267	44.665	29.52	90.00	105.19
31.311	60.000	0.400	18.000	0.267	44.665	29.54	90.00	105.08
37.993	60.000	0.400	18.000	0.267	44.665	29.63	90.00	104.69
($0.5L_s$) 38.436	60.000	0.400	18.000	0.267	44.665	29.63	90.00	104.71
44.675	60.000	0.400	18.000	0.267	44.665	28.98	90.00	107.53
45.325	60.000	0.400	18.000	0.267	44.666	28.96	90.00	107.60
45.592	60.000	0.400	18.000	0.267	44.666	28.96	90.00	107.63
45.671	60.000	0.400	18.000	0.267	44.666	28.95	90.00	107.64
(HP) 45.675	60.000	0.400	18.000	0.267	44.666	28.91	90.00	107.85
($0.6L_s$) 46.123	60.000	0.400	18.000	0.267	44.520	28.90	90.00	107.52
(SZB) 46.234	60.000	0.400	18.000	0.267	44.484	28.90	90.00	107.44
51.357	60.000	0.400	12.000	0.400	42.832	28.78	90.00	155.96
52.657	60.000	0.400	12.000	0.400	42.416	28.73	90.00	154.74
53.191	60.000	0.400	12.000	0.400	42.246	28.71	90.00	154.25
53.357	60.000	0.400	12.000	0.400	42.192	28.70	90.00	154.10
($0.7L_s$) 53.811	60.000	0.400	12.000	0.400	42.048	28.68	90.00	153.70
54.576	60.000	0.400	12.000	0.400	41.805	28.65	90.00	153.03
(Deck Bar Cutoff) 54.581	60.000	0.400	12.000	0.400	41.803	28.65	90.00	153.03
(SZB) 57.234	60.000	0.400	12.000	0.400	40.948	28.52	90.00	150.73
58.040	60.000	0.400	9.000	0.533	40.686	28.47	90.00	200.07
59.990	60.000	0.400	9.000	0.533	40.053	28.35	90.00	197.93
60.790	60.000	0.400	9.000	0.533	39.794	28.30	90.00	197.09
61.040	60.000	0.400	9.000	0.533	39.713	28.28	90.00	196.83
($0.8L_s$) 61.498	60.000	0.400	9.000	0.533	39.564	28.25	90.00	196.37
64.722	60.000	0.400	9.000	0.533	38.734	28.28	90.00	192.03
(SZB) 65.484	60.000	0.400	9.000	0.533	39.063	28.21	90.00	194.19

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
67.322	60.000	0.400	6.000	0.800	45.296	29.87	90.00	315.41
68.388	60.000	0.400	6.000	0.800	45.380	30.05	90.00	313.75
68.722	60.000	0.400	6.000	0.800	45.407	30.12	90.00	313.10
($0.9L_s$) 69.185	60.000	0.400	6.000	0.800	45.445	29.93	90.00	315.79
(1.5H) 70.404	60.000	0.400	6.000	0.800	45.548	30.18	90.00	313.34
(SZB) 70.984	60.000	0.400	6.000	0.800	45.599	30.02	90.00	315.61
71.404	60.000	0.400	4.000	1.200	45.636	30.11	90.00	472.14
(CS) 71.847	60.000	0.400	4.000	1.200	45.676	30.20	90.00	470.79

Nominal Shear Resistance - Strength II

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	$V_{n1}$$ (kip)	V_{n2}# (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 3.924	8.000	7.000	43.289	26.59	140.95	475.64	643.18	632.63	632.63	0.9	569.37
4.583	8.000	7.000	41.584	26.60	132.94	455.40	614.94	608.77	608.77	0.9	547.89
(SZB) 5.003	8.000	7.000	41.583	26.61	131.82	303.13	461.56	608.76	461.56	0.9	415.40
(1.5H) 5.583	8.000	7.000	41.584	26.62	134.24	304.14	464.99	608.79	464.99	0.9	418.49
7.265	8.000	7.000	40.117	26.64	128.71	293.08	448.44	588.28	448.44	0.9	403.59
7.599	8.000	7.000	40.134	26.65	128.07	292.92	447.64	588.53	447.64	0.9	402.88
($0.1L_s$) 7.687	8.000	7.000	40.139	26.65	127.91	292.88	447.44	588.60	447.44	0.9	402.69
8.665	8.000	7.000	40.197	26.67	126.20	292.51	445.37	589.42	445.37	0.9	400.84
(SZB) 10.503	8.000	7.000	39.053	26.70	122.37	189.39	338.45	573.44	338.45	0.9	304.60
11.265	8.000	7.000	38.833	26.71	120.31	187.92	334.95	570.37	334.95	0.9	301.45
14.947	8.000	7.000	39.769	26.76	125.53	193.12	345.41	583.52	345.41	0.9	310.87
15.197	8.000	7.000	39.847	26.76	125.44	193.40	345.60	584.62	345.60	0.9	311.04
($0.2L_s$) 15.374	8.000	7.000	39.902	26.76	125.38	193.60	345.74	585.40	345.74	0.9	311.17
15.997	8.000	7.000	40.097	26.77	125.20	194.32	346.29	588.13	346.29	0.9	311.66
17.947	8.000	7.000	40.709	26.78	125.04	196.68	348.50	596.72	348.50	0.9	313.65
(SZB) 18.753	8.000	7.000	40.963	26.79	125.13	148.28	300.19	600.27	300.19	0.9	270.17
22.629	8.000	7.000	42.192	26.79	126.74	152.24	305.78	617.48	305.78	0.9	275.20
22.796	8.000	7.000	42.245	26.79	126.69	152.38	305.87	618.23	305.87	0.9	275.28
($0.3L_s$) 23.062	8.000	7.000	42.330	26.79	126.16	152.51	305.46	619.41	305.46	0.9	274.91
23.329	8.000	7.000	42.415	26.79	125.72	152.65	305.16	620.61	305.16	0.9	274.64
24.629	8.000	7.000	42.832	26.78	124.89	153.66	305.33	626.43	305.33	0.9	274.79
(SZB) 29.753	8.000	7.000	44.484	26.71	133.14	106.93	266.78	649.49	266.78	0.9	240.11
(HP) 30.311	8.000	7.000	44.665	26.69	134.18	107.45	268.32	652.01	268.32	0.9	241.49
30.316	8.000	7.000	44.665	0.00	121.45	105.31	226.76	625.32	226.76	0.9	204.09
30.395	8.000	7.000	44.665	0.00	121.31	105.29	226.60	625.32	226.60	0.9	203.94
30.661	8.000	7.000	44.665	0.00	120.89	105.21	226.10	625.32	226.10	0.9	203.49
($0.4L_s$) 30.749	8.000	7.000	44.665	0.00	120.77	105.19	225.96	625.32	225.96	0.9	203.36
31.311	8.000	7.000	44.665	0.00	120.16	105.08	225.24	625.32	225.24	0.9	202.72
37.993	8.000	7.000	44.665	0.00	118.07	104.69	222.76	625.32	222.76	0.9	200.48
($0.5L_s$) 38.436	8.000	7.000	44.665	0.00	118.19	104.71	222.90	625.32	222.90	0.9	200.61
44.675	8.000	7.000	44.665	0.00	134.76	107.53	242.29	625.32	242.29	0.9	218.06
45.325	8.000	7.000	44.666	0.00	135.22	107.60	242.83	625.32	242.83	0.9	218.54
45.592	8.000	7.000	44.666	0.00	135.41	107.63	243.04	625.32	243.04	0.9	218.74
45.671	8.000	7.000	44.666	0.00	135.47	107.64	243.11	625.32	243.11	0.9	218.80
(HP) 45.675	8.000	7.000	44.666	26.60	136.84	107.85	271.29	651.92	271.29	0.9	244.16
($0.6L_s$) 46.123	8.000	7.000	44.520	26.61	136.57	107.52	270.70	649.89	270.70	0.9	243.63
(SZB) 46.234	8.000	7.000	44.484	26.61	136.50	107.44	270.55	649.39	270.55	0.9	243.50
51.357	8.000	7.000	42.832	26.64	135.02	155.96	317.61	626.28	317.61	0.9	285.85
52.657	8.000	7.000	42.416	26.64	135.12	154.74	316.50	620.46	316.50	0.9	284.85
53.191	8.000	7.000	42.246	26.63	135.24	154.25	316.12	618.07	316.12	0.9	284.51
53.357	8.000	7.000	42.192	26.63	135.28	154.10	316.02	617.33	316.02	0.9	284.42
($0.7L_s$) 53.811	8.000	7.000	42.048	26.63	135.42	153.70	315.75	615.30	315.75	0.9	284.17
54.576	8.000	7.000	41.805	26.62	135.71	153.03	315.36	611.89	315.36	0.9	283.83
(Deck Bar Cutoff) 54.581	8.000	7.000	41.803	26.62	135.71	153.03	315.36	611.87	315.36	0.9	283.82
(SZB) 57.234	8.000	7.000	40.948	26.60	137.20	150.73	314.53	599.87	314.53	0.9	283.08
58.040	8.000	7.000	40.686	26.59	137.82	200.07	364.48	596.19	364.48	0.9	328.03
59.990	8.000	7.000	40.053	26.56	139.66	197.93	364.14	587.30	364.14	0.9	327.73
60.790	8.000	7.000	39.794	26.54	140.64	197.09	364.27	583.65	364.27	0.9	327.84
61.040	8.000	7.000	39.713	26.54	140.97	196.83	364.34	582.52	364.34	0.9	327.91
($0.8L_s$) 61.498	8.000	7.000	39.564	26.53	141.62	196.37	364.52	580.43	364.52	0.9	328.06
64.722	8.000	7.000	38.734	26.47	137.70	192.03	356.20	568.74	356.20	0.9	320.58
(SZB) 65.484	8.000	7.000	39.063	26.45	141.20	194.19	361.84	573.33	361.84	0.9	325.65
67.322	8.000	7.000	45.296	26.42	114.55	315.41	456.38	660.56	456.38	0.9	410.74
68.388	8.000	7.000	45.380	26.39	111.22	313.75	451.37	661.72	451.37	0.9	406.23
68.722	8.000	7.000	45.407	26.39	110.01	313.10	449.50	662.09	449.50	0.9	404.55
($0.9L_s$) 69.185	8.000	7.000	45.445	26.38	113.87	315.79	456.04	662.62	456.04	0.9	410.43
(1.5H) 70.404	8.000	7.000	45.548	26.35	109.25	313.34	448.95	664.03	448.95	0.9	404.05
(SZB) 70.984	8.000	7.000	45.599	26.34	112.30	315.61	454.25	664.73	454.25	0.9	408.83
71.404	8.000	7.000	45.636	26.33	110.68	472.14	609.15	665.24	609.15	0.9	548.24
(CS) 71.847	8.000	7.000	45.676	26.32	109.03	470.79	606.14	665.79	606.14	0.9	545.53

$$V_{n1} = V_c + V_s + V_p \text{ [Eqn 5.7.3.3-1]}$$

#$V_{n2} = 0.25f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength II

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 3.924	270.39	140.95	26.59	102.85	60.000	43.289	28.64	0.259
4.583	265.63	132.94	26.60	106.09	60.000	41.584	28.72	0.280
(SZB) 5.003	262.62	131.82	26.61	104.19	60.000	41.583	28.75	0.275
(1.5H) 5.583	258.45	134.24	26.62	97.59	60.000	41.584	28.67	0.257
7.265	246.39	128.71	26.64	91.03	60.000	40.117	28.70	0.248
7.599	244.00	128.07	26.65	89.28	60.000	40.134	28.73	0.244
($0.1L_s$) 7.687	243.37	127.91	26.65	88.81	60.000	40.139	28.73	0.243
8.665	236.38	126.20	26.67	83.51	60.000	40.197	28.80	0.228
(SZB) 10.503	223.30	122.37	26.70	74.24	60.000	39.053	28.81	0.209
11.265	217.90	120.31	26.71	70.88	60.000	38.833	28.86	0.201
14.947	192.11	125.53	26.76	39.82	60.000	39.769	28.77	0.110
15.197	190.37	125.44	26.76	38.17	60.000	39.847	28.79	0.105
($0.2L_s$) 15.374	189.13	125.38	26.76	37.00	60.000	39.902	28.79	0.102
15.997	184.81	125.20	26.77	32.84	60.000	40.097	28.82	0.090
17.947	171.32	125.04	26.78	19.50	60.000	40.709	28.90	0.053
(SZB) 18.753	165.79	125.13	26.79	13.88	60.000	40.963	28.92	0.037
22.629	139.50	126.74	26.79	0.00	60.000	42.192	29.00	0.000
22.796	138.38	126.69	26.79	0.00	60.000	42.245	29.01	0.000
($0.3L_s$) 23.062	136.59	126.16	26.79	0.00	60.000	42.330	29.04	0.000
23.329	134.80	125.72	26.79	0.00	60.000	42.415	29.06	0.000
24.629	126.12	124.89	26.78	0.00	60.000	42.832	29.14	0.000
(SZB) 29.753	92.82	133.14	26.71	0.00	60.000	44.484	29.02	0.000
(HP) 30.311	89.36	134.18	26.69	0.00	60.000	44.665	29.00	0.000
30.316	89.33	121.45	0.00	0.00	60.000	44.665	29.49	0.000
30.395	88.84	121.31	0.00	0.00	60.000	44.665	29.49	0.000
30.661	87.20	120.89	0.00	0.00	60.000	44.665	29.51	0.000
($0.4L_s$) 30.749	86.66	120.77	0.00	0.00	60.000	44.665	29.52	0.000
31.311	83.20	120.16	0.00	0.00	60.000	44.665	29.54	0.000
37.993	87.51	118.07	0.00	0.00	60.000	44.665	29.63	0.000
($0.5L_s$) 38.436	90.84	118.19	0.00	0.00	60.000	44.665	29.63	0.000
44.675	136.78	134.76	0.00	2.02	60.000	44.665	28.98	0.005
45.325	141.45	135.22	0.00	6.23	60.000	44.666	28.96	0.015
45.592	143.37	135.41	0.00	7.96	60.000	44.666	28.96	0.020
45.671	143.93	135.47	0.00	8.46	60.000	44.666	28.95	0.021
(HP) 45.675	143.96	136.84	26.60	0.00	60.000	44.666	28.91	0.000
($0.6L_s$) 46.123	147.16	136.57	26.61	0.00	60.000	44.520	28.90	0.000
(SZB) 46.234	147.95	136.50	26.61	0.00	60.000	44.484	28.90	0.000
51.357	183.80	135.02	26.64	22.14	60.000	42.832	28.78	0.057
52.657	192.67	135.12	26.64	30.91	60.000	42.416	28.73	0.080
53.191	196.29	135.24	26.63	34.42	60.000	42.246	28.71	0.089
53.357	197.42	135.28	26.63	35.50	60.000	42.192	28.70	0.092
($0.7L_s$) 53.811	200.47	135.42	26.63	38.43	60.000	42.048	28.68	0.100
54.576	205.61	135.71	26.62	43.27	60.000	41.805	28.65	0.113
(Deck Bar Cutoff) 54.581	205.64	135.71	26.62	43.30	60.000	41.803	28.65	0.113
(SZB) 57.234	223.19	137.20	26.60	59.39	60.000	40.948	28.52	0.158
58.040	228.44	137.82	26.59	64.03	60.000	40.686	28.47	0.171
59.990	240.95	139.66	26.56	74.73	60.000	40.053	28.35	0.201
60.790	246.03	140.64	26.54	78.85	60.000	39.794	28.30	0.213
61.040	247.60	140.97	26.54	80.10	60.000	39.713	28.28	0.217
($0.8L_s$) 61.498	250.49	141.62	26.53	82.34	60.000	39.564	28.25	0.224
64.722	270.43	137.70	26.47	106.25	60.000	38.734	28.28	0.295
(SZB) 65.484	275.04	141.20	26.45	107.38	60.000	39.063	28.21	0.295
67.322	285.96	114.55	26.42	144.99	60.000	45.296	29.87	0.368
68.388	292.21	111.22	26.39	154.59	60.000	45.380	30.05	0.394
68.722	294.15	110.01	26.39	157.75	60.000	45.407	30.12	0.403
($0.9L_s$) 69.185	296.84	113.87	26.38	156.59	60.000	45.445	29.93	0.397
(1.5H) 70.404	303.86	109.25	26.35	168.25	60.000	45.548	30.18	0.430
(SZB) 70.984	307.18	112.30	26.34	168.54	60.000	45.599	30.02	0.427
71.404	309.57	110.68	26.33	172.55	60.000	45.636	30.11	0.439
(CS) 71.847	312.08	109.03	26.32	176.73	60.000	45.676	30.20	0.450

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength II

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 3.924	1.200	0.259	10.174	18.498	28.672
4.583	1.200	0.280	9.443	17.170	26.613
(SZB) 5.003	0.800	0.275	9.601	17.457	27.058
(1.5H) 5.583	0.800	0.257	10.284	18.699	28.983
7.265	0.800	0.248	10.624	19.317	29.942
7.599	0.800	0.244	10.827	19.685	30.512
($0.1L_s$) 7.687	0.800	0.243	10.882	19.786	30.669
8.665	0.800	0.228	11.558	21.015	32.573
(SZB) 10.503	0.533	0.209	12.628	22.960	35.588
11.265	0.533	0.201	13.124	23.862	36.986
14.947	0.533	0.110	24.008	43.651	67.660
15.197	0.533	0.105	25.082	45.604	70.686
($0.2L_s$) 15.374	0.533	0.102	25.904	47.099	73.003
15.997	0.533	0.090	29.290	53.254	82.543
17.947	0.533	0.053	49.932	90.786	140.718

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(SZB) 18.753	0.400	0.037	70.519	128.216	198.734
22.629	0.400	0.000	N/A	N/A	N/A
22.796	0.400	0.000	N/A	N/A	N/A
($0.3L_s$) 23.062	0.400	0.000	N/A	N/A	N/A
23.329	0.400	0.000	N/A	N/A	N/A
24.629	0.400	0.000	N/A	N/A	N/A
(SZB) 29.753	0.267	0.000	N/A	N/A	N/A
(HP) 30.311	0.267	0.000	N/A	N/A	N/A
30.316	0.267	0.000	N/A	N/A	N/A
30.395	0.267	0.000	N/A	N/A	N/A
30.661	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.749	0.267	0.000	N/A	N/A	N/A
31.311	0.267	0.000	N/A	N/A	N/A
37.993	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.436	0.267	0.000	N/A	N/A	N/A
44.675	0.267	0.005	527.546	959.175	1486.722
45.325	0.267	0.015	170.892	310.713	481.605
45.592	0.267	0.020	133.929	243.507	377.436
45.671	0.267	0.021	125.936	228.975	354.912
(HP) 45.675	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.123	0.267	0.000	N/A	N/A	N/A
(SZB) 46.234	0.267	0.000	N/A	N/A	N/A
51.357	0.400	0.057	46.484	84.516	131.000
52.657	0.400	0.080	33.044	60.080	93.125
53.191	0.400	0.089	29.580	53.781	83.361
53.357	0.400	0.092	28.647	52.086	80.734
($0.7L_s$) 53.811	0.400	0.100	26.398	47.997	74.395
54.576	0.400	0.113	23.341	42.437	65.778
(Deck Bar Cutoff) 54.581	0.400	0.113	23.323	42.406	65.729
(SZB) 57.234	0.400	0.158	16.750	30.454	47.204
58.040	0.533	0.171	15.467	28.122	43.588
59.990	0.533	0.201	13.110	23.836	36.946
60.790	0.533	0.213	12.373	22.497	34.870
61.040	0.533	0.217	12.164	22.117	34.281
($0.8L_s$) 61.498	0.533	0.224	11.805	21.464	33.269
64.722	0.533	0.295	8.946	16.265	25.211
(SZB) 65.484	0.533	0.295	8.951	16.275	25.226
67.322	0.800	0.368	7.179	13.052	20.231
68.388	0.800	0.394	6.697	12.177	18.875
68.722	0.800	0.403	6.550	11.908	18.458
($0.9L_s$) 69.185	0.800	0.397	6.655	12.100	18.755
(1.5H) 70.404	0.800	0.430	6.146	11.174	17.319
(SZB) 70.984	0.800	0.427	6.180	11.236	17.416
71.404	1.200	0.439	6.020	10.945	16.964
(CS) 71.847	1.200	0.450	5.861	10.656	16.516

Horizontal Interface Shear Capacity Details

Strength I

Details for Horizontal Interface Shear Capacity (Strength I) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.000	368750.7	8272.8	254.30	68.461	43.000	0.133
($0.0L_s$) 0.000	368750.7	8272.8	254.30	68.461	43.000	0.133
(FoS) 0.333	368932.4	8279.5	254.30	68.483	43.000	0.133
(SZB) 1.337	369466.0	8299.4	254.30	68.548	43.000	0.133
(Bar Develop.) 1.705	369656.8	8306.5	254.30	68.572	43.000	0.133
(Bar Develop.) 2.765	370191.7	8326.4	254.30	68.636	43.000	0.133
(H) 3.833	370708.3	8345.6	254.30	68.699	43.000	0.133
(CS) 3.924	370751.1	8347.2	254.30	68.704	43.000	0.133
(SZB) 5.003	371249.0	8365.7	246.93	66.771	43.000	0.129
(1.5H) 5.583	371507.9	8375.3	242.98	65.732	43.000	0.127
($0.1L_s$) 7.687	372072.4	8396.2	228.73	61.940	43.000	0.120
(SZB) 10.503	372072.4	8396.2	209.88	56.836	43.000	0.110
($0.2L_s$) 15.374	372072.4	8396.2	177.95	48.188	43.000	0.093
(SZB) 18.753	372072.4	8396.2	156.33	42.333	43.000	0.082
($0.3L_s$) 23.062	372072.4	8396.2	129.36	35.029	43.000	0.068
(SZB) 29.753	372072.4	8396.2	89.21	24.158	43.000	0.047
(HP) 30.311	372072.4	8396.2	86.04	23.300	43.000	0.045
($0.4L_s$) 30.749	372072.4	8396.2	83.57	22.631	43.000	0.044
($0.5L_s$) 38.436	372072.4	8396.2	94.20	25.510	43.000	0.049
(HP) 45.675	372072.4	8396.2	137.33	37.189	43.000	0.072
($0.6L_s$) 46.123	372072.4	8396.2	139.99	37.908	43.000	0.073
(SZB) 46.234	372072.4	8396.2	140.64	38.086	43.000	0.074
($0.7L_s$) 53.811	372072.4	8396.2	185.40	50.206	43.000	0.097
(Deck Bar Cutoff) 54.581	372072.4	8396.2	189.91	51.426	43.000	0.100
(SZB) 57.234	371396.5	8371.1	205.41	55.559	43.000	0.108
($0.8L_s$) 61.498	369325.2	8294.1	230.06	61.998	43.000	0.120
(SZB) 65.484	367063.9	8210.1	252.78	67.847	43.000	0.131
($0.9L_s$) 69.185	364668.7	8120.9	273.48	73.081	43.000	0.142

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
(1.5H) 70.404	363814.9	8089.1	280.22	74.765	43.000	0.145
(SZB) 70.984	363396.4	8073.6	283.43	75.563	43.000	0.146
(CS) 71.847	362760.4	8049.9	288.18	76.738	43.000	0.149
(H) 72.154	362530.5	8041.3	288.18	76.705	43.000	0.149
(Bar Develop.) 73.222	361712.1	8010.8	288.18	76.587	43.000	0.148
(Bar Develop.) 74.282	360872.8	7979.6	288.18	76.465	43.000	0.148
(SZB) 74.650	360575.3	7968.5	288.18	76.422	43.000	0.148
(FoS) 75.654	359747.8	7937.7	288.18	76.301	43.000	0.148
75.987	359467.4	7927.2	288.18	76.260	43.000	0.148

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.000	0.000	∞	0.220	12.000	0.220
(0.0L_s) 0.000	0.000	∞	0.220	12.000	0.220
(FoS) 0.333	0.000	∞	0.220	12.000	0.220
(SZB) 1.337	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 1.705	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.765	0.000	∞	0.220	12.000	0.220
(H) 3.833	0.000	∞	0.220	12.000	0.220
(CS) 3.924	0.000	∞	0.220	12.000	0.220
(SZB) 5.003	0.000	∞	0.220	12.000	0.220
(1.5H) 5.583	0.000	∞	0.220	12.000	0.220
(0.1L_s) 7.687	0.000	∞	0.220	12.000	0.220
(SZB) 10.503	0.000	∞	0.220	9.000	0.293
(0.2L_s) 15.374	0.000	∞	0.220	9.000	0.293
(SZB) 18.753	0.000	∞	0.220	12.000	0.220
(0.3L_s) 23.062	0.000	∞	0.220	12.000	0.220
(SZB) 29.753	0.000	∞	0.220	18.000	0.147
(HP) 30.311	0.000	∞	0.220	18.000	0.147
(0.4L_s) 30.749	0.000	∞	0.220	18.000	0.147
(0.5L_s) 38.436	0.000	∞	0.220	18.000	0.147
(HP) 45.675	0.000	∞	0.220	18.000	0.147
(0.6L_s) 46.123	0.000	∞	0.220	18.000	0.147
(SZB) 46.234	0.000	∞	0.220	18.000	0.147
(0.7L_s) 53.811	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 54.581	0.000	∞	0.220	12.000	0.220
(SZB) 57.234	0.000	∞	0.220	12.000	0.220
(0.8L_s) 61.498	0.000	∞	0.220	9.000	0.293
(SZB) 65.484	0.000	∞	0.220	9.000	0.293
(0.9L_s) 69.185	0.000	∞	0.220	12.000	0.220
(1.5H) 70.404	0.000	∞	0.220	12.000	0.220
(SZB) 70.984	0.000	∞	0.220	12.000	0.220
(CS) 71.847	0.000	∞	0.220	12.000	0.220
(H) 72.154	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 73.222	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.282	0.000	∞	0.220	12.000	0.220
(SZB) 74.650	0.000	∞	0.220	12.000	0.220
(FoS) 75.654	0.000	∞	0.220	12.000	0.220
75.987	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.000	516.000	0.220	0.760	158.364	696.600	928.800	142.527
(0.0L_s) 0.000	516.000	0.220	0.760	158.364	696.600	928.800	142.527
(FoS) 0.333	516.000	0.220	0.761	158.365	696.600	928.800	142.528
(SZB) 1.337	516.000	0.220	0.765	158.368	696.600	928.800	142.532
(Bar Develop.) 1.705	516.000	0.220	0.766	158.370	696.600	928.800	142.533
(Bar Develop.) 2.765	516.000	0.220	0.770	158.373	696.600	928.800	142.536
(H) 3.833	516.000	0.220	0.774	158.376	696.600	928.800	142.539
(CS) 3.924	516.000	0.220	0.774	158.377	696.600	928.800	142.539
(SZB) 5.003	516.000	0.220	0.777	158.380	696.600	928.800	142.542
(1.5H) 5.583	516.000	0.220	0.779	158.381	696.600	928.800	142.543
(0.1L_s) 7.687	516.000	0.220	0.786	158.387	696.600	928.800	142.548
(SZB) 10.503	516.000	0.293	0.793	162.794	696.600	928.800	146.515
(0.2L_s) 15.374	516.000	0.293	0.804	162.804	696.600	928.800	146.524
(SZB) 18.753	516.000	0.220	0.810	158.409	696.600	928.800	142.568
(0.3L_s) 23.062	516.000	0.220	0.816	158.414	696.600	928.800	142.573
(SZB) 29.753	516.000	0.147	0.820	154.018	696.600	928.800	138.616
(HP) 30.311	516.000	0.147	0.820	154.018	696.600	928.800	138.616
(0.4L_s) 30.749	516.000	0.147	0.820	154.018	696.600	928.800	138.616
(0.5L_s) 38.436	516.000	0.147	0.817	154.015	696.600	928.800	138.614
(HP) 45.675	516.000	0.147	0.807	154.007	696.600	928.800	138.606
(0.6L_s) 46.123	516.000	0.147	0.806	154.006	696.600	928.800	138.605
(SZB) 46.234	516.000	0.147	0.806	154.006	696.600	928.800	138.605
(0.7L_s) 53.811	516.000	0.220	0.789	158.390	696.600	928.800	142.551

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
(Deck Bar Cutoff) 54.581	516.000	0.220	0.787	158.388	696.600	928.800	142.549
(SZB) 57.234	516.000	0.220	0.779	158.381	696.600	928.800	142.543
(0.8L_s) 61.498	516.000	0.293	0.764	162.767	696.600	928.800	146.491
(SZB) 65.484	516.000	0.293	0.748	162.753	696.600	928.800	146.478
(0.9L_s) 69.185	516.000	0.220	0.732	158.338	696.600	928.800	142.505
(1.5H) 70.404	516.000	0.220	0.726	158.333	696.600	928.800	142.500
(SZB) 70.984	516.000	0.220	0.723	158.331	696.600	928.800	142.498
(CS) 71.847	516.000	0.220	0.719	158.327	696.600	928.800	142.494
(H) 72.154	516.000	0.220	0.717	158.326	696.600	928.800	142.493
(Bar Develop.) 73.222	516.000	0.220	0.712	158.321	696.600	928.800	142.489
(Bar Develop.) 74.282	516.000	0.220	0.706	158.316	696.600	928.800	142.484
(SZB) 74.650	516.000	0.220	0.704	158.314	696.600	928.800	142.483
(FoS) 75.654	516.000	0.220	0.699	158.309	696.600	928.800	142.478
75.987	516.000	0.220	0.697	158.307	696.600	928.800	142.477

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{matrix} lesser\ of, \\ but\ not < 0.0 \end{matrix} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.000	516.000	0.133	0.430	-0.734	0.000	No
(0.0L_s) 0.000	516.000	0.133	0.430	-0.734	0.000	No
(FoS) 0.333	516.000	0.133	0.430	-0.734	0.000	No
(SZB) 1.337	516.000	0.133	0.430	-0.732	0.000	No
(Bar Develop.) 1.705	516.000	0.133	0.430	-0.732	0.000	No
(Bar Develop.) 2.765	516.000	0.133	0.430	-0.730	0.000	No
(H) 3.833	516.000	0.133	0.430	-0.729	0.000	No
(CS) 3.924	516.000	0.133	0.430	-0.729	0.000	No
(SZB) 5.003	516.000	0.129	0.430	-0.776	0.000	No
(1.5H) 5.583	516.000	0.127	0.430	-0.802	0.000	No
(0.1L_s) 7.687	516.000	0.120	0.430	-0.896	0.000	No
(SZB) 10.503	516.000	0.110	0.430	-1.021	0.000	No
(0.2L_s) 15.374	516.000	0.093	0.430	-1.235	0.000	No
(SZB) 18.753	516.000	0.082	0.430	-1.379	0.000	No
(0.3L_s) 23.062	516.000	0.068	0.430	-1.559	0.000	No
(SZB) 29.753	516.000	0.047	0.430	-1.827	0.000	No
(HP) 30.311	516.000	0.045	0.430	-1.848	0.000	No
(0.4L_s) 30.749	516.000	0.044	0.430	-1.864	0.000	No
(0.5L_s) 38.436	516.000	0.049	0.430	-1.793	0.000	No
(HP) 45.675	516.000	0.072	0.430	-1.506	0.000	No
(0.6L_s) 46.123	516.000	0.073	0.430	-1.488	0.000	No
(SZB) 46.234	516.000	0.074	0.430	-1.483	0.000	No
(0.7L_s) 53.811	516.000	0.097	0.430	-1.185	0.000	No
(Deck Bar Cutoff) 54.581	516.000	0.100	0.430	-1.154	0.000	No
(SZB) 57.234	516.000	0.108	0.430	-1.053	0.000	No
(0.8L_s) 61.498	516.000	0.120	0.430	-0.894	0.000	No
(SZB) 65.484	516.000	0.131	0.430	-0.749	0.000	No
(0.9L_s) 69.185	516.000	0.142	0.430	-0.620	0.000	No
(1.5H) 70.404	516.000	0.145	0.430	-0.579	0.000	No
(SZB) 70.984	516.000	0.146	0.430	-0.559	0.000	No
(CS) 71.847	516.000	0.149	0.430	-0.530	0.000	No
(H) 72.154	516.000	0.149	0.430	-0.531	0.000	No
(Bar Develop.) 73.222	516.000	0.148	0.430	-0.534	0.000	No
(Bar Develop.) 74.282	516.000	0.148	0.430	-0.536	0.000	No
(SZB) 74.650	516.000	0.148	0.430	-0.537	0.000	No
(FoS) 75.654	516.000	0.148	0.430	-0.540	0.000	No
75.987	516.000	0.148	0.430	-0.541	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Strength II

Details for Horizontal Interface Shear Capacity (Strength II) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.000	368750.7	8272.8	243.35	65.513	43.000	0.127
(0.0L_s) 0.000	368750.7	8272.8	243.35	65.513	43.000	0.127
(FoS) 0.333	368932.4	8279.5	243.35	65.534	43.000	0.127
(SZB) 1.337	369466.0	8299.4	243.35	65.597	43.000	0.127
(Bar Develop.) 1.705	369656.8	8306.5	243.35	65.619	43.000	0.127
(Bar Develop.) 2.765	370191.7	8326.4	243.35	65.681	43.000	0.127
(H) 3.833	370708.3	8345.6	243.35	65.741	43.000	0.127
(SZB) 5.003	371249.0	8365.7	236.35	63.912	43.000	0.124
(1.5H) 5.583	371507.9	8375.3	232.60	62.925	43.000	0.122
(0.1L_s) 7.687	372072.4	8396.2	219.03	59.313	43.000	0.115
(SZB) 10.503	372072.4	8396.2	200.97	54.422	43.000	0.105
(0.2L_s) 15.374	372072.4	8396.2	170.22	46.095	43.000	0.089
(SZB) 18.753	372072.4	8396.2	149.21	40.406	43.000	0.078

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
($0.3L_s$) 23.062	372072.4	8396.2	122.93	33.290	43.000	0.065
(SZB) 29.753	372072.4	8396.2	83.54	22.622	43.000	0.044
(HP) 30.311	372072.4	8396.2	80.42	21.778	43.000	0.042
($0.4L_s$) 30.749	372072.4	8396.2	77.99	21.120	43.000	0.041
($0.5L_s$) 38.436	372072.4	8396.2	81.75	22.138	43.000	0.043
(HP) 45.675	372072.4	8396.2	129.57	35.086	43.000	0.068
($0.6L_s$) 46.123	372072.4	8396.2	132.45	35.866	43.000	0.070
(SZB) 46.234	372072.4	8396.2	133.16	36.059	43.000	0.070
($0.7L_s$) 53.811	372072.4	8396.2	180.43	48.859	43.000	0.095
(Deck Bar Cutoff) 54.581	372072.4	8396.2	185.07	50.117	43.000	0.097
(SZB) 57.234	371396.5	8371.1	200.87	54.331	43.000	0.105
($0.8L_s$) 61.498	369325.2	8294.1	225.44	60.754	43.000	0.118
(SZB) 65.484	367063.9	8210.1	247.53	66.438	43.000	0.129
($0.9L_s$) 69.185	364668.7	8120.9	267.16	71.393	43.000	0.138
(1.5H) 70.404	363814.9	8089.1	273.47	72.966	43.000	0.141
(SZB) 70.984	363396.4	8073.6	276.46	73.706	43.000	0.143
(H) 72.154	362530.5	8041.3	280.87	74.761	43.000	0.145
(Bar Develop.) 73.222	361712.1	8010.8	280.87	74.646	43.000	0.145
(Bar Develop.) 74.282	360872.8	7979.6	280.87	74.528	43.000	0.144
(SZB) 74.650	360575.3	7968.5	280.87	74.485	43.000	0.144
(FoS) 75.654	359747.8	7937.7	280.87	74.368	43.000	0.144
75.987	359467.4	7927.2	280.87	74.328	43.000	0.144

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.000	0.000	∞	0.220	12.000	0.220
($0.0L_s$) 0.000	0.000	∞	0.220	12.000	0.220
(FoS) 0.333	0.000	∞	0.220	12.000	0.220
(SZB) 1.337	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 1.705	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.765	0.000	∞	0.220	12.000	0.220
(H) 3.833	0.000	∞	0.220	12.000	0.220
(SZB) 5.003	0.000	∞	0.220	12.000	0.220
(1.5H) 5.583	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.687	0.000	∞	0.220	12.000	0.220
(SZB) 10.503	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.374	0.000	∞	0.220	9.000	0.293
(SZB) 18.753	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.062	0.000	∞	0.220	12.000	0.220
(SZB) 29.753	0.000	∞	0.220	18.000	0.147
(HP) 30.311	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.749	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.436	0.000	∞	0.220	18.000	0.147
(HP) 45.675	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.123	0.000	∞	0.220	18.000	0.147
(SZB) 46.234	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 53.811	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 54.581	0.000	∞	0.220	12.000	0.220
(SZB) 57.234	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.498	0.000	∞	0.220	9.000	0.293
(SZB) 65.484	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.185	0.000	∞	0.220	12.000	0.220
(1.5H) 70.404	0.000	∞	0.220	12.000	0.220
(SZB) 70.984	0.000	∞	0.220	12.000	0.220
(H) 72.154	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 73.222	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.282	0.000	∞	0.220	12.000	0.220
(SZB) 74.650	0.000	∞	0.220	12.000	0.220
(FoS) 75.654	0.000	∞	0.220	12.000	0.220
75.987	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.000	516.000	0.220	0.760	158.364	696.600	928.800	142.527
($0.0L_s$) 0.000	516.000	0.220	0.760	158.364	696.600	928.800	142.527
(FoS) 0.333	516.000	0.220	0.761	158.365	696.600	928.800	142.528
(SZB) 1.337	516.000	0.220	0.765	158.368	696.600	928.800	142.532
(Bar Develop.) 1.705	516.000	0.220	0.766	158.370	696.600	928.800	142.533
(Bar Develop.) 2.765	516.000	0.220	0.770	158.373	696.600	928.800	142.536
(H) 3.833	516.000	0.220	0.774	158.376	696.600	928.800	142.539
(SZB) 5.003	516.000	0.220	0.777	158.380	696.600	928.800	142.542
(1.5H) 5.583	516.000	0.220	0.779	158.381	696.600	928.800	142.543
($0.1L_s$) 7.687	516.000	0.220	0.786	158.387	696.600	928.800	142.548
(SZB) 10.503	516.000	0.293	0.793	162.794	696.600	928.800	146.515
	516.000	0.293	0.804	162.804	696.600	928.800	146.524

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
($0.2L_s$) 15.374							
(SZB) 18.753	516.000	0.220	0.810	158.409	696.600	928.800	142.568
($0.3L_s$) 23.062	516.000	0.220	0.816	158.414	696.600	928.800	142.573
(SZB) 29.753	516.000	0.147	0.820	154.018	696.600	928.800	138.616
(HP) 30.311	516.000	0.147	0.820	154.018	696.600	928.800	138.616
($0.4L_s$) 30.749	516.000	0.147	0.820	154.018	696.600	928.800	138.616
($0.5L_s$) 38.436	516.000	0.147	0.817	154.015	696.600	928.800	138.614
(HP) 45.675	516.000	0.147	0.807	154.007	696.600	928.800	138.606
($0.6L_s$) 46.123	516.000	0.147	0.806	154.006	696.600	928.800	138.605
(SZB) 46.234	516.000	0.147	0.806	154.006	696.600	928.800	138.605
($0.7L_s$) 53.811	516.000	0.220	0.789	158.390	696.600	928.800	142.551
(Deck Bar Cutoff) 54.581	516.000	0.220	0.787	158.388	696.600	928.800	142.549
(SZB) 57.234	516.000	0.220	0.779	158.381	696.600	928.800	142.543
($0.8L_s$) 61.498	516.000	0.293	0.764	162.767	696.600	928.800	146.491
(SZB) 65.484	516.000	0.293	0.748	162.753	696.600	928.800	146.478
($0.9L_s$) 69.185	516.000	0.220	0.732	158.338	696.600	928.800	142.505
(1.5H) 70.404	516.000	0.220	0.726	158.333	696.600	928.800	142.500
(SZB) 70.984	516.000	0.220	0.723	158.331	696.600	928.800	142.498
(H) 72.154	516.000	0.220	0.717	158.326	696.600	928.800	142.493
(Bar Develop.) 73.222	516.000	0.220	0.712	158.321	696.600	928.800	142.489
(Bar Develop.) 74.282	516.000	0.220	0.706	158.316	696.600	928.800	142.484
(SZB) 74.650	516.000	0.220	0.704	158.314	696.600	928.800	142.483
(FoS) 75.654	516.000	0.220	0.699	158.309	696.600	928.800	142.478
75.987	516.000	0.220	0.697	158.307	696.600	928.800	142.477

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \text{lesser of, but not} < 0.0 \begin{cases} \frac{0.05 a_{cv}}{f_y} & \text{(5.7.4.2-1)} \\ \frac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & \text{(5.7.4.3-3) rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.000	516.000	0.127	0.430	-0.807	0.000	No
($0.0L_s$) 0.000	516.000	0.127	0.430	-0.807	0.000	No
(FoS) 0.333	516.000	0.127	0.430	-0.807	0.000	No
(SZB) 1.337	516.000	0.127	0.430	-0.805	0.000	No
(Bar Develop.) 1.705	516.000	0.127	0.430	-0.805	0.000	No
(Bar Develop.) 2.765	516.000	0.127	0.430	-0.803	0.000	No
(H) 3.833	516.000	0.127	0.430	-0.802	0.000	No
(SZB) 5.003	516.000	0.124	0.430	-0.847	0.000	No
(1.5H) 5.583	516.000	0.122	0.430	-0.871	0.000	No
($0.1L_s$) 7.687	516.000	0.115	0.430	-0.960	0.000	No
(SZB) 10.503	516.000	0.105	0.430	-1.081	0.000	No
($0.2L_s$) 15.374	516.000	0.089	0.430	-1.286	0.000	No
(SZB) 18.753	516.000	0.078	0.430	-1.426	0.000	No
($0.3L_s$) 23.062	516.000	0.065	0.430	-1.602	0.000	No
(SZB) 29.753	516.000	0.044	0.430	-1.865	0.000	No
(HP) 30.311	516.000	0.042	0.430	-1.885	0.000	No
($0.4L_s$) 30.749	516.000	0.041	0.430	-1.901	0.000	No
($0.5L_s$) 38.436	516.000	0.043	0.430	-1.876	0.000	No
(HP) 45.675	516.000	0.068	0.430	-1.557	0.000	No
($0.6L_s$) 46.123	516.000	0.070	0.430	-1.538	0.000	No
(SZB) 46.234	516.000	0.070	0.430	-1.533	0.000	No
($0.7L_s$) 53.811	516.000	0.095	0.430	-1.218	0.000	No
(Deck Bar Cutoff) 54.581	516.000	0.097	0.430	-1.187	0.000	No
(SZB) 57.234	516.000	0.105	0.430	-1.083	0.000	No
($0.8L_s$) 61.498	516.000	0.118	0.430	-0.924	0.000	No
(SZB) 65.484	516.000	0.129	0.430	-0.784	0.000	No
($0.9L_s$) 69.185	516.000	0.138	0.430	-0.662	0.000	No
(1.5H) 70.404	516.000	0.141	0.430	-0.623	0.000	No
(SZB) 70.984	516.000	0.143	0.430	-0.605	0.000	No
(H) 72.154	516.000	0.145	0.430	-0.579	0.000	No
(Bar Develop.) 73.222	516.000	0.145	0.430	-0.581	0.000	No
(Bar Develop.) 74.282	516.000	0.144	0.430	-0.584	0.000	No
(SZB) 74.650	516.000	0.144	0.430	-0.585	0.000	No
(FoS) 75.654	516.000	0.144	0.430	-0.588	0.000	No
75.987	516.000	0.144	0.430	-0.589	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Stirrup Detailing Check Details

$$\frac{A_v}{S} min = \frac{0.0316 \lambda \sqrt{f'_c}\, b_v}{f_y}$$

f'_c = 8.000 KSI
f_y = 60.000 KSI

Details for Minimum Transverse Reinforcement Check - 5.7.2.5-1

Location from Left Support (ft)	b_v (in)	A_v/S_{min} (in^2/ft)
0.000	7.000	N/A
(0.0L_e) 0.000	7.000	0.125
(FoS) 0.333	7.000	0.125
(SZB) 1.337	7.000	0.125
(Bar Develop.) 1.705	7.000	0.125
(Bar Develop.) 2.765	7.000	0.125
(H) 3.833	7.000	0.125
(CS) 3.924	7.000	0.125
(SZB) 5.003	7.000	0.125
(1.5H) 5.583	7.000	0.125
7.687	7.000	0.125
(SZB) 10.503	7.000	0.125
15.374	7.000	0.125
(SZB) 18.753	7.000	0.125
23.062	7.000	0.125
(SZB) 29.753	7.000	0.125
(HP) 30.311	7.000	0.125
30.749	7.000	0.125
38.436	7.000	0.125
(HP) 45.675	7.000	0.125
46.123	7.000	0.125
(SZB) 46.234	7.000	0.125
53.811	7.000	0.125
(Deck Bar Cutoff) 54.581	7.000	0.125
(SZB) 57.234	7.000	0.125
61.498	7.000	0.125
(SZB) 65.484	7.000	0.125
69.185	7.000	0.125
(1.5H) 70.404	7.000	0.125
(SZB) 70.984	7.000	0.125
(CS) 71.847	7.000	0.125
(H) 72.154	7.000	0.125
(Bar Develop.) 73.222	7.000	0.125
(Bar Develop.) 74.282	7.000	0.125
(SZB) 74.650	7.000	0.125
(FoS) 75.654	7.000	0.125
75.987	7.000	0.125

Strength I - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.878	1.000	7.000	45.363	N/A
(0.0L_e) 0.000	0.878	1.000	7.000	45.363	18.000
(FoS) 0.333	0.900	1.000	7.000	43.815	18.000
(SZB) 1.337	0.876	1.000	7.000	43.550	18.000
(Bar Develop.) 1.705	0.867	1.000	7.000	43.474	18.000
(Bar Develop.) 2.765	0.844	1.000	7.000	43.321	18.000
(H) 3.833	0.845	1.000	7.000	43.291	18.000
(CS) 3.924	0.845	1.000	7.000	43.289	18.000
(SZB) 5.003	0.851	1.000	7.000	41.583	18.000
(1.5H) 5.583	0.836	1.000	7.000	41.584	18.000
7.687	0.810	1.000	7.000	40.139	18.000
(SZB) 10.503	0.755	1.000	7.000	39.053	18.000
15.374	0.612	1.000	7.000	39.902	18.000
(SZB) 18.753	0.512	1.000	7.000	40.963	18.000
23.062	0.395	1.000	7.000	42.330	18.000
(SZB) 29.753	0.233	1.000	7.000	44.484	18.000
(HP) 30.311	0.220	1.000	7.000	44.665	18.000
30.749	0.297	1.000	7.000	44.665	18.000
38.436	0.335	1.000	7.000	44.665	18.000
(HP) 45.675	0.403	1.000	7.000	44.666	18.000
46.123	0.414	1.000	7.000	44.520	18.000
(SZB) 46.234	0.416	1.000	7.000	44.484	18.000
53.811	0.609	1.000	7.000	42.048	18.000
(Deck Bar Cutoff) 54.581	0.630	1.000	7.000	41.803	18.000
(SZB) 57.234	0.703	1.000	7.000	40.948	18.000
61.498	0.827	1.000	7.000	39.564	18.000
(SZB) 65.484	0.930	1.000	7.000	39.063	18.000
69.185	0.872	1.000	7.000	45.445	18.000
(1.5H) 70.404	0.894	1.000	7.000	45.548	18.000
(SZB) 70.984	0.904	1.000	7.000	45.599	18.000
(CS) 71.847	0.919	1.000	7.000	45.676	18.000
(H) 72.154	0.919	1.000	7.000	45.704	18.000
(Bar Develop.) 73.222	0.917	1.000	7.000	45.803	18.000
(Bar Develop.) 74.282	0.939	1.000	7.000	45.905	18.000
(SZB) 74.650	0.948	1.000	7.000	45.941	18.000
(FoS) 75.654	0.966	1.000	7.000	46.394	18.000
75.987	0.974	1.000	7.000	46.429	18.000

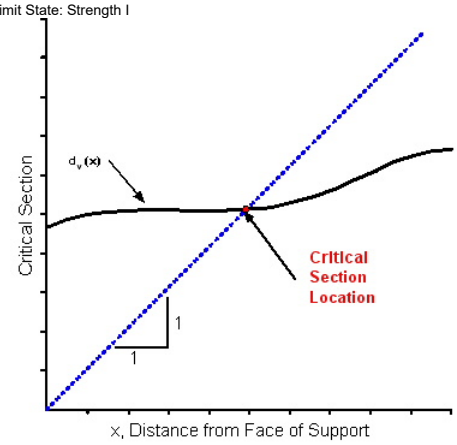
Strength II - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.878	1.000	7.000	45.363	N/A
(0.0L_e) 0.000	0.878	1.000	7.000	45.363	18.000
(FoS) 0.333	0.900	1.000	7.000	43.815	18.000
(SZB) 1.337	0.876	1.000	7.000	43.550	18.000
(Bar Develop.) 1.705	0.867	1.000	7.000	43.474	18.000
(Bar Develop.) 2.765	0.844	1.000	7.000	43.321	18.000
(H) 3.833	0.845	1.000	7.000	43.291	18.000
(CS) 3.924	0.845	1.000	7.000	43.289	18.000
(SZB) 5.003	0.851	1.000	7.000	41.583	18.000
(1.5H) 5.583	0.836	1.000	7.000	41.584	18.000
7.687	0.810	1.000	7.000	40.139	18.000
(SZB) 10.503	0.755	1.000	7.000	39.053	18.000
15.374	0.612	1.000	7.000	39.902	18.000
(SZB) 18.753	0.512	1.000	7.000	40.963	18.000
23.062	0.395	1.000	7.000	42.330	18.000
(SZB) 29.753	0.233	1.000	7.000	44.484	18.000
(HP) 30.311	0.220	1.000	7.000	44.665	18.000
30.749	0.297	1.000	7.000	44.665	18.000
38.436	0.335	1.000	7.000	44.665	18.000
(HP) 45.675	0.403	1.000	7.000	44.666	18.000
46.123	0.414	1.000	7.000	44.520	18.000
(SZB) 46.234	0.416	1.000	7.000	44.484	18.000
53.811	0.609	1.000	7.000	42.048	18.000
(Deck Bar Cutoff) 54.581	0.630	1.000	7.000	41.803	18.000
(SZB) 57.234	0.703	1.000	7.000	40.948	18.000
61.498	0.827	1.000	7.000	39.564	18.000
(SZB) 65.484	0.930	1.000	7.000	39.063	18.000
69.185	0.872	1.000	7.000	45.445	18.000
(1.5H) 70.404	0.894	1.000	7.000	45.548	18.000
(SZB) 70.984	0.904	1.000	7.000	45.599	18.000
(CS) 71.847	0.919	1.000	7.000	45.676	18.000
(H) 72.154	0.919	1.000	7.000	45.704	18.000
(Bar Develop.) 73.222	0.917	1.000	7.000	45.803	18.000
(Bar Develop.) 74.282	0.939	1.000	7.000	45.905	18.000
(SZB) 74.650	0.948	1.000	7.000	45.941	18.000
(FoS) 75.654	0.966	1.000	7.000	46.394	18.000
75.987	0.974	1.000	7.000	46.429	18.000

Critical Section for Shear Details

Limit State: Strength I



LRFD 5.8.3.2
Critical Section = d_v measured at d_v from the face of support

Critical Section Calculation for Ahead side of Pier 1

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(FoS) 0.333	0.000	43.815	No
1.333	12.000	43.551	No
(SZB) 1.337	12.039	43.550	No
(Bar Develop.) 1.705	16.456	43.474	No
(PSXFR) 2.583	27.000	43.327	No
2.625	27.500	43.325	No
(Bar Develop.) 2.765	29.184	43.321	No
(H) 3.833	42.000	43.291	No
3.924	43.085	43.085	*Yes
4.583	51.000	41.584	No
(SZB) 5.003	56.031	41.583	No
(1.5H) 5.583	63.000	41.584	No
7.265	83.184	40.117	No

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(0.1L_e) 7.599	87.184	40.134	No
7.687	88.247	40.139	No
8.665	99.984	40.197	No

* - Intersection values are linearly interpolated
Critical Section is at 3.590 ft (43.085 in) from the face of support on the Ahead side of Pier 1

Critical Section Calculation for Back side of Pier 2

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
67.322	99.984	45.296	No
(0.9L_e) 68.388	87.184	45.380	No
68.722	83.184	45.407	No
69.185	77.623	45.445	No
(1.5H) 70.404	63.000	45.548	No
(SZB) 70.984	56.031	45.599	No
71.404	51.000	45.636	No
71.847	45.676	45.676	*Yes
(H) 72.154	42.000	45.704	No
(Bar Develop.) 73.222	29.184	45.803	No
73.362	27.500	45.816	No
(PSXFR) 73.404	27.000	45.820	No
(Bar Develop.) 74.282	16.456	45.905	No
(SZB) 74.650	12.039	45.941	No
74.654	12.000	45.942	No
(FoS) 75.654	0.000	46.394	No

* - Intersection values are linearly interpolated
Critical Section is at 3.806 ft (45.676 in) from the face of support on the Back side of Pier 2

Longitudinal Reinforcement for Shear

$$A_s f_y + A_{ps} f_{ps} \geq \left[\frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right] \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Strength I

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 0.333	0.400	21.213	3.906	106.149	89.97	43.815	1
(SZB) 1.337	0.400	49.590	3.906	144.723	354.89	43.550	1
(Bar Develop.) 1.705	0.400	60.000	3.906	158.814	449.85	43.474	1
(Bar Develop.) 2.765	0.400	60.000	3.906	193.310	716.90	43.321	1
(H) 3.833	0.400	60.000	3.906	201.452	975.84	43.291	1
(CS) 3.924	0.400	60.000	3.906	202.141	997.31	43.289	1
(SZB) 5.003	0.400	60.000	3.906	210.374	1247.93	41.583	1
(1.5H) 5.583	0.400	60.000	4.340	214.802	1378.64	41.584	1
(0.1L_s) 7.687	0.400	60.000	4.774	230.850	1827.51	40.139	1
(SZB) 10.503	0.400	60.000	5.208	252.334	2367.98	39.053	1
(0.2L_s) 15.374	0.400	60.000	6.076	268.141	3142.87	39.902	1
(SZB) 18.753	0.400	60.000	6.076	268.726	3562.53	40.963	1
(0.3L_s) 23.062	0.400	60.000	6.076	269.416	3961.13	42.330	1
(SZB) 29.753	0.400	60.000	6.076	269.968	4333.28	44.484	1
(HP) 30.311	0.400	60.000	6.076	269.987	4347.75	44.665	1
(0.4L_s) 30.749	0.400	60.000	6.076	269.987	4357.36	44.665	1
(0.5L_s) 38.436	0.400	60.000	6.076	269.987	4327.78	44.665	1
(HP) 45.675	0.400	60.000	6.076	269.986	3944.27	44.666	1
(0.6L_s) 46.123	0.400	60.000	6.076	269.970	3908.13	44.520	1
(SZB) 46.234	0.400	60.000	6.076	269.967	3898.95	44.484	1
(0.7L_s) 53.811	0.400	60.000	6.076	269.286	3063.99	42.048	1
(Deck Bar Cutoff) 54.581	0.400	60.000	6.076	269.167	2959.98	41.803	1
(SZB) 57.234	0.400	60.000	6.076	268.672	2568.87	40.948	1
(0.8L_s) 61.498	0.400	60.000	6.076	267.822	1873.62	39.564	1
(SZB) 65.484	0.400	60.000	5.208	252.072	1204.80	39.063	1
(0.9L_s) 69.185	31.680	60.000	1.736	0.000	1487.44	45.445	0.9
(1.5H) 70.404	31.680	60.000	1.736	0.000	1736.21	45.548	0.9
(SZB) 70.984	31.680	60.000	2.170	0.000	1851.22	45.599	0.9
(CS) 71.847	31.680	60.000	2.170	0.000	2025.18	45.676	0.9
(H) 72.154	31.680	60.000	2.170	0.000	2087.91	45.704	0.9
(Bar Develop.) 73.222	31.680	60.000	2.170	0.000	2330.85	45.803	0.9
(Bar Develop.) 74.282	31.680	59.444	2.170	0.000	2591.27	45.905	0.9
(SZB) 74.650	31.680	58.989	2.170	0.000	2683.03	45.941	0.9
(FoS) 75.654	29.680	57.595	2.170	0.000	2936.81	46.394	0.9

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 0.333	0.00	0.75	254.30	0.9	282.55	26.59	28.68
(SZB) 1.337	0.00	0.75	254.30	0.9	282.55	26.59	28.68

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(Bar Develop.) 1.705	0.00	0.75	254.30	0.9	282.55	26.59	28.68
(Bar Develop.) 2.765	0.00	0.75	254.30	0.9	282.55	26.59	28.68
(H) 3.833	0.00	0.75	254.30	0.9	282.55	26.59	28.68
(CS) 3.924	0.00	0.75	254.30	0.9	282.55	26.59	28.68
(SZB) 5.003	0.00	0.75	246.93	0.9	274.37	26.61	28.81
(1.5H) 5.583	0.00	0.75	242.98	0.9	269.98	26.62	28.73
($0.1L_s$) 7.687	0.00	0.75	228.73	0.9	254.15	26.65	28.80
(SZB) 10.503	0.00	0.75	209.88	0.9	188.65	26.70	28.90
($0.2L_s$) 15.374	0.00	0.75	177.95	0.9	192.68	26.76	28.91
(SZB) 18.753	0.00	0.75	156.33	0.9	144.98	26.79	29.47
($0.3L_s$) 23.062	0.00	0.75	129.36	0.9	143.73	26.79	30.46
(SZB) 29.753	0.00	0.75	89.21	0.9	99.13	26.71	30.57
(HP) 30.311	0.00	0.75	86.04	0.9	95.60	26.69	30.50
($0.4L_s$) 30.749	0.00	0.75	83.57	0.9	92.86	0.00	31.01
($0.5L_s$) 38.436	0.00	0.75	94.20	0.9	98.89	0.00	31.06
(HP) 45.675	0.00	0.75	137.33	0.9	105.62	26.60	29.42
($0.6L_s$) 46.123	0.00	0.75	139.99	0.9	105.57	26.61	29.35
(SZB) 46.234	0.00	0.75	140.64	0.9	105.56	26.61	29.33
($0.7L_s$) 53.811	0.00	0.75	185.40	0.9	152.97	26.63	28.80
(Deck Bar Cutoff) 54.581	0.00	0.75	189.91	0.9	152.30	26.62	28.76
(SZB) 57.234	0.00	0.75	205.41	0.9	150.06	26.60	28.62
($0.8L_s$) 61.498	0.00	0.75	230.06	0.9	195.57	26.53	28.35
(SZB) 65.484	0.00	0.75	252.78	0.9	193.07	26.45	28.35
($0.9L_s$) 69.185	0.00	0.75	273.48	0.9	303.86	26.38	30.25
(1.5H) 70.404	0.00	0.75	280.22	0.9	308.89	26.35	30.53
(SZB) 70.984	0.00	0.75	283.43	0.9	311.00	26.34	30.39
(CS) 71.847	0.00	0.75	288.18	0.9	320.20	26.32	30.59
(H) 72.154	0.00	0.75	288.18	0.9	320.20	26.32	30.59
(Bar Develop.) 73.222	0.00	0.75	288.18	0.9	320.20	26.32	30.59
(Bar Develop.) 74.282	0.00	0.75	288.18	0.9	320.20	26.32	30.59
(SZB) 74.650	0.00	0.75	288.18	0.9	320.20	26.32	30.59
(FoS) 75.654	0.00	0.75	288.18	0.9	320.20	26.32	30.59

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 0.333	209.64	423.10	5.7.3.5-2
(SZB) 1.337	209.64	585.13	5.7.3.5-2
(Bar Develop.) 1.705	209.64	644.33	5.7.3.5-2
(Bar Develop.) 2.765	209.64	779.07	5.7.3.5-2
(H) 3.833	209.64	810.87	5.7.3.5-2
(CS) 3.924	486.10	813.56	5.7.3.5-1
(SZB) 5.003	561.21	845.72	5.7.3.5-1
(1.5H) 5.583	595.53	956.24	5.7.3.5-1
($0.1L_s$) 7.687	729.00	1126.08	5.7.3.5-1
(SZB) 10.503	930.84	1338.16	5.7.3.5-1
($0.2L_s$) 15.374	1080.29	1653.23	5.7.3.5-1
(SZB) 18.753	1175.33	1656.78	5.7.3.5-1
($0.3L_s$) 23.062	1199.56	1660.97	5.7.3.5-1
(SZB) 29.753	1207.63	1664.32	5.7.3.5-1
(HP) 30.311	1203.92	1664.44	5.7.3.5-1
($0.4L_s$) 30.749	1247.92	1664.44	5.7.3.5-1
($0.5L_s$) 38.436	1254.42	1664.44	5.7.3.5-1
(HP) 45.675	1189.46	1664.43	5.7.3.5-1
($0.6L_s$) 46.123	1188.82	1664.34	5.7.3.5-1
(SZB) 46.234	1188.60	1664.32	5.7.3.5-1
($0.7L_s$) 53.811	1061.58	1660.18	5.7.3.5-1
(Deck Bar Cutoff) 54.581	1046.86	1659.46	5.7.3.5-1
(SZB) 57.234	984.80	1656.45	5.7.3.5-1
($0.8L_s$) 61.498	811.67	1651.29	5.7.3.5-1
(SZB) 65.484	662.73	1336.79	5.7.3.5-1
($0.9L_s$) 69.185	651.73	1900.80	5.7.3.5-1
(1.5H) 70.404	729.58	1900.80	5.7.3.5-1
(SZB) 70.984	768.21	1900.80	5.7.3.5-1
(CS) 71.847	817.44	1900.80	5.7.3.5-1
(H) 72.154	835.38	1900.80	5.7.3.5-1
(Bar Develop.) 73.222	904.78	1900.80	5.7.3.5-1
(Bar Develop.) 74.282	978.91	1883.20	5.7.3.5-1
(SZB) 74.650	1004.95	1868.77	5.7.3.5-1
(FoS) 75.654	1070.28	1709.42	5.7.3.5-1

Strength II

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 0.333	0.400	21.213	3.906	106.149	85.94	43.815	1
(SZB) 1.337	0.400	49.590	3.906	144.723	338.48	43.550	1
(Bar Develop.) 1.705	0.400	60.000	3.906	158.814	428.81	43.474	1

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(Bar Develop.) 2.765	0.400	60.000	3.906	193.310	682.21	43.321	1
(H) 3.833	0.400	60.000	3.906	201.452	927.01	43.291	1
(SZB) 5.003	0.400	60.000	3.906	210.374	1183.27	41.583	1
(1.5H) 5.583	0.400	60.000	4.340	214.802	1305.99	41.584	1
($0.1L_s$) 7.687	0.400	60.000	4.774	230.850	1725.17	40.139	1
(SZB) 10.503	0.400	60.000	5.208	252.334	2224.11	39.053	1
($0.2L_s$) 15.374	0.400	60.000	6.076	268.141	2946.57	39.902	1
(SZB) 18.753	0.400	60.000	6.076	268.726	3347.64	40.963	1
($0.3L_s$) 23.062	0.400	60.000	6.076	269.416	3718.35	42.330	1
(SZB) 29.753	0.400	60.000	6.076	269.968	4049.41	44.484	1
(HP) 30.311	0.400	60.000	6.076	269.987	4070.74	44.665	1
($0.4L_s$) 30.749	0.400	60.000	6.076	269.987	4085.55	44.665	1
($0.5L_s$) 38.436	0.400	60.000	6.076	269.987	4093.75	44.665	1
(HP) 45.675	0.400	60.000	6.076	269.986	3693.57	44.666	1
($0.6L_s$) 46.123	0.400	60.000	6.076	269.970	3658.75	44.520	1
(SZB) 46.234	0.400	60.000	6.076	269.967	3649.93	44.484	1
($0.7L_s$) 53.811	0.400	60.000	6.076	269.286	2849.76	42.048	1
(Deck Bar Cutoff) 54.581	0.400	60.000	6.076	269.167	2747.32	41.803	1
(SZB) 57.234	0.400	60.000	6.076	268.672	2373.82	40.948	1
($0.8L_s$) 61.498	0.400	60.000	6.076	267.822	1704.90	39.564	1
(SZB) 65.484	0.400	60.000	5.208	252.072	966.66	39.063	1
($0.9L_s$) 69.185	31.680	60.000	1.736	0.000	1179.34	45.445	0.9
(1.5H) 70.404	31.680	60.000	1.736	0.000	1389.18	45.548	0.9
(SZB) 70.984	31.680	60.000	2.170	0.000	1490.54	45.599	0.9
(H) 72.154	31.680	60.000	2.170	0.000	1697.10	45.704	0.9
(Bar Develop.) 73.222	31.680	60.000	2.170	0.000	1905.27	45.803	0.9
(Bar Develop.) 74.282	31.680	59.444	2.170	0.000	2129.11	45.905	0.9
(SZB) 74.650	31.680	58.989	2.170	0.000	2207.74	45.941	0.9
(FoS) 75.654	29.680	57.595	2.170	0.000	2424.58	46.394	0.9

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 0.333	0.00	0.75	243.35	0.9	270.39	26.59	28.64
(SZB) 1.337	0.00	0.75	243.35	0.9	270.39	26.59	28.64
(Bar Develop.) 1.705	0.00	0.75	243.35	0.9	270.39	26.59	28.64
(Bar Develop.) 2.765	0.00	0.75	243.35	0.9	270.39	26.59	28.64
(H) 3.833	0.00	0.75	243.35	0.9	270.39	26.59	28.64
(SZB) 5.003	0.00	0.75	236.35	0.9	262.62	26.61	28.75
(1.5H) 5.583	0.00	0.75	232.60	0.9	258.45	26.62	28.67
($0.1L_s$) 7.687	0.00	0.75	219.03	0.9	243.37	26.65	28.73
(SZB) 10.503	0.00	0.75	200.97	0.9	189.39	26.70	28.81
($0.2L_s$) 15.374	0.00	0.75	170.22	0.9	189.13	26.76	28.79
(SZB) 18.753	0.00	0.75	149.21	0.9	148.28	26.79	28.92
($0.3L_s$) 23.062	0.00	0.75	122.93	0.9	136.59	26.79	29.04
(SZB) 29.753	0.00	0.75	83.54	0.9	92.82	26.71	29.02
(HP) 30.311	0.00	0.75	80.42	0.9	89.36	26.69	29.00
($0.4L_s$) 30.749	0.00	0.75	77.99	0.9	86.66	0.00	29.52
($0.5L_s$) 38.436	0.00	0.75	81.75	0.9	90.84	0.00	29.63
(HP) 45.675	0.00	0.75	129.57	0.9	107.85	26.60	28.91
($0.6L_s$) 46.123	0.00	0.75	132.45	0.9	107.52	26.61	28.90
(SZB) 46.234	0.00	0.75	133.16	0.9	107.44	26.61	28.90
($0.7L_s$) 53.811	0.00	0.75	180.43	0.9	153.70	26.63	28.68
(Deck Bar Cutoff) 54.581	0.00	0.75	185.07	0.9	153.03	26.62	28.65
(SZB) 57.234	0.00	0.75	200.87	0.9	150.73	26.60	28.52
($0.8L_s$) 61.498	0.00	0.75	225.44	0.9	196.37	26.53	28.25
(SZB) 65.484	0.00	0.75	247.53	0.9	194.19	26.45	28.21
($0.9L_s$) 69.185	0.00	0.75	267.16	0.9	296.84	26.38	29.93
(1.5H) 70.404	0.00	0.75	273.47	0.9	303.86	26.35	30.18
(SZB) 70.984	0.00	0.75	276.46	0.9	307.18	26.34	30.02
(H) 72.154	0.00	0.75	280.87	0.9	312.08	26.32	30.20
(Bar Develop.) 73.222	0.00	0.75	280.87	0.9	312.08	26.32	30.20
(Bar Develop.) 74.282	0.00	0.75	280.87	0.9	312.08	26.32	30.20
(SZB) 74.650	0.00	0.75	280.87	0.9	312.08	26.32	30.20
(FoS) 75.654	0.00	0.75	280.87	0.9	312.08	26.32	30.20

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 0.333	198.89	423.10	5.7.3.5-2
(SZB) 1.337	198.89	585.13	5.7.3.5-2
(Bar Develop.) 1.705	198.89	644.33	5.7.3.5-2
(Bar Develop.) 2.765	198.89	779.07	5.7.3.5-2
(H) 3.833	198.89	810.87	5.7.3.5-2
(SZB) 5.003	532.28	845.72	5.7.3.5-1
(1.5H) 5.583	564.49	956.24	5.7.3.5-1

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
($0.1L_s$) 7.687	689.11	1126.08	5.7.3.5-1
(SZB) 10.503	868.74	1338.16	5.7.3.5-1
($0.2L_s$) 15.374	1009.50	1653.23	5.7.3.5-1
(SZB) 18.753	1098.08	1656.78	5.7.3.5-1
($0.3L_s$) 23.062	1128.87	1660.97	5.7.3.5-1
(SZB) 29.753	1127.88	1664.32	5.7.3.5-1
(HP) 30.311	1126.11	1664.44	5.7.3.5-1
($0.4L_s$) 30.749	1174.17	1664.44	5.7.3.5-1
($0.5L_s$) 38.436	1179.70	1664.44	5.7.3.5-1
(HP) 45.675	1107.21	1664.43	5.7.3.5-1
($0.6L_s$) 46.123	1107.16	1664.34	5.7.3.5-1
(SZB) 46.234	1107.09	1664.32	5.7.3.5-1
($0.7L_s$) 53.811	990.56	1660.18	5.7.3.5-1
(Deck Bar Cutoff) 54.581	976.26	1659.46	5.7.3.5-1
(SZB) 57.234	918.78	1656.45	5.7.3.5-1
($0.8L_s$) 61.498	751.19	1651.29	5.7.3.5-1
(SZB) 65.484	579.36	1336.79	5.7.3.5-1
($0.9L_s$) 69.185	558.02	1900.80	5.7.3.5-1
(1.5H) 70.404	622.62	1900.80	5.7.3.5-1
(SZB) 70.984	656.03	1900.80	5.7.3.5-1
(H) 72.154	717.94	1900.80	5.7.3.5-1
(Bar Develop.) 73.222	777.46	1900.80	5.7.3.5-1
(Bar Develop.) 74.282	841.24	1883.20	5.7.3.5-1
(SZB) 74.650	863.58	1868.77	5.7.3.5-1
(FoS) 75.654	919.64	1709.42	5.7.3.5-1

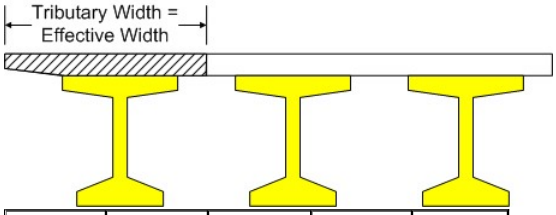
Splitting Resistance Details

Check for Splitting resistance (LRFD 5.9.4.4.1) is disabled in Project Criteria library.

Effective Flange Width Details

LRFD 4.6.2.6.1

Effective flange width is measured at top CL girder and is taken as one-half the distance to the adjacent girder plus the full overhang width



Location from Left Support (ft)	Left Overhang (in)	Effective Left Overhang (in)	Right Spacing (in)	Effective Flange Width (in)
0.000	44.170	44.170	94.009	91.174
($0.0L_s$) 0.000	44.170	44.170	94.009	91.174
($0.1L_s$) 7.687	47.282	47.004	94.009	94.009
($0.2L_s$) 15.374	49.524	47.004	94.009	94.009
($0.3L_s$) 23.062	50.893	47.004	94.009	94.009
($0.4L_s$) 30.749	51.390	47.004	94.009	94.009
($0.5L_s$) 38.436	51.014	47.004	94.009	94.009
($0.6L_s$) 46.123	49.766	47.004	94.009	94.009
($0.7L_s$) 53.811	47.646	47.004	94.009	94.009
($0.8L_s$) 61.498	44.654	44.654	94.009	91.659
($0.9L_s$) 69.185	40.792	40.792	94.009	87.796
75.987	36.649	36.649	94.009	83.654
($1.0L_s$) 76.872	36.060	36.060	94.009	83.064

Live Load Distribution Factor Details

Moment and Shear

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
0.000	0.856	0.856	0.912	0.713	0.713	0.760
($0.0L_s$) 0.000	0.856	0.856	0.912	0.713	0.713	0.760
($0.1L_s$) 7.687	0.856	0.856	0.901	0.713	0.713	0.751
($0.2L_s$) 15.374	0.856	0.856	0.889	0.713	0.713	0.741
($0.3L_s$) 23.062	0.856	0.856	0.878	0.713	0.713	0.732
($0.4L_s$) 30.749	0.856	0.856	0.867	0.713	0.713	0.722
($0.5L_s$) 38.436	0.856	0.856	0.856	0.713	0.713	0.713
($0.6L_s$) 46.123	0.856	0.856	0.856	0.713	0.713	0.713
($0.7L_s$) 53.811	0.856	0.856	0.856	0.713	0.713	0.713
($0.8L_s$) 61.498	0.856	0.856	0.856	0.713	0.713	0.713
($0.9L_s$) 69.185	0.856	0.856	0.856	0.713	0.713	0.713
75.987	0.856	0.856	0.856	0.713	0.713	0.713
($1.0L_s$) 76.872	0.856	0.856	0.856	0.713	0.713	0.713

Method of Computation:

Type (k) cross section. With AASHTO LRFD Method per Article 4.6.2.2

Longitudinal Stiffness Parameters

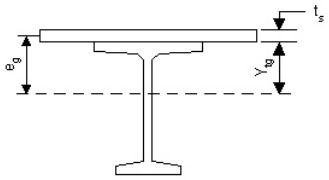
Modular ratio: n = 1.209

Moment of Inertia: I_g = 153070.0 in^4

Area: A_g = 654.000 in^2

Top centroidal distance: Y_{tg} = 20.850 in

Slab Thickness: t_s = 8.000 in



Distance between CG of slab and girder: $e_g = Y_{tg} + \frac{t_s}{2} + fillet$ e_g = 25.850 in

Stiffness Parameter: $K_g = n(I_g + A_g e_g^2)$ K_g = 713476.7 in^4

Distribution Factor Parameters

Deck Width, Girder Spacing and Deck Overhang are measured along a line that is normal to the alignment and passing through a point 38.019 ft from the left support along the centerline of girder. The measurement line passes through Station 94+40.76 (42.749 L)

Bridge Width: W = 94.000 ft

Roadway Width: w = 91.000 ft

Number of Design Lanes: N_L = 7

Lane Width: wLane = 12.000 ft

Number of Girders: N_b = 12

Girder Spacing: S_{avg} = 7.835 ft

Deck Overhang = 4.252 ft

Distance from exterior web of exterior girder to curb line: d_e = 2.751 ft

Skew Angle at start: θ = 23.37 deg

Skew Angle at end: θ = 17.50 deg

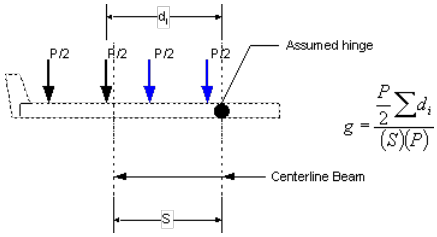
Strength and Service Limit States

Distribution Factor for Positive and Negative Moment in Span 1

Average Skew Angle: θ = 20.43 deg

Span Length: L = 76.872 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2

mg^{ME}_1 = (1.2)[(8.586 ft)(P/2) + (2.586 ft)(P/2)]/[(7.834 ft)(P)] = 0.856

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663

e = 1.072

mg^{ME}_{2+} = 0.711 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_1 = 0.856 **< Controls**

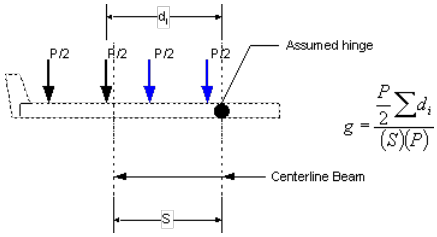
Skew Corrected Factor: mg^{ME}_{2+} = 0.711

Distribution Factor for Negative Moment over Pier 2

Average Skew Angle: θ = 23.37 deg

Span Length: L = 76.949 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2

mg^{ME}_1 = (1.2)[(8.586 ft)(P/2) + (2.586 ft)(P/2)]/[(7.834 ft)(P)] = 0.856

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{ME} = e(mg_{2+}^{MI})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg_{2+}^{MI} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663
e = 1.072
mg^{ME}_{2+} = 0.711 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

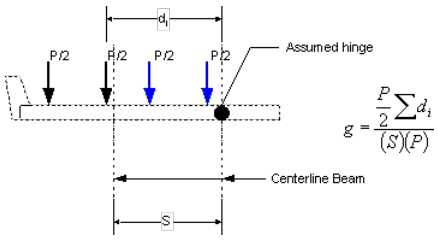
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_{1} = 0.856 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.711

Distribution Factor for Shear in Span 1
Average Skew Angle: θ = 20.43 deg
Span Length: L = 76.872 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{VE}_{1} = (1.2)[(8.586 ft)(P/2) + (2.586 ft)(P/2)]/[(7.834 ft)(P)] = 0.856

2+ Loaded Lanes: Spec Equation

$$mg_{2+}^{VE} = e(mg_{2+}^{VI})$$

$$e = 0.6 + \frac{d_e}{10.0}$$

$$mg_{2+}^{VI} = 0.2 + \left(\frac{S}{12}\right) - \left(\frac{S}{35}\right)^{2.0}$$

mg^{VI}_{2+} = 0.803
e = 0.875
mg^{VE}_{2+} = 0.703

Skew Correction

$$1.0 + 0.20\left(\frac{12.0Lt_s^3}{K_g}\right)^{0.3}\tan\theta$$

Skew Correction Factor: = 1.066

Skew Corrected Factor: mg^{VE}_{1} = 0.912 **< Controls**
Skew Corrected Factor: mg^{VE}_{2+} = 0.749

Fatigue Limit States

Distribution Factor for Negative Moment over Pier 1
$gME_{Fatigue}$ = $mgME_1$/m = 0.856/ 1.200 = 0.713

Distribution Factor for Positive and Negative Moment in Span 1
$gME_{Fatigue}$ = $mgME_1$/m = 0.856/ 1.200 = 0.713

Distribution Factor for Negative Moment over Pier 2
$gME_{Fatigue}$ = $mgME_1$/m = 0.856/ 1.200 = 0.713

Distribution Factor for Shear in Span 1
$gVE_{Fatigue}$ = $mgVE_1$/m = 0.912/ 1.200 = 0.760

Creep Coefficient Details

$$\psi(t,t_i) = 1.9K_1K_2k_sk_{hc}k_fk_{td}t_i^{-0.118}$$

for which:

$$k_s = 1.45 - 0.13(V/S) \geq 1.0$$

$$k_{hc} = 1.56 - 0.008H$$

$$k_f = \frac{5}{1 + f_{ci}'}$$

$$k_{td} = \frac{t}{12\left(\frac{100 - 4f_{ci}'}{f_{ci}' + 20}\right) + t}$$

where:
H = 55%, V/S = 3.326 in, K_1 = 1, K_2 = 1
Curing Method = Normal

Minimum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805313

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970092

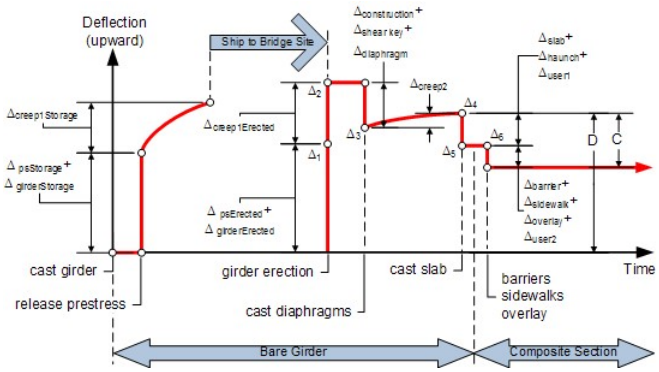
Maximum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805313

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970092

Camber Details



Minimum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.014	0.048	0.033
(0.1L_r) 7.682	-0.261	0.829	0.568
(0.2L_r) 15.364	-0.494	1.529	1.035
(0.3L_r) 23.046	-0.676	2.066	1.390
(HP, 0.4L_r) 30.728	-0.792	2.406	1.615
(0.5L_r) 38.410	-0.832	2.522	1.690
(HP, 0.6L_r) 46.092	-0.792	2.406	1.615
(0.7L_r) 53.774	-0.676	2.066	1.390
(0.8L_r) 61.456	-0.494	1.529	1.035
(0.9L_r) 69.138	-0.261	0.829	0.568
76.404	-0.014	0.048	0.033
(STLF, 1.0L_r) 76.820	0.000	0.000	0.000

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.599	-0.250	0.815	0.000	0.565
(0.2L_{st}) 15.197	-0.473	1.501	0.000	1.029
(0.3L_{st}) 22.796	-0.647	2.028	0.000	1.381
(0.4L_{st}) 30.395	-0.758	2.361	0.000	1.603
(0.5L_{st}) 37.993	-0.796	2.474	0.000	1.678
(0.6L_{st}) 45.592	-0.758	2.361	0.000	1.603
(0.7L_{st}) 53.191	-0.647	2.028	0.000	1.381
(0.8L_{st}) 60.790	-0.473	1.501	0.000	1.029
(0.9L_{st}) 68.388	-0.250	0.815	0.000	0.565
(1.0L_{st}) 75.987	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.404	0.014	-0.048	0.000	-0.034

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release $\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	-0.250	0.815	0.000	0.000	0.000	0.548	-0.275	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(0.2L_e) 15.197	-0.473	1.501	0.000	0.000	0.000	0.998	-0.521	-0.082	-0.013	-0.033	-0.014	-0.027	0.000
(0.3L_e) 22.796	-0.647	2.028	0.000	0.000	0.000	1.339	-0.713	-0.113	-0.017	-0.044	-0.018	-0.036	0.000
(0.4L_e) 30.395	-0.758	2.361	0.000	0.000	0.000	1.555	-0.835	-0.132	-0.020	-0.049	-0.020	-0.039	0.000
(0.5L_e) 37.993	-0.796	2.474	0.000	0.000	0.000	1.628	-0.876	-0.139	-0.022	-0.047	-0.020	-0.038	0.000
(0.6L_e) 45.592	-0.758	2.361	0.000	0.000	0.000	1.555	-0.833	-0.132	-0.020	-0.040	-0.017	-0.033	0.000
(0.7L_e) 53.191	-0.647	2.028	0.000	0.000	0.000	1.339	-0.710	-0.113	-0.017	-0.029	-0.012	-0.024	0.000
(0.8L_e) 60.790	-0.473	1.501	0.000	0.000	0.000	0.998	-0.518	-0.082	-0.013	-0.017	-0.007	-0.014	0.000
(0.9L_e) 68.388	-0.250	0.815	0.000	0.000	0.000	0.548	-0.274	-0.044	-0.007	-0.006	-0.002	-0.005	0.000
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STLF) 76.404	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.066	-0.048	-0.046	-0.020
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	0.565	0.565	0.565	1.112	0.787	0.747	0.366
(0.2L_e) 15.197	1.029	1.029	1.029	2.027	1.411	1.336	0.690
(0.3L_e) 22.796	1.381	1.381	1.381	2.720	1.877	1.779	0.941
(0.4L_e) 30.395	1.603	1.603	1.603	3.158	2.171	2.063	1.096
(0.5L_e) 37.993	1.678	1.678	1.678	3.306	2.270	2.165	1.141
(0.6L_e) 45.592	1.603	1.603	1.603	3.158	2.173	2.083	1.075
(0.7L_e) 53.191	1.381	1.381	1.381	2.720	1.879	1.814	0.906
(0.8L_e) 60.790	1.029	1.029	1.029	2.027	1.413	1.376	0.651
(0.9L_e) 68.388	0.565	0.565	0.565	1.112	0.789	0.776	0.336
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.404	-0.034	-0.034	-0.034	-0.066	-0.048	-0.048	-0.018

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Maximum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.014	0.048	0.033
(0.1L_r) 7.682	-0.261	0.829	0.568
(0.2L_r) 15.364	-0.494	1.529	1.035
(0.3L_r) 23.046	-0.676	2.066	1.390
(HP, 0.4L_r) 30.728	-0.792	2.406	1.615
(0.5L_r) 38.410	-0.832	2.522	1.690
(HP, 0.6L_r) 46.092	-0.792	2.406	1.615
(0.7L_r) 53.774	-0.676	2.066	1.390
(0.8L_r) 61.456	-0.494	1.529	1.035
(0.9L_r) 69.138	-0.261	0.829	0.568
76.404	-0.014	0.048	0.033
(STLF, 1.0L_r) 76.820	0.000	0.000	0.000

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.599	-0.250	0.815	0.000	0.565
(0.2L_{st}) 15.197	-0.473	1.501	0.000	1.029
(0.3L_{st}) 22.796	-0.647	2.028	0.000	1.381
(0.4L_{st}) 30.395	-0.758	2.361	0.000	1.603
(0.5L_{st}) 37.993	-0.796	2.474	0.000	1.678
(0.6L_{st}) 45.592	-0.758	2.361	0.000	1.603
(0.7L_{st}) 53.191	-0.647	2.028	0.000	1.381
(0.8L_{st}) 60.790	-0.473	1.501	0.000	1.029
(0.9L_{st}) 68.388	-0.250	0.815	0.000	0.565
(1.0L_{st}) 75.987	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.404	0.014	-0.048	0.000	-0.034

$\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	-0.250	0.815	0.000	0.000	0.000	0.548	-0.275	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(0.2L_e) 15.197	-0.473	1.501	0.000	0.000	0.000	0.998	-0.521	-0.082	-0.013	-0.033	-0.014	-0.027	0.000
(0.3L_e) 22.796	-0.647	2.028	0.000	0.000	0.000	1.339	-0.713	-0.113	-0.017	-0.044	-0.018	-0.036	0.000
(0.4L_e) 30.395	-0.758	2.361	0.000	0.000	0.000	1.555	-0.835	-0.132	-0.020	-0.049	-0.020	-0.039	0.000
(0.5L_e) 37.993	-0.796	2.474	0.000	0.000	0.000	1.628	-0.876	-0.139	-0.022	-0.047	-0.020	-0.038	0.000
(0.6L_e) 45.592	-0.758	2.361	0.000	0.000	0.000	1.555	-0.833	-0.132	-0.020	-0.040	-0.017	-0.033	0.000
(0.7L_e) 53.191	-0.647	2.028	0.000	0.000	0.000	1.339	-0.710	-0.113	-0.017	-0.029	-0.012	-0.024	0.000
(0.8L_e) 60.790	-0.473	1.501	0.000	0.000	0.000	0.998	-0.518	-0.082	-0.013	-0.017	-0.007	-0.014	0.000
(0.9L_e) 68.388	-0.250	0.815	0.000	0.000	0.000	0.548	-0.274	-0.044	-0.007	-0.006	-0.002	-0.005	0.000
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.404	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

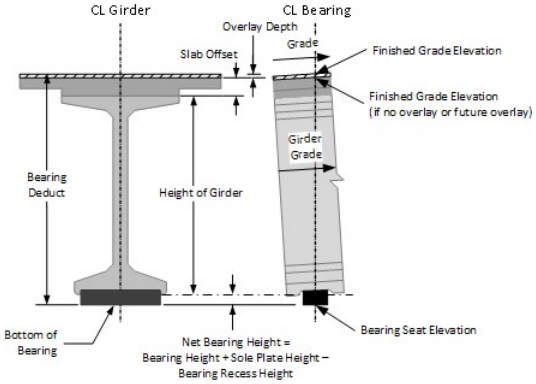
Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.066	-0.048	-0.046	-0.020
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	0.565	0.565	0.565	1.112	0.787	0.747	0.366
(0.2L_e) 15.197	1.029	1.029	1.029	2.027	1.411	1.336	0.690
(0.3L_e) 22.796	1.381	1.381	1.381	2.720	1.877	1.779	0.941
(0.4L_e) 30.395	1.603	1.603	1.603	3.158	2.171	2.063	1.096
(0.5L_e) 37.993	1.678	1.678	1.678	3.306	2.270	2.165	1.141
(0.6L_e) 45.592	1.603	1.603	1.603	3.158	2.173	2.083	1.075
(0.7L_e) 53.191	1.381	1.381	1.381	2.720	1.879	1.814	0.906
(0.8L_e) 60.790	1.029	1.029	1.029	2.027	1.413	1.376	0.651
(0.9L_e) 68.388	0.565	0.565	0.565	1.112	0.789	0.776	0.336
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.404	-0.034	-0.034	-0.034	-0.066	-0.048	-0.048	-0.018

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Haunch Details

Slab Offset check disabled in Project Criteria. No analysis performed.

Bearing Seat Elevation Details



NOTE: Vertical height dimensions listed in the tables below are adjusted for girder and roadway grade and orientation.
NOTE: Bearing Deduct is a nominal value rounded to 1/8"

Abutment 1 Ahead

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+04.36	43.319 L	-0.866	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.533	0.000	-5.533	56.000
B	1	94+01.38	35.605 L	-0.712	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	93+98.35	27.903 L	-0.558	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	93+95.26	20.214 L	-0.404	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.071	0.000	-5.071	56.000
E	1	93+92.11	12.537 L	-0.251	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.917	0.000	-4.917	56.000
F	1	93+88.90	4.874 L	-0.097	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.764	0.000	-4.764	56.000
G	1	93+85.21	3.734 R	-0.075	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.741	0.000	-4.741	56.000
H	1	93+81.83	11.432 R	-0.229	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	93+78.38	19.114 R	-0.382	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	93+74.86	26.781 R	-0.536	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.202	0.000	-5.202	56.000
K	1	93+71.27	34.433 R	-0.689	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.355	0.000	-5.355	56.000
L	1	93+67.60	42.068 R	-0.841	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.508	0.000	-5.508	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Back

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+76.29	43.946 L	-0.879	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.546	0.000	-5.546	56.000
B	1	94+74.02	35.973 L	-0.719	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	94+71.71	28.007 L	-0.560	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.227	0.000	-5.227	56.000
D	1	94+69.34	20.048 L	-0.401	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.068	0.000	-5.068	56.000
E	1	94+66.93	12.097 L	-0.242	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.909	0.000	-4.909	56.000
F	1	94+64.47	4.154 L	-0.083	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.750	0.000	-4.750	56.000
G	1	94+62.21	3.014 R	-0.060	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.727	0.000	-4.727	56.000
H	1	94+59.63	11.009 R	-0.220	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	94+56.99	18.995 R	-0.380	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.047	0.000	-5.047	56.000
J	1	94+54.30	26.971 R	-0.539	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.206	0.000	-5.206	56.000
K	1	94+51.55	34.939 R	-0.699	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.365	0.000	-5.365	56.000

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
L	1	94+48.74	42.897 R	-0.858	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.525	0.000	-5.525	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Ahead

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+77.78	43.375 L	-0.868	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.534	0.000	-5.534	56.000
B	1	94+75.59	35.630 L	-0.713	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	94+73.35	27.892 L	-0.558	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	94+71.08	20.161 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.070	0.000	-5.070	56.000
E	1	94+68.75	12.436 L	-0.249	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.915	0.000	-4.915	56.000
F	1	94+66.39	4.719 L	-0.094	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.761	0.000	-4.761	56.000
G	1	94+63.76	3.662 R	-0.073	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.740	0.000	-4.740	56.000
H	1	94+61.28	11.394 R	-0.228	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	94+58.75	19.119 R	-0.382	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	94+56.17	26.836 R	-0.537	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.203	0.000	-5.203	56.000
K	1	94+53.53	34.543 R	-0.691	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.358	0.000	-5.358	56.000
L	1	94+50.84	42.242 R	-0.845	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.512	0.000	-5.512	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Abutment 3 Back

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	95+49.88	43.902 L	-0.878	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.545	0.000	-5.545	56.000
B	1	95+48.39	35.975 L	-0.719	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	95+46.88	28.051 L	-0.561	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.228	0.000	-5.228	56.000
D	1	95+45.33	20.130 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.069	0.000	-5.069	56.000
E	1	95+43.75	12.213 L	-0.244	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.911	0.000	-4.911	56.000
F	1	95+42.14	4.298 L	-0.086	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.753	0.000	-4.753	56.000
G	1	95+40.61	3.069 R	-0.061	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.728	0.000	-4.728	56.000
H	1	95+38.92	11.009 R	-0.220	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	95+37.20	18.945 R	-0.379	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.046	0.000	-5.046	56.000
J	1	95+35.45	26.877 R	-0.538	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.204	0.000	-5.204	56.000
K	1	95+33.65	34.805 R	-0.696	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.363	0.000	-5.363	56.000
L	1	95+31.82	42.729 R	-0.855	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.521	0.000	-5.521	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Bearing Design Parameters

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	28.43	2.93	34.22	5.40	8.14	3.41	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
Pier 2 - Back	28.43	0.00	33.09	5.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Live Load values are per lane and include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Girder Bearing Reactions due to User Defined Loads in Interval 17: Open to Traffic

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1 - Ahead	0.84	1.15	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
Abutment 1 - Ahead	0.00	0.00	83.37	7.68	184.94

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	93.89	-10.71	45.02	-4.82	117.14	-13.13	97.46	-11.22	45.02	-4.82	117.14	-13.13

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	184.94	166.17	113.06	280.04	61.29	273.88	62.30

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	75.46	-8.75	39.15	-4.19	88.08	-9.87	79.04	-9.26	39.15	-4.19	88.08	-9.87

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Without Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	166.52	151.43	104.25	247.80	64.72	234.64	66.70

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load		* Legal Routine		* Legal Special		* Legal Emergency	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 1 - Ahead	-0.00279	0.00000	-0.00308	-0.00049	-0.00020	-0.00009	-0.00017	0.00004	-0.00012	0.00062 (D0)	-0.00190 (D0)	0.00030 (F0)	-0.00090 (F0)	0.00070 (P0)	-0.00217 (P0)	0.00038 (R1)	-0.00114 (R1)	0.00048 (S0)	-0.00147 (S0)	0.00052 (E1)	-0.0015 (E1

* Live Load values are per girder and do not include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Rotations due to User Defined Loads in Interval 17: Open to Traffic

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 1 - Ahead	-0.00008	-0.00003	0.00000

Prestress and Time-Dependent Rotations

	Pre-tensioning (rad)	Creep (rad)
Abutment 1 - Ahead	0.00763	0.00642
Pier 2 - Back	-0.00763	-0.00642

Corresponding Live Load Bearing Reactions and Rotations

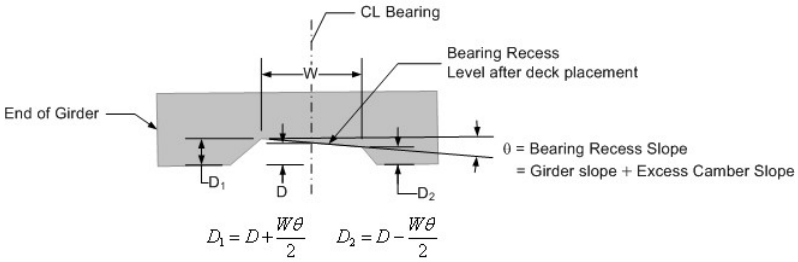
	* Reactions				* Rotations			
	R_{Max} (kip)	θ (rad)	R_{Min} (kip)	θ (rad)	θ_{Max} (rad)	R (kip)	θ_{Min} (rad)	R (kip)
Abutment 1	75.46	0.00009	-8.75	0.00028	0.00062	-5.93	-0.00190	30.22

* Live Load values are per girder and do not include impact.

Bearing Recess Geometry

	Girder Slope (ft/ft)	Excess Camber Slope (ft/ft)	Bearing Recess Slope (ft/ft)	* W Recess Length	D Recess Height	D_1	D_2
Abutment 1	-0.000	0.009	0.009	8"	0"	0"	0"

* W is maximum of input bearing length and recess length



Lifting Check Details

Details for Check for Lifting In Casting Yard [5.5.4.3][5.9.2.3.1]
Lifting analysis disabled in Project Criteria. No analysis performed.

Hauling Check Details

Details for Check for Hauling to Bridge Site [5.5.4.3][5.9.2.3.1]
Hauling analysis disabled in Project Criteria. No analysis performed.

Details Report

For

Span 2 Girder A

March 15, 2021 8:04:28 am

PGSuper™ (x64)

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Version 5.0.3 - Built on Jul 9 2020



Project Properties

Bridge Name	Belford over Happy Canyon Creek
Bridge ID	
Company	FHU
Engineer	J. Lynch
Job Number	115360
Comments	Belford Ave over Happy Canyon Creek. Updated design for full width and current design codes.
File	C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

Configuration
Configuration Name: WSDOT
Configuration Source: ftp://ftp.wsdot.wa.gov/public/bridge/Software/PGSuper/Version_5.0.0/WSDOT.pgz
Configuration Date Stamp: September 25, 2020 2:10:27 pm

Library	Entry	Source
Girders	BT-42 CDOT	Project Library
Traffic Barriers	Parker Rail	Project Library
Project Criteria	CDOT based on AASHTO LRFD Bridge Design Specification, Eighth Edition 2017	Project Library
Vehicular Live Load	CDOT Permit	Project Library
Vehicular Live Load	OL1	Master Library
Vehicular Live Load	OL2	Master Library
Load Rating Criteria	WSDOT based on The Manual for Bridge Evaluation, Second Edition 2011, with 2011-2016 interim provisions	Master Library
Haul Trucks	HT40-72	Master Library

Analysis Controls
Structural Analysis Method: Simple Spans made Continuous
Section Properties: Gross
Losses: Approximate lump sum estimate per AASHTO LRFD 5.9.3.3

Notes

Symbol	Definition
L_r	Span Length of Girder at Release
L_l	Span Length of Girder during Lifting
L_{st}	Span Length of Girder during Storage
L_h	Span Length of Girder during Hauling
L_e	Span Length of Girder after Erection
L_s	Length of Span
Debond	Point where bond begins for a debonded strand
PSXFR	Point of prestress transfer
FoS	Face of Support
ST	Section Transitions
STLF	Section Transitions, Left Face
STRF	Section Transitions, Right Face
SDCR	Start of Deck Casting Region
EDCR	End of Deck Casting Region
Diaphragm	Location of a precast or cast in place diaphragm
Bar Cutoff	End of a reinforcing bar in the girder
Deck Bar Cutoff	End of a reinforcing bar in the deck
CS	Critical Section for Shear
SZB	Stirrup Zone Boundary
H	H from end of girder or face of support
1.5H	1.5H from end of girder or face of support
HP	Harp Point
Pick Point	Support point where girder is lifted from form
Bunk Point	Point where girder is supported during transportation

Status Items

Level	Description
Warning	Span 1, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)

Alignment

Alignment Details

Direction: N 49° 48' 33.38" E
Ref. Point: 0+00.00 (E (X) 0.000, N (Y) 0.000)

Horizontal Curve Data

Curve Parameters	Curve 1
Back Tangent Bearing	N 49° 48' 33.38" E
Forward Tangent Bearing	S 24° 47' 12.62" E
PC Station	81+65.50
PI Station	91+76.34
PT Station	95+82.03
Delta (Δ_{cc})	105° 24' 14.00" R
Degree Curvature (DC)	7° 26' 27.64"
Radius (R)	770.000 ft
Tangent (T)	1010.841 ft
Length (L)	1416.527 ft
Chord (C)	1225.061 ft
External (E)	500.708 ft
Mid Ordinate (MO)	303.410 ft
Curve Points (x,y)	
PC	5269.475 ft, 6237.629 ft
PI	5921.805 ft, 7009.810 ft
PT	5004.089 ft, 7433.599 ft
Center of Circular Curve (CCC)	4681.272 ft, 6734.536 ft

Profile Details

Station: 0+00.00
Elevation: 0.000 ft
Grade: 0%

Roadway Cross Sections

Each Roadway Cross Section Template contains 3 segments per section.
Ridge Point #1 is the controlling ridge point. It defines the slope sign convention and coincides with the horizontal alignment, profile grade, and superelevation pivot location.

Template	Station	Segment 1	Segment 2		Segment 3
		Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Slope (ft/ft)
1	0+00.00	-0.02	0.000	0	-0.02

Bridge Description

General Bridge Information

Number of Spans	2
Girder Type	BT-42 CDOT

Concrete Properties

Element	Type	f'_{ci} (KSI)	E_{ci} (KSI)	f'_c (KSI)	E_c (KSI)	w_w (kip/ft^3)	w_c (kip/ft^3)	D_{agg} (in)	f_{ct} (KSI)	E_c		Creep		Shrinkage		λ
										K_1	K_2	K_1	K_2	K_1	K_2	
Girder A	Normal Weight Concrete	6.000	4557.295	8.000	5011.145	0.163	0.145	0.750	N/A	1	1	1	1	1	1	1
Deck	Normal Weight Concrete	-	-	4.500	4144.550	0.150	0.145	0.750	N/A	1	1	1	1	1	1	1

$$E_c = 120{,}000 K_1 K_2 w_c^{2.0} f_c'^{0.33}$$

* = Modulus of elasticity was input

Pier Layout

	Station	Bearing	Skew Angle	Boundary Condition
Abutment 1	93+85.19	N 73° 56' 01.00" E	23° 22' 01.32" R	Hinge
Pier 2	94+64.04	N 73° 56' 01.00" E	17° 29' 59.26" R	Continuous after deck placement
Abutment 3	95+42.78	N 73° 56' 01.00" E	11° 38' 26.68" R	Hinge

Pier Diaphragms

	Diaphragm - Back				Diaphragm - Ahead			
	Height (in)	Width (in)	Loading	Location(*) (in)	Height (in)	Width (in)	Loading	Location(*) (in)
Abutment 1					Compute	Compute	Apply load at centerline bearing	N/A
Pier 2	Compute	Compute	Apply load at centerline bearing	N/A	Compute	Compute	Apply load at centerline bearing	N/A
Abutment 3	Compute	Compute	Apply load at centerline bearing	N/A				

(*) Distance from Abutment/Pier Line to Centroid of Diaphragm

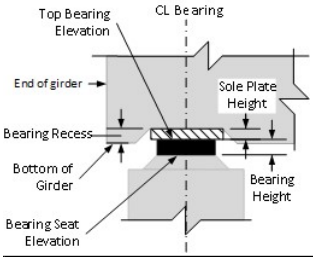
Pier Connections

	Back				Ahead			
	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure
Abutment 1					18.000	FA-NA	5.000	FCLB-AG
Pier 2	10.000	FP-NP	5.000	FCLB-AG	10.000	FP-NP	5.000	FCLB-AG
Abutment 3	18.000	FA-NA	5.000	FCLB-AG				

Bearing Offset Measure
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

End Distance Measure
FCLB-AG = Measured From CL Bearing along Girder
FCLB-NCLB = Measured From and Normal to CL Bearing
FCLB-NCLB = Measured From and Normal to CL Bearing
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

Bearing Details



Location	Shape	# of Bearings	Spacing (in)	Length or Diameter (in)	Width (in)	Height (in)	Recess Height (in)	Recess Length (in)	Sole Plate Height (in)
Abutment 3 - Back	Rectangular	1	N/A	8.000	12.000	0.000	0.000	0.000	0.000

Spans

Span	# Girders	Start of Span		End of Span	
		Girder Spacing	Datum	Girder Spacing	Datum
1	12	Between A & F : 8.323 ft Between F & G : 9.368 ft Between G & L : 8.393 ft	4	Between A & F : 8.323 ft Between F & G : 7.519 ft Between G & L : 8.393 ft	4
2	12	Between A & F : 8.080 ft Between F & G : 8.784 ft Between G & L : 8.113 ft	4	Between A & F : 8.080 ft Between F & G : 7.525 ft Between G & L : 8.113 ft	4

Girder Spacing Datum:
(1) Measured normal to the alignment at the abutment/pier line
(2) Measured normal to the alignment at the centerline of bearing
(3) Measured at and along the abutment/pier line
(4) Measured at and along the centerline of bearing

Girder spacing is measured at the work point elevation, which is at top centerline of girder.
Girder orientation is set plumb

Span 2, Girder A

Girder Type	BT-42 CDOT
Slab Offset ("A" Dimension) at Pier 2	11.000 in
Slab Offset ("A" Dimension) at Abutment 3	11.000 in
Strand Fill Type	Sequence of Straight/Harped Strands
Type of Adjustable Web Strands	Harped
Number of Straight Strands	18 8 extended at left end 8 extended at right end
Straight Strand P_{jack}	790.97 kip
Number of Harped Strands	10
Harped Strand P_{jack}	439.43 kip
Total Number of Permanent Strands	28
Distance from top of girder to top-most harped strand at ends of girder	4.000 in
Distance from bottom of girder to lowest harped strand at harp point	2.000 in
Specified Release Strength f'_{ci}	6.000 KSI
Specified 28 day Strength f'_c	8.000 KSI
Prestressing Strand (Permanent)	0.600 in Dia. Grade 270 Low Relaxation

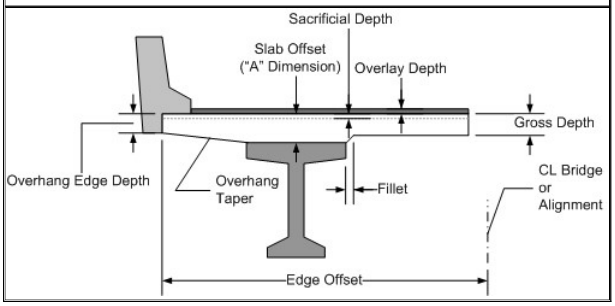
Deck Geometry

Deck Type
Composite cast-in-place deck
Cross Section
Gross Depth = 8.000 in
Left Overhang Edge Depth = 8.000 in
Left Overhang Taper = Taper overhang to bottom of girder top flange
Right Overhang Edge Depth = 8.000 in
Right Overhang Taper = Taper overhang to bottom of girder top flange
Fillet = 1.000 in
Slab Offset ("A" Dimension) = 11.000 in

Plan (Edge of Deck)

Station	Measured From	Left Offset (ft)	Right Offset (ft)
0+00.00	Bridge Line	47.000	47.000

Wearing Surface
Wearing Surface: Overlay
Overlay Weight = 0.037 KSF



Deck Reinforcement
Reinforcement: AASHTO M31 (A615) - Grade 60
Top Mat Cover: 2.000 in
Bottom Mat Cover: 1.000 in
Primary Reinforcement - Longitudinal reinforcement running the full length of the bridge

Mat	Bars		Lump Sum (in^2/ft)
Top	#9 @ 6.000	AND	0.000
Bottom	None @ 18.000	AND	0.000

Supplemental Reinforcement - Negative moment reinforcement at continuous piers

Pier	Mat	A_s (in^2/ft)	Bar	Spacing (in)	Left Cutoff (ft)	Right Cutoff (ft)
2	Top	0.000	#9	6.000	22.000	22.000

Analysis Intervals

Interval	Description	Start Event	End Event	Start (day)	Middle (day)	End (day)	Duration (day)
1	Tension strand, cast girder, strand relaxation, and concrete curing	1	1	0	0.5	1	1
2	Prestress Release	1	1	1	1	1	0
3	Lift girders	1	1	1	1	1	0
4	Place girders into storage	1	1	1	1	1	0
5	Time Step	1	2	1	14.5	28	27
6	Haul Girders	2	2	28	28	28	0
7	Erect Girders	2	2	28	28	28	0
8	Time Step	2	3	28	44.5	61	33
9	Install Intermediate Diaphragms	3	3	61	61	61	0
10	Time Step	3	4	61	61.5	62	1
11	Cast Deck, Apply User Defined Loads	4	4	62	62	62	0
12	Deck curing	4	4	62	62	62	0
13	Composite deck	4	4	62	62	62	0
14	Time Step	4	5	62	62.5	63	1
15	Apply User Defined Loads, Install Railing System and Overlay	5	5	63	63	63	0
16	Time Step	5	6	63	63.5	64	1
17	Open to Traffic	6	6	64	64	64	0

Span Lengths

C-C Pier = Abutment/Pier Line to Abutment/Pier Line length measured along the girder
C-C Bearing = Centerline bearing to centerline bearing length measured along the girder centerline
Girder Length, Plan = End to end length of the girder projected into a horizontal plane
Girder Length, Along Grade = End to end length of girder measured along grade of the girder (slope adjusted) = $L_g\sqrt{1+grade^2}$

C-C Pier (ft)	C-C Bearing (ft)	Girder Length		Grade (ft/ft)	End Distance	
		Plan (ft)	Along Grade (ft)		Start (ft)	End (ft)
78.572	76.165	76.999	76.999	-0.0001	0.417	0.417

Section Properties

Left Traffic Barrier Area = 2145.000 in^2
Left Traffic Barrier I_{yy} = 298512.8 in^4
Left Traffic Barrier Y_b = 12.798 in
Left Exterior Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Left Exterior Traffic Barrier to Left Edge of Deck = 9.000 in
Left Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Left Sidewalk to Left Edge of Deck = 69.000 in
Left Sidewalk Actual Width = 120.000 in
Left Sidewalk Face Depth = 11.000 in
Left Sidewalk Back Depth = 15.750 in
Left Sidewalk Weight = 1.672 kip/ft

Right Traffic Barrier Area = 2145.000 in^2
Right Traffic Barrier I_{yy} = 298512.8 in^4
Right Traffic Barrier Y_b = 12.798 in
Right Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Right Exterior Traffic Barrier to Right Edge of Deck = 9.000 in
Right Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Right Sidewalk to Right Edge of Deck = 69.000 in
Right Sidewalk Actual Width = 120.000 in
Right Sidewalk Face Depth = 11.000 in
Right Sidewalk Back Depth = 15.750 in
Right Sidewalk Weight = 1.672 kip/ft

Deck E_c = 4144.550 KSI

Bending Stiffness of Entire Bridge Section at center of Span 2
EI_{xx} = 2.13e+10 kip-in^2 (used to compute Live Load Deflections per LRFD 3.6.1.3.2)
EI_{yy} = 8.26e+12 kip-in^2
EI_{xy} = -2.03e+09 kip-in^2

Section Properties

	Girder
Area (in^2)	654.000
I_x (in^4)	153070.0
I_y (in^4)	42346.5
d (girder depth) (in)	42.000
Y_{tg} (in)	20.850
Y_{bg} (in)	21.150
Y_{td} (in)	-
Y_{bd} (in)	-
S_{tg} (in^3)	7341.4
S_{bg} (in^3)	7237.4
$S_{td} = n(I_x/Y_{td})$ (in^3)	-

	Girder
$S_{bd} = n(I_x/Y_{bd})$ (in^3)	-
Q_{deck} (in^3)	-
Effective Flange Width (in)	-
k_t (in) (Top kern point)	11.066
k_b (in) (Bottom kern point)	11.225
Perimeter (in)	195.230
Span/Depth Ratio	22
Weight (kip/ft)	0.740
Total Weight (kip)	57.00

Interval 17 : Open to Traffic

Location from Left Support (ft)	Area (in^2)	Depth (in)	I_x (in^4)	X_{tg} (in)	X_{rg} (in)	Y_{tg} (in)	Y_{bg} (in)	Y_{td} (in)	Y_{bd} (in)	S_{tg} (in^3)	S_{bg} (in^3)	S_{td} (in^3)	S_{bd} (in^3)	Q_{deck} (in^3)	Effective Flange Width (in)	Assumed Haunch Depth (in)
(STRF) -0.417	1287.015	51.000	367703.6	45.148	45.148	8.260	33.740	17.260	8.260	44515.2	10898.2	25758.0	53823.0	8233.8	90.297	1.000
0.000	1288.343	51.000	367944.0	45.249	45.249	8.246	33.754	17.246	8.246	44618.2	10900.9	25795.3	53947.6	8242.8	90.497	1.000
(0.0L_e) 0.000	1288.343	51.000	367944.0	45.249	45.249	8.246	33.754	17.246	8.246	44618.2	10900.9	25795.3	53947.6	8242.8	90.497	1.000
(FoS) 0.333	1289.394	51.000	368133.9	45.328	45.328	8.236	33.764	17.236	8.236	44699.7	10903.1	25824.8	54046.1	8249.8	90.656	1.000
(SZB) 1.337	1292.491	51.000	368691.7	45.562	45.562	8.204	33.796	17.204	8.204	44940.5	10909.3	25911.6	54337.3	8270.6	91.124	1.000
(Bar Develop.) 1.705	1293.603	51.000	368891.2	45.646	45.646	8.193	33.807	17.193	8.193	45027.1	10911.6	25942.7	54442.0	8278.0	91.292	1.000
(PSXFR) 2.583	1296.203	51.000	369356.7	45.843	45.843	8.166	33.834	17.166	8.166	45230.1	10916.8	26015.5	54687.3	8295.3	91.685	1.000
(Bar Develop.) 2.765	1296.732	51.000	369451.3	45.883	45.883	8.161	33.839	17.161	8.161	45271.4	10917.8	26030.3	54737.3	8298.8	91.765	1.000
(H) 3.833	1299.772	51.000	369992.8	46.112	46.112	8.130	33.870	17.130	8.130	45509.5	10923.9	26115.3	55025.2	8319.0	92.225	1.000
(SZB) 5.003	1302.974	51.000	370560.4	46.354	46.354	8.098	33.902	17.098	8.098	45760.8	10930.3	26204.7	55329.1	8340.1	92.709	1.000
(1.5H) 5.583	1304.514	51.000	370832.6	46.471	46.471	8.082	33.918	17.082	8.082	45882.1	10933.3	26247.7	55475.7	8350.2	92.941	1.000
(0.1L_e) 7.617	1309.647	51.000	371735.1	46.859	46.859	8.031	33.969	17.031	8.031	46287.4	10943.4	26390.8	55965.8	8383.7	93.717	1.000
(SZB) 10.503	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(0.2L_e) 15.233	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(SZB) 18.753	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(Deck Bar Cutoff) 20.783	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(0.3L_e) 22.850	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(SZB) 29.753	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(HP) 30.383	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(0.4L_e) 30.466	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(0.5L_e) 38.083	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(0.6L_e) 45.699	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(HP) 45.783	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(SZB) 46.413	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(0.7L_e) 53.316	1311.526	51.000	372063.7	47.001	47.001	8.012	33.988	17.012	8.012	46436.3	10947.0	26443.1	56145.8	8395.9	94.001	1.000
(SZB) 57.413	1309.369	51.000	371686.4	46.838	46.838	8.034	33.966	17.034	8.034	46265.4	10942.8	26383.1	55939.2	8381.9	93.675	1.000
(0.8L_e) 60.932	1300.189	51.000	370066.8	46.144	46.144	8.126	33.874	17.126	8.126	45542.1	10924.7	26126.9	55064.6	8321.7	92.288	1.000
(SZB) 65.663	1285.947	51.000	367509.9	45.068	45.068	8.271	33.729	17.271	8.271	44432.6	10896.0	25728.0	53723.1	8226.6	90.135	1.000
(0.9L_e) 68.549	1276.186	51.000	365725.7	44.330	44.330	8.373	33.627	17.373	8.373	43680.8	10875.9	25453.5	52814.2	8160.3	88.660	1.000
(1.5H) 70.582	1268.823	51.000	364362.1	43.774	43.774	8.450	33.550	17.450	8.450	43118.3	10860.4	25245.9	52134.0	8109.5	87.547	1.000
(SZB) 71.163	1266.646	51.000	363956.0	43.609	43.609	8.473	33.527	17.473	8.473	42952.7	10855.7	25184.4	51933.8	8094.4	87.218	1.000
(H) 72.332	1262.163	51.000	363115.4	43.270	43.270	8.521	33.479	17.521	8.521	42612.9	10846.1	25057.6	51522.9	8063.1	86.541	1.000
(Bar Develop.) 73.400	1257.952	51.000	362320.5	42.952	42.952	8.567	33.433	17.567	8.567	42294.9	10837.1	24938.3	51138.5	8033.5	85.904	1.000
(PSXFR) 73.582	1257.224	51.000	362182.4	42.897	42.897	8.574	33.426	17.574	8.574	42240.1	10835.5	24917.6	51072.1	8028.4	85.794	1.000
(Bar Develop.) 74.461	1253.661	51.000	361504.9	42.628	42.628	8.613	33.387	17.613	8.613	41972.2	10827.7	24816.5	50748.3	8003.1	85.256	1.000
(SZB) 74.829	1252.146	51.000	361215.8	42.513	42.513	8.629	33.371	17.629	8.629	41858.6	10824.4	24773.5	50610.9	7992.4	85.027	1.000
(FoS) 75.832	1247.949	51.000	360411.3	42.196	42.196	8.675	33.325	17.675	8.675	41544.7	10815.1	24654.3	50231.4	7962.4	84.392	1.000
(1.0L_e) 76.165	1246.534	51.000	360138.7	42.089	42.089	8.691	33.309	17.691	8.691	41439.1	10812.0	24614.0	50103.7	7952.2	84.178	1.000
76.165	1246.534	51.000	360138.7	42.089	42.089	8.691	33.309	17.691	8.691	41439.1	10812.0	24614.0	50103.7	7952.2	84.178	1.000
(STLF) 76.582	1244.749	51.000	359794.1	41.954	41.954	8.710	33.290	17.710	8.710	41306.1	10808.0	24563.2	49942.9	7939.4	83.909	1.000

User Defined Loads

Locations are measured from left support.
Point loads were not defined for this girder

Distributed Loads

Event	Load Case	Start Location	End Location	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Event 5: Final without Live Load	DW	0.00 %	100.00 %	0.040	0.040	Utility Load
Event 4: Cast Deck	DC	0.00 %	100.00 %	0.022	0.022	SIP Forms

Moment loads were not defined for this girder

Moments, Shears, and Reactions

Load Responses - Casting Yard

At Release

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF, 0.0L_r) 0.000	0.00	28.50	0.000
(PSXFR) 3.000	82.17	26.28	-0.104
(0.1L_r) 7.700	197.51	22.80	-0.263
(0.2L_r) 15.400	351.12	17.10	-0.498
(0.3L_r) 23.100	460.85	11.40	-0.682
(HP, 0.4L_r) 30.799	526.68	5.70	-0.799
(0.5L_r) 38.499	548.63	0.00	-0.839
(HP, 0.6L_r) 46.199	526.68	-5.70	-0.799

During Storage

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF) -0.417	0.00	0.00	0.014
(0.0L_{st}) 0.000	-0.06	-0.31 28.19	0.000
(PSXFR) 2.583	70.30	26.28	-0.087
(0.1L_{st}) 7.617	193.19	22.55	-0.252
(0.2L_{st}) 15.233	343.50	16.92	-0.477
(0.3L_{st}) 22.850	450.86	11.28	-0.653
(HP) 30.383	514.81	5.70	-0.764
(0.4L_{st}) 30.466	515.28	5.64	-0.765

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.7L_r$) 53.899	460.85	-11.40	-0.682
($0.8L_r$) 61.599	351.12	-17.10	-0.498
($0.9L_r$) 69.299	197.51	-22.80	-0.263
(PSXFR) 73.999	82.17	-26.28	-0.104
(STLF, $1.0L_r$) 76.999	0.00	-28.50	0.000

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.5L_{st}$) 38.083	536.75	0.00	-0.803
($0.6L_{st}$) 45.699	515.28	-5.64	-0.765
(HP) 45.783	514.81	-5.70	-0.764
($0.7L_{st}$) 53.316	450.86	-11.28	-0.653
($0.8L_{st}$) 60.932	343.50	-16.92	-0.477
($0.9L_{st}$) 68.549	193.19	-22.55	-0.252
(PSXFR) 73.582	70.30	-26.28	-0.087
($1.0L_{st}$) 76.165	-0.06	-28.19 0.31	0.000
(STLF) 76.582	0.00	0.00	0.014

Responses from Externally Applied Loads at the Bridge Site

Moments

Location from Left Support (ft)	Girder (kip-ft)	Diaphragm (kip-ft)	Slab (kip-ft)	Haunch (kip-ft)	Sidewalk (kip-ft)	Railing System (kip-ft)	Overlay (kip-ft)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
0.000	0.00	0.00	0.00	0.00	-194.81	-81.57	-158.44	0.04	-74.16	18.61 (D0)	-1516.14 (D2)	0.00 (F0)	-479.56 (F0)	0.00 (P0)	-1620.63 (P0)
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	-194.81	-81.57	-158.44	0.04	-74.16	18.61 (D0)	-1516.14 (D2)	0.00 (F0)	-479.56 (F0)	0.00 (P0)	-1620.63 (P0)
(PSXFR) 2.583	70.36	0.00	84.66	13.39	-161.72	-67.71	-131.53	0.69	-62.19	78.69 (D0)	-1308.59 (D2)	0.00 (F0)	-463.30 (F0)	0.00 (P0)	-1414.37 (P0)
($0.1L_e$) 7.617	193.25	0.00	233.38	36.88	-102.59	-42.95	-83.44	4.76	-43.73	268.03 (D1)	-930.47 (D2)	59.88 (F0)	-431.61 (F0)	53.65 (P0)	-1020.73 (P0)
($0.2L_e$) 15.233	343.56	0.00	416.54	65.77	-26.53	-11.11	-21.58	20.96	-30.95	661.95 (D0)	-710.67 (D0)	359.12 (F0)	-383.65 (F0)	741.78 (P0)	-871.64 (P0)
($0.3L_e$) 22.850	450.93	0.00	547.82	86.52	33.36	13.97	27.13	39.91	-27.08	1077.76 (D0)	-621.84 (D0)	592.51 (F0)	-335.69 (F0)	1270.06 (P0)	-762.69 (P0)
($0.4L_e$) 30.466	515.35	0.00	626.15	99.02	77.09	32.28	62.70	52.70	-23.21	1375.60 (D0)	-533.00 (D0)	736.94 (F0)	-287.74 (F0)	1645.17 (P0)	-653.73 (P0)
($0.5L_e$) 38.083	536.82	0.00	651.07	103.19	104.65	43.82	85.11	59.33	-19.34	1523.11 (D0)	-444.17 (D0)	772.80 (F0)	-239.78 (F0)	1862.18 (P0)	-544.78 (P0)
($0.6L_e$) 45.699	515.35	0.00	622.69	99.02	116.05	48.59	94.39	59.79	-15.47	1548.38 (D0)	-355.34 (D0)	817.87 (F0)	-191.82 (F0)	1858.21 (P0)	-435.82 (P0)
($0.7L_e$) 53.316	450.93	0.00	541.77	86.52	111.29	46.59	90.51	54.09	-11.60	1421.80 (D0)	-266.50 (D0)	773.30 (F0)	-143.87 (F0)	1716.22 (P0)	-326.87 (P0)
($0.8L_e$) 60.932	343.56	0.00	409.63	65.77	90.35	37.83	73.49	42.22	-7.74	1148.82 (D0)	-177.67 (D0)	621.83 (F0)	-95.91 (F0)	1383.43 (P0)	-217.91 (P0)
($0.9L_e$) 68.549	193.25	0.00	228.20	36.88	53.26	22.30	43.32	24.19	-3.87	678.38 (D0)	-88.83 (D0)	379.71 (F0)	-47.96 (F0)	828.17 (P0)	-108.96 (P0)
(PSXFR) 73.582	70.36	0.00	82.46	13.39	19.88	8.32	16.17	8.90	-1.31	253.83 (D0)	-30.13 (D0)	144.82 (F0)	-16.27 (F0)	314.48 (P0)	-36.95 (P0)
($1.0L_e$) 76.165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
76.165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.
(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Moment due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip-ft)	User DW (kip-ft)	User LL+IM (kip-ft)
0.000	-0.00	0.00	0.00
($0.0L_e$) 0.000	-0.00	0.00	0.00
(PSXFR) 2.583	2.09	0.00	0.00
($0.1L_e$) 7.617	5.74	0.00	0.00
($0.2L_e$) 15.233	10.21	0.00	0.00
($0.3L_e$) 22.850	13.40	0.00	0.00
($0.4L_e$) 30.466	15.31	0.00	0.00
($0.5L_e$) 38.083	15.95	0.00	0.00
($0.6L_e$) 45.699	15.31	0.00	0.00
($0.7L_e$) 53.316	13.40	0.00	0.00
($0.8L_e$) 60.932	10.21	0.00	0.00
($0.9L_e$) 68.549	5.74	0.00	0.00
(PSXFR) 73.582	2.09	0.00	0.00
($1.0L_e$) 76.165	0.00	0.00	0.00
76.165	0.00	0.00	0.00

Shears

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
0.000	0.00	0.00	0.00	0.00	13.17	5.51	10.71	5.02	-0.00	117.56 (D0)	-0.24 (D0)	66.82 (F0)	0.00 (F0)	151.85 (P0)	0.00 (P0)
($0.0L_e$) 0.000	28.50 28.19	2.11 0.00	34.19 33.85	5.41 5.36	13.17	5.51	10.71	5.02	-0.00	117.56 (D0)	-0.24 (D0)	66.82 (F0)	0.00 (F0)	151.85 (P0)	0.00 (P0)
($0.1L_e$) 7.617	22.55	0.00	27.39	4.32	11.05	4.63	8.98	4.24	-0.03	105.88 (D0)	-3.33 (D1)	59.92 (F0)	0.00 (F0)	138.37 (P0)	0.00 (P0)

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.2L_e$) 15.233	16.92	0.00	20.67	3.26	8.92	3.74	7.26	3.51	-0.11	93.43 (D0)	-8.32 (D1)	52.22 (F0)	-1.64 (F0)	122.44 (P0)	0.00 (P0)
($0.3L_e$) 22.850	11.28	0.00	13.78	2.18	6.80	2.85	5.53	2.84	-0.25	80.42 (D0)	-14.48 (D1)	43.85 (F0)	-5.91 (F0)	104.12 (P0)	-1.98 (P0)
($0.4L_e$) 30.466	5.64	0.00	6.78	1.10	4.68	1.96	3.81	2.24	-0.46	67.04 (D0)	-22.52 (D0)	34.93 (F0)	-11.17 (F0)	83.56 (P0)	-16.20 (P0)
($0.5L_e$) 38.083	0.00	0.00	-0.24	-0.00	2.56	1.07	2.08	1.73	-0.75	53.47 (D0)	-32.87 (D0)	26.45 (F0)	-17.39 (F0)	60.87 (P0)	-37.85 (P0)
($0.6L_e$) 45.699	-5.64	0.00	-7.20	-1.10	0.44	0.18	0.35	1.30	-1.13	39.89 (D0)	-44.59 (D0)	17.91 (F0)	-24.47 (F0)	38.29 (P0)	-54.71 (P0)
($0.7L_e$) 53.316	-11.28	0.00	-14.02	-2.18	-1.69	-0.71	-1.37	0.95	-1.60	27.91 (D1)	-57.60 (D0)	13.41 (F0)	-32.32 (F0)	26.14 (P0)	-71.58 (P0)
($0.8L_e$) 60.932	-16.92	0.00	-20.63	-3.26	-3.81	-1.59	-3.10	0.71	-2.16	18.45 (D1)	-71.74 (D0)	9.03 (F0)	-40.82 (F0)	15.70 (P0)	-89.67 (P0)
($0.9L_e$) 68.549	-22.55	0.00	-26.95	-4.32	-5.93	-2.48	-4.82	0.56	-2.82	11.96 (D0)	-86.93 (D0)	6.30 (F0)	-49.85 (F0)	14.31 (P0)	-108.73 (P0)
($1.0L_e$) 76.165	-28.19 -28.50	0.00 -2.60	-32.90 -33.22	-5.36 -5.41	-8.05 -8.17	-3.37 -3.42	-6.55	0.51	-3.58	11.66 (D0)	-103.02 (D0)	6.30 (F0)	-59.29 (F0)	14.31 (P0)	-128.52 (P0)
76.165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Shears due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip)	User DW (kip)	User LL+IM (kip)
0.000	-0.01	0.00	0.00
($0.0L_e$) 0.000	0.84	0.00	0.00
($0.1L_e$) 7.617	0.67	0.00	0.00
($0.2L_e$) 15.233	0.50	0.00	0.00
($0.3L_e$) 22.850	0.34	0.00	0.00
($0.4L_e$) 30.466	0.17	0.00	0.00
($0.5L_e$) 38.083	0.00	0.00	0.00
($0.6L_e$) 45.699	-0.17	0.00	0.00
($0.7L_e$) 53.316	-0.34	0.00	0.00
($0.8L_e$) 60.932	-0.50	0.00	0.00
($0.9L_e$) 68.549	-0.67	0.00	0.00
($1.0L_e$) 76.165	-0.84	0.00	0.00
76.165	0.00	0.00	0.00

Girder Line Pier Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2	56.94	0.00	67.28	10.81	26.80	11.22	21.61	10.22	0.00	170.57 (D2)	0.00 (D0)	77.34 (F0)	0.00 (F0)	213.56 (P0)	0.00 (P0)
Abutment 3	28.50	2.60	33.22	5.41	8.17	3.42	6.55	3.58	-0.51	103.02 (D0)	-11.66 (D0)	59.29 (F0)	-6.30 (F0)	128.52 (P0)	-14.31 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2 - Ahead	28.50	0.00	34.19	5.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Abutment 3 - Back	28.50	2.60	33.22	5.41	8.17	3.42	6.55	3.58	-0.51	103.02 (D0)	-11.66 (D0)	59.29 (F0)	-6.30 (F0)	128.52 (P0)	-14.31 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Line Pier Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Pier 2	1.70	0.00	0.00

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3	0.84	0.00	0.00

Girder Bearing Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3 - Back	0.84	0.00	0.00

Deflections

Location from Left Support (ft)	Girder (in)	Diaphragm (in)	Slab (in)	Haunch (in)	Sidewalk (in)	Railing System (in)	Overlay (in)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.022 (P0)	-0.023 (P0)
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.022 (P0)	-0.023 (P0)
($0.1L_e$) 7.617	-0.252	0.000	-0.278	-0.044	-0.006	-0.002	-0.005	0.007	-0.009	0.152 (D0)	-0.203 (D0)	0.082 (F0)	-0.110 (F0)	0.187 (P0)	-0.250 (P0)
($0.2L_e$) 15.233	-0.477	0.000	-0.525	-0.083	-0.017	-0.007	-0.014	0.011	-0.017	0.244 (D0)	-0.397 (D0)	0.132 (F0)	-0.213 (F0)	0.299 (P0)	-0.488 (P0)
($0.3L_e$) 22.850	-0.653	0.000	-0.719	-0.114	-0.030	-0.012	-0.024	0.013	-0.024	0.297 (D0)	-0.567 (D0)	0.160 (F0)	-0.302 (F0)	0.364 (P0)	-0.697 (P0)
($0.4L_e$) 30.466	-0.765	0.000	-0.842	-0.134	-0.041	-0.017	-0.033	0.014	-0.029	0.317 (D0)	-0.690 (D0)	0.171 (F0)	-0.363 (F0)	0.388 (P0)	-0.848 (P0)
($0.5L_e$) 38.083	-0.803	0.000	-0.884	-0.140	-0.048	-0.020	-0.039	0.013	-0.032	0.308 (D0)	-0.747 (D0)	0.166 (F0)	-0.390 (F0)	0.377 (P0)	-0.919 (P0)
($0.6L_e$) 45.699	-0.765	0.000	-0.841	-0.134	-0.049	-0.021	-0.040	0.012	-0.031	0.275 (D0)	-0.727 (D0)	0.148 (F0)	-0.381 (F0)	0.337 (P0)	-0.896 (P0)
($0.7L_e$) 53.316	-0.653	0.000	-0.717	-0.114	-0.044	-0.019	-0.036	0.010	-0.027	0.223 (D0)	-0.631 (D0)	0.120 (F0)	-0.333 (F0)	0.273 (P0)	-0.779 (P0)
($0.8L_e$) 60.932	-0.477	0.000	-0.523	-0.083	-0.034	-0.014	-0.027	0.007	-0.020	0.156 (D0)	-0.464 (D0)	0.084 (F0)	-0.246 (F0)	0.192 (P0)	-0.574 (P0)
($0.9L_e$) 68.549	-0.252	0.000	-0.276	-0.044	-0.018	-0.008	-0.015	0.004	-0.010	0.081 (D0)	-0.245 (D0)	0.044 (F0)	-0.131 (F0)	0.099 (P0)	-0.304 (P0)
($1.0L_e$) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Deflections due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.000	0.000	0.000
($0.1L_e$) 7.617	-0.007	0.000	0.000
($0.2L_e$) 15.233	-0.013	0.000	0.000
($0.3L_e$) 22.850	-0.018	0.000	0.000
($0.4L_e$) 30.466	-0.021	0.000	0.000
($0.5L_e$) 38.083	-0.022	0.000	0.000
($0.6L_e$) 45.699	-0.021	0.000	0.000
($0.7L_e$) 53.316	-0.018	0.000	0.000
($0.8L_e$) 60.932	-0.013	0.000	0.000
($0.9L_e$) 68.549	-0.007	0.000	0.000
($1.0L_e$) 76.165	0.000	0.000	0.000
76.165	0.000	0.000	0.000

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 3 - Back	-0.00281	0.00000	-0.00310	-0.00049	-0.00001	0.00000	-0.00001	0.00007	-0.00008	0.00172 (D0)	-0.00184 (D0)	0.00093 (F0)	-0.00100 (F0)	0.00211 (P0)	-0.00226 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Rotations due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 3 - Back	0.00008	0.00000	0.00000

Deflections For The LRFD Optional Deflection Live Load (LRFD 3.6.1.3.2)

Location from Left Support (ft)	D1 (in)	D2 (in)	D Controlling (in)
0.000	-0.006	-0.003	-0.006
($0.0L_e$) 0.000	-0.006	-0.003	-0.006
($0.1L_e$) 7.617	-0.060	-0.036	-0.060
($0.2L_e$) 15.233	-0.117	-0.070	-0.117
($0.3L_e$) 22.850	-0.168	-0.100	-0.168
($0.4L_e$) 30.466	-0.204	-0.121	-0.204
($0.5L_e$) 38.083	-0.222	-0.131	-0.222
($0.6L_e$) 45.699	-0.216	-0.127	-0.216
($0.7L_e$) 53.316	-0.187	-0.111	-0.187
($0.8L_e$) 60.932	-0.138	-0.081	-0.138
($0.9L_e$) 68.549	-0.073	-0.043	-0.073
($1.0L_e$) 76.165	0.000	0.000	0.000
76.165	0.000	0.000	0.000

D1 = LRFD Design truck without lane load and including impact
D2 = 0.25*(Design truck) + lane load, including impact
D(Controlling) = Max(D1, D2)
EI = Bridge EI / Number of Girders
Live Load Distribution Factor = (Multiple Presence Factor)(Number of Lanes)/(Number of Girders)

Combined Results - Interval 2: Prestress Release

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF, $0.0L_t$) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.750	21.17	0.00	21.17	0.00	21.17
(SZB) 1.753	48.83	0.00	48.83	0.00	48.83
(Bar Develop.) 2.121	58.79	0.00	58.79	0.00	58.79
(PSXFR) 3.000	82.17	0.00	82.17	0.00	82.17
(Bar Develop.) 3.182	86.94	0.00	86.94	0.00	86.94
(H) 4.250	114.44	0.00	114.44	0.00	114.44
(SZB) 5.419	143.58	0.00	143.58	0.00	143.58
(1.5H) 6.000	157.68	0.00	157.68	0.00	157.68
($0.1L_t$) 7.700	197.51	0.00	197.51	0.00	197.51
(SZB) 10.919	267.07	0.00	267.07	0.00	267.07
($0.2L_t$) 15.400	351.12	0.00	351.12	0.00	351.12
(SZB) 19.169	410.32	0.00	410.32	0.00	410.32
(Deck Bar Cutoff) 21.199	437.85	0.00	437.85	0.00	437.85
($0.3L_t$) 23.100	460.85	0.00	460.85	0.00	460.85
(SZB) 30.169	522.95	0.00	522.95	0.00	522.95
(HP, $0.4L_t$) 30.799	526.68	0.00	526.68	0.00	526.68
($0.5L_t$) 38.499	548.63	0.00	548.63	0.00	548.63
(HP, $0.6L_t$) 46.199	526.68	0.00	526.68	0.00	526.68
(SZB) 46.829	522.95	0.00	522.95	0.00	522.95
($0.7L_t$) 53.899	460.85	0.00	460.85	0.00	460.85
(SZB) 57.829	410.32	0.00	410.32	0.00	410.32
($0.8L_t$) 61.599	351.12	0.00	351.12	0.00	351.12
(SZB) 66.079	267.07	0.00	267.07	0.00	267.07
($0.9L_t$) 69.299	197.51	0.00	197.51	0.00	197.51
(1.5H) 70.999	157.68	0.00	157.68	0.00	157.68
(SZB) 71.579	143.58	0.00	143.58	0.00	143.58
(H) 72.749	114.44	0.00	114.44	0.00	114.44
(Bar Develop.) 73.817	86.94	0.00	86.94	0.00	86.94
(PSXFR) 73.999	82.17	0.00	82.17	0.00	82.17
(Bar Develop.) 74.877	58.79	0.00	58.79	0.00	58.79
(SZB) 75.245	48.83	0.00	48.83	0.00	48.83
(FoS) 76.249	21.17	0.00	21.17	0.00	21.17
(STLF, $1.0L_t$) 76.999	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF, $0.0L_t$) 0.000	28.50	0.00	28.50	0.00	28.50
(FoS) 0.750	27.95	0.00	27.95	0.00	27.95
(SZB) 1.753	27.20	0.00	27.20	0.00	27.20
(Bar Develop.) 2.121	26.93	0.00	26.93	0.00	26.93
(PSXFR) 3.000	26.28	0.00	26.28	0.00	26.28
(Bar Develop.) 3.182	26.15	0.00	26.15	0.00	26.15
(H) 4.250	25.35	0.00	25.35	0.00	25.35
(SZB) 5.419	24.49	0.00	24.49	0.00	24.49
(1.5H) 6.000	24.06	0.00	24.06	0.00	24.06
($0.1L_t$) 7.700	22.80	0.00	22.80	0.00	22.80
(SZB) 10.919	20.42	0.00	20.42	0.00	20.42
($0.2L_t$) 15.400	17.10	0.00	17.10	0.00	17.10
(SZB) 19.169	14.31	0.00	14.31	0.00	14.31
(Deck Bar Cutoff) 21.199	12.81	0.00	12.81	0.00	12.81

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(0.3L$_t$) 23.100	11.40	0.00	11.40	0.00	11.40
(SZB) 30.169	6.17	0.00	6.17	0.00	6.17
(HP, 0.4L$_t$) 30.799	5.70	0.00	5.70	0.00	5.70
(0.5L$_t$) 38.499	0.00	0.00	0.00	0.00	0.00
(HP, 0.6L$_t$) 46.199	-5.70	0.00	-5.70	0.00	-5.70
(SZB) 46.829	-6.17	0.00	-6.17	0.00	-6.17
(0.7L$_t$) 53.899	-11.40	0.00	-11.40	0.00	-11.40
(SZB) 57.829	-14.31	0.00	-14.31	0.00	-14.31
(0.8L$_t$) 61.599	-17.10	0.00	-17.10	0.00	-17.10
(SZB) 66.079	-20.42	0.00	-20.42	0.00	-20.42
(0.9L$_t$) 69.299	-22.80	0.00	-22.80	0.00	-22.80
(1.5H) 70.999	-24.06	0.00	-24.06	0.00	-24.06
(SZB) 71.579	-24.49	0.00	-24.49	0.00	-24.49
(H) 72.749	-25.35	0.00	-25.35	0.00	-25.35
(Bar Develop.) 73.817	-26.15	0.00	-26.15	0.00	-26.15
(PSXFR) 73.999	-26.28	0.00	-26.28	0.00	-26.28
(Bar Develop.) 74.877	-26.93	0.00	-26.93	0.00	-26.93
(SZB) 75.245	-27.20	0.00	-27.20	0.00	-27.20
(FoS) 76.249	-27.95	0.00	-27.95	0.00	-27.95
(STLF, 1.0L$_t$) 76.999	-28.50	0.00	-28.50	0.00	-28.50

Combined Results - Interval 11: Cast Deck, Apply User Defined Loads

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	-0.00	0.00	-0.00	0.00	-0.00
(0.0L$_e$) 0.000	-0.00	0.00	-0.00	0.00	-0.00
(FoS) 0.333	13.29	0.00	22.65	0.00	22.65
(SZB) 1.337	52.64	0.00	89.66	0.00	89.66
(Bar Develop.) 1.705	66.82	0.00	113.80	0.00	113.80
(PSXFR) 2.583	100.14	0.00	170.50	0.00	170.50
(Bar Develop.) 2.765	106.94	0.00	182.07	0.00	182.07
(H) 3.833	146.20	0.00	248.83	0.00	248.83
(SZB) 5.003	187.87	0.00	319.64	0.00	319.64
(1.5H) 5.583	208.05	0.00	353.92	0.00	353.92
(0.1L$_e$) 7.617	276.00	0.00	469.26	0.00	469.26
(SZB) 10.503	365.16	0.00	620.42	0.00	620.42
(0.2L$_e$) 15.233	492.52	0.00	836.09	0.00	836.09
(SZB) 18.753	571.95	0.00	970.46	0.00	970.46
(Deck Bar Cutoff) 20.783	611.76	0.00	1037.79	0.00	1037.79
(0.3L$_e$) 22.850	647.74	0.00	1098.67	0.00	1098.67
(SZB) 29.753	734.47	0.00	1245.60	0.00	1245.60
(HP) 30.383	739.81	0.00	1254.68	0.00	1254.68
(0.4L$_e$) 30.466	740.48	0.00	1255.83	0.00	1255.83
(0.5L$_e$) 38.083	770.20	0.00	1307.02	0.00	1307.02
(0.6L$_e$) 45.699	737.02	0.00	1252.37	0.00	1252.37
(HP) 45.783	736.31	0.00	1251.19	0.00	1251.19
(SZB) 46.413	730.71	0.00	1241.85	0.00	1241.85
(0.7L$_e$) 53.316	641.69	0.00	1092.62	0.00	1092.62
(SZB) 57.413	565.17	0.00	963.68	0.00	963.68
(0.8L$_e$) 60.932	485.61	0.00	829.17	0.00	829.17
(SZB) 65.663	358.96	0.00	614.22	0.00	614.22
(0.9L$_e$) 68.549	270.82	0.00	464.08	0.00	464.08
(1.5H) 70.582	203.88	0.00	349.75	0.00	349.75
(SZB) 71.163	184.04	0.00	315.81	0.00	315.81
(H) 72.332	143.11	0.00	245.75	0.00	245.75
(Bar Develop.) 73.400	104.61	0.00	179.74	0.00	179.74
(PSXFR) 73.582	97.94	0.00	168.30	0.00	168.30
(Bar Develop.) 74.461	65.32	0.00	112.30	0.00	112.30
(SZB) 74.829	51.44	0.00	88.46	0.00	88.46
(FoS) 75.832	12.98	0.00	22.34	0.00	22.34
(1.0L$_e$) 76.165	0.00	0.00	0.00	0.00	0.00
76.165	0.00	0.00	0.00	0.00	0.00
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF) -0.417	-0.00	0.00	-0.00	0.00	-0.00
0.000	-0.01	0.00	-0.01	0.00	-0.01
(0.0L$_e$) 0.000	42.55 40.04	0.00	71.05 68.23	0.00	71.05 68.23
(FoS) 0.333	39.71	0.00	67.66	0.00	67.66
(SZB) 1.337	38.72	0.00	65.92	0.00	65.92
(Bar Develop.) 1.705	38.36	0.00	65.29	0.00	65.29
(PSXFR) 2.583	37.48	0.00	63.76	0.00	63.76
(Bar Develop.) 2.765	37.30	0.00	63.44	0.00	63.44
(H) 3.833	36.23	0.00	61.58	0.00	61.58
(SZB) 5.003	35.05	0.00	59.53	0.00	59.53

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(1.5H) 5.583	34.46	0.00	58.52	0.00	58.52
($0.1L_e$) 7.617	32.38	0.00	54.93	0.00	54.93
(SZB) 10.503	29.40	0.00	49.81	0.00	49.81
($0.2L_e$) 15.233	24.44	0.00	41.35	0.00	41.35
(SZB) 18.753	20.69	0.00	35.00	0.00	35.00
(Deck Bar Cutoff) 20.783	18.52	0.00	31.33	0.00	31.33
($0.3L_e$) 22.850	16.30	0.00	27.57	0.00	27.57
(SZB) 29.753	8.82	0.00	14.99	0.00	14.99
(HP) 30.383	8.13	0.00	13.83	0.00	13.83
($0.4L_e$) 30.466	8.04	0.00	13.68	0.00	13.68
($0.5L_e$) 38.083	-0.24	0.00	-0.24	0.00	-0.24
($0.6L_e$) 45.699	-8.46	0.00	-14.10	0.00	-14.10
(HP) 45.783	-8.55	0.00	-14.25	0.00	-14.25
(SZB) 46.413	-9.23	0.00	-15.39	0.00	-15.39
($0.7L_e$) 53.316	-16.54	0.00	-27.82	0.00	-27.82
(SZB) 57.413	-20.80	0.00	-35.11	0.00	-35.11
($0.8L_e$) 60.932	-24.40	0.00	-41.31	0.00	-41.31
(SZB) 65.663	-29.13	0.00	-49.54	0.00	-49.54
($0.9L_e$) 68.549	-31.94	0.00	-54.50	0.00	-54.50
(1.5H) 70.582	-33.90	0.00	-57.96	0.00	-57.96
(SZB) 71.163	-34.45	0.00	-58.94	0.00	-58.94
(H) 72.332	-35.55	0.00	-60.91	0.00	-60.91
(Bar Develop.) 73.400	-36.55	0.00	-62.70	0.00	-62.70
(PSXFR) 73.582	-36.72	0.00	-63.00	0.00	-63.00
(Bar Develop.) 74.461	-37.53	0.00	-64.46	0.00	-64.46
(SZB) 74.829	-37.87	0.00	-65.08	0.00	-66.74
(FoS) 75.832	-38.79	0.00	-66.74	0.00	-66.74
($1.0L_e$) 76.165	-39.10 -39.47	0.00	-67.29 -70.57	0.00	-67.29 -70.57
76.165	0.00	0.00	0.00	0.00	0.00
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2	84.05	0.00	140.98	0.00
Abutment 3	39.47	0.00	70.57	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2 - Ahead	42.56	0.00	71.07	0.00
Abutment 3 - Back	39.47	0.00	70.57	0.00

Combined Results - Interval 17: Open to Traffic

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)
($0.0L_s$) 0.000	0.00	0.00	-292.59	-197.28
(STRF) 0.443	0.00	0.00	-284.20	-191.66
0.860	0.00	0.00	-276.38	-186.41
(FoS) 1.193	0.00	0.00	-247.53	-182.22
(SZB) 2.196	0.00	0.00	-162.11	-169.80
(Bar Develop.) 2.564	0.00	0.00	-131.31	-165.32
(PSXFR) 3.443	0.00	0.00	-58.94	-154.75
(Bar Develop.) 3.625	0.00	0.00	-44.16	-152.58
(H) 4.693	0.00	0.00	41.17	-140.06
(SZB) 5.862	0.00	0.00	131.78	-126.71
(1.5H) 6.443	0.00	0.00	175.69	-120.21
($0.1L_s$) 7.702	0.00	0.00	268.44	-106.42
(SZB) 11.362	0.00	0.00	518.46	-68.77
($0.2L_s$) 15.405	0.00	0.00	760.78	-31.32
(SZB) 19.612	0.00	0.00	974.94	3.02
(Deck Bar Cutoff) 21.642	0.00	0.00	1064.33	17.90
($0.3L_s$) 23.107	0.00	0.00	1123.20	27.96
(SZB) 30.612	0.00	0.00	1350.13	70.50
($0.4L_s$) 30.810	0.00	0.00	1354.42	71.42
(HP) 31.242	0.00	0.00	1363.49	73.39
($0.5L_s$) 38.512	0.00	0.00	1453.83	99.06
($0.6L_s$) 46.215	0.00	0.00	1421.51	110.89
(HP) 46.642	0.00	0.00	1415.88	111.08
(SZB) 47.272	0.00	0.00	1406.83	111.27
($0.7L_s$) 53.917	0.00	0.00	1258.21	106.89
(SZB) 58.272	0.00	0.00	1108.44	97.63
($0.8L_s$) 61.620	0.00	0.00	965.36	87.08
(SZB) 66.522	0.00	0.00	712.42	66.23
($0.9L_s$) 69.322	0.00	0.00	545.04	51.45
(1.5H) 71.442	0.00	0.00	407.38	38.87
(SZB) 72.022	0.00	0.00	368.02	35.22
(H) 73.192	0.00	0.00	286.64	27.58
(Bar Develop.) 74.260	0.00	0.00	209.82	20.29

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(PSXFR) 74.442	0.00	0.00	196.50	19.02
(Bar Develop.) 75.320	0.00	0.00	131.20	12.75
(SZB) 75.688	0.00	0.00	103.38	10.06
(FoS) 76.692	0.00	0.00	26.13	2.55
(1.0L_s) 77.025	0.00	0.00	0.00	0.00
77.025	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00

Moment - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(0.0L_s) 0.000	0.00	-78.47	0.00	-1358.87	0.00	-347.77	0.00	-1449.48	0.00	-1437.34	0.00	-347.77	0.00	-1449.48
(STRF) 0.443	0.01	-76.23	8.14	-1327.51	0.00	-344.06	0.00	-1416.61	8.15	-1403.74	0.00	-344.06	0.00	-1416.61
0.860	0.04	-74.16	15.94	-1298.19	0.00	-342.19	0.00	-1387.66	15.98	-1372.35	0.00	-342.19	0.00	-1387.66
(FoS) 1.193	0.08	-72.53	22.28	-1274.86	0.00	-340.69	0.00	-1364.50	22.35	-1347.39	0.00	-340.69	0.00	-1364.50
(SZB) 2.196	0.27	-67.78	41.88	-1205.35	0.00	-336.18	0.00	-1295.94	42.16	-1273.12	0.00	-336.18	0.00	-1295.94
(Bar Develop.) 2.564	0.37	-66.09	49.28	-1180.11	0.00	-334.53	0.00	-1270.83	49.65	-1246.20	0.00	-334.53	0.00	-1270.83
(PSXFR) 3.443	0.69	-62.19	67.38	-1120.47	0.00	-330.58	0.00	-1211.05	68.07	-1182.67	0.00	-330.58	0.00	-1211.05
(Bar Develop.) 3.625	0.77	-61.41	71.21	-1108.23	0.00	-329.76	0.00	-1198.72	71.97	-1169.64	0.00	-329.76	0.00	-1198.72
(H) 4.693	1.32	-56.98	96.31	-1037.15	0.00	-324.97	0.00	-1126.72	97.63	-1094.12	0.00	-324.97	0.00	-1126.72
(SZB) 5.862	2.13	-52.46	136.25	-963.73	0.00	-319.71	0.00	-1048.30	138.38	-1016.19	0.00	-319.71	0.00	-1048.30
(1.5H) 6.443	2.61	-50.36	156.54	-927.95	0.00	-317.10	0.00	-1009.39	159.15	-978.31	0.00	-317.10	0.00	-1009.39
(0.1L_s) 7.702	3.85	-46.11	201.17	-844.36	19.62	-311.44	0.00	-925.33	205.03	-890.47	19.62	-311.44	0.00	-925.33
(SZB) 11.362	9.24	-36.50	338.95	-672.03	129.12	-295.00	272.49	-804.29	348.19	-708.53	129.12	-295.00	272.49	-804.29
(0.2L_s) 15.405	18.95	-31.29	530.20	-615.38	238.77	-276.84	587.04	-754.77	549.15	-646.67	238.77	-276.84	587.04	-754.77
(SZB) 19.612	30.48	-29.16	744.53	-573.36	340.52	-257.94	860.56	-703.23	775.01	-602.52	340.52	-257.94	860.56	-703.23
(Deck Bar Cutoff) 21.642	35.38	-28.13	837.22	-553.09	383.40	-248.82	976.08	-678.37	872.60	-581.22	383.40	-248.82	976.08	-678.37
(0.3L_s) 23.107	38.64	-27.38	898.39	-538.46	411.76	-242.23	1055.62	-660.42	937.03	-565.84	411.76	-242.23	1055.62	-660.42
(SZB) 30.612	51.77	-23.57	1159.43	-463.51	519.28	-208.52	1385.18	-568.50	1211.20	-487.08	519.28	-208.52	1385.18	-568.50
(0.4L_s) 30.810	52.03	-23.47	1164.65	-461.54	521.15	-207.63	1391.82	-566.07	1216.68	-485.01	521.15	-207.63	1391.82	-566.07
(HP) 31.242	52.60	-23.25	1175.77	-457.22	525.10	-205.69	1405.99	-560.78	1228.36	-480.47	525.10	-205.69	1405.99	-560.78
(0.5L_s) 38.512	59.12	-19.56	1300.77	-384.30	552.25	-173.02	1588.67	-471.34	1359.89	-403.86	552.25	-173.02	1588.67	-471.34
(0.6L_s) 46.215	59.90	-15.65	1326.96	-307.44	583.18	-138.42	1595.78	-377.07	1386.86	-323.08	583.18	-138.42	1595.78	-377.07
(HP) 46.642	59.76	-15.43	1325.47	-303.17	583.65	-136.50	1589.88	-371.85	1385.24	-318.61	583.65	-136.50	1589.88	-371.85
(SZB) 47.272	59.52	-15.11	1322.39	-296.89	583.95	-133.67	1579.83	-364.13	1381.90	-312.00	583.95	-133.67	1579.83	-364.13
(0.7L_s) 53.917	54.38	-11.74	1223.07	-230.58	554.20	-103.81	1475.33	-282.80	1277.45	-242.31	554.20	-103.81	1475.33	-282.80
(SZB) 58.272	48.47	-9.52	1112.11	-187.12	500.26	-84.25	1344.85	-229.51	1160.59	-196.65	500.26	-84.25	1344.85	-229.51
(0.8L_s) 61.620	42.56	-7.82	990.75	-153.72	446.53	-69.21	1193.53	-188.54	1033.31	-161.54	446.53	-69.21	1193.53	-188.54
(SZB) 66.522	31.75	-5.33	753.96	-104.80	347.68	-47.18	911.77	-128.54	785.71	-110.13	347.68	-47.18	911.77	-128.54
(0.9L_s) 69.322	24.43	-3.91	586.39	-76.86	273.42	-34.60	715.68	-94.27	610.82	-80.77	273.42	-34.60	715.68	-94.27
(1.5H) 71.442	18.34	-2.84	443.49	-55.71	208.59	-25.08	544.74	-68.33	461.83	-58.55	208.59	-25.08	544.74	-68.33
(SZB) 72.022	16.58	-2.54	401.90	-49.92	189.45	-22.48	494.47	-61.23	418.48	-52.46	189.45	-22.48	494.47	-61.23
(H) 73.192	12.95	-1.95	314.97	-38.25	149.11	-17.22	388.83	-46.91	327.92	-40.20	149.11	-17.22	388.83	-46.91
(Bar Develop.) 74.260	9.50	-1.40	231.86	-27.59	110.17	-12.42	287.11	-33.84	241.35	-29.00	110.17	-12.42	287.11	-33.84
(PSXFR) 74.442	8.90	-1.31	217.34	-25.78	103.33	-11.61	269.27	-31.62	226.23	-27.09	103.33	-11.61	269.27	-31.62
(Bar Develop.) 75.320	5.95	-0.87	145.77	-17.01	69.51	-7.66	181.05	-20.86	151.72	-17.88	69.51	-7.66	181.05	-20.86
(SZB) 75.688	4.69	-0.68	115.08	-13.34	54.94	-6.00	143.07	-16.36	119.77	-14.02	54.94	-6.00	143.07	-16.36
(FoS) 76.692	1.19	-0.17	29.23	-3.33	14.00	-1.50	36.43	-4.08	30.42	-3.50	14.00	-1.50	36.43	-4.08
(1.0L_s) 77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Moment, Mu

Location from Left Support (ft)	Design								
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II		
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
(0.0L_s) 0.000	-489.86	-489.86	-244.93	-391.56	-3177.00	-3177.00	-391.56	-2618.44	-2618.44
(STRF) 0.443	-467.71	-469.34	-237.93	-366.10	-3099.29	-3099.29	-380.36	-2555.17	-2555.17
0.860	-446.82	-450.01	-231.40	-341.95	-3026.71	-3026.70	-369.91	-2498.44	-2498.43
(FoS) 1.193	-407.40	-411.87	-214.88	-302.10	-2940.68	-2968.99	-341.22	-2424.82	-2453.13
(SZB) 2.196	-289.75	-298.18	-165.95	-182.50	-2685.30	-2797.37	-256.27	-2206.86	-2318.93
(Bar Develop.) 2.564	-246.97	-256.90	-148.31	-138.74	-2592.96	-2735.21	-225.63	-2127.72	-2269.98
(PSXFR) 3.443	-145.62	-159.23	-106.84	-34.51	-2375.46	-2588.58	-153.63	-1940.71	-2153.83
(Bar Develop.) 3.625	-124.76	-139.16	-98.37	-12.96	-2330.94	-2558.53	-138.92	-1902.34	-2129.93
(H) 4.693	-1.27	-20.79	-49.45	131.27	-2087.76	-2311.71	-39.58	-1694.12	-1918.07
(SZB) 5.862	143.45	115.78	2.54	324.53	-1849.79	-2137.47	82.37	-1486.66	-1774.34
(1.5H) 6.443	214.64	182.81	27.74	420.00	-1734.23	-2052.76	141.48	-1384.87	-1703.39
(0.1L_s) 7.702	367.05	326.04	110.45	625.18	-1476.35	-1859.96	266.38	-1167.24	-1550.84
(SZB) 11.362	797.88	728.24	418.53	1212.71	-876.47	-1434.85	971.24	-722.32	-1280.70
(0.2L_s) 15.405	1278.61	1168.78	722.88	1891.62	-493.96	-1220.46	1723.13	-381.22	-1107.72
(SZB) 19.612	1752.97	1597.96	999.75	2579.47	-175.01	-1048.43	2384.95	-69.96	-943.38
(Deck Bar Cutoff) 21.642	1954.83	1780.31	1116.22	2884.31	-47.60	-981.62	2674.97	53.73	-880.28
(0.3L_s) 23.107	2088.19	1900.78	1193.21	3085.74	38.83	-934.74	2871.01	137.48	-836.09
(SZB) 30.612	2631.83	2389.59	1489.23	3913.01	408.55	-712.49	3663.40	493.47	-627.57
(0.4L_s) 30.810	2642.52	2399.18	1494.64	3929.34	416.64	-707.04	3679.11	501.19	-622.48
(HP) 31.242	2665.24	2419.57	1506.09	3964.08	434.03	-695.19	3712.54	517.79	-611.42

Location from Left Support (ft)	Design									
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II			
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
($0.5L_s$) 38.512	2912.78	2640.80	1604.82	4345.68	666.09	-510.17	4110.58	736.53	-439.74
($0.6L_s$) 46.215	2919.26	2641.89	1640.98	4370.23	786.04	-345.36	4097.52	842.39	-289.01
(HP) 46.642	2912.19	2635.14	1638.96	4360.63	788.93	-337.14	4082.80	844.50	-281.57
(SZB) 47.272	2900.00	2623.62	1634.98	4343.78	792.48	-325.18	4058.21	846.89	-270.77
($0.7L_s$) 53.917	2642.56	2387.07	1513.85	3968.64	777.82	-211.93	3724.80	820.09	-169.67
(SZB) 58.272	2366.66	2134.54	1353.43	3563.02	716.92	-150.39	3347.55	751.22	-116.09
($0.8L_s$) 61.620	2085.75	1879.09	1196.01	3145.61	642.73	-109.90	2948.59	670.90	-81.72
(SZB) 66.522	1564.37	1407.23	910.84	2364.87	491.50	-61.30	2220.77	510.71	-42.10
($0.9L_s$) 69.322	1207.30	1085.14	708.37	1827.40	382.62	-39.25	1724.63	396.71	-25.17
(1.5H) 71.442	908.09	815.72	536.01	1375.75	289.45	-25.32	1302.94	299.66	-15.11
(SZB) 72.022	821.72	738.03	485.80	1245.20	262.31	-21.92	1180.39	271.46	-12.77
(H) 73.192	642.14	576.56	380.78	973.53	205.56	-15.61	924.60	212.57	-8.60
(Bar Develop.) 74.260	471.47	423.20	280.31	715.09	151.28	-10.48	680.31	156.34	-5.42
(PSXFR) 74.442	441.75	396.51	262.76	670.06	141.81	-9.67	637.67	146.53	-4.94
(Bar Develop.) 75.320	295.68	265.33	176.24	448.64	95.09	-5.98	427.55	98.21	-2.87
(SZB) 75.688	233.21	209.26	139.13	353.92	75.06	-4.56	337.46	77.50	-2.12
(FoS) 76.692	59.09	53.01	35.34	89.71	19.06	-1.05	85.67	19.67	-0.44
($1.0L_s$) 77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Deck moment (Mu) is for negative moment deck design, and is from superimposed dead load and live load only.

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
($0.0L_s$) 0.000	0.00	0.00	19.03	12.74
(STRF) 0.443	0.00	0.00	18.84	12.62
0.860	0.00	0.00	18.67	12.60
(FoS) 1.193	0.00	0.00	86.21	12.51
(SZB) 2.196	0.00	0.00	84.08	12.24
(Bar Develop.) 2.564	0.00	0.00	83.29	12.15
(PSXFR) 3.443	0.00	0.00	81.42	11.91
(Bar Develop.) 3.625	0.00	0.00	81.03	11.86
(H) 4.693	0.00	0.00	78.75	11.58
(SZB) 5.862	0.00	0.00	76.24	11.27
(1.5H) 6.443	0.00	0.00	74.99	11.11
($0.1L_s$) 7.702	0.00	0.00	72.28	10.78
(SZB) 11.362	0.00	0.00	64.35	9.80
($0.2L_s$) 15.405	0.00	0.00	55.52	8.72
(SZB) 19.612	0.00	0.00	46.27	7.60
(Deck Bar Cutoff) 21.642	0.00	0.00	41.80	7.06
($0.3L_s$) 23.107	0.00	0.00	38.56	6.67
(SZB) 30.612	0.00	0.00	21.91	4.67
($0.4L_s$) 30.810	0.00	0.00	21.47	4.62
(HP) 31.242	0.00	0.00	20.51	4.50
($0.5L_s$) 38.512	0.00	0.00	4.35	2.56
($0.6L_s$) 46.215	0.00	0.00	-12.72	0.51
(HP) 46.642	0.00	0.00	-13.67	0.39
(SZB) 47.272	0.00	0.00	-15.06	0.23
($0.7L_s$) 53.917	0.00	0.00	-29.65	-1.55
(SZB) 58.272	0.00	0.00	-39.12	-2.71
($0.8L_s$) 61.620	0.00	0.00	-46.35	-3.60
(SZB) 66.522	0.00	0.00	-56.82	-4.91
($0.9L_s$) 69.322	0.00	0.00	-62.73	-5.65
(1.5H) 71.442	0.00	0.00	-67.17	-6.22
(SZB) 72.022	0.00	0.00	-68.39	-6.37
(H) 73.192	0.00	0.00	-70.82	-6.68
(Bar Develop.) 74.260	0.00	0.00	-73.03	-6.97
(PSXFR) 74.442	0.00	0.00	-73.40	-7.02
(Bar Develop.) 75.320	0.00	0.00	-75.22	-7.25
(SZB) 75.688	0.00	0.00	-75.97	-7.35
(FoS) 76.692	0.00	0.00	-78.03	-7.62
($1.0L_s$) 77.025	0.00	0.00	-78.72 -82.16	-7.71
77.025	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00

Shear - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.0L_s$) 0.000	5.09	0.00	106.23	0.00	50.38	0.00	137.15	0.00	111.32	0.00	50.38	0.00	137.15	0.00
(STRF) 0.443	5.06	-0.00	105.73	-0.11	50.08	0.00	136.46	0.00	110.79	-0.11	50.08	0.00	136.46	0.00
0.860	5.02	-0.00	105.13	-0.22	49.80	0.00	135.80	0.00	110.15	-0.22	49.80	0.00	135.80	0.00
(FoS) 1.193	4.98	-0.00	104.65	-0.30	49.57	0.00	135.27	0.00	109.64	-0.30	49.57	0.00	135.27	0.00
(SZB) 2.196	4.88	-0.00	103.21	-0.57	48.87	0.00	133.65	0.00	108.09	-0.58	48.87	0.00	133.65	0.00
(Bar Develop.) 2.564	4.84	-0.00	102.67	-0.68	48.60	0.00	133.05	0.00	107.51	-0.68	48.60	0.00	133.05	0.00
(PSXFR) 3.443	4.75	-0.00	101.38	-0.93	47.97	0.00	131.60	0.00	106.13	-0.93	47.97	0.00	131.60	0.00
(Bar Develop.) 3.625	4.73	-0.00	101.12	-0.98	47.84	0.00	131.30	0.00	105.85	-0.98	47.84	0.00	131.30	0.00

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(H) 4.693	4.62	-0.01	99.54	-1.30	47.06	0.00	129.49	0.00	104.16	-1.31	47.06	0.00	129.49	0.00
(SZB) 5.862	4.50	-0.01	97.80	-1.69	46.20	0.00	127.42	0.00	102.30	-1.70	46.20	0.00	127.42	0.00
(1.5H) 6.443	4.44	-0.02	96.93	-1.96	45.78	0.00	126.38	0.00	101.37	-1.97	45.78	0.00	126.38	0.00
($0.1L_s$) 7.702	4.31	-0.02	95.04	-2.57	44.84	0.00	124.10	0.00	99.35	-2.59	44.84	0.00	124.10	0.00
(SZB) 11.362	3.95	-0.05	89.46	-4.49	42.02	0.00	117.21	0.00	93.41	-4.54	42.02	0.00	117.21	0.00
($0.2L_s$) 15.405	3.57	-0.10	83.17	-6.88	38.80	-0.95	109.03	0.00	86.74	-6.97	38.80	-0.95	109.03	0.00
(SZB) 19.612	3.19	-0.16	76.55	-9.65	35.31	-2.54	100.01	0.00	79.74	-9.81	35.31	-2.54	100.01	0.00
(Deck Bar Cutoff) 21.642	3.01	-0.20	73.32	-11.08	33.60	-3.38	95.44	0.00	76.33	-11.29	33.60	-3.38	95.44	0.00
($0.3L_s$) 23.107	2.89	-0.24	70.99	-12.16	32.35	-4.02	92.08	-1.15	73.88	-12.39	32.35	-4.02	92.08	-1.15
(SZB) 30.612	2.30	-0.44	59.00	-18.68	25.76	-7.66	73.93	-12.12	61.30	-19.12	25.76	-7.66	73.93	-12.12
($0.4L_s$) 30.810	2.28	-0.45	58.69	-18.89	25.58	-7.76	73.43	-12.64	60.97	-19.34	25.58	-7.76	73.43	-12.64
(HP) 31.242	2.25	-0.46	58.00	-19.35	25.20	-7.99	72.34	-13.77	60.25	-19.81	25.20	-7.99	72.34	-13.77
($0.5L_s$) 38.512	1.75	-0.74	46.44	-27.61	19.21	-12.14	53.26	-31.53	48.20	-28.34	19.21	-12.14	53.26	-31.53
($0.6L_s$) 46.215	1.31	-1.11	34.68	-37.70	13.06	-17.22	33.60	-46.22	35.99	-38.81	13.06	-17.22	33.60	-46.22
(HP) 46.642	1.29	-1.14	34.03	-38.30	12.71	-17.52	32.59	-47.00	35.32	-39.44	12.71	-17.52	32.59	-47.00
(SZB) 47.272	1.26	-1.17	33.07	-39.19	12.30	-17.96	31.09	-48.15	34.33	-40.36	12.30	-17.96	31.09	-48.15
($0.7L_s$) 53.917	0.96	-1.58	24.18	-48.92	9.67	-22.86	22.68	-60.78	25.14	-50.51	9.67	-22.86	22.68	-60.78
(SZB) 58.272	0.81	-1.89	19.50	-55.72	7.90	-26.29	17.60	-69.49	20.31	-57.61	7.90	-26.29	17.60	-69.49
($0.8L_s$) 61.620	0.71	-2.15	15.98	-61.14	6.51	-28.99	13.65	-76.42	16.69	-63.29	6.51	-28.99	13.65	-76.42
(SZB) 66.522	0.60	-2.56	10.94	-69.40	4.49	-33.10	12.25	-86.81	11.55	-71.96	4.49	-33.10	12.25	-86.81
($0.9L_s$) 69.322	0.56	-2.81	10.25	-74.28	4.49	-35.50	12.25	-92.91	10.81	-77.10	4.49	-35.50	12.25	-92.91
(1.5H) 71.442	0.53	-3.01	10.13	-78.04	4.49	-37.36	12.25	-97.57	10.66	-81.06	4.49	-37.36	12.25	-97.57
(SZB) 72.022	0.53	-3.07	10.10	-79.08	4.49	-37.87	12.25	-98.84	10.63	-82.15	4.49	-37.87	12.25	-98.84
(H) 73.192	0.52	-3.19	10.05	-81.18	4.49	-38.90	12.25	-101.44	10.57	-84.37	4.49	-38.90	12.25	-101.44
(Bar Develop.) 74.260	0.51	-3.29	10.02	-83.12	4.49	-39.84	12.25	-103.82	10.54	-86.41	4.49	-39.84	12.25	-103.82
(PSXFR) 74.442	0.51	-3.31	10.02	-83.45	4.49	-40.00	12.25	-104.23	10.53	-86.77	4.49	-40.00	12.25	-104.23
(Bar Develop.) 75.320	0.51	-3.40	10.00	-85.06	4.49	-40.78	12.25	-106.21	10.51	-88.46	4.49	-40.78	12.25	-106.21
(SZB) 75.688	0.51	-3.44	9.99	-85.74	4.49	-41.10	12.25	-107.04	10.50	-89.18	4.49	-41.10	12.25	-107.04
(FoS) 76.692	0.51	-3.55	9.99	-87.59	4.49	-42.00	12.25	-109.30	10.50	-91.14	4.49	-42.00	12.25	-109.30
($1.0L_s$) 77.025	0.51	-3.58	9.99	-88.21	4.49	-42.30	12.25	-110.05	10.49	-91.79	4.49	-42.30	12.25	-110.05
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Shear, Vu

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.0L_s$) 0.000	143.08	120.82	91.45	237.70	25.40	228.05	25.40
(STRF) 0.443	142.25	120.09	90.85	236.36	24.97	226.70	25.16
0.860	141.42	119.39	90.33	235.00	24.61	225.57	24.99
(FoS) 1.193	208.36	186.43	123.71	318.40	85.19	309.14	85.72
(SZB) 2.196	204.41	182.79	121.46	312.61	82.62	303.89	83.63
(Bar Develop.) 2.564	202.95	181.45	120.63	310.48	81.67	301.96	82.86
(PSXFR) 3.443	199.47	178.24	118.62	305.38	79.39	297.31	81.02
(Bar Develop.) 3.625	198.74	177.57	118.21	304.32	78.92	296.34	80.64
(H) 4.693	194.49	173.66	115.76	298.08	76.11	290.61	78.40
(SZB) 5.862	189.81	169.35	113.06	291.22	72.96	284.22	75.94
(1.5H) 6.443	187.47	167.20	111.72	287.80	71.26	281.02	74.72
($0.1L_s$) 7.702	182.40	162.53	108.79	280.37	67.52	274.04	72.05
(SZB) 11.362	167.56	148.88	100.10	258.61	56.34	253.36	64.28
($0.2L_s$) 15.405	150.98	133.64	90.32	234.28	43.43	229.68	55.64
(SZB) 19.612	133.61	117.67	79.90	208.79	29.42	204.26	46.59
(Deck Bar Cutoff) 21.642	125.19	109.92	74.82	196.41	22.45	191.68	42.20
($0.3L_s$) 23.107	119.11	104.33	71.13	187.49	17.35	182.51	37.48
(SZB) 30.612	87.88	75.62	51.93	141.66	-10.71	134.19	6.39
($0.4L_s$) 30.810	87.05	74.86	51.42	140.46	-11.52	132.89	5.26
(HP) 31.242	85.26	73.21	50.30	137.82	-13.29	130.04	2.79
($0.5L_s$) 38.512	55.11	45.47	32.27	93.62	-44.03	81.18	-36.99
($0.6L_s$) 46.215	23.78	16.58	13.48	52.30	-83.50	34.67	-77.97
(HP) 46.642	22.05	14.98	12.43	50.10	-85.84	32.29	-80.27
(SZB) 47.272	19.50	12.63	11.04	46.86	-89.30	28.75	-83.68
($0.7L_s$) 53.917	-6.05	-11.08	-1.09	16.31	-127.76	2.94	-121.43
(SZB) 58.272	-21.52	-25.58	-9.07	-1.42	-153.78	-13.21	-146.78
($0.8L_s$) 61.620	-33.26	-36.59	-15.20	-14.84	-174.09	-25.63	-166.50
(SZB) 66.522	-50.18	-52.49	-24.12	-34.12	-204.31	-37.79	-195.58
($0.9L_s$) 69.322	-57.58	-59.74	-27.45	-41.22	-221.81	-43.60	-212.33
(1.5H) 71.442	-62.73	-64.86	-29.96	-45.84	-235.14	-47.96	-225.01
(SZB) 72.022	-64.13	-66.26	-30.64	-47.09	-238.80	-49.15	-228.48
(H) 73.192	-66.93	-69.04	-32.01	-49.58	-246.19	-51.54	-235.48
(Bar Develop.) 74.260	-69.46	-71.57	-33.26	-51.82	-252.97	-53.72	-241.90
(PSXFR) 74.442	-69.89	-72.00	-33.47	-52.20	-254.12	-54.09	-243.00
(Bar Develop.) 75.320	-71.96	-74.06	-34.50	-54.02	-259.71	-55.87	-248.28
(SZB) 75.688	-72.82	-74.92	-34.92	-54.77	-262.05	-56.62	-250.49
(FoS) 76.692	-75.16	-77.26	-36.09	-56.82	-268.46	-58.65	-256.52
($1.0L_s$) 77.025	-75.93	-78.03	-36.47	-57.49	-270.59	-59.32	-258.52

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
	-79.37	-81.47	-38.20	-60.59	-274.90	-62.42	-262.83
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2	0.00	0.00	179.01	25.46
Abutment 3	0.00	0.00	82.16	7.71

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
Abutment 3 - Back	0.00	0.00	82.16	7.71	178.08

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	88.21	-9.99	42.30	-4.49	110.05	-12.25	91.79	-10.49	42.30	-4.49	110.05	-12.25

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	178.08	160.44	108.39	268.63	61.48	262.83	62.42

Live Load Reactions Without Impact

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	70.91	-8.16	36.79	-3.91	82.74	-9.21	74.49	-8.67	36.79	-3.91	82.74	-9.21

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Stresses

Product Load Stresses

At Release

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF, 0.0L_r) 0.000	0.000	0.000
(PSXFR) 3.000	-0.134	0.136
(0.1L_r) 7.700	-0.323	0.327
(0.2L_r) 15.400	-0.574	0.582
(0.3L_r) 23.100	-0.753	0.764
(HP, 0.4L_r) 30.799	-0.861	0.873
(0.5L_r) 38.499	-0.897	0.910
(HP, 0.6L_r) 46.199	-0.861	0.873
(0.7L_r) 53.899	-0.753	0.764
(0.8L_r) 61.599	-0.574	0.582
(0.9L_r) 69.299	-0.323	0.327
(PSXFR) 73.999	-0.134	0.136
(STLF, 1.0L_r) 76.999	0.000	0.000

During Storage

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF) -0.417	0.000	0.000
(0.0L_{st}) 0.000	0.000	-0.000
(PSXFR) 2.583	-0.115	0.117
(0.1L_{st}) 7.617	-0.316	0.320
(0.2L_{st}) 15.233	-0.561	0.570
(0.3L_{st}) 22.850	-0.737	0.748
(HP) 30.383	-0.841	0.854
(0.4L_{st}) 30.466	-0.842	0.854
(0.5L_{st}) 38.083	-0.877	0.890
(0.6L_{st}) 45.699	-0.842	0.854
(HP) 45.783	-0.841	0.854
(0.7L_{st}) 53.316	-0.737	0.748
(0.8L_{st}) 60.932	-0.561	0.570
(0.9L_{st}) 68.549	-0.316	0.320
(PSXFR) 73.582	-0.115	0.117
(1.0L_{st}) 76.165	0.000	-0.000
(STLF) 76.582	0.000	0.000

Girder Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.054 f_b = -0.221	f_t = 0.023 f_b = -0.092	f_t = 0.044 f_b = -0.179	f_t = 0.021 f_b = 0.000	f_t = 0.000 f_b = -0.084	f_t = 0.418 f_b = 0.010	f_t = -0.003 f_b = -1.707	f_t = 0.130 f_b = 0.000	f_t = 0.000 f_b = -0.531	f_t = 0.446 f_b = 0.000	f_t = 0.000 f_b = -1.822
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.052 f_b = -0.214	f_t = 0.022 f_b = -0.090	f_t = 0.043 f_b = -0.174	f_t = 0.020 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.408 f_b = 0.020	f_t = -0.005 f_b = -1.669	f_t = 0.129 f_b = 0.000	f_t = 0.000 f_b = -0.528	f_t = 0.436 f_b = 0.000	f_t = 0.000 f_b = -1.784
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.052 f_b = -0.214	f_t = 0.022 f_b = -0.090	f_t = 0.043 f_b = -0.174	f_t = 0.020 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.408 f_b = 0.020	f_t = -0.005 f_b = -1.669	f_t = 0.129 f_b = 0.000	f_t = 0.000 f_b = -0.528	f_t = 0.436 f_b = 0.000	f_t = 0.000 f_b = -1.784
(PSXFR) 2.583	f_t = -0.115 f_b = 0.117	f_t = 0.000 f_b = 0.000	f_t = -0.138 f_b = 0.140	f_t = -0.022 f_b = 0.022	f_t = 0.043 f_b = -0.178	f_t = 0.018 f_b = -0.074	f_t = 0.035 f_b = -0.145	f_t = 0.017 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.347 f_b = 0.087	f_t = -0.021 f_b = -1.438	f_t = 0.123 f_b = 0.000	f_t = 0.000 f_b = -0.509	f_t = 0.375 f_b = 0.000	f_t = 0.000 f_b = -1.555
(0.1L_e) 7.617	f_t = -0.316 f_b = 0.320	f_t = 0.000 f_b = 0.000	f_t = -0.381 f_b = 0.387	f_t = -0.060 f_b = 0.061	f_t = 0.027 f_b = -0.112	f_t = 0.011 f_b = -0.047	f_t = 0.022 f_b = -0.091	f_t = 0.011 f_b = 0.005	f_t = -0.001 f_b = -0.048	f_t = 0.241 f_b = 0.294	f_t = -0.069 f_b = -1.020	f_t = 0.112 f_b = 0.066	f_t = -0.016 f_b = -0.473	f_t = 0.265 f_b = 0.059	f_t = -0.014 f_b = -1.119
(0.2L_e) 15.233	f_t = -0.562	f_t = 0.000	f_t = -0.681	f_t = -0.108	f_t = 0.007	f_t = 0.003	f_t = 0.006	f_t = 0.008	f_t = -0.005	f_t = 0.184	f_t = -0.171	f_t = 0.099	f_t = -0.093	f_t = 0.225	f_t = -0.192

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.570	f_b = 0.000	f_b = 0.691	f_b = 0.109	f_b = -0.029	f_b = -0.012	f_b = -0.024	f_b = 0.023	f_b = -0.034	f_b = 0.726	f_b = -0.779	f_b = 0.394	f_b = -0.421	f_b = 0.813	f_b = -0.955
(0.3L$_e$) 22.850	f_t = -0.737	f_t = 0.000	f_t = -0.895	f_t = -0.141	f_t = -0.009	f_t = -0.004	f_t = -0.007	f_t = 0.007	f_t = -0.010	f_t = 0.161	f_t = -0.279	f_t = 0.087	f_t = -0.153	f_t = 0.197	f_t = -0.328
	f_b = 0.748	f_b = 0.000	f_b = 0.908	f_b = 0.143	f_b = 0.037	f_b = 0.015	f_b = 0.030	f_b = 0.044	f_b = -0.030	f_b = 1.181	f_b = -0.682	f_b = 0.650	f_b = -0.368	f_b = 1.392	f_b = -0.836
(HP) 30.383	f_t = -0.842	f_t = 0.000	f_t = -1.023	f_t = -0.162	f_t = -0.020	f_t = -0.008	f_t = -0.016	f_t = 0.006	f_t = -0.014	f_t = 0.138	f_t = -0.355	f_t = 0.074	f_t = -0.190	f_t = 0.169	f_t = -0.424
	f_b = 0.854	f_b = 0.000	f_b = 1.037	f_b = 0.164	f_b = 0.084	f_b = 0.035	f_b = 0.068	f_b = 0.058	f_b = -0.025	f_b = 1.505	f_b = -0.585	f_b = 0.807	f_b = -0.316	f_b = 1.800	f_b = -0.718
(0.4L$_e$) 30.466	f_t = -0.842	f_t = 0.000	f_t = -1.023	f_t = -0.162	f_t = -0.020	f_t = -0.008	f_t = -0.016	f_t = 0.006	f_t = -0.014	f_t = 0.138	f_t = -0.355	f_t = 0.074	f_t = -0.190	f_t = 0.169	f_t = -0.425
	f_b = 0.854	f_b = 0.000	f_b = 1.038	f_b = 0.164	f_b = 0.085	f_b = 0.035	f_b = 0.069	f_b = 0.058	f_b = -0.025	f_b = 1.508	f_b = -0.584	f_b = 0.808	f_b = -0.315	f_b = 1.803	f_b = -0.717
(0.5L$_e$) 38.083	f_t = -0.877	f_t = 0.000	f_t = -1.064	f_t = -0.169	f_t = -0.027	f_t = -0.011	f_t = -0.022	f_t = 0.005	f_t = -0.015	f_t = 0.115	f_t = -0.394	f_t = 0.062	f_t = -0.200	f_t = 0.141	f_t = -0.481
	f_b = 0.890	f_b = 0.000	f_b = 1.080	f_b = 0.171	f_b = 0.115	f_b = 0.048	f_b = 0.093	f_b = 0.065	f_b = -0.021	f_b = 1.670	f_b = -0.487	f_b = 0.847	f_b = -0.263	f_b = 2.041	f_b = -0.597
(0.6L$_e$) 45.699	f_t = -0.842	f_t = 0.000	f_t = -1.018	f_t = -0.162	f_t = -0.030	f_t = -0.013	f_t = -0.024	f_t = 0.004	f_t = -0.015	f_t = 0.092	f_t = -0.400	f_t = 0.050	f_t = -0.211	f_t = 0.113	f_t = -0.480
	f_b = 0.854	f_b = 0.000	f_b = 1.032	f_b = 0.164	f_b = 0.127	f_b = 0.053	f_b = 0.103	f_b = 0.066	f_b = -0.017	f_b = 1.697	f_b = -0.390	f_b = 0.897	f_b = -0.210	f_b = 2.037	f_b = -0.478
(HP) 45.783	f_t = -0.842	f_t = 0.000	f_t = -1.017	f_t = -0.162	f_t = -0.030	f_t = -0.013	f_t = -0.024	f_t = 0.004	f_t = -0.015	f_t = 0.092	f_t = -0.400	f_t = 0.049	f_t = -0.211	f_t = 0.112	f_t = -0.480
	f_b = 0.854	f_b = 0.000	f_b = 1.031	f_b = 0.164	f_b = 0.127	f_b = 0.053	f_b = 0.103	f_b = 0.066	f_b = -0.017	f_b = 1.697	f_b = -0.388	f_b = 0.897	f_b = -0.210	f_b = 2.035	f_b = -0.476
(0.7L$_e$) 53.316	f_t = -0.737	f_t = 0.000	f_t = -0.886	f_t = -0.141	f_t = -0.029	f_t = -0.012	f_t = -0.023	f_t = 0.003	f_t = -0.014	f_t = 0.069	f_t = -0.367	f_t = 0.037	f_t = -0.200	f_t = 0.084	f_t = -0.444
	f_b = 0.748	f_b = 0.000	f_b = 0.898	f_b = 0.143	f_b = 0.122	f_b = 0.051	f_b = 0.099	f_b = 0.059	f_b = -0.013	f_b = 1.559	f_b = -0.292	f_b = 0.848	f_b = -0.158	f_b = 1.881	f_b = -0.358
(0.8L$_e$) 60.932	f_t = -0.562	f_t = 0.000	f_t = -0.670	f_t = -0.108	f_t = -0.024	f_t = -0.010	f_t = -0.019	f_t = 0.002	f_t = -0.011	f_t = 0.047	f_t = -0.303	f_t = 0.025	f_t = -0.164	f_t = 0.057	f_t = -0.365
	f_b = 0.570	f_b = 0.000	f_b = 0.679	f_b = 0.109	f_b = 0.099	f_b = 0.042	f_b = 0.081	f_b = 0.046	f_b = -0.008	f_b = 1.262	f_b = -0.195	f_b = 0.683	f_b = -0.105	f_b = 1.520	f_b = -0.239
(0.9L$_e$) 68.549	f_t = -0.316	f_t = 0.000	f_t = -0.373	f_t = -0.060	f_t = -0.015	f_t = -0.006	f_t = -0.012	f_t = 0.001	f_t = -0.007	f_t = 0.024	f_t = -0.186	f_t = 0.013	f_t = -0.104	f_t = 0.030	f_t = -0.228
	f_b = 0.320	f_b = 0.000	f_b = 0.378	f_b = 0.061	f_b = 0.059	f_b = 0.025	f_b = 0.048	f_b = 0.027	f_b = -0.004	f_b = 0.748	f_b = -0.098	f_b = 0.419	f_b = -0.053	f_b = 0.914	f_b = -0.120
(PSXFR) 73.582	f_t = -0.115	f_t = 0.000	f_t = -0.135	f_t = -0.022	f_t = -0.006	f_t = -0.002	f_t = -0.005	f_t = 0.000	f_t = -0.003	f_t = 0.009	f_t = -0.072	f_t = 0.005	f_t = -0.041	f_t = 0.010	f_t = -0.089
	f_b = 0.117	f_b = 0.000	f_b = 0.137	f_b = 0.022	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.010	f_b = -0.001	f_b = 0.281	f_b = -0.033	f_b = 0.160	f_b = -0.018	f_b = 0.348	f_b = -0.041
(1.0L$_e$) 76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(STLF) 76.582	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000

* Live Load values are per lane and include impact.

Deck Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.093	f_t = 0.039	f_t = 0.076	f_t = 0.036	f_t = 0.000	f_t = 0.722	f_t = -0.004	f_t = 0.225	f_t = 0.000	f_t = 0.771	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.045	f_b = 0.019	f_b = 0.036	f_b = 0.017	f_b = 0.000	f_b = 0.346	f_b = -0.002	f_b = 0.108	f_b = 0.000	f_b = 0.369	f_b = 0.000
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.091	f_t = 0.038	f_t = 0.074	f_t = 0.034	f_t = -0.000	f_t = 0.705	f_t = -0.009	f_t = 0.223	f_t = 0.000	f_t = 0.754	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.018	f_b = 0.035	f_b = 0.016	f_b = 0.000	f_b = 0.337	f_b = -0.004	f_b = 0.107	f_b = 0.000	f_b = 0.360	f_b = 0.000
(0.0L$_e$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.091	f_t = 0.038	f_t = 0.074	f_t = 0.034	f_t = -0.000	f_t = 0.705	f_t = -0.009	f_t = 0.223	f_t = 0.000	f_t = 0.754	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.018	f_b = 0.035	f_b = 0.016	f_b = 0.000	f_b = 0.337	f_b = -0.004	f_b = 0.107	f_b = 0.000	f_b = 0.360	f_b = 0.000
(PSXFR) 2.583	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.075	f_t = 0.031	f_t = 0.061	f_t = 0.029	f_t = -0.000	f_t = 0.604	f_t = -0.036	f_t = 0.214	f_t = 0.000	f_t = 0.652	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.035	f_b = 0.015	f_b = 0.029	f_b = 0.014	f_b = -0.000	f_b = 0.287	f_b = -0.017	f_b = 0.102	f_b = 0.000	f_b = 0.310	f_b = 0.000
(0.1L$_e$) 7.617	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.047	f_t = 0.020	f_t = 0.038	f_t = 0.020	f_t = -0.002	f_t = 0.423	f_t = -0.122	f_t = 0.196	f_t = -0.027	f_t = 0.464	f_t = -0.024
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.009	f_b = -0.001	f_b = 0.200	f_b = -0.057	f_b = 0.093	f_b = -0.013	f_b = 0.219	f_b = -0.012
(0.2L$_e$) 15.233	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.012	f_t = 0.005	f_t = 0.010	f_t = 0.014	f_t = -0.010	f_t = 0.323	f_t = -0.300	f_t = 0.174	f_t = -0.163	f_t = 0.396	f_t = -0.337
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.006	f_b = 0.002	f_b = 0.005	f_b = 0.007	f_b = -0.004	f_b = 0.152	f_b = -0.141	f_b = 0.082	f_b = -0.077	f_b = 0.186	f_b = -0.159
(0.3L$_e$) 22.850	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.015	f_t = -0.006	f_t = -0.012	f_t = 0.012	f_t = -0.018	f_t = 0.282	f_t = -0.489	f_t = 0.152	f_t = -0.269	f_t = 0.346	f_t = -0.576
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.007	f_b = -0.003	f_b = -0.006	f_b = 0.006	f_b = -0.009	f_b = 0.133	f_b = -0.230	f_b = 0.072	f_b = -0.127	f_b = 0.163	f_b = -0.271
(HP) 30.383	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.035	f_t = -0.015	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.242	f_t = -0.623	f_t = 0.131	f_t = -0.334	f_t = 0.297	f_t = -0.745
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.114	f_b = -0.293	f_b = 0.062	f_b = -0.157	f_b = 0.140	f_b = -0.351
(0.4L$_e$) 30.466	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.035	f_t = -0.015	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.242	f_t = -0.624	f_t = 0.131	f_t = -0.334	f_t = 0.297	f_t = -0.747
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.114	f_b = -0.294	f_b = 0.061	f_b = -0.158	f_b = 0.140	f_b = -0.352
(0.5L$_e$) 38.083	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.047	f_t = -0.020	f_t = -0.039	f_t = 0.009	f_t = -0.027	f_t = 0.202	f_t = -0.691	f_t = 0.109	f_t = -0.351	f_t = 0.247	f_t = -0.845
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.022	f_b = -0.009	f_b = -0.018	f_b = 0.004	f_b = -0.013	f_b = 0.095	f_b = -0.326	f_b = 0.051	f_b = -0.165	f_b = 0.116	f_b = -0.398
(0.6L$_e$) 45.699	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.053	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.161	f_t = -0.703	f_t = 0.087	f_t = -0.371	f_t = 0.198	f_t = -0.843
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.331	f_b = 0.041	f_b = -0.175	f_b = 0.093	f_b = -0.397
(HP) 45.783	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.053	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.161	f_t = -0.702	f_t = 0.087	f_t = -0.371	f_t = 0.197	f_t = -0.843
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.331	f_b = 0.041	f_b = -0.175	f_b = 0.093	f_b = -0.397
(0.7L$_e$) 53.316	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.051	f_t = -0.021	f_t = -0.041	f_t = 0.005	f_t = -0.025	f_t = 0.121	f_t = -0.645	f_t = 0.065	f_t = -0.351	f_t = 0.148	f_t = -0.779
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.019	f_b = 0.002	f_b = -0.012	f_b = 0.057	f_b = -0.304	f_b = 0.031	f_b = -0.165	f_b = 0.070	f_b = -0.367
(0.8L$_e$) 60.932	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.041	f_t = -0.017	f_t = -0.034	f_t = 0.004	f_t = -0.019	f_t = 0.082	f_t = -0.528	f_t = 0.044	f_t = -0.286	f_t = 0.100	f_t = -0.635
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.020	f_b = -0.008	f_b = -0.016	f_b = 0.002	f_b = -0.009	f_b = 0.039	f_b = -0.250	f_b = 0.021	f_b = -0.136	f_b = 0.047	f_b = -0.301
(0.9L$_e$) 68.549	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.025	f_t = -0.011	f_t = -0.020	f_t = 0.002	f_t = -0.011	f_t = 0.042	f_t = -0.320	f_t = 0.023	f_t = -0.179	f_t = 0.051	f_t = -0.390
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.012	f_b = -0.005	f_b = -0.010	f_b = 0.001	f_b = -0.005	f_b = 0.020	f_b = -0.154	f_b = 0.011	f_b = -0.086	f_b = 0.025	f_b = -0.188
(PSXFR) 73.582	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.010	f_t = -0.004	f_t = -0.008	f_t = 0.001	f_t = -0.004	f_t = 0.015	f_t = -0.122	f_t = 0.008	f_t = -0.070	f_t = 0.018	f_t = -0.151
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.005	f_b = -0.002	f_b = -0.004	f_b = 0.000	f_b = -0.002	f_b = 0.007	f_b = -0.060	f_b = 0.004	f_b = -0.034	f_b = 0.009	f_b = -0.074
(1.0L$_e$) 76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(STLF) 76.582	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000

* Live Load values are per lane and include impact.

Girder Stresses due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
8.476	f_t = -0.009 f_b = 0.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
16.093	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
23.709	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
31.326	f_t = -0.025 f_b = 0.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
38.942	f_t = -0.026 f_b = 0.026	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
46.559	f_t = -0.025 f_b = 0.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
54.175	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
61.792	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
69.408	f_t = -0.009 f_b = 0.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.008 f_b = -0.031	f_t = 0.000 f_b = 0.000
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.008 f_b = -0.031	f_t = 0.000 f_b = 0.000
8.476	f_t = 0.000 f_b = 0.000	f_t = 0.004 f_b = -0.016	f_t = 0.000 f_b = 0.000
16.093	f_t = 0.000 f_b = 0.000	f_t = 0.001 f_b = -0.004	f_t = 0.000 f_b = 0.000
23.709	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = 0.005	f_t = 0.000 f_b = 0.000
31.326	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.012	f_t = 0.000 f_b = 0.000
38.942	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.016	f_t = 0.000 f_b = 0.000
46.559	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
54.175	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
61.792	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.014	f_t = 0.000 f_b = 0.000
69.408	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = 0.008	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Deck Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
8.476	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = 0.003	f_t = 0.000 f_b = 0.000
16.093	f_t = 0.000 f_b = 0.000	f_t = 0.002 f_b = 0.001	f_t = 0.000 f_b = 0.000
23.709	f_t = 0.000	f_t = -0.002	f_t = 0.000

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
	f_b = 0.000	f_b = -0.001	f_b = 0.000
31.326	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = -0.002	f_t = 0.000 f_b = 0.000
38.942	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
46.559	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
54.175	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
61.792	f_t = 0.000 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.000
69.408	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 2: Prestress Release

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF, $0.0L_T$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.750	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.753	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.121	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(PSXFR) 3.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.182	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(H) 4.250	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000
(SZB) 5.419	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000
(1.5H) 6.000	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000
($0.1L_T$) 7.700	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000
(SZB) 10.919	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000
($0.2L_T$) 15.400	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000
(SZB) 19.169	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 21.199	f_t = -0.716 f_b = 0.726	f_t = 0.000 f_b = 0.000	f_t = -0.716 f_b = 0.726	f_t = 0.000 f_b = 0.000
($0.3L_T$) 23.100	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000
(SZB) 30.169	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000
(HP, $0.4L_T$) 30.799	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000
($0.5L_T$) 38.499	f_t = -0.897 f_b = 0.910	f_t = 0.000 f_b = 0.000	f_t = -0.897 f_b = 0.910	f_t = 0.000 f_b = 0.000
(HP, $0.6L_T$) 46.199	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000
(SZB) 46.829	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000
($0.7L_T$) 53.899	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000
(SZB) 57.829	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000
($0.8L_T$) 61.599	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000
(SZB) 66.079	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000
($0.9L_T$) 69.299	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000
(1.5H) 70.999	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000
(SZB) 71.579				

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000
(H) 72.749	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.817	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(PSXFR) 73.999	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.877	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(SZB) 75.245	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(FoS) 76.249	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(STLF, 1.0L_t) 76.999	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 11: Cast Deck, Apply User Defined Loads

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = -0.037 f_b = 0.038	f_t = 0.000 f_b = 0.000
(SZB) 1.337	f_t = -0.086 f_b = 0.087	f_t = 0.000 f_b = 0.000	f_t = -0.147 f_b = 0.149	f_t = 0.000 f_b = 0.000
(Bar Develop.) 1.705	f_t = -0.109 f_b = 0.111	f_t = 0.000 f_b = 0.000	f_t = -0.186 f_b = 0.189	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.164 f_b = 0.166	f_t = 0.000 f_b = 0.000	f_t = -0.279 f_b = 0.283	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.765	f_t = -0.175 f_b = 0.177	f_t = 0.000 f_b = 0.000	f_t = -0.298 f_b = 0.302	f_t = 0.000 f_b = 0.000
(H) 3.833	f_t = -0.239 f_b = 0.242	f_t = 0.000 f_b = 0.000	f_t = -0.407 f_b = 0.413	f_t = 0.000 f_b = 0.000
(SZB) 5.003	f_t = -0.307 f_b = 0.312	f_t = 0.000 f_b = 0.000	f_t = -0.522 f_b = 0.530	f_t = 0.000 f_b = 0.000
(1.5H) 5.583	f_t = -0.340 f_b = 0.345	f_t = 0.000 f_b = 0.000	f_t = -0.579 f_b = 0.587	f_t = 0.000 f_b = 0.000
(0.1L_e) 7.617	f_t = -0.451 f_b = 0.458	f_t = 0.000 f_b = 0.000	f_t = -0.767 f_b = 0.778	f_t = 0.000 f_b = 0.000
(SZB) 10.503	f_t = -0.597 f_b = 0.605	f_t = 0.000 f_b = 0.000	f_t = -1.014 f_b = 1.029	f_t = 0.000 f_b = 0.000
(0.2L_e) 15.233	f_t = -0.805 f_b = 0.817	f_t = 0.000 f_b = 0.000	f_t = -1.367 f_b = 1.386	f_t = 0.000 f_b = 0.000
(SZB) 18.753	f_t = -0.935 f_b = 0.948	f_t = 0.000 f_b = 0.000	f_t = -1.586 f_b = 1.609	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 20.783	f_t = -1.000 f_b = 1.014	f_t = 0.000 f_b = 0.000	f_t = -1.696 f_b = 1.721	f_t = 0.000 f_b = 0.000
(0.3L_e) 22.850	f_t = -1.059 f_b = 1.074	f_t = 0.000 f_b = 0.000	f_t = -1.796 f_b = 1.822	f_t = 0.000 f_b = 0.000
(SZB) 29.753	f_t = -1.201 f_b = 1.218	f_t = 0.000 f_b = 0.000	f_t = -2.036 f_b = 2.065	f_t = 0.000 f_b = 0.000
(HP) 30.383	f_t = -1.209 f_b = 1.227	f_t = 0.000 f_b = 0.000	f_t = -2.051 f_b = 2.080	f_t = 0.000 f_b = 0.000
(0.4L_e) 30.466	f_t = -1.210 f_b = 1.228	f_t = 0.000 f_b = 0.000	f_t = -2.053 f_b = 2.082	f_t = 0.000 f_b = 0.000
(0.5L_e) 38.083	f_t = -1.259 f_b = 1.277	f_t = 0.000 f_b = 0.000	f_t = -2.136 f_b = 2.167	f_t = 0.000 f_b = 0.000
(0.6L_e) 45.699	f_t = -1.205 f_b = 1.222	f_t = 0.000 f_b = 0.000	f_t = -2.047 f_b = 2.076	f_t = 0.000 f_b = 0.000
(HP) 45.783	f_t = -1.204 f_b = 1.221	f_t = 0.000 f_b = 0.000	f_t = -2.045 f_b = 2.075	f_t = 0.000 f_b = 0.000
(SZB) 46.413	f_t = -1.194 f_b = 1.212	f_t = 0.000 f_b = 0.000	f_t = -2.030 f_b = 2.059	f_t = 0.000 f_b = 0.000
(0.7L_e) 53.316	f_t = -1.049 f_b = 1.064	f_t = 0.000 f_b = 0.000	f_t = -1.786 f_b = 1.812	f_t = 0.000 f_b = 0.000
(SZB) 57.413	f_t = -0.924 f_b = 0.937	f_t = 0.000 f_b = 0.000	f_t = -1.575 f_b = 1.598	f_t = 0.000 f_b = 0.000
(0.8L_e) 60.932	f_t = -0.794	f_t = 0.000	f_t = -1.355	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.805	f_b = 0.000	f_b = 1.375	f_b = 0.000
(SZB) 65.663	f_t = -0.587 f_b = 0.595	f_t = 0.000 f_b = 0.000	f_t = -1.004 f_b = 1.018	f_t = 0.000 f_b = 0.000
($0.9L_e$) 68.549	f_t = -0.443 f_b = 0.449	f_t = 0.000 f_b = 0.000	f_t = -0.759 f_b = 0.769	f_t = 0.000 f_b = 0.000
(1.5H) 70.582	f_t = -0.333 f_b = 0.338	f_t = 0.000 f_b = 0.000	f_t = -0.572 f_b = 0.580	f_t = 0.000 f_b = 0.000
(SZB) 71.163	f_t = -0.301 f_b = 0.305	f_t = 0.000 f_b = 0.000	f_t = -0.516 f_b = 0.524	f_t = 0.000 f_b = 0.000
(H) 72.332	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000	f_t = -0.402 f_b = 0.407	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.400	f_t = -0.171 f_b = 0.173	f_t = 0.000 f_b = 0.000	f_t = -0.294 f_b = 0.298	f_t = 0.000 f_b = 0.000
(PSXFR) 73.582	f_t = -0.160 f_b = 0.162	f_t = 0.000 f_b = 0.000	f_t = -0.275 f_b = 0.279	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.461	f_t = -0.107 f_b = 0.108	f_t = 0.000 f_b = 0.000	f_t = -0.184 f_b = 0.186	f_t = 0.000 f_b = 0.000
(SZB) 74.829	f_t = -0.084 f_b = 0.085	f_t = 0.000 f_b = 0.000	f_t = -0.145 f_b = 0.147	f_t = 0.000 f_b = 0.000
(FoS) 75.832	f_t = -0.021 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = -0.037 f_b = 0.037	f_t = 0.000 f_b = 0.000
($1.0L_e$) 76.165	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.165	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 76.582	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 17: Open to Traffic

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.065 f_b = -0.267	f_t = 0.044 f_b = -0.180
(STRF) 0.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.077 f_b = -0.313	f_t = 0.052 f_b = -0.211
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.074 f_b = -0.304	f_t = 0.050 f_b = -0.205
(FoS) 1.193	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.036 f_b = -0.260	f_t = 0.049 f_b = -0.201
(SZB) 2.196	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.079 f_b = -0.128	f_t = 0.045 f_b = -0.187
(Bar Develop.) 2.564	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.121 f_b = -0.081	f_t = 0.044 f_b = -0.182
(PSXFR) 3.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.218 f_b = 0.030	f_t = 0.041 f_b = -0.170
(Bar Develop.) 3.625	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.238 f_b = 0.053	f_t = 0.040 f_b = -0.168
(H) 4.693	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.352 f_b = 0.184	f_t = 0.037 f_b = -0.154
(SZB) 5.862	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.473 f_b = 0.324	f_t = 0.033 f_b = -0.139
(1.5H) 6.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.532 f_b = 0.391	f_t = 0.031 f_b = -0.132
($0.1L_s$) 7.702	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.656 f_b = 0.534	f_t = 0.028 f_b = -0.117
(SZB) 11.362	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.988 f_b = 0.917	f_t = 0.018 f_b = -0.075
($0.2L_s$) 15.405	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.307 f_b = 1.288	f_t = 0.008 f_b = -0.034
(SZB) 19.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.587 f_b = 1.614	f_t = -0.001 f_b = 0.003
(Deck Bar Cutoff) 21.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.703 f_b = 1.750	f_t = -0.005 f_b = 0.020
($0.3L_s$) 23.107	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.779 f_b = 1.839	f_t = -0.007 f_b = 0.031
(SZB) 30.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.063 f_b = 2.180	f_t = -0.018 f_b = 0.077
($0.4L_s$) 30.810	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.068 f_b = 2.186	f_t = -0.018 f_b = 0.078
(HP) 31.242	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.079 f_b = 2.200	f_t = -0.019 f_b = 0.080
($0.5L_s$) 38.512	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.174 f_b = 2.328	f_t = -0.026 f_b = 0.109

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.6L_s) 46.215	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.097 f_b = 2.265	f_t = -0.029 f_b = 0.122
(HP) 46.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.088 f_b = 2.255	f_t = -0.029 f_b = 0.122
(SZB) 47.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.073 f_b = 2.240	f_t = -0.029 f_b = 0.122
(0.7L_s) 53.917	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.839 f_b = 1.997	f_t = -0.028 f_b = 0.117
(SZB) 58.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.613 f_b = 1.757	f_t = -0.025 f_b = 0.107
(0.8L_s) 61.620	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.401 f_b = 1.528	f_t = -0.023 f_b = 0.096
(SZB) 66.522	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.031 f_b = 1.127	f_t = -0.018 f_b = 0.073
(0.9L_s) 69.322	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.787 f_b = 0.861	f_t = -0.014 f_b = 0.057
(1.5H) 71.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.588 f_b = 0.644	f_t = -0.011 f_b = 0.043
(SZB) 72.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.531 f_b = 0.581	f_t = -0.010 f_b = 0.039
(H) 73.192	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.413 f_b = 0.453	f_t = -0.008 f_b = 0.031
(Bar Develop.) 74.260	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.302 f_b = 0.331	f_t = -0.006 f_b = 0.022
(PSXFR) 74.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.283 f_b = 0.310	f_t = -0.005 f_b = 0.021
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.189 f_b = 0.207	f_t = -0.004 f_b = 0.014
(SZB) 75.688	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.149 f_b = 0.163	f_t = -0.003 f_b = 0.011
(FoS) 76.692	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.038 f_b = 0.041	f_t = -0.001 f_b = 0.003
(1.0L_s) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.0L_s) 0.000	f_t = 0.018 f_b = 0.000	f_t = 0.000 f_b = -0.071	f_t = 0.304 f_b = 0.000	f_t = 0.000 f_b = -1.238	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.317	f_t = 0.321 f_b = 0.000	f_t = 0.000 f_b = -1.309	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.317
(STRF) 0.443	f_t = 0.021 f_b = 0.000	f_t = 0.000 f_b = -0.084	f_t = 0.358 f_b = 0.009	f_t = -0.002 f_b = -1.462	f_t = 0.093 f_b = 0.000	f_t = 0.000 f_b = -0.379	f_t = 0.378 f_b = 0.009	f_t = -0.002 f_b = -1.546	f_t = 0.093 f_b = 0.000	f_t = 0.000 f_b = -0.379
0.860	f_t = 0.020 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.349 f_b = 0.018	f_t = -0.004 f_b = -1.429	f_t = 0.092 f_b = 0.000	f_t = 0.000 f_b = -0.377	f_t = 0.369 f_b = 0.018	f_t = -0.004 f_b = -1.511	f_t = 0.092 f_b = 0.000	f_t = 0.000 f_b = -0.377
(FoS) 1.193	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.080	f_t = 0.342 f_b = 0.025	f_t = -0.006 f_b = -1.403	f_t = 0.091 f_b = 0.000	f_t = 0.000 f_b = -0.375	f_t = 0.362 f_b = 0.025	f_t = -0.006 f_b = -1.483	f_t = 0.091 f_b = 0.000	f_t = 0.000 f_b = -0.375
(SZB) 2.196	f_t = 0.018 f_b = 0.000	f_t = -0.000 f_b = -0.075	f_t = 0.322 f_b = 0.046	f_t = -0.011 f_b = -1.326	f_t = 0.090 f_b = 0.000	f_t = 0.000 f_b = -0.370	f_t = 0.340 f_b = 0.046	f_t = -0.011 f_b = -1.400	f_t = 0.090 f_b = 0.000	f_t = 0.000 f_b = -0.370
(Bar Develop.) 2.564	f_t = 0.018 f_b = 0.000	f_t = -0.000 f_b = -0.073	f_t = 0.315 f_b = 0.054	f_t = -0.013 f_b = -1.298	f_t = 0.089 f_b = 0.000	f_t = 0.000 f_b = -0.368	f_t = 0.332 f_b = 0.055	f_t = -0.013 f_b = -1.371	f_t = 0.089 f_b = 0.000	f_t = 0.000 f_b = -0.368
(PSXFR) 3.443	f_t = 0.017 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.297 f_b = 0.074	f_t = -0.018 f_b = -1.232	f_t = 0.088 f_b = 0.000	f_t = 0.000 f_b = -0.363	f_t = 0.314 f_b = 0.075	f_t = -0.018 f_b = -1.300	f_t = 0.088 f_b = 0.000	f_t = 0.000 f_b = -0.363
(Bar Develop.) 3.625	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.067	f_t = 0.294 f_b = 0.078	f_t = -0.019 f_b = -1.218	f_t = 0.087 f_b = 0.000	f_t = 0.000 f_b = -0.362	f_t = 0.310 f_b = 0.079	f_t = -0.019 f_b = -1.286	f_t = 0.087 f_b = 0.000	f_t = 0.000 f_b = -0.362
(H) 4.693	f_t = 0.015 f_b = 0.001	f_t = -0.000 f_b = -0.063	f_t = 0.273 f_b = 0.106	f_t = -0.025 f_b = -1.139	f_t = 0.086 f_b = 0.000	f_t = 0.000 f_b = -0.357	f_t = 0.289 f_b = 0.107	f_t = -0.026 f_b = -1.202	f_t = 0.086 f_b = 0.000	f_t = 0.000 f_b = -0.357
(SZB) 5.862	f_t = 0.014 f_b = 0.002	f_t = -0.001 f_b = -0.058	f_t = 0.253 f_b = 0.150	f_t = -0.036 f_b = -1.058	f_t = 0.084 f_b = 0.000	f_t = 0.000 f_b = -0.351	f_t = 0.266 f_b = 0.152	f_t = -0.036 f_b = -1.116	f_t = 0.084 f_b = 0.000	f_t = 0.000 f_b = -0.351
(1.5H) 6.443	f_t = 0.013 f_b = 0.003	f_t = -0.001 f_b = -0.055	f_t = 0.243 f_b = 0.172	f_t = -0.041 f_b = -1.018	f_t = 0.083 f_b = 0.000	f_t = 0.000 f_b = -0.348	f_t = 0.256 f_b = 0.175	f_t = -0.042 f_b = -1.074	f_t = 0.083 f_b = 0.000	f_t = 0.000 f_b = -0.348
(0.1L_s) 7.702	f_t = 0.012 f_b = 0.004	f_t = -0.001 f_b = -0.051	f_t = 0.220 f_b = 0.221	f_t = -0.052 f_b = -0.926	f_t = 0.081 f_b = 0.022	f_t = -0.005 f_b = -0.342	f_t = 0.232 f_b = 0.225	f_t = -0.053 f_b = -0.977	f_t = 0.081 f_b = 0.022	f_t = -0.005 f_b = -0.342
(SZB) 11.362	f_t = 0.009 f_b = 0.010	f_t = -0.002 f_b = -0.040	f_t = 0.174 f_b = 0.372	f_t = -0.088 f_b = -0.737	f_t = 0.076 f_b = 0.142	f_t = -0.033 f_b = -0.323	f_t = 0.183 f_b = 0.382	f_t = -0.090 f_b = -0.777	f_t = 0.076 f_b = 0.142	f_t = -0.033 f_b = -0.323
(0.2L_s) 15.405	f_t = 0.008 f_b = 0.021	f_t = -0.005 f_b = -0.034	f_t = 0.159 f_b = 0.581	f_t = -0.137 f_b = -0.675	f_t = 0.072 f_b = 0.262	f_t = -0.062 f_b = -0.303	f_t = 0.167 f_b = 0.602	f_t = -0.142 f_b = -0.709	f_t = 0.072 f_b = 0.262	f_t = -0.062 f_b = -0.303
(SZB) 19.612	f_t = 0.008 f_b = 0.033	f_t = -0.008 f_b = -0.032	f_t = 0.148 f_b = 0.816	f_t = -0.192 f_b = -0.629	f_t = 0.067 f_b = 0.373	f_t = -0.088 f_b = -0.283	f_t = 0.156 f_b = 0.850	f_t = -0.200 f_b = -0.660	f_t = 0.067 f_b = 0.373	f_t = -0.088 f_b = -0.283
(Deck Bar Cutoff) 21.642	f_t = 0.007	f_t = -0.009	f_t = 0.143	f_t = -0.216	f_t = 0.064	f_t = -0.099	f_t = 0.150	f_t = -0.225	f_t = 0.064	f_t = -0.099

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.039	f_b = -0.031	f_b = 0.918	f_b = -0.606	f_b = 0.420	f_b = -0.273	f_b = 0.957	f_b = -0.637	f_b = 0.420	f_b = -0.273
($0.3L_s$) 23.107	f_t = 0.007 f_b = 0.042	f_t = -0.010 f_b = -0.030	f_t = 0.139 f_b = 0.985	f_t = -0.232 f_b = -0.590	f_t = 0.063 f_b = 0.451	f_t = -0.106 f_b = -0.266	f_t = 0.146 f_b = 1.027	f_t = -0.242 f_b = -0.620	f_t = 0.063 f_b = 0.451	f_t = -0.106 f_b = -0.266
(SZB) 30.612	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.120 f_b = 1.271	f_t = -0.300 f_b = -0.508	f_t = 0.054 f_b = 0.569	f_t = -0.134 f_b = -0.229	f_t = 0.126 f_b = 1.328	f_t = -0.313 f_b = -0.534	f_t = 0.054 f_b = 0.569	f_t = -0.134 f_b = -0.229
($0.4L_s$) 30.810	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.119 f_b = 1.277	f_t = -0.301 f_b = -0.506	f_t = 0.054 f_b = 0.571	f_t = -0.135 f_b = -0.228	f_t = 0.125 f_b = 1.334	f_t = -0.314 f_b = -0.532	f_t = 0.054 f_b = 0.571	f_t = -0.135 f_b = -0.228
(HP) 31.242	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.025	f_t = 0.118 f_b = 1.289	f_t = -0.304 f_b = -0.501	f_t = 0.053 f_b = 0.576	f_t = -0.136 f_b = -0.225	f_t = 0.124 f_b = 1.347	f_t = -0.317 f_b = -0.527	f_t = 0.053 f_b = 0.576	f_t = -0.136 f_b = -0.225
($0.5L_s$) 38.512	f_t = 0.005 f_b = 0.065	f_t = -0.015 f_b = -0.021	f_t = 0.099 f_b = 1.426	f_t = -0.336 f_b = -0.421	f_t = 0.045 f_b = 0.605	f_t = -0.143 f_b = -0.190	f_t = 0.104 f_b = 1.491	f_t = -0.351 f_b = -0.443	f_t = 0.045 f_b = 0.605	f_t = -0.143 f_b = -0.190
($0.6L_s$) 46.215	f_t = 0.004 f_b = 0.066	f_t = -0.015 f_b = -0.017	f_t = 0.079 f_b = 1.455	f_t = -0.343 f_b = -0.337	f_t = 0.036 f_b = 0.639	f_t = -0.151 f_b = -0.152	f_t = 0.083 f_b = 1.520	f_t = -0.358 f_b = -0.354	f_t = 0.036 f_b = 0.639	f_t = -0.151 f_b = -0.152
(HP) 46.642	f_t = 0.004 f_b = 0.066	f_t = -0.015 f_b = -0.017	f_t = 0.078 f_b = 1.453	f_t = -0.343 f_b = -0.332	f_t = 0.035 f_b = 0.640	f_t = -0.151 f_b = -0.150	f_t = 0.082 f_b = 1.518	f_t = -0.358 f_b = -0.349	f_t = 0.035 f_b = 0.640	f_t = -0.151 f_b = -0.150
(SZB) 47.272	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.077 f_b = 1.450	f_t = -0.342 f_b = -0.325	f_t = 0.035 f_b = 0.640	f_t = -0.151 f_b = -0.147	f_t = 0.081 f_b = 1.515	f_t = -0.357 f_b = -0.342	f_t = 0.035 f_b = 0.640	f_t = -0.151 f_b = -0.147
($0.7L_s$) 53.917	f_t = 0.003 f_b = 0.060	f_t = -0.014 f_b = -0.013	f_t = 0.060 f_b = 1.341	f_t = -0.316 f_b = -0.253	f_t = 0.027 f_b = 0.608	f_t = -0.143 f_b = -0.114	f_t = 0.063 f_b = 1.400	f_t = -0.330 f_b = -0.266	f_t = 0.027 f_b = 0.608	f_t = -0.143 f_b = -0.114
(SZB) 58.272	f_t = 0.002 f_b = 0.053	f_t = -0.013 f_b = -0.010	f_t = 0.049 f_b = 1.220	f_t = -0.288 f_b = -0.205	f_t = 0.022 f_b = 0.549	f_t = -0.130 f_b = -0.092	f_t = 0.051 f_b = 1.273	f_t = -0.301 f_b = -0.216	f_t = 0.022 f_b = 0.549	f_t = -0.130 f_b = -0.092
($0.8L_s$) 61.620	f_t = 0.002 f_b = 0.047	f_t = -0.011 f_b = -0.009	f_t = 0.040 f_b = 1.088	f_t = -0.261 f_b = -0.169	f_t = 0.018 f_b = 0.490	f_t = -0.118 f_b = -0.076	f_t = 0.043 f_b = 1.135	f_t = -0.272 f_b = -0.177	f_t = 0.018 f_b = 0.490	f_t = -0.118 f_b = -0.076
(SZB) 66.522	f_t = 0.001 f_b = 0.035	f_t = -0.009 f_b = -0.006	f_t = 0.028 f_b = 0.830	f_t = -0.204 f_b = -0.115	f_t = 0.013 f_b = 0.383	f_t = -0.094 f_b = -0.052	f_t = 0.030 f_b = 0.865	f_t = -0.212 f_b = -0.121	f_t = 0.013 f_b = 0.383	f_t = -0.094 f_b = -0.052
($0.9L_s$) 69.322	f_t = 0.001 f_b = 0.027	f_t = -0.007 f_b = -0.004	f_t = 0.021 f_b = 0.647	f_t = -0.161 f_b = -0.085	f_t = 0.010 f_b = 0.302	f_t = -0.075 f_b = -0.038	f_t = 0.022 f_b = 0.674	f_t = -0.168 f_b = -0.089	f_t = 0.010 f_b = 0.302	f_t = -0.075 f_b = -0.038
(1.5H) 71.442	f_t = 0.001 f_b = 0.020	f_t = -0.005 f_b = -0.003	f_t = 0.016 f_b = 0.490	f_t = -0.123 f_b = -0.062	f_t = 0.007 f_b = 0.230	f_t = -0.058 f_b = -0.028	f_t = 0.016 f_b = 0.510	f_t = -0.129 f_b = -0.065	f_t = 0.007 f_b = 0.230	f_t = -0.058 f_b = -0.028
(SZB) 72.022	f_t = 0.001 f_b = 0.018	f_t = -0.005 f_b = -0.003	f_t = 0.014 f_b = 0.444	f_t = -0.112 f_b = -0.055	f_t = 0.006 f_b = 0.209	f_t = -0.053 f_b = -0.025	f_t = 0.015 f_b = 0.463	f_t = -0.117 f_b = -0.058	f_t = 0.006 f_b = 0.209	f_t = -0.053 f_b = -0.025
(H) 73.192	f_t = 0.001 f_b = 0.014	f_t = -0.004 f_b = -0.002	f_t = 0.011 f_b = 0.348	f_t = -0.089 f_b = -0.042	f_t = 0.005 f_b = 0.165	f_t = -0.042 f_b = -0.019	f_t = 0.011 f_b = 0.363	f_t = -0.092 f_b = -0.044	f_t = 0.005 f_b = 0.165	f_t = -0.042 f_b = -0.019
(Bar Develop.) 74.260	f_t = 0.000 f_b = 0.011	f_t = -0.003 f_b = -0.002	f_t = 0.008 f_b = 0.257	f_t = -0.066 f_b = -0.031	f_t = 0.004 f_b = 0.122	f_t = -0.031 f_b = -0.014	f_t = 0.008 f_b = 0.267	f_t = -0.068 f_b = -0.032	f_t = 0.004 f_b = 0.122	f_t = -0.031 f_b = -0.014
(PSXFR) 74.442	f_t = 0.000 f_b = 0.010	f_t = -0.003 f_b = -0.001	f_t = 0.007 f_b = 0.241	f_t = -0.062 f_b = -0.029	f_t = 0.003 f_b = 0.114	f_t = -0.029 f_b = -0.013	f_t = 0.008 f_b = 0.251	f_t = -0.064 f_b = -0.030	f_t = 0.003 f_b = 0.114	f_t = -0.029 f_b = -0.013
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.007	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.162	f_t = -0.042 f_b = -0.019	f_t = 0.002 f_b = 0.077	f_t = -0.020 f_b = -0.008	f_t = 0.005 f_b = 0.168	f_t = -0.043 f_b = -0.020	f_t = 0.002 f_b = 0.077	f_t = -0.020 f_b = -0.008
(SZB) 75.688	f_t = 0.000 f_b = 0.005	f_t = -0.001 f_b = -0.001	f_t = 0.004 f_b = 0.128	f_t = -0.033 f_b = -0.015	f_t = 0.002 f_b = 0.061	f_t = -0.016 f_b = -0.007	f_t = 0.004 f_b = 0.133	f_t = -0.034 f_b = -0.016	f_t = 0.002 f_b = 0.061	f_t = -0.016 f_b = -0.007
(FoS) 76.692	f_t = 0.000 f_b = 0.001	f_t = -0.000 f_b = -0.000	f_t = 0.001 f_b = 0.032	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.016	f_t = -0.004 f_b = -0.002	f_t = 0.001 f_b = 0.034	f_t = -0.009 f_b = -0.004	f_t = 0.000 f_b = 0.016	f_t = -0.004 f_b = -0.002
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Girder Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.0L_s$) 0.000	f_t = 0.431 f_b = -0.446	f_t = 0.109 f_b = -1.756	f_t = 0.366 f_b = -0.446	f_t = 0.109 f_b = -1.494	f_t = 0.171 f_b = -0.223	f_t = 0.055 f_b = -0.698
(STRF) 0.443	f_t = 0.507 f_b = -0.515	f_t = 0.126 f_b = -2.070	f_t = 0.431 f_b = -0.517	f_t = 0.127 f_b = -1.760	f_t = 0.203 f_b = -0.262	f_t = 0.064 f_b = -0.830
0.860	f_t = 0.494 f_b = -0.492	f_t = 0.120 f_b = -2.020	f_t = 0.420 f_b = -0.495	f_t = 0.121 f_b = -1.718	f_t = 0.200 f_b = -0.255	f_t = 0.062 f_b = -0.820
(FoS) 1.193	f_t = 0.446 f_b = -0.436	f_t = 0.078 f_b = -1.943	f_t = 0.374 f_b = -0.441	f_t = 0.080 f_b = -1.647	f_t = 0.179 f_b = -0.230	f_t = 0.042 f_b = -0.793
(SZB) 2.196	f_t = 0.306 f_b = -0.269	f_t = -0.045 f_b = -1.715	f_t = 0.238 f_b = -0.278	f_t = -0.043 f_b = -1.435	f_t = 0.118 f_b = -0.158	f_t = -0.017 f_b = -0.712
(Bar Develop.) 2.564	f_t = 0.255 f_b = -0.208	f_t = -0.090 f_b = -1.633	f_t = 0.189 f_b = -0.219	f_t = -0.087 f_b = -1.359	f_t = 0.095 f_b = -0.131	f_t = -0.038 f_b = -0.683
(PSXFR) 3.443	f_t = 0.137 f_b = -0.065	f_t = -0.195 f_b = -1.440	f_t = 0.074 f_b = -0.080	f_t = -0.191 f_b = -1.180	f_t = 0.043 f_b = -0.070	f_t = -0.088 f_b = -0.615
(Bar Develop.) 3.625	f_t = 0.113 f_b = -0.035	f_t = -0.216 f_b = -1.400	f_t = 0.051 f_b = -0.051	f_t = -0.212 f_b = -1.143	f_t = 0.033 f_b = -0.057	f_t = -0.099 f_b = -0.601
(H) 4.693	f_t = -0.027 f_b = 0.138	f_t = -0.341 f_b = -1.171	f_t = -0.084 f_b = 0.116	f_t = -0.336 f_b = -0.931	f_t = -0.029 f_b = 0.015	f_t = -0.158 f_b = -0.520

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 5.862	f_t = -0.174 f_b = 0.337	f_t = -0.476 f_b = -0.931	f_t = -0.227 f_b = 0.306	f_t = -0.469 f_b = -0.708	f_t = -0.094 f_b = 0.092	f_t = -0.220 f_b = -0.434
(1.5H) 6.443	f_t = -0.245 f_b = 0.434	f_t = -0.542 f_b = -0.814	f_t = -0.296 f_b = 0.399	f_t = -0.534 f_b = -0.600	f_t = -0.126 f_b = 0.130	f_t = -0.250 f_b = -0.392
(0.1L_s) 7.702	f_t = -0.396 f_b = 0.642	f_t = -0.681 f_b = -0.560	f_t = -0.443 f_b = 0.597	f_t = -0.671 f_b = -0.365	f_t = -0.192 f_b = 0.241	f_t = -0.322 f_b = -0.304
(SZB) 11.362	f_t = -0.787 f_b = 1.223	f_t = -1.060 f_b = 0.065	f_t = -0.824 f_b = 1.147	f_t = -1.042 f_b = 0.220	f_t = -0.371 f_b = 0.633	f_t = -0.535 f_b = -0.064
(0.2L_s) 15.405	f_t = -1.132 f_b = 1.855	f_t = -1.441 f_b = 0.544	f_t = -1.166 f_b = 1.735	f_t = -1.413 f_b = 0.686	f_t = -0.542 f_b = 1.019	f_t = -0.742 f_b = 0.171
(SZB) 19.612	f_t = -1.433 f_b = 2.467	f_t = -1.788 f_b = 0.957	f_t = -1.464 f_b = 2.297	f_t = -1.748 f_b = 1.089	f_t = -0.694 f_b = 1.369	f_t = -0.926 f_b = 0.385
(Deck Bar Cutoff) 21.642	f_t = -1.558 f_b = 2.726	f_t = -1.933 f_b = 1.132	f_t = -1.588 f_b = 2.535	f_t = -1.888 f_b = 1.260	f_t = -0.757 f_b = 1.515	f_t = -1.003 f_b = 0.476
(0.3L_s) 23.107	f_t = -1.640 f_b = 2.897	f_t = -2.028 f_b = 1.249	f_t = -1.669 f_b = 2.691	f_t = -1.980 f_b = 1.373	f_t = -0.799 f_b = 1.612	f_t = -1.053 f_b = 0.537
(SZB) 30.612	f_t = -1.955 f_b = 3.585	f_t = -2.394 f_b = 1.723	f_t = -1.981 f_b = 3.319	f_t = -2.332 f_b = 1.830	f_t = -0.960 f_b = 1.982	f_t = -1.242 f_b = 0.786
(0.4L_s) 30.810	f_t = -1.961 f_b = 3.598	f_t = -2.401 f_b = 1.733	f_t = -1.986 f_b = 3.331	f_t = -2.338 f_b = 1.839	f_t = -0.963 f_b = 1.989	f_t = -1.245 f_b = 0.791
(HP) 31.242	f_t = -1.974 f_b = 3.627	f_t = -2.415 f_b = 1.753	f_t = -1.999 f_b = 3.357	f_t = -2.352 f_b = 1.859	f_t = -0.969 f_b = 2.003	f_t = -1.253 f_b = 0.802
(0.5L_s) 38.512	f_t = -2.095 f_b = 3.927	f_t = -2.551 f_b = 1.994	f_t = -2.116 f_b = 3.629	f_t = -2.481 f_b = 2.082	f_t = -1.033 f_b = 2.126	f_t = -1.314 f_b = 0.934
(0.6L_s) 46.215	f_t = -2.042 f_b = 3.906	f_t = -2.484 f_b = 2.032	f_t = -2.059 f_b = 3.602	f_t = -2.413 f_b = 2.103	f_t = -1.009 f_b = 2.152	f_t = -1.289 f_b = 0.965
(HP) 46.642	f_t = -2.034 f_b = 3.895	f_t = -2.474 f_b = 2.028	f_t = -2.051 f_b = 3.592	f_t = -2.403 f_b = 2.097	f_t = -1.005 f_b = 2.148	f_t = -1.284 f_b = 0.964
(SZB) 47.272	f_t = -2.021 f_b = 3.877	f_t = -2.458 f_b = 2.020	f_t = -2.037 f_b = 3.574	f_t = -2.387 f_b = 2.088	f_t = -0.999 f_b = 2.141	f_t = -1.277 f_b = 0.961
(0.7L_s) 53.917	f_t = -1.804 f_b = 3.515	f_t = -2.196 f_b = 1.849	f_t = -1.816 f_b = 3.235	f_t = -2.130 f_b = 1.902	f_t = -0.893 f_b = 1.968	f_t = -1.148 f_b = 0.886
(SZB) 58.272	f_t = -1.587 f_b = 3.136	f_t = -1.939 f_b = 1.648	f_t = -1.597 f_b = 2.882	f_t = -1.879 f_b = 1.691	f_t = -0.786 f_b = 1.755	f_t = -1.014 f_b = 0.793
(0.8L_s) 61.620	f_t = -1.381 f_b = 2.759	f_t = -1.696 f_b = 1.447	f_t = -1.390 f_b = 2.532	f_t = -1.641 f_b = 1.482	f_t = -0.685 f_b = 1.548	f_t = -0.888 f_b = 0.698
(SZB) 66.522	f_t = -1.019 f_b = 2.065	f_t = -1.261 f_b = 1.078	f_t = -1.025 f_b = 1.892	f_t = -1.218 f_b = 1.102	f_t = -0.505 f_b = 1.174	f_t = -0.665 f_b = 0.522
(0.9L_s) 69.322	f_t = -0.779 f_b = 1.592	f_t = -0.969 f_b = 0.829	f_t = -0.784 f_b = 1.457	f_t = -0.935 f_b = 0.847	f_t = -0.386 f_b = 0.912	f_t = -0.513 f_b = 0.402
(1.5H) 71.442	f_t = -0.582 f_b = 1.197	f_t = -0.727 f_b = 0.622	f_t = -0.586 f_b = 1.095	f_t = -0.701 f_b = 0.635	f_t = -0.289 f_b = 0.689	f_t = -0.386 f_b = 0.302
(SZB) 72.022	f_t = -0.526 f_b = 1.083	f_t = -0.658 f_b = 0.562	f_t = -0.529 f_b = 0.990	f_t = -0.634 f_b = 0.574	f_t = -0.261 f_b = 0.624	f_t = -0.350 f_b = 0.273
(H) 73.192	f_t = -0.410 f_b = 0.846	f_t = -0.513 f_b = 0.439	f_t = -0.412 f_b = 0.773	f_t = -0.495 f_b = 0.448	f_t = -0.203 f_b = 0.489	f_t = -0.273 f_b = 0.213
(Bar Develop.) 74.260	f_t = -0.300 f_b = 0.621	f_t = -0.377 f_b = 0.322	f_t = -0.302 f_b = 0.568	f_t = -0.363 f_b = 0.328	f_t = -0.149 f_b = 0.360	f_t = -0.201 f_b = 0.156
(PSXFR) 74.442	f_t = -0.281 f_b = 0.582	f_t = -0.353 f_b = 0.301	f_t = -0.282 f_b = 0.532	f_t = -0.340 f_b = 0.307	f_t = -0.139 f_b = 0.337	f_t = -0.188 f_b = 0.146
(Bar Develop.) 75.320	f_t = -0.188 f_b = 0.389	f_t = -0.236 f_b = 0.201	f_t = -0.189 f_b = 0.356	f_t = -0.227 f_b = 0.205	f_t = -0.093 f_b = 0.226	f_t = -0.126 f_b = 0.098
(SZB) 75.688	f_t = -0.148 f_b = 0.307	f_t = -0.186 f_b = 0.159	f_t = -0.149 f_b = 0.281	f_t = -0.179 f_b = 0.162	f_t = -0.073 f_b = 0.179	f_t = -0.100 f_b = 0.077
(FoS) 76.692	f_t = -0.037 f_b = 0.078	f_t = -0.047 f_b = 0.040	f_t = -0.038 f_b = 0.071	f_t = -0.045 f_b = 0.041	f_t = -0.019 f_b = 0.045	f_t = -0.025 f_b = 0.020
(1.0L_s) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.

Deck Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.113 f_b = 0.054	f_t = 0.076 f_b = 0.036
(STRF) 0.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.132 f_b = 0.063	f_t = 0.089 f_b = 0.043
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.129 f_b = 0.061	f_t = 0.087 f_b = 0.041
(FoS) 1.193	f_t = 0.000	f_t = 0.000	f_t = 0.126	f_t = 0.085

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = 0.060	f_b = 0.040
(SZB) 2.196	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.117 f_b = 0.056	f_t = 0.079 f_b = 0.038
(Bar Develop.) 2.564	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.113 f_b = 0.054	f_t = 0.076 f_b = 0.036
(PSXFR) 3.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.106 f_b = 0.050	f_t = 0.071 f_b = 0.034
(Bar Develop.) 3.625	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.104 f_b = 0.050	f_t = 0.070 f_b = 0.033
(H) 4.693	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.095 f_b = 0.045	f_t = 0.064 f_b = 0.031
(SZB) 5.862	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.086 f_b = 0.041	f_t = 0.058 f_b = 0.027
(1.5H) 6.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.081 f_b = 0.039	f_t = 0.055 f_b = 0.026
(0.1L_s) 7.702	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.072 f_b = 0.034	f_t = 0.048 f_b = 0.023
(SZB) 11.362	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.046 f_b = 0.022	f_t = 0.031 f_b = 0.015
(0.2L_s) 15.405	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.021 f_b = 0.010	f_t = 0.014 f_b = 0.007
(SZB) 19.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(Deck Bar Cutoff) 21.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.012 f_b = -0.006	f_t = -0.008 f_b = -0.004
(0.3L_s) 23.107	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(SZB) 30.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.047 f_b = -0.022	f_t = -0.032 f_b = -0.015
(0.4L_s) 30.810	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.048 f_b = -0.023	f_t = -0.032 f_b = -0.015
(HP) 31.242	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.049 f_b = -0.023	f_t = -0.033 f_b = -0.016
(0.5L_s) 38.512	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.067 f_b = -0.031	f_t = -0.045 f_b = -0.021
(0.6L_s) 46.215	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.035	f_t = -0.050 f_b = -0.024
(HP) 46.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.035	f_t = -0.050 f_b = -0.024
(SZB) 47.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.035	f_t = -0.050 f_b = -0.024
(0.7L_s) 53.917	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.072 f_b = -0.034	f_t = -0.049 f_b = -0.023
(SZB) 58.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.066 f_b = -0.031	f_t = -0.044 f_b = -0.021
(0.8L_s) 61.620	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.059 f_b = -0.028	f_t = -0.040 f_b = -0.019
(SZB) 66.522	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.046 f_b = -0.022	f_t = -0.031 f_b = -0.015
(0.9L_s) 69.322	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = -0.017	f_t = -0.024 f_b = -0.012
(1.5H) 71.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.027 f_b = -0.013	f_t = -0.018 f_b = -0.009
(SZB) 72.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.025 f_b = -0.012	f_t = -0.017 f_b = -0.008
(H) 73.192	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.020 f_b = -0.010	f_t = -0.013 f_b = -0.006
(Bar Develop.) 74.260	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.007	f_t = -0.010 f_b = -0.005
(PSXFR) 74.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.007	f_t = -0.009 f_b = -0.004
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.006 f_b = -0.003
(SZB) 75.688	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.004	f_t = -0.005 f_b = -0.002
(FoS) 76.692	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(1.0L_s) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Deck Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.0L_s$) 0.000	f_t = 0.030 f_b = 0.015	f_t = 0.000 f_b = 0.000	f_t = 0.524 f_b = 0.251	f_t = 0.000 f_b = 0.000	f_t = 0.134 f_b = 0.064	f_t = 0.000 f_b = 0.000	f_t = 0.555 f_b = 0.266	f_t = 0.000 f_b = 0.000	f_t = 0.134 f_b = 0.064	f_t = 0.000 f_b = 0.000
(STRF) 0.443	f_t = 0.036 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.618 f_b = 0.296	f_t = -0.004 f_b = -0.002	f_t = 0.160 f_b = 0.077	f_t = 0.000 f_b = 0.000	f_t = 0.654 f_b = 0.313	f_t = -0.004 f_b = -0.002	f_t = 0.160 f_b = 0.077	f_t = 0.000 f_b = 0.000
0.860	f_t = 0.034 f_b = 0.016	f_t = -0.000 f_b = 0.000	f_t = 0.604 f_b = 0.289	f_t = -0.007 f_b = -0.004	f_t = 0.159 f_b = 0.076	f_t = 0.000 f_b = 0.000	f_t = 0.638 f_b = 0.305	f_t = -0.007 f_b = -0.004	f_t = 0.159 f_b = 0.076	f_t = 0.000 f_b = 0.000
(FoS) 1.193	f_t = 0.034 f_b = 0.016	f_t = -0.000 f_b = -0.000	f_t = 0.592 f_b = 0.283	f_t = -0.010 f_b = -0.005	f_t = 0.158 f_b = 0.076	f_t = 0.000 f_b = 0.000	f_t = 0.626 f_b = 0.299	f_t = -0.010 f_b = -0.005	f_t = 0.158 f_b = 0.076	f_t = 0.000 f_b = 0.000
(SZB) 2.196	f_t = 0.031 f_b = 0.015	f_t = -0.000 f_b = -0.000	f_t = 0.558 f_b = 0.266	f_t = -0.019 f_b = -0.009	f_t = 0.156 f_b = 0.074	f_t = 0.000 f_b = 0.000	f_t = 0.590 f_b = 0.281	f_t = -0.020 f_b = -0.009	f_t = 0.156 f_b = 0.074	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.564	f_t = 0.031 f_b = 0.015	f_t = -0.000 f_b = -0.000	f_t = 0.546 f_b = 0.260	f_t = -0.023 f_b = -0.011	f_t = 0.155 f_b = 0.074	f_t = 0.000 f_b = 0.000	f_t = 0.576 f_b = 0.275	f_t = -0.023 f_b = -0.011	f_t = 0.155 f_b = 0.074	f_t = 0.000 f_b = 0.000
(PSXFR) 3.443	f_t = 0.029 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.517 f_b = 0.246	f_t = -0.031 f_b = -0.015	f_t = 0.152 f_b = 0.073	f_t = 0.000 f_b = 0.000	f_t = 0.546 f_b = 0.260	f_t = -0.031 f_b = -0.015	f_t = 0.152 f_b = 0.073	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.625	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.511 f_b = 0.243	f_t = -0.033 f_b = -0.016	f_t = 0.152 f_b = 0.072	f_t = 0.000 f_b = 0.000	f_t = 0.539 f_b = 0.256	f_t = -0.033 f_b = -0.016	f_t = 0.152 f_b = 0.072	f_t = 0.000 f_b = 0.000
(H) 4.693	f_t = 0.026 f_b = 0.012	f_t = -0.001 f_b = -0.000	f_t = 0.477 f_b = 0.226	f_t = -0.044 f_b = -0.021	f_t = 0.149 f_b = 0.071	f_t = 0.000 f_b = 0.000	f_t = 0.503 f_b = 0.239	f_t = -0.045 f_b = -0.021	f_t = 0.149 f_b = 0.071	f_t = 0.000 f_b = 0.000
(SZB) 5.862	f_t = 0.024 f_b = 0.011	f_t = -0.001 f_b = -0.000	f_t = 0.441 f_b = 0.209	f_t = -0.062 f_b = -0.030	f_t = 0.146 f_b = 0.069	f_t = 0.000 f_b = 0.000	f_t = 0.465 f_b = 0.220	f_t = -0.063 f_b = -0.030	f_t = 0.146 f_b = 0.069	f_t = 0.000 f_b = 0.000
(1.5H) 6.443	f_t = 0.023 f_b = 0.011	f_t = -0.001 f_b = -0.001	f_t = 0.424 f_b = 0.201	f_t = -0.072 f_b = -0.034	f_t = 0.145 f_b = 0.069	f_t = 0.000 f_b = 0.000	f_t = 0.447 f_b = 0.212	f_t = -0.073 f_b = -0.034	f_t = 0.145 f_b = 0.069	f_t = 0.000 f_b = 0.000
($0.1L_s$) 7.702	f_t = 0.021 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.385 f_b = 0.182	f_t = -0.092 f_b = -0.043	f_t = 0.142 f_b = 0.067	f_t = -0.009 f_b = -0.004	f_t = 0.406 f_b = 0.192	f_t = -0.093 f_b = -0.044	f_t = 0.142 f_b = 0.067	f_t = -0.009 f_b = -0.004
(SZB) 11.362	f_t = 0.017 f_b = 0.008	f_t = -0.004 f_b = -0.002	f_t = 0.305 f_b = 0.144	f_t = -0.154 f_b = -0.072	f_t = 0.134 f_b = 0.063	f_t = -0.059 f_b = -0.028	f_t = 0.322 f_b = 0.151	f_t = -0.158 f_b = -0.074	f_t = 0.134 f_b = 0.063	f_t = -0.059 f_b = -0.028
($0.2L_s$) 15.405	f_t = 0.014 f_b = 0.007	f_t = -0.009 f_b = -0.004	f_t = 0.279 f_b = 0.132	f_t = -0.241 f_b = -0.113	f_t = 0.126 f_b = 0.059	f_t = -0.108 f_b = -0.051	f_t = 0.293 f_b = 0.138	f_t = -0.249 f_b = -0.117	f_t = 0.126 f_b = 0.059	f_t = -0.108 f_b = -0.051
(SZB) 19.612	f_t = 0.013 f_b = 0.006	f_t = -0.014 f_b = -0.007	f_t = 0.260 f_b = 0.123	f_t = -0.338 f_b = -0.159	f_t = 0.117 f_b = 0.055	f_t = -0.155 f_b = -0.073	f_t = 0.273 f_b = 0.129	f_t = -0.352 f_b = -0.166	f_t = 0.117 f_b = 0.055	f_t = -0.155 f_b = -0.073
(Deck Bar Cutoff) 21.642	f_t = 0.013 f_b = 0.006	f_t = -0.016 f_b = -0.008	f_t = 0.251 f_b = 0.118	f_t = -0.380 f_b = -0.179	f_t = 0.113 f_b = 0.053	f_t = -0.174 f_b = -0.082	f_t = 0.264 f_b = 0.124	f_t = -0.396 f_b = -0.187	f_t = 0.113 f_b = 0.053	f_t = -0.174 f_b = -0.082
($0.3L_s$) 23.107	f_t = 0.012 f_b = 0.006	f_t = -0.018 f_b = -0.008	f_t = 0.244 f_b = 0.115	f_t = -0.408 f_b = -0.192	f_t = 0.110 f_b = 0.052	f_t = -0.187 f_b = -0.088	f_t = 0.257 f_b = 0.121	f_t = -0.425 f_b = -0.200	f_t = 0.110 f_b = 0.052	f_t = -0.187 f_b = -0.088
(SZB) 30.612	f_t = 0.011 f_b = 0.005	f_t = -0.023 f_b = -0.011	f_t = 0.210 f_b = 0.099	f_t = -0.526 f_b = -0.248	f_t = 0.095 f_b = 0.045	f_t = -0.236 f_b = -0.111	f_t = 0.221 f_b = 0.104	f_t = -0.550 f_b = -0.259	f_t = 0.095 f_b = 0.045	f_t = -0.236 f_b = -0.111
($0.4L_s$) 30.810	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.209 f_b = 0.099	f_t = -0.529 f_b = -0.249	f_t = 0.094 f_b = 0.044	f_t = -0.237 f_b = -0.111	f_t = 0.220 f_b = 0.104	f_t = -0.552 f_b = -0.260	f_t = 0.094 f_b = 0.044	f_t = -0.237 f_b = -0.111
(HP) 31.242	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.207 f_b = 0.098	f_t = -0.534 f_b = -0.251	f_t = 0.093 f_b = 0.044	f_t = -0.238 f_b = -0.112	f_t = 0.218 f_b = 0.103	f_t = -0.557 f_b = -0.263	f_t = 0.093 f_b = 0.044	f_t = -0.238 f_b = -0.112
($0.5L_s$) 38.512	f_t = 0.009 f_b = 0.004	f_t = -0.027 f_b = -0.013	f_t = 0.174 f_b = 0.082	f_t = -0.590 f_b = -0.278	f_t = 0.079 f_b = 0.037	f_t = -0.251 f_b = -0.118	f_t = 0.183 f_b = 0.086	f_t = -0.617 f_b = -0.291	f_t = 0.079 f_b = 0.037	f_t = -0.251 f_b = -0.118
($0.6L_s$) 46.215	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.140 f_b = 0.066	f_t = -0.602 f_b = -0.284	f_t = 0.063 f_b = 0.030	f_t = -0.265 f_b = -0.125	f_t = 0.147 f_b = 0.069	f_t = -0.629 f_b = -0.296	f_t = 0.063 f_b = 0.030	f_t = -0.265 f_b = -0.125
(HP) 46.642	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.138 f_b = 0.065	f_t = -0.602 f_b = -0.283	f_t = 0.062 f_b = 0.029	f_t = -0.265 f_b = -0.125	f_t = 0.145 f_b = 0.068	f_t = -0.629 f_b = -0.296	f_t = 0.062 f_b = 0.029	f_t = -0.265 f_b = -0.125
(SZB) 47.272	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.135 f_b = 0.063	f_t = -0.600 f_b = -0.283	f_t = 0.061 f_b = 0.029	f_t = -0.265 f_b = -0.125	f_t = 0.142 f_b = 0.067	f_t = -0.627 f_b = -0.295	f_t = 0.061 f_b = 0.029	f_t = -0.265 f_b = -0.125
($0.7L_s$) 53.917	f_t = 0.005 f_b = 0.003	f_t = -0.025 f_b = -0.012	f_t = 0.105 f_b = 0.049	f_t = -0.555 f_b = -0.261	f_t = 0.047 f_b = 0.022	f_t = -0.251 f_b = -0.118	f_t = 0.110 f_b = 0.052	f_t = -0.580 f_b = -0.273	f_t = 0.047 f_b = 0.022	f_t = -0.251 f_b = -0.118
(SZB) 58.272	f_t = 0.004 f_b = 0.002	f_t = -0.022 f_b = -0.010	f_t = 0.085 f_b = 0.040	f_t = -0.506 f_b = -0.239	f_t = 0.038 f_b = 0.018	f_t = -0.228 f_b = -0.107	f_t = 0.089 f_b = 0.042	f_t = -0.528 f_b = -0.249	f_t = 0.038 f_b = 0.018	f_t = -0.228 f_b = -0.107
($0.8L_s$) 61.620	f_t = 0.004 f_b = 0.002	f_t = -0.020 f_b = -0.009	f_t = 0.071 f_b = 0.033	f_t = -0.455 f_b = -0.216	f_t = 0.032 f_b = 0.015	f_t = -0.205 f_b = -0.097	f_t = 0.074 f_b = 0.035	f_t = -0.474 f_b = -0.225	f_t = 0.032 f_b = 0.015	f_t = -0.205 f_b = -0.097
(SZB) 66.522	f_t = 0.002 f_b = 0.001	f_t = -0.015 f_b = -0.007	f_t = 0.049 f_b = 0.023	f_t = -0.352 f_b = -0.168	f_t = 0.022 f_b = 0.011	f_t = -0.162 f_b = -0.078	f_t = 0.051 f_b = 0.025	f_t = -0.366 f_b = -0.176	f_t = 0.022 f_b = 0.011	f_t = -0.162 f_b = -0.078
($0.9L_s$) 69.322	f_t = 0.002 f_b = 0.001	f_t = -0.012 f_b = -0.006	f_t = 0.036 f_b = 0.017	f_t = -0.276 f_b = -0.133	f_t = 0.016 f_b = 0.008	f_t = -0.129 f_b = -0.062	f_t = 0.038 f_b = 0.018	f_t = -0.288 f_b = -0.139	f_t = 0.016 f_b = 0.008	f_t = -0.129 f_b = -0.062
(1.5H) 71.442	f_t = 0.001 f_b = 0.001	f_t = -0.009 f_b = -0.004	f_t = 0.026 f_b = 0.013	f_t = -0.211 f_b = -0.102	f_t = 0.012 f_b = 0.006	f_t = -0.099 f_b = -0.048	f_t = 0.028 f_b = 0.013	f_t = -0.220 f_b = -0.106	f_t = 0.012 f_b = 0.006	f_t = -0.099 f_b = -0.048
(SZB) 72.022	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.024 f_b = 0.012	f_t = -0.191 f_b = -0.093	f_t = 0.011 f_b = 0.005	f_t = -0.090 f_b = -0.044	f_t = 0.025 f_b = 0.012	f_t = -0.199 f_b = -0.097	f_t = 0.011 f_b = 0.005	f_t = -0.090 f_b = -0.044
(H) 73.192	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.018 f_b = 0.009	f_t = -0.151 f_b = -0.073	f_t = 0.008 f_b = 0.004	f_t = -0.071 f_b = -0.035	f_t = 0.019 f_b = 0.009	f_t = -0.157 f_b = -0.076	f_t = 0.008 f_b = 0.004	f_t = -0.071 f_b = -0.035
(Bar Develop.) 74.260	f_t = 0.001 f_b = 0.000	f_t = -0.005 f_b = -0.002	f_t = 0.013 f_b = 0.006	f_t = -0.112 f_b = -0.054	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.026	f_t = 0.014 f_b = 0.007	f_t = -0.116 f_b = -0.057	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.026
(PSXFR) 74.442	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.012 f_b = 0.006	f_t = -0.105 f_b = -0.051	f_t = 0.006 f_b = 0.003	f_t = -0.050 f_b = -0.024	f_t = 0.013 f_b = 0.006	f_t = -0.109 f_b = -0.053	f_t = 0.006 f_b = 0.003	f_t = -0.050 f_b = -0.024
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.001	f_t = 0.008 f_b = 0.004	f_t = -0.070 f_b = -0.034	f_t = 0.004 f_b = 0.002	f_t = -0.034 f_b = -0.016	f_t = 0.009 f_b = 0.004	f_t = -0.073 f_b = -0.036	f_t = 0.004 f_b = 0.002	f_t = -0.034 f_b = -0.016
(SZB) 75.688	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.006 f_b = 0.003	f_t = -0.056 f_b = -0.027	f_t = 0.003 f_b = 0.001	f_t = -0.027 f_b = -0.013	f_t = 0.007 f_b = 0.003	f_t = -0.058 f_b = -0.028	f_t = 0.003 f_b = 0.001	f_t = -0.027 f_b = -0.013
(FoS) 76.692	f_t = 0.000	f_t = -0.001	f_t = 0.002	f_t = -0.014	f_t = 0.001	f_t = -0.007	f_t = 0.002	f_t = -0.015	f_t = 0.001	f_t = -0.007

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.000	f_b = -0.000	f_b = 0.001	f_b = -0.007	f_b = 0.000	f_b = -0.003	f_b = 0.001	f_b = -0.007	f_b = 0.000	f_b = -0.003
(1.0L_s) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Deck Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.0L_s) 0.000	f_t = 0.744 f_b = 0.356	f_t = 0.189 f_b = 0.091	f_t = 0.633 f_b = 0.303	f_t = 0.189 f_b = 0.091	f_t = 0.296 f_b = 0.142	f_t = 0.095 f_b = 0.045
(STRF) 0.443	f_t = 0.876 f_b = 0.419	f_t = 0.218 f_b = 0.104	f_t = 0.745 f_b = 0.356	f_t = 0.219 f_b = 0.105	f_t = 0.351 f_b = 0.168	f_t = 0.111 f_b = 0.053
0.860	f_t = 0.854 f_b = 0.408	f_t = 0.208 f_b = 0.099	f_t = 0.726 f_b = 0.347	f_t = 0.209 f_b = 0.100	f_t = 0.346 f_b = 0.166	f_t = 0.108 f_b = 0.051
(FoS) 1.193	f_t = 0.836 f_b = 0.400	f_t = 0.200 f_b = 0.095	f_t = 0.711 f_b = 0.340	f_t = 0.202 f_b = 0.096	f_t = 0.343 f_b = 0.164	f_t = 0.105 f_b = 0.050
(SZB) 2.196	f_t = 0.785 f_b = 0.374	f_t = 0.176 f_b = 0.084	f_t = 0.667 f_b = 0.318	f_t = 0.180 f_b = 0.086	f_t = 0.331 f_b = 0.158	f_t = 0.098 f_b = 0.047
(Bar Develop.) 2.564	f_t = 0.766 f_b = 0.365	f_t = 0.167 f_b = 0.080	f_t = 0.651 f_b = 0.310	f_t = 0.171 f_b = 0.082	f_t = 0.327 f_b = 0.156	f_t = 0.095 f_b = 0.045
(PSXFR) 3.443	f_t = 0.723 f_b = 0.344	f_t = 0.146 f_b = 0.069	f_t = 0.614 f_b = 0.292	f_t = 0.152 f_b = 0.072	f_t = 0.317 f_b = 0.151	f_t = 0.089 f_b = 0.042
(Bar Develop.) 3.625	f_t = 0.714 f_b = 0.339	f_t = 0.141 f_b = 0.067	f_t = 0.606 f_b = 0.288	f_t = 0.148 f_b = 0.070	f_t = 0.315 f_b = 0.150	f_t = 0.087 f_b = 0.042
(H) 4.693	f_t = 0.663 f_b = 0.314	f_t = 0.115 f_b = 0.055	f_t = 0.562 f_b = 0.267	f_t = 0.124 f_b = 0.059	f_t = 0.304 f_b = 0.144	f_t = 0.080 f_b = 0.038
(SZB) 5.862	f_t = 0.609 f_b = 0.289	f_t = 0.081 f_b = 0.038	f_t = 0.516 f_b = 0.245	f_t = 0.093 f_b = 0.044	f_t = 0.292 f_b = 0.138	f_t = 0.072 f_b = 0.034
(1.5H) 6.443	f_t = 0.584 f_b = 0.276	f_t = 0.064 f_b = 0.030	f_t = 0.494 f_b = 0.234	f_t = 0.078 f_b = 0.037	f_t = 0.286 f_b = 0.135	f_t = 0.068 f_b = 0.032
(0.1L_s) 7.702	f_t = 0.526 f_b = 0.248	f_t = 0.027 f_b = 0.013	f_t = 0.445 f_b = 0.210	f_t = 0.046 f_b = 0.022	f_t = 0.273 f_b = 0.129	f_t = 0.047 f_b = 0.022
(SZB) 11.362	f_t = 0.399 f_b = 0.188	f_t = -0.081 f_b = -0.038	f_t = 0.335 f_b = 0.158	f_t = -0.049 f_b = -0.023	f_t = 0.240 f_b = 0.113	f_t = -0.049 f_b = -0.023
(0.2L_s) 15.405	f_t = 0.329 f_b = 0.155	f_t = -0.214 f_b = -0.101	f_t = 0.270 f_b = 0.127	f_t = -0.164 f_b = -0.077	f_t = 0.206 f_b = 0.097	f_t = -0.145 f_b = -0.068
(SZB) 19.612	f_t = 0.270 f_b = 0.127	f_t = -0.355 f_b = -0.167	f_t = 0.215 f_b = 0.101	f_t = -0.285 f_b = -0.134	f_t = 0.174 f_b = 0.082	f_t = -0.233 f_b = -0.110
(Deck Bar Cutoff) 21.642	f_t = 0.244 f_b = 0.115	f_t = -0.416 f_b = -0.196	f_t = 0.191 f_b = 0.090	f_t = -0.337 f_b = -0.159	f_t = 0.159 f_b = 0.075	f_t = -0.271 f_b = -0.128
(0.3L_s) 23.107	f_t = 0.225 f_b = 0.106	f_t = -0.457 f_b = -0.215	f_t = 0.174 f_b = 0.082	f_t = -0.372 f_b = -0.175	f_t = 0.149 f_b = 0.070	f_t = -0.296 f_b = -0.139
(SZB) 30.612	f_t = 0.142 f_b = 0.067	f_t = -0.629 f_b = -0.296	f_t = 0.097 f_b = 0.046	f_t = -0.519 f_b = -0.245	f_t = 0.102 f_b = 0.048	f_t = -0.393 f_b = -0.185
(0.4L_s) 30.810	f_t = 0.140 f_b = 0.066	f_t = -0.633 f_b = -0.298	f_t = 0.096 f_b = 0.045	f_t = -0.522 f_b = -0.246	f_t = 0.101 f_b = 0.048	f_t = -0.395 f_b = -0.186
(HP) 31.242	f_t = 0.135 f_b = 0.064	f_t = -0.640 f_b = -0.301	f_t = 0.092 f_b = 0.043	f_t = -0.529 f_b = -0.249	f_t = 0.099 f_b = 0.046	f_t = -0.399 f_b = -0.188
(0.5L_s) 38.512	f_t = 0.072 f_b = 0.034	f_t = -0.729 f_b = -0.343	f_t = 0.035 f_b = 0.016	f_t = -0.605 f_b = -0.285	f_t = 0.062 f_b = 0.029	f_t = -0.432 f_b = -0.203
(0.6L_s) 46.215	f_t = 0.022 f_b = 0.010	f_t = -0.754 f_b = -0.355	f_t = -0.008 f_b = -0.004	f_t = -0.628 f_b = -0.296	f_t = 0.032 f_b = 0.015	f_t = -0.459 f_b = -0.216
(HP) 46.642	f_t = 0.019 f_b = 0.009	f_t = -0.754 f_b = -0.355	f_t = -0.009 f_b = -0.004	f_t = -0.628 f_b = -0.296	f_t = 0.030 f_b = 0.014	f_t = -0.460 f_b = -0.217
(SZB) 47.272	f_t = 0.016 f_b = 0.008	f_t = -0.752 f_b = -0.354	f_t = -0.012 f_b = -0.006	f_t = -0.627 f_b = -0.295	f_t = 0.028 f_b = 0.013	f_t = -0.460 f_b = -0.217
(0.7L_s) 53.917	f_t = -0.010 f_b = -0.005	f_t = -0.700 f_b = -0.330	f_t = -0.032 f_b = -0.015	f_t = -0.584 f_b = -0.275	f_t = 0.010 f_b = 0.005	f_t = -0.437 f_b = -0.206
(SZB) 58.272	f_t = -0.021 f_b = -0.010	f_t = -0.638 f_b = -0.301	f_t = -0.039 f_b = -0.018	f_t = -0.533 f_b = -0.251	f_t = 0.002 f_b = 0.001	f_t = -0.396 f_b = -0.187
(0.8L_s) 61.620	f_t = -0.025 f_b = -0.012	f_t = -0.574 f_b = -0.272	f_t = -0.040 f_b = -0.019	f_t = -0.479 f_b = -0.227	f_t = -0.002 f_b = -0.001	f_t = -0.357 f_b = -0.169
(SZB) 66.522	f_t = -0.025 f_b = -0.012	f_t = -0.443 f_b = -0.212	f_t = -0.036 f_b = -0.017	f_t = -0.370 f_b = -0.177	f_t = -0.005 f_b = -0.003	f_t = -0.282 f_b = -0.135
(0.9L_s) 69.322	f_t = -0.022 f_b = -0.011	f_t = -0.348 f_b = -0.168	f_t = -0.030 f_b = -0.014	f_t = -0.290 f_b = -0.140	f_t = -0.006 f_b = -0.003	f_t = -0.223 f_b = -0.108
(1.5H) 71.442	f_t = -0.018 f_b = -0.009	f_t = -0.265 f_b = -0.129	f_t = -0.024 f_b = -0.011	f_t = -0.221 f_b = -0.107	f_t = -0.005 f_b = -0.002	f_t = -0.172 f_b = -0.083

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 72.022	f_t = -0.017 f_b = -0.008	f_t = -0.241 f_b = -0.117	f_t = -0.022 f_b = -0.011	f_t = -0.201 f_b = -0.098	f_t = -0.005 f_b = -0.002	f_t = -0.156 f_b = -0.076
(H) 73.192	f_t = -0.014 f_b = -0.007	f_t = -0.190 f_b = -0.092	f_t = -0.017 f_b = -0.008	f_t = -0.158 f_b = -0.077	f_t = -0.004 f_b = -0.002	f_t = -0.124 f_b = -0.060
(Bar Develop.) 74.260	f_t = -0.010 f_b = -0.005	f_t = -0.140 f_b = -0.068	f_t = -0.013 f_b = -0.006	f_t = -0.117 f_b = -0.057	f_t = -0.003 f_b = -0.002	f_t = -0.092 f_b = -0.045
(PSXFR) 74.442	f_t = -0.010 f_b = -0.005	f_t = -0.132 f_b = -0.064	f_t = -0.012 f_b = -0.006	f_t = -0.110 f_b = -0.054	f_t = -0.003 f_b = -0.001	f_t = -0.086 f_b = -0.042
(Bar Develop.) 75.320	f_t = -0.007 f_b = -0.003	f_t = -0.089 f_b = -0.043	f_t = -0.008 f_b = -0.004	f_t = -0.074 f_b = -0.036	f_t = -0.002 f_b = -0.001	f_t = -0.058 f_b = -0.028
(SZB) 75.688	f_t = -0.005 f_b = -0.003	f_t = -0.070 f_b = -0.034	f_t = -0.007 f_b = -0.003	f_t = -0.059 f_b = -0.029	f_t = -0.002 f_b = -0.001	f_t = -0.046 f_b = -0.023
(FoS) 76.692	f_t = -0.001 f_b = -0.001	f_t = -0.018 f_b = -0.009	f_t = -0.002 f_b = -0.001	f_t = -0.015 f_b = -0.007	f_t = -0.000 f_b = -0.000	f_t = -0.012 f_b = -0.006
(1.0L_s) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.

Stress due to Prestress

Span 2 Girder A

Girder Stresses

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STRF, 0.0L_r) 0.000	(STRF) -0.417	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI
0.417	0.000	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI
0.417	(0.0L_e) 0.000	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI
(PSXFR) 3.000	(PSXFR) 2.583	P_e (permanent) = 1147.53 kip e_p = 7.981 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.32 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.583 KSI	Service I P_e (permanent) = 972.41 kip e_p = 7.981 in f_t = -0.430 KSI f_b = -2.559 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				Service III P_e (permanent) = 972.41 kip e_p = 7.981 in f_t = -0.430 KSI f_b = -2.559 KSI (Fatigue I) P_e (permanent) = 972.41 kip e_p = 7.981 in f_t = -0.430 KSI f_b = -2.559 KSI
($0.1L_r$) 7.700	7.283	P_e (permanent) = 1143.86 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 982.32 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.792 KSI	Service I P_e (permanent) = 976.03 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.775 KSI Service III P_e (permanent) = 976.03 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.775 KSI (Fatigue I) P_e (permanent) = 976.03 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.775 KSI
8.033	($0.1L_e$) 7.617	P_e (permanent) = 1143.58 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.39 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.807 KSI	Service I P_e (permanent) = 976.30 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.790 KSI Service III P_e (permanent) = 976.30 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.790 KSI (Fatigue I) P_e (permanent) = 976.30 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.790 KSI
($0.2L_r$) 15.400	14.983	P_e (permanent) = 1136.27 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 983.72 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.136 KSI	Service I P_e (permanent) = 981.82 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.130 KSI Service III P_e (permanent) = 981.82 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.130 KSI (Fatigue I) P_e (permanent) = 981.82 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.130 KSI
15.650	($0.2L_e$) 15.233	P_e (permanent) = 1135.98 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.634 KSI	P_e (permanent) = 983.74 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.147 KSI	Service I P_e (permanent) = 981.99 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.142 KSI Service III P_e (permanent) = 981.99 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.142 KSI (Fatigue I) P_e (permanent) = 981.99 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.142 KSI
($0.3L_r$) 23.100	22.683	P_e (permanent) = 1126.05 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 983.03 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.474 KSI	Service I P_e (permanent) = 985.36 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.482 KSI Service III P_e (permanent) = 985.36 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 14.507 in f_t = 0.440 KSI f_b = -3.482 KSI (Fatigue I) P_e (permanent) = 985.36 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.482 KSI
23.266	($0.3L_e$) 22.850	P_e (permanent) = 1125.80 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 982.98 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.481 KSI	Service I P_e (permanent) = 985.40 kip e_p = 14.561 in f_t = 0.448 KSI f_b = -3.489 KSI Service III P_e (permanent) = 985.40 kip e_p = 14.561 in f_t = 0.448 KSI f_b = -3.489 KSI (Fatigue I) P_e (permanent) = 985.40 kip e_p = 14.561 in f_t = 0.448 KSI f_b = -3.489 KSI
(HP, $0.4L_t$) 30.799	(HP) 30.383	P_e (permanent) = 1112.55 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 978.27 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.795 KSI	Service I P_e (permanent) = 984.33 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.818 KSI Service III P_e (permanent) = 984.33 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.818 KSI (Fatigue I) P_e (permanent) = 984.33 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.818 KSI
30.883	($0.4L_e$) 30.466	P_e (permanent) = 1112.57 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 978.32 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.795 KSI	Service I P_e (permanent) = 984.41 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.818 KSI Service III P_e (permanent) = 984.41 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.818 KSI (Fatigue I) P_e (permanent) = 984.41 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.818 KSI
($0.5L_t$) 38.499	($0.5L_e$) 38.083	P_e (permanent) = 1113.54 kip e_p = 17.007 in f_t = 0.877 KSI f_b = -4.319 KSI	P_e (permanent) = 980.65 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI	Service I P_e (permanent) = 988.92 kip e_p = 17.007 in f_t = 0.779 KSI f_b = -3.836 KSI Service III P_e (permanent) = 988.92 kip e_p = 17.007 in f_t = 0.779 KSI f_b = -3.836 KSI (Fatigue I) P_e (permanent) = 988.92 kip e_p = 17.007 in f_t = 0.779 KSI f_b = -3.836 KSI
46.116	($0.6L_e$) 45.699	P_e (permanent) = 1112.57 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 978.16 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.794 KSI	Service I P_e (permanent) = 987.33 kip e_p = 17.007 in f_t = 0.778 KSI f_b = -3.830 KSI Service III P_e (permanent) = 987.33 kip e_p = 17.007 in f_t = 0.778 KSI f_b = -3.830 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				(Fatigue I) P_e (permanent) = 987.33 kip e_p = 17.007 in f_t = 0.778 KSI f_b = -3.830 KSI
(HP, 0.6L_r) 46.199	(HP) 45.783	P_e (permanent) = 1112.55 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 978.10 kip e_p = 17.007 in f_t = 0.770 KSI f_b = -3.794 KSI	Service I P_e (permanent) = 987.28 kip e_p = 17.007 in f_t = 0.778 KSI f_b = -3.830 KSI Service III P_e (permanent) = 987.28 kip e_p = 17.007 in f_t = 0.778 KSI f_b = -3.830 KSI (Fatigue I) P_e (permanent) = 987.28 kip e_p = 17.007 in f_t = 0.778 KSI f_b = -3.830 KSI
53.732	(0.7L_e) 53.316	P_e (permanent) = 1125.80 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 982.74 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.480 KSI	Service I P_e (permanent) = 990.81 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.508 KSI Service III P_e (permanent) = 990.81 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.508 KSI (Fatigue I) P_e (permanent) = 990.81 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.508 KSI
(0.7L_r) 53.899	53.482	P_e (permanent) = 1126.05 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 982.79 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.473 KSI	Service I P_e (permanent) = 990.83 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.501 KSI Service III P_e (permanent) = 990.83 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.501 KSI (Fatigue I) P_e (permanent) = 990.83 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.501 KSI
61.349	(0.8L_e) 60.932	P_e (permanent) = 1135.98 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.634 KSI	P_e (permanent) = 983.51 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.147 KSI	Service I P_e (permanent) = 989.48 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.166 KSI Service III P_e (permanent) = 989.48 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.166 KSI (Fatigue I) P_e (permanent) = 989.48 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.166 KSI
(0.8L_r) 61.599	61.182	P_e (permanent) = 1136.27 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 983.49 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.135 KSI	Service I P_e (permanent) = 989.38 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.154 KSI Service III P_e (permanent) = 989.38 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.154 KSI (Fatigue I) P_e (permanent) = 989.38 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 12.007 in f_t = 0.105 KSI f_b = -3.154 KSI
68.965	($0.9L_e$) 68.549	P_e (permanent) = 1143.58 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.26 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.807 KSI	Service I P_e (permanent) = 985.43 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI Service III P_e (permanent) = 985.43 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI (Fatigue I) P_e (permanent) = 985.43 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI
($0.9L_r$) 69.299	68.882	P_e (permanent) = 1143.86 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 982.19 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.792 KSI	Service I P_e (permanent) = 985.22 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI Service III P_e (permanent) = 985.22 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI (Fatigue I) P_e (permanent) = 985.22 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI
(PSXFR) 73.999	(PSXFR) 73.582	P_e (permanent) = 1147.53 kip e_p = 7.981 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.27 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.583 KSI	Service I P_e (permanent) = 982.37 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.585 KSI Service III P_e (permanent) = 982.37 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.585 KSI (Fatigue I) P_e (permanent) = 982.37 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.585 KSI
76.582	($1.0L_e$) 76.165	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI
76.582	76.165	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STLF, 1.0L_r) 76.999	(STLF) 76.582	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI

Prestressing Force and Strand Stresses

Straight strands: N_s = 18, P_{jack} = 790.97 kip, A_{ps} = 3.906 in^2

Harped strands: N_h = 10, P_{jack} = 439.43 kip, A_{ps} = 2.170 in^2

A_{ps} = 6.076 in^2

P_{jack} = 1230.39 kip

Prestress Transfer Length = 36.000 in

Effective Prestress at Mid-Span

Loss Stage	Permanent Strand			
	Effective Force (kip)	Time-Dependent Effects (KSI)	Instantaneous Effects (KSI)	f_{pe} (KSI)
At Jacking	1230.39	0.000	0.000	202.500
Before Prestress Transfer	1230.39	0.000	0.000	202.500
After Prestress Transfer	1113.54	0.000	19.232	183.268
At Lifting	1113.54	0.000	19.232	183.268
At Shipping	1066.75	7.700	19.232	175.568
After Erection	1066.75	7.700	19.232	175.568
After Deck Placement	980.65	27.711	13.392	161.397
After Superimposed Dead Loads	988.92	27.711	12.031	162.758
Final (permanent loads only)	988.92	27.711	12.031	162.758
Final with Live Load (Service I)	988.92	27.711	12.031	162.758
Final with Live Load (Service III)	988.92	27.711	12.031	162.758
Final with Live Load (Fatigue I)	988.92	27.711	12.031	162.758

Time-Dependent Effects = change in strand stress due to creep, shrinkage, and relaxation
Instantaneous Effects = change in strand stress due to elastic shortening and externally applied loads
$f_{pe} = f_{pj}$ - Time-Dependent Effects - Instantaneous Effects

Specification Check Summary

The Specification Check was Successful

Specification Checks

Specification: CDOT

Stress Limitations on Prestressing Tendons [5.9.2.2]

Strand Stresses

Loss Stage	Stress Limit (KSI)	Straight		Harped	
		Strand Stress (KSI)	Status (C/D)	Strand Stress (KSI)	Status (C/D)
At Jacking (f_{pj})	202.500	202.500	Pass (1.00)	202.500	Pass (1.00)
After All Losses and Elastic Gains including Live Load (f_{pe})	194.400	162.758	Pass (1.19)	162.758	Pass (1.19)

Required Concrete Strengths

Required f'_{ci} = 5.296 KSI ⇒ 5.300 KSI

Actual f'_{ci} = 6.000 KSI

Required f'_c = 6.665 KSI ⇒ 6.700 KSI

Actual f'_c = 8.000 KSI

Continuity [5.12.3.3.5]

	f_b (KSI)	Boundary Condition	Is Compressive?
Abut 1	0.000	Hinged	No
Pier 2	-1.224	Continuous	Yes
Abut 3	0.000	Hinged	No

f_b is the calcuated stress at the bottom of the continuity diaphragm for the combination of superimposed permanent loads and 50% live load
Continuous connections are fully effective.
Continuity is accounted for in Service and Strength Limit States.

Interval 2: Prestress Release : Service I Compression

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Compression Stresses [5.9.2.3.1a]

f'_{ci} = 6.000 KSI

Compression stress limit = -0.65f'_{ci} = -3.900 KSI

Concrete strength required to satisfy this requirement = 5.296 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
(STRF) 0.443	(STRF, 0.0L_r) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
										(∞)
(PSXFR) 3.443	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
8.143	(0.1L_t) 7.700	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	No	Yes	Pass (1.33)
15.843	(0.2L_t) 15.400	0.121	-3.622	-0.574	0.582	-0.453	-3.040	No	Yes	Pass (1.28)
23.543	(0.3L_t) 23.100	0.503	-3.979	-0.753	0.764	-0.250	-3.215	No	Yes	Pass (1.21)
(HP) 31.242	(HP, 0.4L_t) 30.799	0.876	-4.316	-0.861	0.873	0.015	-3.442	No	Yes	Pass (1.13)
38.942	(0.5L_t) 38.499	0.877	-4.319	-0.897	0.910	-0.020	-3.410	No	Yes	Pass (1.14)
(HP) 46.642	(HP, 0.6L_t) 46.199	0.876	-4.316	-0.861	0.873	0.015	-3.442	No	Yes	Pass (1.13)
54.342	(0.7L_t) 53.899	0.503	-3.979	-0.753	0.764	-0.250	-3.215	No	Yes	Pass (1.21)
62.042	(0.8L_t) 61.599	0.121	-3.622	-0.574	0.582	-0.453	-3.040	No	Yes	Pass (1.28)
69.742	(0.9L_t) 69.299	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	No	Yes	Pass (1.33)
(PSXFR) 74.442	(PSXFR) 73.999	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
(STLF) 77.442	(STLF, 1.0L_t) 76.999	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)

Interval 2: Prestress Release : Service I Tension

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Tension Stresses [5.9.2.3.1b]

f'_{ci} = 6.000 KSI

Tension stress limit in areas other than the precompressed tensile zone = $0.0948\lambda\sqrt{f'_{ci}}$ but not more than 0.200 KSI = 0.200 KSI

Tension stress limit in areas with sufficient bonded reinforcement = $0.2400\lambda\sqrt{f'_{ci}}$ = 0.588 KSI

Concrete strength required to satisfy this requirement = 5.296 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
(STRF) 0.443	(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)
(PSXFR) 3.443	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
8.143	(0.1L_t) 7.700	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	0.200	-	No	Yes	Pass (-)
15.843	(0.2L_t) 15.400	0.121	-3.622	-0.574	0.582	-0.453	-3.040	0.200	-	No	Yes	Pass (-)
23.543	(0.3L_t) 23.100	0.503	-3.979	-0.753	0.764	-0.250	-3.215	0.200	-	No	Yes	Pass (-)
(HP) 31.242	(HP, 0.4L_t) 30.799	0.876	-4.316	-0.861	0.873	0.015	-3.442	0.200	-	No	Yes	Pass (10+)
38.942	(0.5L_t) 38.499	0.877	-4.319	-0.897	0.910	-0.020	-3.410	0.200	-	No	Yes	Pass (-)
(HP) 46.642	(HP, 0.6L_t) 46.199	0.876	-4.316	-0.861	0.873	0.015	-3.442	0.200	-	No	Yes	Pass (10+)
54.342	(0.7L_t) 53.899	0.503	-3.979	-0.753	0.764	-0.250	-3.215	0.200	-	No	Yes	Pass (-)
62.042	(0.8L_t) 61.599	0.121	-3.622	-0.574	0.582	-0.453	-3.040	0.200	-	No	Yes	Pass (-)
69.742	(0.9L_t) 69.299	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	0.200	-	No	Yes	Pass (-)
(PSXFR) 74.442	(PSXFR) 73.999	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
(STLF) 77.442	(STLF, 1.0L_t) 76.999	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.45f'_c$ = -3.600 KSI

Concrete strength required to satisfy this requirement = 5.119 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 3.443	-0.434	-2.583	-0.279	0.283	-0.712	-2.300	No	Yes	Pass (1.57)
(0.1L_s) 7.702	-0.249	-2.773	-0.697	0.707	-0.946	-2.066	No	Yes	Pass (1.74)
(0.2L_s) 15.405	0.086	-3.117	-1.319	1.338	-1.234	-1.778	No	Yes	Pass (2.02)
(0.3L_s) 23.107	0.421	-3.455	-1.768	1.794	-1.348	-1.661	No	Yes	Pass (2.17)
(0.4L_s) 30.810	0.752	-3.777	-2.041	2.070	-1.289	-1.707	No	Yes	Pass (2.11)
(HP) 31.242	0.770	-3.795	-2.051	2.080	-1.280	-1.714	No	Yes	Pass (2.10)
(0.5L_s) 38.512	0.772	-3.804	-2.136	2.167	-1.364	-1.637	No	Yes	Pass (2.20)

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.6L_s$) 46.215	0.770	-3.795	-2.055	2.084	-1.284	-1.711	No	Yes	Pass (2.10)
(HP) 46.642	0.770	-3.794	-2.045	2.075	-1.275	-1.719	No	Yes	Pass (2.09)
($0.7L_s$) 53.917	0.458	-3.491	-1.798	1.823	-1.340	-1.668	No	Yes	Pass (2.16)
($0.8L_s$) 61.620	0.123	-3.154	-1.367	1.387	-1.244	-1.768	No	Yes	Pass (2.04)
($0.9L_s$) 69.322	-0.212	-2.811	-0.766	0.777	-0.978	-2.034	No	Yes	Pass (1.77)
(PSXFR) 74.442	-0.434	-2.583	-0.275	0.279	-0.709	-2.303	No	Yes	Pass (1.56)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Tension

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]
f'_c = 8.000 KSI
Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI
Concrete strength required to satisfy this requirement = 5.119 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
0.860	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(PSXFR) 3.443	-0.434	-2.583	-0.279	0.283	-0.712	-2.300	-	0.537	No	Yes	Pass (-)
($0.1L_s$) 7.702	-0.249	-2.773	-0.697	0.707	-0.946	-2.066	-	0.537	No	Yes	Pass (-)
($0.2L_s$) 15.405	0.086	-3.117	-1.319	1.338	-1.234	-1.778	-	0.537	No	Yes	Pass (-)
($0.3L_s$) 23.107	0.421	-3.455	-1.768	1.794	-1.348	-1.661	-	0.537	No	Yes	Pass (-)
($0.4L_s$) 30.810	0.752	-3.777	-2.041	2.070	-1.289	-1.707	-	0.537	No	Yes	Pass (-)
(HP) 31.242	0.770	-3.795	-2.051	2.080	-1.280	-1.714	-	0.537	No	Yes	Pass (-)
($0.5L_s$) 38.512	0.772	-3.804	-2.136	2.167	-1.364	-1.637	-	0.537	No	Yes	Pass (-)
($0.6L_s$) 46.215	0.770	-3.795	-2.055	2.084	-1.284	-1.711	-	0.537	No	Yes	Pass (-)
(HP) 46.642	0.770	-3.794	-2.045	2.075	-1.275	-1.719	-	0.537	No	Yes	Pass (-)
($0.7L_s$) 53.917	0.458	-3.491	-1.798	1.823	-1.340	-1.668	-	0.537	No	Yes	Pass (-)
($0.8L_s$) 61.620	0.123	-3.154	-1.367	1.387	-1.244	-1.768	-	0.537	No	Yes	Pass (-)
($0.9L_s$) 69.322	-0.212	-2.811	-0.766	0.777	-0.978	-2.034	-	0.537	No	Yes	Pass (-)
(PSXFR) 74.442	-0.434	-2.583	-0.275	0.279	-0.709	-2.303	-	0.537	No	Yes	Pass (-)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	0.537	-	Yes	No	Pass (-)

Interval 17: Open to Traffic : Service I Compression without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = $-0.45f'_c$ = -3.600 KSI
Concrete strength required to satisfy this requirement = 6.665 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.124	-0.591	0.049	-0.930	No	Yes	Pass (3.87)
(PSXFR) 3.443	-0.430	-2.559	-0.177	-0.208	-0.607	-2.767	No	Yes	Pass (1.30)
($0.1L_s$) 7.702	-0.247	-2.754	-0.629	0.366	-0.876	-2.388	No	Yes	Pass (1.51)
($0.2L_s$) 15.405	0.085	-3.110	-1.304	1.219	-1.219	-1.891	No	Yes	Pass (1.90)
($0.3L_s$) 23.107	0.421	-3.462	-1.796	1.840	-1.375	-1.623	No	Yes	Pass (2.22)
($0.4L_s$) 30.810	0.757	-3.800	-2.100	2.239	-1.344	-1.561	No	Yes	Pass (2.31)
(HP) 31.242	0.775	-3.818	-2.112	2.255	-1.336	-1.564	No	Yes	Pass (2.30)
($0.5L_s$) 38.512	0.779	-3.836	-2.215	2.415	-1.436	-1.420	No	Yes	Pass (2.51)
($0.6L_s$) 46.215	0.778	-3.831	-2.141	2.369	-1.364	-1.462	No	Yes	Pass (2.46)
(HP) 46.642	0.778	-3.830	-2.132	2.360	-1.354	-1.470	No	Yes	Pass (2.45)
	0.461	-3.520	-1.880	2.101	-1.419	-1.418	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.7L_s$) 53.917									(2.54)
($0.8L_s$) 61.620	0.124	-3.173	-1.435	1.615	-1.311	-1.558	No	Yes	Pass (2.31)
($0.9L_s$) 69.322	-0.212	-2.820	-0.808	0.914	-1.020	-1.906	No	Yes	Pass (1.89)
(PSXFR) 74.442	-0.434	-2.585	-0.291	0.330	-0.725	-2.256	No	Yes	Pass (1.60)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)

Interval 17: Open to Traffic : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.6f'_c$ = -4.800 KSI

Concrete strength required to satisfy this requirement = 6.665 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.120	-2.020	0.045	-2.359	No	Yes	Pass (2.03)
(PSXFR) 3.443	-0.430	-2.559	-0.195	-1.440	-0.625	-3.999	No	Yes	Pass (1.20)
($0.1L_s$) 7.702	-0.247	-2.754	-0.681	-0.560	-0.929	-3.314	No	Yes	Pass (1.45)
($0.2L_s$) 15.405	0.085	-3.110	-1.441	0.544	-1.356	-2.566	No	Yes	Pass (1.87)
($0.3L_s$) 23.107	0.421	-3.462	-2.028	1.249	-1.607	-2.213	No	Yes	Pass (2.17)
($0.4L_s$) 30.810	0.757	-3.800	-2.401	1.733	-1.644	-2.067	No	Yes	Pass (2.32)
(HP) 31.242	0.775	-3.818	-2.415	1.753	-1.640	-2.065	No	Yes	Pass (2.32)
($0.5L_s$) 38.512	0.779	-3.836	-2.551	1.994	-1.773	-1.842	No	Yes	Pass (2.61)
($0.6L_s$) 46.215	0.778	-3.831	-2.484	2.032	-1.707	-1.799	No	Yes	Pass (2.67)
(HP) 46.642	0.778	-3.830	-2.474	2.028	-1.697	-1.802	No	Yes	Pass (2.66)
($0.7L_s$) 53.917	0.461	-3.520	-2.196	1.849	-1.735	-1.671	No	Yes	Pass (2.77)
($0.8L_s$) 61.620	0.124	-3.173	-1.696	1.447	-1.572	-1.727	No	Yes	Pass (2.78)
($0.9L_s$) 69.322	-0.212	-2.820	-0.969	0.829	-1.181	-1.991	No	Yes	Pass (2.41)
(PSXFR) 74.442	-0.434	-2.585	-0.353	0.301	-0.787	-2.284	No	Yes	Pass (2.10)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)

Interval 17: Open to Traffic : Service I Tension without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.0000\lambda\sqrt{f'_c}$ = 0.000 KSI

Concrete strength required to satisfy this requirement = 6.665 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.144	-0.509	0.069	-0.849	No	Yes	Pass (-)
(PSXFR) 3.443	-0.430	-2.559	-0.160	-0.139	-0.590	-2.698	No	Yes	Pass (-)
($0.1L_s$) 7.702	-0.247	-2.754	-0.616	0.421	-0.863	-2.333	No	Yes	Pass (-)
($0.2L_s$) 15.405	0.085	-3.110	-1.291	1.274	-1.206	-1.836	No	Yes	Pass (-)
($0.3L_s$) 23.107	0.421	-3.462	-1.779	1.912	-1.358	-1.550	No	Yes	Pass (-)
($0.4L_s$) 30.810	0.757	-3.800	-2.081	2.322	-1.324	-1.478	No	Yes	Pass (-)
(HP) 31.242	0.775	-3.818	-2.092	2.338	-1.317	-1.480	No	Yes	Pass (-)
($0.5L_s$) 38.512	0.779	-3.836	-2.195	2.501	-1.416	-1.334	No	Yes	Pass (-)
($0.6L_s$) 46.215	0.778	-3.831	-2.122	2.452	-1.344	-1.379	No	Yes	Pass (-)
(HP) 46.642	0.778	-3.830	-2.112	2.442	-1.335	-1.387	No	Yes	Pass (-)
($0.7L_s$) 53.917	0.461	-3.520	-1.863	2.174	-1.402	-1.346	No	Yes	Pass (-)
($0.8L_s$) 61.620	0.124	-3.173	-1.422	1.671	-1.298	-1.503	No	Yes	Pass (-)
($0.9L_s$) 69.322	-0.212	-2.820	-0.800	0.945	-1.013	-1.875	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
									(-)
(PSXFR) 74.442	-0.434	-2.585	-0.288	0.341	-0.722	-2.244	No	Yes	Pass (-)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (-)

Interval 17: Open to Traffic : Service III Tension

Service III
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Location from Left Support (ft)	Pre-tension		Service III		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.420	-0.495	0.345	-0.835	No	Yes	Pass (-)
(PSXFR) 3.443	-0.430	-2.559	0.074	-0.080	-0.355	-2.639	No	Yes	Pass (-)
($0.1L_s$) 7.702	-0.247	-2.754	-0.443	0.597	-0.690	-2.157	No	Yes	Pass (-)
($0.2L_s$) 15.405	0.085	-3.110	-1.166	1.735	-1.080	-1.375	No	Yes	Pass (-)
($0.3L_s$) 23.107	0.421	-3.462	-1.669	2.691	-1.248	-0.771	No	Yes	Pass (-)
($0.4L_s$) 30.810	0.757	-3.800	-1.986	3.331	-1.230	-0.468	No	Yes	Pass (-)
(HP) 31.242	0.775	-3.818	-1.999	3.357	-1.223	-0.461	No	Yes	Pass (-)
($0.5L_s$) 38.512	0.779	-3.836	-2.116	3.629	-1.338	-0.206	No	Yes	Pass (-)
($0.6L_s$) 46.215	0.778	-3.831	-2.059	3.602	-1.281	-0.228	No	Yes	Pass (-)
(HP) 46.642	0.778	-3.830	-2.051	3.592	-1.273	-0.238	No	Yes	Pass (-)
($0.7L_s$) 53.917	0.461	-3.520	-1.816	3.235	-1.355	-0.285	No	Yes	Pass (-)
($0.8L_s$) 61.620	0.124	-3.173	-1.390	2.532	-1.266	-0.642	No	Yes	Pass (-)
($0.9L_s$) 69.322	-0.212	-2.820	-0.784	1.457	-0.996	-1.363	No	Yes	Pass (-)
(PSXFR) 74.442	-0.434	-2.585	-0.282	0.532	-0.716	-2.054	No	Yes	Pass (-)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (-)

Interval 17: Open to Traffic : Fatigue I Compression

Fatigue I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.4f'_c$ = -3.200 KSI

Concrete strength required to satisfy this requirement = 4.736 KSI

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.062	-0.820	0.025	-0.989	No	Yes	Pass (3.23)
(PSXFR) 3.443	-0.430	-2.559	-0.088	-0.615	-0.303	-1.894	No	Yes	Pass (1.69)
($0.1L_s$) 7.702	-0.247	-2.754	-0.322	-0.304	-0.445	-1.681	No	Yes	Pass (1.90)
($0.2L_s$) 15.405	0.085	-3.110	-0.742	0.171	-0.699	-1.384	No	Yes	Pass (2.31)
($0.3L_s$) 23.107	0.421	-3.462	-1.053	0.537	-0.842	-1.195	No	Yes	Pass (2.68)
($0.4L_s$) 30.810	0.757	-3.800	-1.245	0.791	-0.867	-1.109	No	Yes	Pass (2.89)
(HP) 31.242	0.775	-3.818	-1.253	0.802	-0.865	-1.107	No	Yes	Pass (2.89)
($0.5L_s$) 38.512	0.779	-3.836	-1.314	0.934	-0.925	-0.984	No	Yes	Pass (3.25)
($0.6L_s$) 46.215	0.778	-3.831	-1.289	0.965	-0.900	-0.950	No	Yes	Pass (3.37)
(HP) 46.642	0.778	-3.830	-1.284	0.964	-0.896	-0.951	No	Yes	Pass (3.37)
($0.7L_s$) 53.917	0.461	-3.520	-1.148	0.886	-0.917	-0.873	No	Yes	Pass (3.49)
($0.8L_s$) 61.620	0.124	-3.173	-0.888	0.698	-0.826	-0.889	No	Yes	Pass (3.60)
($0.9L_s$) 69.322	-0.212	-2.820	-0.513	0.402	-0.619	-1.008	No	Yes	Pass (3.17)
(PSXFR) 74.442	-0.434	-2.585	-0.188	0.146	-0.405	-1.146	No	Yes	Pass (2.79)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
77.025	-0.076	-0.343	0.000	0.000	-0.038	-0.171	Yes	No	Pass (10+)

Principal Tensile Stresses in Webs

LRFD 5.9.2.3.3 - Principal Tensile Stresses in Webs limitations are not applicable.

Ultimate Moment Capacity

Positive Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-391.56	1890.00	-520.77	Pass (-)	Pass (-)
($0.1L_s$) 7.702	625.18	4361.38	831.48	Pass (5.25)	Pass (6.98)
($0.2L_s$) 15.405	1891.62	5377.64	2515.86	Pass (2.14)	Pass (2.84)
($0.3L_s$) 23.107	3085.74	5734.04	3910.59	Pass (1.47)	Pass (1.86)
($0.4L_s$) 30.810	3929.34	6086.41	4163.95	Pass (1.46)	Pass (1.55)
($0.5L_s$) 38.512	4345.68	6105.90	4169.84	Pass (1.46)	Pass (1.41)
($0.6L_s$) 46.215	4370.23	6105.89	4190.35	Pass (1.46)	Pass (1.40)
($0.7L_s$) 53.917	3968.64	5773.96	3959.17	Pass (1.46)	Pass (1.45)
($0.8L_s$) 61.620	3145.61	5409.13	3741.02	Pass (1.45)	Pass (1.72)
($0.9L_s$) 69.322	1827.40	4477.34	2430.44	Pass (1.84)	Pass (2.45)
($1.0L_s$) 77.025	0.00	2139.49	0.00	Pass (∞)	Pass (∞)

Positive Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-391.56	1890.00	-520.77	Pass (-)	Pass (-)
($0.1L_s$) 7.702	266.38	4361.38	831.48	Pass (5.25)	Pass (10+)
($0.2L_s$) 15.405	1723.13	5377.64	2515.86	Pass (2.14)	Pass (3.12)
($0.3L_s$) 23.107	2871.01	5734.04	3910.59	Pass (1.47)	Pass (2.00)
($0.4L_s$) 30.810	3679.11	6086.41	4163.95	Pass (1.46)	Pass (1.65)
($0.5L_s$) 38.512	4110.58	6105.90	4169.84	Pass (1.46)	Pass (1.49)
($0.6L_s$) 46.215	4097.52	6105.89	4190.35	Pass (1.46)	Pass (1.49)
($0.7L_s$) 53.917	3724.80	5773.96	3959.17	Pass (1.46)	Pass (1.55)
($0.8L_s$) 61.620	2948.59	5409.13	3741.02	Pass (1.45)	Pass (1.83)
($0.9L_s$) 69.322	1724.63	4477.34	2430.44	Pass (1.84)	Pass (2.60)
($1.0L_s$) 77.025	0.00	2139.49	0.00	Pass (∞)	Pass (∞)

Negative Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-3177.00	-3960.83	-1163.86	Pass (3.40)	Pass (1.25)
(FoS) 1.193	-2968.99	-6579.65	-1168.70	Pass (5.63)	Pass (2.22)
($0.1L_s$) 7.702	-1859.96	-6493.62	-1191.91	Pass (5.45)	Pass (3.49)
($0.2L_s$) 15.405	-1220.46	-6413.60	-1196.68	Pass (5.36)	Pass (5.26)
(Deck Bar Cutoff) 21.642	-981.62	-4396.77	-1196.68	Pass (3.67)	Pass (4.48)
($0.3L_s$) 23.107	-934.74	-3717.45	-1196.68	Pass (3.11)	Pass (3.98)
($0.4L_s$) 30.810	-707.04	-3355.14	-940.36	Pass (3.57)	Pass (4.75)
($0.5L_s$) 38.512	-510.17	-3349.02	-678.53	Pass (4.94)	Pass (6.56)
($0.6L_s$) 46.215	-345.36	-3355.11	-459.33	Pass (7.30)	Pass (9.71)
($0.7L_s$) 53.917	-211.93	-3373.30	-281.87	Pass (10+)	Pass (10+)
($0.8L_s$) 61.620	-109.90	-3401.98	-146.17	Pass (10+)	Pass (10+)

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.9L_s$) 69.322	-39.25	-3235.51	-52.21	Pass (10+)	Pass (10+)
(FoS) 76.692	-1.05	-3278.57	-1.40	Pass (10+)	Pass (10+)
($1.0L_s$) 77.025	0.00	-3280.80	0.00	Pass (∞)	Pass (∞)

Negative Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-2618.44	-3960.83	-1163.86	Pass (3.40)	Pass (1.51)
(FoS) 1.193	-2453.13	-6579.65	-1168.70	Pass (5.63)	Pass (2.68)
($0.1L_s$) 7.702	-1550.84	-6493.62	-1191.91	Pass (5.45)	Pass (4.19)
($0.2L_s$) 15.405	-1107.72	-6413.60	-1196.68	Pass (5.36)	Pass (5.79)
(Deck Bar Cutoff) 21.642	-880.28	-4396.77	-1196.68	Pass (3.67)	Pass (4.99)
($0.3L_s$) 23.107	-836.09	-3717.45	-1196.68	Pass (3.11)	Pass (4.45)
($0.4L_s$) 30.810	-622.48	-3355.14	-940.36	Pass (3.57)	Pass (5.39)
($0.5L_s$) 38.512	-439.74	-3349.02	-678.53	Pass (4.94)	Pass (7.62)
($0.6L_s$) 46.215	-289.01	-3355.11	-459.33	Pass (7.30)	Pass (10+)
($0.7L_s$) 53.917	-169.67	-3373.30	-281.87	Pass (10+)	Pass (10+)
($0.8L_s$) 61.620	-81.72	-3401.98	-146.17	Pass (10+)	Pass (10+)
($0.9L_s$) 69.322	-25.17	-3235.51	-52.21	Pass (10+)	Pass (10+)
(FoS) 76.692	-0.44	-3278.57	-1.40	Pass (10+)	Pass (10+)
($1.0L_s$) 77.025	0.00	-3280.80	0.00	Pass (∞)	Pass (∞)

Ultimate Shear Capacity

Ultimate Shears for Strength I Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\lvert V_u \rvert$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(CS) 4.988	Yes	Yes	296.36	533.01	Pass (1.80)
(SZB) 5.862	Yes	Yes	291.22	398.71	Pass (1.37)
(1.5H) 6.443	Yes	Yes	287.80	394.83	Pass (1.37)
($0.1L_s$) 7.702	Yes	Yes	280.37	401.76	Pass (1.43)
(SZB) 11.362	Yes	Yes	258.61	319.52	Pass (1.24)
($0.2L_s$) 15.405	Yes	Yes	234.28	324.17	Pass (1.38)
(SZB) 19.612	Yes	Yes	208.79	278.97	Pass (1.34)
(Deck Bar Cutoff) 21.642	Yes	Yes	196.41	279.28	Pass (1.42)
($0.3L_s$) 23.107	Yes	Yes	187.49	279.91	Pass (1.49)
(SZB) 30.612	Yes	Yes	141.66	228.44	Pass (1.61)
($0.4L_s$) 30.810	Yes	Yes	140.46	227.93	Pass (1.62)
(HP) 31.242	Yes	Yes	137.82	226.96	Pass (1.65)
($0.5L_s$) 38.512	Yes	Yes	93.62	171.53	Pass (1.83)
($0.6L_s$) 46.215	Yes	Yes	83.50	172.59	Pass (2.07)
(HP) 46.642	Yes	Yes	85.84	205.21	Pass (2.39)
(SZB) 47.272	Yes	Yes	89.30	202.95	Pass (2.27)
($0.7L_s$) 53.917	Yes	Yes	127.76	240.48	Pass (1.88)
(SZB) 58.272	Yes	Yes	153.78	255.83	Pass (1.66)
($0.8L_s$) 61.620	Yes	Yes	174.09	307.20	Pass (1.76)
(SZB) 66.522	Yes	Yes	204.31	302.03	Pass (1.48)
($0.9L_s$) 69.322	Yes	Yes	221.81	400.59	Pass (1.81)
(1.5H) 71.442	Yes	Yes	235.14	416.96	Pass (1.77)
(SZB) 72.022	Yes	Yes	238.80	414.06	Pass (1.73)
(CS) 73.101	Yes	Yes	245.62	569.31	Pass

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
					(2.32)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Ultimate Shears for Strength II Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(SZB) 5.862	Yes	Yes	284.22	408.54	Pass (1.44)
(1.5H) 6.443	Yes	Yes	281.02	404.10	Pass (1.44)
(0.1L_s) 7.702	Yes	Yes	274.04	410.50	Pass (1.50)
(SZB) 11.362	Yes	Yes	253.36	324.94	Pass (1.28)
(0.2L_s) 15.405	Yes	Yes	229.68	327.93	Pass (1.43)
(SZB) 19.612	Yes	Yes	204.26	282.63	Pass (1.38)
(Deck Bar Cutoff) 21.642	Yes	Yes	191.68	283.05	Pass (1.48)
(0.3L_s) 23.107	Yes	Yes	182.51	283.69	Pass (1.55)
(SZB) 30.612	Yes	Yes	134.19	243.06	Pass (1.81)
(0.4L_s) 30.810	Yes	Yes	132.89	243.30	Pass (1.83)
(HP) 31.242	Yes	Yes	130.04	243.82	Pass (1.87)
(0.5L_s) 38.512	Yes	Yes	81.18	198.84	Pass (2.45)
(0.6L_s) 46.215	Yes	Yes	77.97	201.87	Pass (2.59)
(HP) 46.642	Yes	Yes	80.27	240.17	Pass (2.99)
(SZB) 47.272	Yes	Yes	83.68	238.21	Pass (2.85)
(0.7L_s) 53.917	Yes	Yes	121.43	274.58	Pass (2.26)
(SZB) 58.272	Yes	Yes	146.78	270.08	Pass (1.84)
(0.8L_s) 61.620	Yes	Yes	166.50	310.90	Pass (1.87)
(SZB) 66.522	Yes	Yes	195.58	304.95	Pass (1.56)
(0.9L_s) 69.322	Yes	Yes	212.33	403.22	Pass (1.90)
(1.5H) 71.442	Yes	Yes	225.01	419.13	Pass (1.86)
(SZB) 72.022	Yes	Yes	228.48	416.04	Pass (1.82)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Longitudinal Reinforcement for Shear Check - Strength I [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 1.193	1949.42	1089.34	5.7.3.5-1	Pass (1.79)
(SZB) 2.196	1988.77	1016.66	5.7.3.5-1	Pass (1.96)
(Bar Develop.) 2.564	2003.20	990.30	5.7.3.5-1	Pass (2.02)
(Bar Develop.) 3.625	2020.80	915.29	5.7.3.5-1	Pass (2.21)
(H) 4.693	2020.80	845.47	5.7.3.5-1	Pass (2.39)
(CS) 4.988	2020.80	827.98	5.7.3.5-1	Pass (2.44)
(SZB) 5.862	2020.80	784.89	5.7.3.5-1	Pass (2.57)
(1.5H) 6.443	2020.80	745.41	5.7.3.5-1	Pass (2.71)
(0.1L_s) 7.702	2020.80	656.73	5.7.3.5-1	Pass (3.08)
(SZB) 11.362	1338.18	677.38	5.7.3.5-1	Pass (1.98)
(0.2L_s) 15.405	1652.22	824.56	5.7.3.5-1	Pass (2.00)
(SZB) 19.612	1656.65	994.80	5.7.3.5-1	Pass (1.67)
(Deck Bar Cutoff) 21.642	1658.76	1043.42	5.7.3.5-1	Pass (1.59)
(0.3L_s) 23.107	1660.20	1071.93	5.7.3.5-1	Pass (1.55)

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(SZB) 30.612	1664.30	1194.89	5.7.3.5-1	Pass (1.39)
(0.4L_s) 30.810	1664.34	1195.21	5.7.3.5-1	Pass (1.39)
(HP) 31.242	1664.43	1195.67	5.7.3.5-1	Pass (1.39)
(0.5L_s) 38.512	1664.44	1258.14	5.7.3.5-1	Pass (1.32)
(0.6L_s) 46.215	1664.44	1251.12	5.7.3.5-1	Pass (1.33)
(HP) 46.642	1664.44	1207.20	5.7.3.5-1	Pass (1.38)
(SZB) 47.272	1664.31	1211.14	5.7.3.5-1	Pass (1.37)
(0.7L_s) 53.917	1660.96	1200.34	5.7.3.5-1	Pass (1.38)
(SZB) 58.272	1656.59	1171.23	5.7.3.5-1	Pass (1.41)
(0.8L_s) 61.620	1652.57	1074.75	5.7.3.5-1	Pass (1.54)
(SZB) 66.522	1337.09	918.72	5.7.3.5-1	Pass (1.46)
(0.9L_s) 69.322	1125.36	722.07	5.7.3.5-1	Pass (1.56)
(1.5H) 71.442	954.97	586.94	5.7.3.5-1	Pass (1.63)
(SZB) 72.022	844.56	552.40	5.7.3.5-1	Pass (1.53)
(CS) 73.101	812.42	476.90	5.7.3.5-1	Pass (1.70)
(H) 73.192	809.72	201.08	5.7.3.5-2	Pass (4.03)
(Bar Develop.) 74.260	777.94	201.08	5.7.3.5-2	Pass (3.87)
(Bar Develop.) 75.320	643.08	201.08	5.7.3.5-2	Pass (3.20)
(SZB) 75.688	584.63	201.08	5.7.3.5-2	Pass (2.91)
(FoS) 76.692	422.99	201.08	5.7.3.5-2	Pass (2.10)

Longitudinal Reinforcement for Shear Check - Strength II [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 1.193	1949.42	935.87	5.7.3.5-1	Pass (2.08)
(SZB) 2.196	1988.77	873.78	5.7.3.5-1	Pass (2.28)
(Bar Develop.) 2.564	2003.20	851.17	5.7.3.5-1	Pass (2.35)
(Bar Develop.) 3.625	2020.80	786.60	5.7.3.5-1	Pass (2.57)
(H) 4.693	2020.80	726.75	5.7.3.5-1	Pass (2.78)
(SZB) 5.862	2020.80	664.56	5.7.3.5-1	Pass (3.04)
(1.5H) 6.443	2020.80	630.12	5.7.3.5-1	Pass (3.21)
(0.1L_s) 7.702	2020.80	562.41	5.7.3.5-1	Pass (3.59)
(SZB) 11.362	1338.18	593.05	5.7.3.5-1	Pass (2.26)
(0.2L_s) 15.405	1652.22	764.32	5.7.3.5-1	Pass (2.16)
(SZB) 19.612	1656.65	928.99	5.7.3.5-1	Pass (1.78)
(Deck Bar Cutoff) 21.642	1658.76	973.72	5.7.3.5-1	Pass (1.70)
(0.3L_s) 23.107	1660.20	1000.79	5.7.3.5-1	Pass (1.66)
(SZB) 30.612	1664.30	1113.44	5.7.3.5-1	Pass (1.49)
(0.4L_s) 30.810	1664.34	1113.50	5.7.3.5-1	Pass (1.49)
(HP) 31.242	1664.43	1113.34	5.7.3.5-1	Pass (1.49)
(0.5L_s) 38.512	1664.44	1183.43	5.7.3.5-1	Pass (1.41)
(0.6L_s) 46.215	1664.44	1177.18	5.7.3.5-1	Pass (1.41)
(HP) 46.642	1664.44	1129.25	5.7.3.5-1	Pass (1.47)
(SZB) 47.272	1664.31	1130.98	5.7.3.5-1	Pass (1.47)
(0.7L_s) 53.917	1660.96	1129.35	5.7.3.5-1	Pass (1.47)
(SZB) 58.272	1656.59	1093.89	5.7.3.5-1	Pass (1.51)
(0.8L_s) 61.620	1652.57	1007.50	5.7.3.5-1	Pass

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
				(1.64)
(SZB) 66.522	1337.09	856.87	5.7.3.5-1	Pass (1.56)
(0.9L_s) 69.322	1125.36	682.26	5.7.3.5-1	Pass (1.65)
(1.5H) 71.442	954.97	556.07	5.7.3.5-1	Pass (1.72)
(SZB) 72.022	844.56	523.66	5.7.3.5-1	Pass (1.61)
(H) 73.192	809.72	190.58	5.7.3.5-2	Pass (4.25)
(Bar Develop.) 74.260	777.94	190.58	5.7.3.5-2	Pass (4.08)
(Bar Develop.) 75.320	643.08	190.58	5.7.3.5-2	Pass (3.37)
(SZB) 75.688	584.63	190.58	5.7.3.5-2	Pass (3.07)
(FoS) 76.692	422.99	190.58	5.7.3.5-2	Pass (2.22)

Horizontal Interface Shears/Length for Strength I Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.860	12.000	48.000	Pass	0.220	0.000	Pass	79.669	142.523	Pass (1.79)
(FoS) 1.193	12.000	48.000	Pass	0.220	0.000	Pass	79.696	142.524	Pass (1.79)
(SZB) 2.196	12.000	48.000	Pass	0.220	0.000	Pass	79.776	142.527	Pass (1.79)
(Bar Develop.) 2.564	12.000	48.000	Pass	0.220	0.000	Pass	79.804	142.528	Pass (1.79)
(Bar Develop.) 3.625	12.000	48.000	Pass	0.220	0.000	Pass	79.884	142.531	Pass (1.78)
(H) 4.693	12.000	48.000	Pass	0.220	0.000	Pass	79.960	142.535	Pass (1.78)
(CS) 4.988	12.000	48.000	Pass	0.220	0.000	Pass	79.981	142.535	Pass (1.78)
(SZB) 5.862	12.000	48.000	Pass	0.220	0.000	Pass	78.654	142.538	Pass (1.81)
(1.5H) 6.443	12.000	48.000	Pass	0.220	0.000	Pass	77.767	142.539	Pass (1.83)
(0.1L_s) 7.702	12.000	48.000	Pass	0.220	0.000	Pass	75.835	142.543	Pass (1.88)
(SZB) 11.362	9.000	48.000	Pass	0.293	0.000	Pass	70.029	146.511	Pass (2.09)
(0.2L_s) 15.405	9.000	48.000	Pass	0.293	0.000	Pass	63.441	146.519	Pass (2.31)
(SZB) 19.612	12.000	48.000	Pass	0.220	0.000	Pass	56.537	142.566	Pass (2.52)
(Deck Bar Cutoff) 21.642	12.000	48.000	Pass	0.220	0.000	Pass	53.187	142.569	Pass (2.68)
(0.3L_s) 23.107	12.000	48.000	Pass	0.220	0.000	Pass	50.771	142.570	Pass (2.81)
(SZB) 30.612	18.000	48.000	Pass	0.147	0.000	Pass	38.360	138.615	Pass (3.61)
(0.4L_s) 30.810	18.000	48.000	Pass	0.147	0.000	Pass	38.034	138.615	Pass (3.64)
(HP) 31.242	18.000	48.000	Pass	0.147	0.000	Pass	37.321	138.615	Pass (3.71)
(0.5L_s) 38.512	18.000	48.000	Pass	0.147	0.000	Pass	25.352	138.614	Pass (5.47)
(0.6L_s) 46.215	18.000	48.000	Pass	0.147	0.000	Pass	22.610	138.607	Pass (6.13)
(HP) 46.642	18.000	48.000	Pass	0.147	0.000	Pass	23.244	138.606	Pass (5.96)
(SZB) 47.272	18.000	48.000	Pass	0.147	0.000	Pass	24.182	138.606	Pass (5.73)
(0.7L_s) 53.917	12.000	48.000	Pass	0.220	0.000	Pass	34.597	142.554	Pass (4.12)
(SZB) 58.272	12.000	48.000	Pass	0.220	0.000	Pass	41.616	142.544	Pass (3.43)
(0.8L_s) 61.620	9.000	48.000	Pass	0.293	0.000	Pass	46.985	146.495	Pass (3.12)
(SZB) 66.522	9.000	48.000	Pass	0.293	0.000	Pass	54.882	146.480	Pass (2.67)
(0.9L_s) 69.322	12.000	48.000	Pass	0.220	0.000	Pass	59.396	142.511	Pass (2.40)
(1.5H) 71.442	12.000	48.000	Pass	0.220	0.000	Pass	62.802	142.503	Pass (2.27)
(SZB) 72.022	12.000	48.000	Pass	0.220	0.000	Pass	63.731	142.501	Pass (2.24)
(CS) 73.101	12.000	48.000	Pass	0.220	0.000	Pass	65.457	142.497	Pass (2.18)
(H) 73.192	12.000	48.000	Pass	0.220	0.000	Pass	65.449	142.496	Pass (2.18)
(Bar Develop.) 74.260	12.000	48.000	Pass	0.220	0.000	Pass	65.351	142.492	Pass (2.18)
(Bar Develop.) 75.320	12.000	48.000	Pass	0.220	0.000	Pass	65.251	142.487	Pass (2.18)
(SZB) 75.688	12.000	48.000	Pass	0.220	0.000	Pass	65.215	142.486	Pass (2.18)
(FoS) 76.692	12.000	48.000	Pass	0.220	0.000	Pass	65.116	142.482	Pass (2.19)
(1.0L_s) 77.025	12.000	48.000	Pass	0.220	0.000	Pass	65.082	142.480	Pass

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
									(2.19)
77.025	12.000	48.000	Pass	0.220	0.000	Pass	65.082	142.480	Pass (2.19)

Horizontal Interface Shears/Length for Strength II Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.860	12.000	48.000	Pass	0.220	0.000	Pass	77.693	142.523	Pass (1.83)
(FoS) 1.193	12.000	48.000	Pass	0.220	0.000	Pass	77.719	142.524	Pass (1.83)
(SZB) 2.196	12.000	48.000	Pass	0.220	0.000	Pass	77.797	142.527	Pass (1.83)
(Bar Develop.) 2.564	12.000	48.000	Pass	0.220	0.000	Pass	77.825	142.528	Pass (1.83)
(Bar Develop.) 3.625	12.000	48.000	Pass	0.220	0.000	Pass	77.902	142.531	Pass (1.83)
(H) 4.693	12.000	48.000	Pass	0.220	0.000	Pass	77.977	142.535	Pass (1.83)
(SZB) 5.862	12.000	48.000	Pass	0.220	0.000	Pass	76.763	142.538	Pass (1.86)
(1.5H) 6.443	12.000	48.000	Pass	0.220	0.000	Pass	75.934	142.539	Pass (1.88)
($0.1L_s$) 7.702	12.000	48.000	Pass	0.220	0.000	Pass	74.122	142.543	Pass (1.92)
(SZB) 11.362	9.000	48.000	Pass	0.293	0.000	Pass	68.608	146.511	Pass (2.14)
($0.2L_s$) 15.405	9.000	48.000	Pass	0.293	0.000	Pass	62.196	146.519	Pass (2.36)
(SZB) 19.612	12.000	48.000	Pass	0.220	0.000	Pass	55.311	142.566	Pass (2.58)
(Deck Bar Cutoff) 21.642	12.000	48.000	Pass	0.220	0.000	Pass	51.904	142.569	Pass (2.75)
($0.3L_s$) 23.107	12.000	48.000	Pass	0.220	0.000	Pass	49.423	142.570	Pass (2.88)
(SZB) 30.612	18.000	48.000	Pass	0.147	0.000	Pass	36.338	138.615	Pass (3.81)
($0.4L_s$) 30.810	18.000	48.000	Pass	0.147	0.000	Pass	35.986	138.615	Pass (3.85)
(HP) 31.242	18.000	48.000	Pass	0.147	0.000	Pass	35.214	138.615	Pass (3.94)
($0.5L_s$) 38.512	18.000	48.000	Pass	0.147	0.000	Pass	21.983	138.614	Pass (6.31)
($0.6L_s$) 46.215	18.000	48.000	Pass	0.147	0.000	Pass	21.112	138.607	Pass (6.57)
(HP) 46.642	18.000	48.000	Pass	0.147	0.000	Pass	21.736	138.606	Pass (6.38)
(SZB) 47.272	18.000	48.000	Pass	0.147	0.000	Pass	22.659	138.606	Pass (6.12)
($0.7L_s$) 53.917	12.000	48.000	Pass	0.220	0.000	Pass	32.882	142.554	Pass (4.34)
(SZB) 58.272	12.000	48.000	Pass	0.220	0.000	Pass	39.720	142.544	Pass (3.59)
($0.8L_s$) 61.620	9.000	48.000	Pass	0.293	0.000	Pass	44.937	146.495	Pass (3.26)
(SZB) 66.522	9.000	48.000	Pass	0.293	0.000	Pass	52.536	146.480	Pass (2.79)
($0.9L_s$) 69.322	12.000	48.000	Pass	0.220	0.000	Pass	56.857	142.511	Pass (2.51)
(1.5H) 71.442	12.000	48.000	Pass	0.220	0.000	Pass	60.095	142.503	Pass (2.37)
(SZB) 72.022	12.000	48.000	Pass	0.220	0.000	Pass	60.976	142.501	Pass (2.34)
(H) 73.192	12.000	48.000	Pass	0.220	0.000	Pass	62.603	142.496	Pass (2.28)
(Bar Develop.) 74.260	12.000	48.000	Pass	0.220	0.000	Pass	62.510	142.492	Pass (2.28)
(Bar Develop.) 75.320	12.000	48.000	Pass	0.220	0.000	Pass	62.414	142.487	Pass (2.28)
(SZB) 75.688	12.000	48.000	Pass	0.220	0.000	Pass	62.380	142.486	Pass (2.28)
(FoS) 76.692	12.000	48.000	Pass	0.220	0.000	Pass	62.285	142.482	Pass (2.29)
($1.0L_s$) 77.025	12.000	48.000	Pass	0.220	0.000	Pass	62.253	142.480	Pass (2.29)
77.025	12.000	48.000	Pass	0.220	0.000	Pass	62.253	142.480	Pass (2.29)

Live Load Deflection Check [2.5.2.6.2]
Allowable deflection span ratio = L/800
Allowable maximum deflection = ± 1.155 in
Minimum live load deflection along girder = -0.222 in
Maximum live load deflection along girder = 0.093 in
Status = Pass

Constructability Checks

Girder Dimensions Detailing Check [5.12.3.2.2]

Dimension	Minimum (in)	Actual (in)	Status
Top Flange Thickness	2.000	3.500	Pass
Web Thickness	5.000	7.000	Pass
Bottom Flange Thickness	5.000	6.500	Pass

Stirrup Detailing Check: Strength I [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.860	#4	3.000	12.000	1.500	1.600	0.125	Pass
(FoS) 1.193	#4	3.000	12.000	1.500	1.600	0.125	Pass
(SZB) 2.196	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.564	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 3.625	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 4.693	#4	4.000	18.000	1.500	1.200	0.125	Pass
(CS) 4.988	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.862	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 6.443	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.702	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 11.362	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.405	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 19.612	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 21.642	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.107	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 30.612	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.810	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 31.242	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.512	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.215	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.642	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 47.272	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.917	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 58.272	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.620	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.522	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.322	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.442	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 72.022	#4	6.000	18.000	1.500	0.800	0.125	Pass
(CS) 73.101	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 73.192	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.260	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 75.320	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 75.688	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 76.692	#4	3.000	18.000	1.500	1.600	0.125	Pass
($1.0L_s$) 77.025	#4	3.000	18.000	1.500	1.600	0.125	Pass
77.025	#4	3.000	18.000	1.500	1.600	0.000	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Stirrup Detailing Check: Strength II [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.860	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 1.193	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 2.196	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.564	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 3.625	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 4.693	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.862	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 6.443	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.702	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 11.362	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.405	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 19.612	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 21.642	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.107	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 30.612	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.810	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 31.242	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.512	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.215	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.642	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 47.272	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.917	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 58.272	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.620	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.522	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.322	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.442	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 72.022	#4	6.000	18.000	1.500	0.800	0.125	Pass
(H) 73.192	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.260	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 75.320	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 75.688	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 76.692	#4	3.000	18.000	1.500	1.600	0.125	Pass
($1.0L_s$) 77.025	#4	3.000	18.000	1.500	1.600	0.125	Pass
77.025	#4	3.000	18.000	1.500	1.600	0.000	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Hold Down Force

Hold Down Force (kip/strand)	Hold Down Force Limit (kip/strand)	Status
3.32	4.00	Pass

Haunch Geometry Checks

Note: Specification Checks for Haunch Geometry are Disabled in the Project Criteria. All Status values will be reported as N/A.

Slab Offset ("A" Dimension)

This table compares the input slab offset to the rounded computed slab offset required to have the least haunch depth be equal to the Fillet dimension. A failed status indicates that the top of the girder will encroach into the deck slab and the Slab Offset dimension should be refined.

Span	Girder	Provided (in)	Required (in)	Status	Notes
2	A	11.000	11.250	N/A	

Minimum Fillet Depth

This table compares the provided Fillet dimension to the minimum Fillet dimension specified in the girder library. A failed status indicates that the Fillet dimension is too small.

Span	Girder	Provided (in)	Required (in)	Status
2	A	1.000	1.000	N/A

Camber

	Camber (in)
Screed Camber, C at mid-span	1.158
Lower Bound Camber at 60 days, 50% of D_{60}	1.657
Average Camber at 60 days, 75% of D_{60}	2.486
Upper Bound Camber at 60 days, D_{60}	3.314

Bridge Description Details

Span 2 Girder A

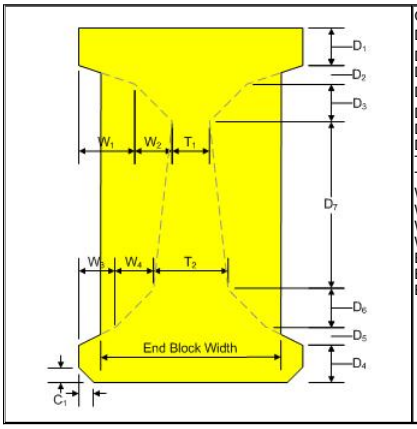
Deck and Roadway Widths

Location from Left Support (ft)	Station	Deck Width (ft)	Exterior Curb-Curb Width (ft)	Interior Curb-Curb Width (ft)	Overlay Toe-Toe Width (ft)
($0.0L_s$) 0.000	94+76.96	94.000	91.000	74.000	74.000
0.860	94+77.78	94.000	91.000	74.000	74.000
($0.1L_s$) 7.702	94+84.25	94.000	91.000	74.000	74.000
($0.2L_s$) 15.405	94+91.54	94.000	91.000	74.000	74.000
($0.3L_s$) 23.107	94+98.84	94.000	91.000	74.000	74.000
($0.4L_s$) 30.810	95+06.14	94.000	91.000	74.000	74.000
($0.5L_s$) 38.512	95+13.43	94.000	91.000	74.000	74.000
($0.6L_s$) 46.215	95+20.73	94.000	91.000	74.000	74.000
($0.7L_s$) 53.917	95+28.02	94.000	91.000	74.000	74.000
($0.8L_s$) 61.620	95+35.31	94.000	91.000	74.000	74.000
($0.9L_s$) 69.322	95+42.60	94.000	91.000	74.000	74.000
($1.0L_s$) 77.025	95+49.88	94.000	91.000	74.000	74.000
77.025	95+49.88	94.000	91.000	74.000	74.000

Intermediate Diaphragms

No intermediate diaphragms defined

BT-42 CDOT Dimensions



C1 = 0.000 in (0")
D1 = 3.500 in ($3^1/_2$")
D2 = 2.000 in (2")
D3 = 2.000 in (2")
D4 = 6.500 in ($6^1/_2$")
D5 = 6.000 in (6")
D6 = 0.000 in (0")
D7 = 22.000 in (1'-10")
T1 = 7.000 in (7")
T2 = 7.000 in (7")
W1 = 16.000 in (1'-4")
W2 = 2.000 in (2")
W3 = 10.000 in (10")
W4 = 0.000 in (0")
EndBlockWidth = 0.000 in (0")
EndBlockLength = 0.000 ft (0")
EndBlockTransition = 0.000 ft (0")

Strand Locations

X = 0 is at CL Girder, Y = 0 is at Top of Girder

Straight Strands

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
1	-3.000	-40.000	-3.000	-40.000	•	•
2	3.000	-40.000	3.000	-40.000	•	•
3	-5.000	-40.000	-5.000	-40.000	•	•
4	5.000	-40.000	5.000	-40.000	•	•
5	-7.000	-40.000	-7.000	-40.000	•	•
6	7.000	-40.000	7.000	-40.000	•	•
7	-9.000	-40.000	-9.000	-40.000	•	•

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
8	9.000	-40.000	9.000	-40.000	•	•
9	-3.000	-38.000	-3.000	-38.000		
10	3.000	-38.000	3.000	-38.000		
11	-5.000	-38.000	-5.000	-38.000		
12	5.000	-38.000	5.000	-38.000		
13	-7.000	-38.000	-7.000	-38.000		
14	7.000	-38.000	7.000	-38.000		
15	-9.000	-38.000	-9.000	-38.000		
16	9.000	-38.000	9.000	-38.000		
17	-11.000	-38.000	-11.000	-38.000		
18	11.000	-38.000	11.000	-38.000		

No Temporary Strands in Girder

Harped Strand Locations at Ends of Girder

Strand	X (in)	Y (in)
1	-1.000	-12.000
2	1.000	-12.000
3	-1.000	-10.000
4	1.000	-10.000
5	-1.000	-8.000
6	1.000	-8.000
7	-1.000	-6.000
8	1.000	-6.000
9	-1.000	-4.000
10	1.000	-4.000

Harped Strand Locations at Harping Points

Strand	X (in)	Y (in)
1	-1.000	-40.000
2	1.000	-40.000
3	-1.000	-38.000
4	1.000	-38.000
5	-1.000	-36.000
6	1.000	-36.000
7	-1.000	-34.000
8	1.000	-34.000
9	-1.000	-32.000
10	1.000	-32.000

Strand Eccentricity

Strand Eccentricity: Interval 2 Prestress Release

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	18.069	-12.820	7.037	13.1998	13.1998
0.417	0.000	18.070	-12.440	7.174	13.1998	13.1998
0.417	(0.0L_e) 0.000	18.070	-12.440	7.174	13.1998	13.1998
(FoS) 0.750	(FoS) 0.333	18.071	-12.136	7.283	13.1998	13.1998
(SZB) 1.753	(SZB) 1.337	18.074	-11.221	7.612	13.1998	13.1998
(Bar Develop.) 2.121	(Bar Develop.) 1.705	18.075	-10.885	7.732	13.1998	13.1998
(PSXFR) 3.000	(PSXFR) 2.583	18.078	-10.084	8.020	13.1998	13.1998
(Bar Develop.) 3.182	(Bar Develop.) 2.765	18.079	-9.918	8.080	13.1998	13.1998
(H) 4.250	(H) 3.833	18.082	-8.943	8.430	13.1998	13.1998
(CS) 4.545	(CS) 4.128	18.083	-8.674	8.527	13.1998	13.1998
(SZB) 5.419	(SZB) 5.003	18.085	-7.877	8.813	13.1998	13.1998
(1.5H) 6.000	(1.5H) 5.583	18.087	-7.347	9.003	13.1998	13.1998
(0.1L_t) 7.700	7.283	18.092	-5.797	9.561	13.1998	13.1998
8.033	(0.1L_e) 7.617	18.093	-5.493	9.670	13.1998	13.1998
(SZB) 10.919	(SZB) 10.503	18.102	-2.860	10.616	13.1998	13.1998
(0.2L_t) 15.400	14.983	18.116	1.227	12.084	13.1998	13.1998
15.650	(0.2L_e) 15.233	18.117	1.455	12.166	13.1998	13.1998
(SZB) 19.169	(SZB) 18.753	18.127	4.665	13.320	13.1998	13.1998
(Deck Bar Cutoff) 21.199	(Deck Bar Cutoff) 20.783	18.134	6.517	13.985	13.1998	13.1998
(0.3L_t) 23.100	22.683	18.139	8.250	14.608	13.1998	13.1998
23.266	(0.3L_e) 22.850	18.140	8.403	14.662	13.1998	13.1998
(SZB) 30.169	(SZB) 29.753	18.161	14.699	16.925	13.1998	13.1998
(HP, 0.4L_t) 30.799	(HP) 30.383	18.163	15.274	17.131	13.1998	13.1998
30.883	(0.4L_e) 30.466	18.163	15.274	17.131	∞	∞
(0.5L_t) 38.499	(0.5L_e) 38.083	18.163	15.274	17.131	∞	∞
46.116	(0.6L_e) 45.699	18.163	15.274	17.131	∞	∞
(HP, 0.6L_t) 46.199	(HP) 45.783	18.163	15.274	17.131	13.1998	13.1998
(SZB) 46.829	(SZB) 46.413	18.161	14.699	16.925	13.1998	13.1998
53.732	(0.7L_e) 53.316	18.140	8.403	14.662	13.1998	13.1998
(0.7L_t) 53.899	53.482	18.139	8.250	14.608	13.1998	13.1998
(SZB) 57.829	(SZB) 57.413	18.127	4.665	13.320	13.1998	13.1998
61.349	(0.8L_e) 60.932	18.117	1.455	12.166	13.1998	13.1998
(0.8L_t) 61.599	61.182	18.116	1.227	12.084	13.1998	13.1998
(SZB) 66.079	(SZB) 65.663	18.102	-2.860	10.616	13.1998	13.1998
68.965	(0.9L_e) 68.549	18.093	-5.493	9.670	13.1998	13.1998
(0.9L_t) 69.299	68.882	18.092	-5.797	9.561	13.1998	13.1998
(1.5H) 70.999	(1.5H) 70.582	18.087	-7.347	9.003	13.1998	13.1998
(SZB) 71.579	(SZB) 71.163	18.085	-7.877	8.813	13.1998	13.1998
(CS) 72.658	(CS) 72.242	18.082	-8.861	8.460	13.1998	13.1998
(H) 72.749	(H) 72.332	18.082	-8.943	8.430	13.1998	13.1998
(Bar Develop.) 73.817	(Bar Develop.) 73.400	18.079	-9.918	8.080	13.1998	13.1998
(PSXFR) 73.999	(PSXFR) 73.582	18.078	-10.084	8.020	13.1998	13.1998
(Bar Develop.) 74.877	(Bar Develop.) 74.461	18.075	-10.885	7.732	13.1998	13.1998
(SZB) 75.245	(SZB) 74.829	18.074	-11.221	7.612	13.1998	13.1998
(FoS) 76.249	(FoS) 75.832	18.071	-12.136	7.283	13.1998	13.1998

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
76.582	($1.0L_e$) 76.165	18.070	-12.440	7.174	13.1998	13.1998
76.582	76.165	18.070	-12.440	7.174	13.1998	13.1998
(STLF, $1.0L_t$) 76.999	(STLF) 76.582	18.069	-12.820	7.037	13.1998	13.1998

Eccentricities are based on the gross non-composite girder section
Eccentricities measured from neutral axis of non-composite section based on material properties at time of prestress release
Positive e_y values indicate strands are below the centroid

Debonding Criteria
Maximum number of debonded strands = 25% of total number of strands
Maximum number of debonded strands per row = 40% of strands in any row
Maximum number of debonded strands per section. The greater of 4 strands or 40% of strands debonded at any section
Maximum distance between debond sections = 3.000 ft

Deflection Multipliers
The factors below are multiplied by the specified load case's deflections when computing deflections and excess camber

Load Cases	Factor
Erection (Girder, Prestress)	1.000
Creep	1.000
Diaphragm, Construction, Shear key	1.000
Deck Panels	1.000
Slab, User Defined Loads at Cast Deck, Apply User Defined Loads	1.000
Haunch	1.000
Railing System (Traffic Barrier, Sidewalks), Overlay, User Defined Loads at Apply User Defined Loads, Install Railing System and Overlay	1.000

Transverse Reinforcement Stirrup Zones

Primary Bars

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Vertical Legs	# Legs Extended into Deck*	Confinement Bar Size
1	0.000	1.750	#4	3.000	2	0	(None)
2	1.750	5.416	#4	4.000	2	0	(None)
3	5.416	10.916	#4	6.000	2	0	(None)
4	10.916	19.166	#4	9.000	2	0	(None)
5	19.166	30.166	#4	12.000	2	0	(None)
6	30.166	46.833	#4	18.000	2	0	(None)
7	46.833	57.833	#4	12.000	2	0	(None)
8	57.833	66.083	#4	9.000	2	0	(None)
9	66.083	71.583	#4	6.000	2	0	(None)
10	71.583	75.249	#4	4.000	2	0	(None)
11	75.249	76.999	#4	3.000	2	0	(None)

* Bars add to horizontal interface shear capacity

Additional Bars for Horizontal Interface Shear Capacity

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Legs
1	0.000	10.917	#3	12.000	2
2	10.917	19.167	#3	9.000	2
3	19.167	30.167	#3	12.000	2
4	30.167	46.832	#3	18.000	2
5	46.832	57.832	#3	12.000	2
6	57.832	66.082	#3	9.000	2
7	66.082	76.999	#3	12.000	2

Additional Splitting Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)	# of Legs
0.500	#6	4.000	2

Additional Bottom Flange Confinement Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)
6.500	#3	4.000

Longitudinal Rebar Locations
Bar start and end locations measured from left end of girder

Row	Bar Start (ft)	Bar End (ft)	Girder Face	Cover (in)	Bar Size	# of Bars	Spacing (in)
1	0.000	76.999	Top	2.375	#4	4	6.000
2	0.000	76.999	Bottom	2.500	#4	2	24.000
3	0.000	76.999	Top	2.375	#6	2	36.000

Materials

Permanent Strands

Name	Grade 270 Low Relaxation 0.6"
Type	Low Relaxation
f_{pu}	270.000 KSI
f_{py}	243.000 KSI
E_{ps}	28500.000 KSI
A_{ps}	0.217 in^2

Deck Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Transverse Reinforcing Material (Stirrups, Confinement, and Horizontal Interface Shear Bars)

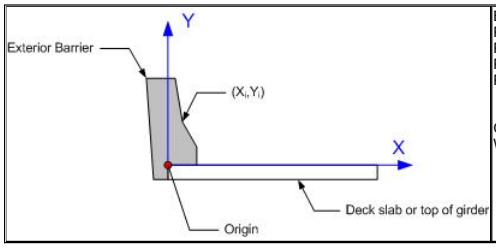
Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Longitudinal Girder Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

f_u	90.000 KSI	f_u	90.000 KSI	f_u	90.000 KSI

Parker Rail Dimensions



Barrier Points
Point 1= (0.000 in, 0.000 in)
Point 2= (0.000 in, 30.000 in)
Point 3= (18.000 in, 30.000 in)
Point 4= (18.000 in, 0.000 in)

Curb Offset = 0.000 in
Weight = 0.700 kip/ft/barrier

Project Criteria

Name: CDOT
Description: AASHTO LRFD Bridge Design Spec, 8th Ed. 2017, US Units, CDOT stress requirements
Based on: AASHTO LRFD Bridge Design Specification, Eighth Edition 2017 - US Units
Section Properties: Gross
Effective Flange Width computed in accordance with LRFD 4.6.2.6

Load Modifiers		Environmental		Structural Analysis
Ductility - η_D	1	Exposure Condition	Normal	Simple Spans Made Continuous
Importance - η_I	1	Relative Humidity	55%	
Redundancy - η_R	1			

Casting Yard Criteria

Max. Strand slope is not checked
Permissible hold down force per strand = 4.00 kip
The hold down force includes 0.00 % friction
Max. girder weight in casting yard is not checked
Girder was cured using Normal method
1 day of steam or radiant heat curing is equal to 7 days of normal curing

Concrete Stress Limits - Service I (5.9.2.3.1)
- Compressive Stress = -3.900 KSI
- Tensile Stress (w/o mild rebar) = 0.200 KSI
- Tensile Stress (w/ mild rebar) = 0.588 KSI
Splitting checks (5.9.4.4.1) are disabled.
Confinement checks (5.9.4.4.2) are disabled.

Temporary Strand Removal Criteria

Compression Stress Limits
- Service I = -5.200 KSI
Tension Stress Limits
- Service I (w/o mild rebar) = 0.537 KSI
- Service I (w/ mild rebar) = 0.679 KSI

Deck and Diaphragm Placement Stage Criteria

Compression Stress Limits
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.537 KSI

Final without Live Load Criteria

Railing system weight is distributed to 6 nearest girders
Compression Stress Limits (5.9.2.3.2a)
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.000 KSI

Effective Flange Width computed in accordance with LRFD 4.6.2.6

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1

Final with Live Load Stage Criteria

Compression Stress Limits (5.9.2.3.2a)
- Service I (permanent + live load) = -4.800 KSI
Tension Stress Limits (5.9.2.3.2b)
- Service III = 0.000 KSI
Allowable Compressive Concrete Stresses (5.5.3.1)
- Fatigue I = -3.200 KSI
LL Distribution factors are calculated in accordance with LRFD 4.6.2.2
Haunch Geometry check is disabled.

Moment Capacity Criteria

Modulus of rupture = 0.679 KSI

Shear Capacity Criteria

Shear capacity computed in accordance with LRFD 5.7.3.4.2 (General method)
Modulus of rupture = 0.566 KSI
Maximum Spacing of Transverse Reinforcement (LRFD 5.7.2.6)
Eqn 5.7.2.6-1: If $v_u < 0.125f'_c$ then $S_{max} = 0.8d_v \leq 18.000$ in
Eqn 5.7.2.6-2: If $v_u \geq 0.125f'_c$ then $S_{max} = 0.4d_v \leq 12.000$ in
Longitudinal reinforcement requirements computed in accordance with LRFD 5.7.3.5
Shear stress at girder/deck interface computed using the classical shear flow formula: $V_{ui} = (V_u Q)/(Ib)$
Maximum spacing of interface shear connectors (LRFD 5.7.4.5): 48.000 in, or the depth of the member.
Interface shear compressive force normal to shear plane, Pc, for use in LRFD Eq 5.7.4.3-3 is computed from the deck weight.

Haunch And Assumed Excess Camber Criteria

Haunch dead load is computed assuming that the top of the girder is flat (Zero assumed excess camber)
Composite section properties and capacities are computed assuming a Constant Haunch Depth equal to the Fillet value

Creep Criteria

Creep is calculated in accordance with LRFD (5.4.2.3.2)
# of hours from stressing to prestress transfer : 24
# of days from prestress transfer until removal of temporary strands / diaphram casting : 1 Min, 1 Max
# of days from prestress transfer until slab-girder continuity is achieved : 60 Min, 60 Max

Variability between upper and lower bound camber : 50

Losses Criteria

Losses calculated per Approximate Lump Sum Method in accordance with AASHTO LRFD 5.9.3.3
Assumed time at shipping = 10 day
Contribution to Elastic Gains
Slab = 100%

Haunch = 100%
Diaphragms = 100%
User DC (Before Deck Placement) = 100%
User DW (Before Deck Placement) = 100%
Railing System = 100%
Overlay = 100%
User DC (After Deck Placement) = 100%
User DW (After Deck Placement) = 100%

Stress Limits for Prestressing Tendons

Stress Limit at Jacking
- Stress Relieved Strand = $0.7f_{pu}$
- Low Relaxation Strand = $0.75f_{pu}$

Stress Limit at service limit state after all losses
- Stress Relieved Strand = $0.8f_{py}$
- Low Relaxation Strand = $0.8f_{py}$

Deflection Criteria
Live Load Deflection Limit: $L_{span}/800$

Loading Details

Uniform Loads Applied Along the Entire Girder

Load Type	w (kip/ft)
Girder	0.740
Sidewalk	0.279
Traffic Barrier	0.117
Pedestrian Live Load	0.106

Slab Load Applied Along Girder
Tributary width used to compute slab load is measured from top CL girder
Slab load is approximated with linear load segments applied along the length of the girder. Segments located outside of bearings are applied as point loads/moments at bearings.
Unit weight of Slab material is 0.150 kip/ft^3
Haunch weight includes effects of roadway geometry, and is measured along the centerline of the girder, but does not include a reduction for camber.

Location From Left Bearing (ft)	Casting Region	Main Slab Weight (kip/ft)	Assumed Haunch Depth (in)	Haunch Weight (kip/ft)	Total Slab Weight (kip/ft)
-0.417	1	0.826	2.995	0.134	0.960
0.000	1	0.829	3.000	0.134	0.963
7.617	1	0.867	3.077	0.138	1.005
15.233	1	0.896	3.137	0.141	1.037
22.850	1	0.914	3.180	0.142	1.057
30.466	1	0.923	3.205	0.144	1.066
38.083	1	0.920	3.214	0.144	1.064
45.699	1	0.908	3.205	0.144	1.051
53.316	1	0.885	3.180	0.142	1.027
60.932	1	0.851	3.137	0.141	0.992
68.549	1	0.808	3.077	0.138	0.946
76.165	1	0.755	3.000	0.134	0.889
76.165	1	0.755	3.000	0.134	0.889
76.582	1	0.751	2.995	0.134	0.886

Slab Cantilever Loads

Location	Main Slab		Haunch	
	Point Load (kip)	Point Moment (kip-ft)	Point Load (kip)	Point Moment (kip-ft)
Back Bearing	0.34	0.00	0.06	0.00
Ahead Bearing	0.31	0.00	0.06	0.00

Slab Haunch Load Details

Location From Left Bearing (ft)	Station	Offset (ft)	Casting Region	Top Slab Elevation (ft)	Girder Chord Elevation (ft)	Top Girder Elevation (ft)	Slab Thickness (in)	Assumed Haunch Depth (in)	Haunch Load (kip/ft)
-0.417	94+77.38	43.392 L	1	-0.868	-1.784	-1.784	8.000	2.995	0.134
0.000	94+77.78	43.375 L	1	-0.868	-1.784	-1.784	8.000	3.000	0.134
7.617	94+84.98	43.107 L	1	-0.862	-1.785	-1.785	8.000	3.077	0.138
15.233	94+92.19	42.910 L	1	-0.858	-1.786	-1.786	8.000	3.137	0.141
22.850	94+99.41	42.784 L	1	-0.856	-1.787	-1.787	8.000	3.180	0.142
30.466	95+06.62	42.730 L	1	-0.855	-1.788	-1.788	8.000	3.205	0.144
38.083	95+13.84	42.747 L	1	-0.855	-1.789	-1.789	8.000	3.214	0.144
45.699	95+21.06	42.835 L	1	-0.857	-1.790	-1.790	8.000	3.205	0.144
53.316	95+28.27	42.995 L	1	-0.860	-1.792	-1.792	8.000	3.180	0.142
60.932	95+35.48	43.226 L	1	-0.865	-1.793	-1.793	8.000	3.137	0.141
68.549	95+42.68	43.528 L	1	-0.871	-1.794	-1.794	8.000	3.077	0.138
76.165	95+49.88	43.902 L	1	-0.878	-1.795	-1.795	8.000	3.000	0.134
76.165	95+49.88	43.902 L	1	-0.878	-1.795	-1.795	8.000	3.000	0.134
76.582	95+50.27	43.924 L	1	-0.878	-1.795	-1.795	8.000	2.995	0.134

Overlay
Overlay load is uniform along entire girder length.

Load Type	W_{cc} (ft)	w (kip/ft)
Overlay Weight	74.000	0.227

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1
W_{cc} is the curb to curb width

Distribution of Uniform Barrier, Sidewalk, and Pedestrian Loads to Girder

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Left Ext. Barrier	0.700	0.167	0.117
Left Sidewalk	1.672	0.167	0.279
Left Pedestrian Live	0.637	0.167	0.106
Right Sidewalk	1.672	0.000	0.000
Right Ext. Barrier	0.700	0.000	0.000

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Right Pedestrian Live	0.637	0.000	0.000

Span 2

Pier Diaphragm Loads

Pier	Location	P (kip)	Moment Arm (ft)	M (kip-ft)
2	Back Bearing	2.15	0.000	0.00
	Ahead Bearing	2.11	0.000	0.00
3	Back Bearing	2.60	0.000	0.00

User Defined Loads

Point loads were not defined for this girder

Distributed Loads

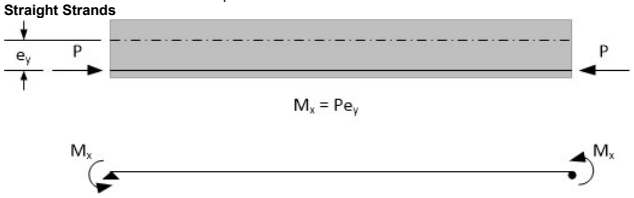
Interval	Load Case	Start Location (ft)	End Location (ft)	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Interval 11: Cast Deck, Apply User Defined Loads	DC	0.000	77.025	0.022	0.022	SIP Forms
Interval 15: Apply User Defined Loads, Install Railing System and Overlay	DW	0.000	77.025	0.040	0.040	Utility Load

Moment loads were not defined for this girder

Equivalent Pretension Loading

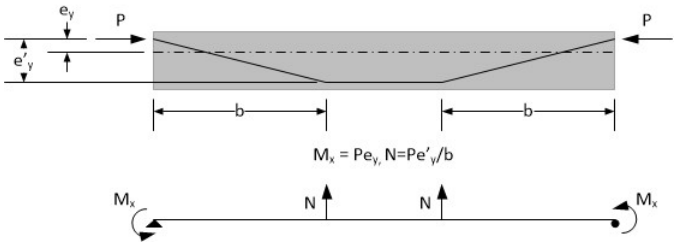
These loads are used to determine girder deflections due to pretension forces
Loads and eccentricities shown in positive directions

Straight Strands



M_x = (715.84 kip)(18.039 in) = 1076.08 kip-ft at 0.000 ft
M_x = (-715.84 kip)(18.039 in) = -1076.08 kip-ft at 76.999 ft

Harped Strands



M_x = (397.69 kip)(-12.850 in) = -425.87 kip-ft at 0.000 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.69 kip)(28.000 in)/(30.799 ft) = 30.13 kip at 30.799 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.69 kip)(28.000 in)/(30.799 ft) = 30.13 kip at 46.199 ft
M_x = (-397.69 kip)(-12.850 in) = 425.87 kip-ft at 76.999 ft

Live Loads

The following live loads were applied to the design (Service and Strength I) limit states:
HL-93

The following live loads were applied to the fatigue (Fatigue I) limit states:
Fatigue

The following live loads were applied to the permit (Strength II) limit states:
CDOT Permit

Limit State Load Factors

Limit State	γ_{DC}	γ_{DW}	γ_{LL}
Service I	1.00	1.00	1.00
Service III	1.00	1.00	0.80
Fatigue I	0.50	0.50	1.50
Strength I	1.25/ 0.90	1.50/ 0.65	1.75
Strength II	1.25/ 0.90	1.50/ 0.65	1.35

Live Load Details

Live Loads used for Design

The following live loads were applied to the design (Service and Strength I) limit states:
AASHTO LRFD 3.6.1.2: HL-93 Design Vehicular Live Load
Pedestrian live load was applied concurrently with vehicular live loads.

Live Loads Used for Fatigue Limit States

The following live loads were applied to the Fatigue I limit state:
AASHTO LRFD 3.6.1.4: Fatigue Vehicular Live Load
Pedestrian live load was not applied.

Live Loads Used for Design Permit Limit State

The following live loads were applied to the design permit (Strength II) limit state:
User-defined vehicular live load: CDOT Permit
Configuration: Truck applied only (no lane)
Usage: Use for all actions at all locations

Axle	Weight (kip)	Spacing (ft)
1	27.00	
2	25.00	14.000
3	25.00	4.000
4	25.00	12.000

Axle	Weight (kip)	Spacing (ft)
5	25.00	4.000
6	21.70	35.000
7	21.70	4.000
8	21.70	4.000

Pedestrian live load was not applied.

Transfer and Development Length Details

Transfer Length [5.9.4.3.1]

$l_t = 60d_b$

$d_b = 0.600$ in

$l_t = 36.000$ in

Development Length [5.9.4.3.2]

$$l_d \geq \kappa\left(f_{ps} - \frac{2}{3}f_{pe}\right)d_b$$

$$\frac{f_{px}}{f_{ps}} = \begin{cases} \dfrac{f_{pe}l_{px}}{f_{ps}l_t} \; for \; l_{px} < l_t \\ \dfrac{f_{pe} + \dfrac{(l_{px} - l_t)}{(l_d - l_t)}(f_{ps} - f_{pe})}{f_{ps}} \; for \; l_t < l_{px} \leq l_d \\ 1.0 \; for \; l_d < l_{px} \end{cases}$$

f_{px}/f_{ps} = Development Length Reduction Factor (See LRFD Eqn. 5.9.4.3.2-2 and -3)

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
0.000	93.277	22.188	0.600	75.346	5.000	0.033	93.277	22.188	0.600	94.183	5.000	0.033
(0.0L_e) 0.000	93.277	22.188	0.600	75.346	5.000	0.033	93.277	22.188	0.600	94.183	5.000	0.033
(FoS) 0.333	106.155	39.946	0.600	76.343	9.000	0.094	106.155	39.946	0.600	95.429	9.000	0.094
(SZB) 1.337	144.733	93.447	0.600	79.137	21.039	0.377	144.733	93.447	0.600	98.922	21.039	0.377
(Bar Develop.) 1.705	158.820	113.093	0.600	80.088	25.456	0.504	158.820	113.093	0.600	100.109	25.456	0.504
(PSXFR) 2.583	191.917	160.041	0.600	81.814	36.000	0.834	191.917	160.041	0.600	102.268	36.000	0.834
(Bar Develop.) 2.765	193.303	160.063	0.600	83.130	38.184	0.836	193.303	160.063	0.600	103.913	38.184	0.834
(H) 3.833	201.442	160.193	0.600	90.861	51.000	0.851	201.442	160.193	0.600	113.576	51.000	0.835
(CS) 4.128	203.693	160.230	0.600	92.998	54.541	0.856	203.693	160.230	0.600	116.248	54.541	0.836
(SZB) 5.003	210.360	160.341	0.600	99.327	65.031	0.871	210.360	160.341	0.600	124.159	65.031	0.841
(1.5H) 5.583	214.787	160.415	0.600	103.530	72.000	0.882	214.787	160.415	0.600	129.412	72.000	0.844
(0.1L_e) 7.617	230.308	160.681	0.600	118.260	96.398	0.920	230.308	160.681	0.600	147.825	96.398	0.861
(SZB) 10.503	252.340	161.056	0.600	139.170	131.031	0.971	252.340	161.056	0.600	173.963	131.031	0.887
(0.2L_e) 15.233	268.096	161.617	0.600	153.937	187.797	1.000	268.096	161.617	0.600	192.421	187.797	0.988
(SZB) 18.753	268.706	161.946	0.600	154.312	230.031	1.000	268.706	161.946	0.600	192.890	230.031	1.000
(Deck Bar Cutoff) 20.783	269.053	162.085	0.600	154.556	254.392	1.000	269.053	162.085	0.600	193.196	254.392	1.000
(0.3L_e) 22.850	269.371	162.179	0.600	154.802	279.195	1.000	269.371	162.179	0.600	193.503	279.195	1.000
(SZB) 29.753	269.964	162.054	0.600	155.451	362.031	1.000	269.964	162.054	0.600	194.314	362.031	1.000
(HP) 30.383	269.986	162.002	0.600	155.505	369.594	1.000	269.986	162.002	0.600	194.381	369.594	1.000
(0.4L_e) 30.466	269.986	162.016	0.600	155.496	370.594	1.000	269.986	162.016	0.600	194.370	370.594	1.000
(0.5L_e) 38.083	269.987	162.758	0.600	155.023	461.992	1.000	269.987	162.758	0.600	193.778	461.992	1.000
(0.6L_e) 45.699	269.987	162.496	0.600	155.190	370.594	1.000	269.987	162.496	0.600	193.987	370.594	1.000
(HP) 45.783	269.987	162.488	0.600	155.195	369.594	1.000	269.987	162.488	0.600	193.994	369.594	1.000
(SZB) 46.413	269.965	162.576	0.600	155.118	362.031	1.000	269.965	162.576	0.600	193.898	362.031	1.000
(0.7L_e) 53.316	269.379	163.070	0.600	154.239	279.195	1.000	269.379	163.070	0.600	192.799	279.195	1.000
(SZB) 57.413	268.695	163.030	0.600	153.608	230.031	1.000	268.695	163.030	0.600	192.010	230.031	1.000
(0.8L_e) 60.932	267.999	162.850	0.600	153.055	187.797	1.000	267.999	162.850	0.600	191.318	187.797	0.991
(SZB) 65.663	252.130	162.465	0.600	138.067	131.031	0.975	252.130	162.465	0.600	172.584	131.031	0.892
(0.9L_e) 68.549	230.043	162.184	0.600	117.044	96.398	0.925	230.043	162.184	0.600	146.305	96.398	0.867
(1.5H) 70.582	214.508	161.978	0.600	102.262	72.000	0.888	214.508	161.978	0.600	127.827	72.000	0.851
(SZB) 71.163	210.076	161.919	0.600	98.044	65.031	0.878	210.076	161.919	0.600	122.555	65.031	0.848
(CS) 72.242	201.848	161.811	0.600	90.215	52.086	0.861	201.848	161.811	0.600	112.768	52.086	0.843
(H) 72.332	201.158	161.802	0.600	89.558	51.000	0.859	201.158	161.802	0.600	111.948	51.000	0.843
(Bar Develop.) 73.400	193.022	161.698	0.600	81.815	38.184	0.845	193.022	161.698	0.600	102.268	38.184	0.843
(PSXFR) 73.582	191.635	161.680	0.600	80.494	36.000	0.844	191.635	161.680	0.600	100.618	36.000	0.844
(Bar Develop.) 74.461	158.494	114.266	0.600	79.024	25.456	0.510	158.494	114.266	0.600	98.780	25.456	0.510
(SZB) 74.829	144.597	94.422	0.600	78.383	21.039	0.382	144.597	94.422	0.600	97.979	21.039	0.382
(FoS) 75.832	106.121	40.368	0.600	76.040	9.000	0.095	106.121	40.368	0.600	95.050	9.000	0.095
(1.0L_e) 76.165	93.264	22.423	0.600	75.183	5.000	0.033	93.264	22.423	0.600	93.979	5.000	0.033
76.165	93.264	22.423	0.600	75.183	5.000	0.033	93.264	22.423	0.600	93.979	5.000	0.033

Development Length of Longitudinal Rebar [5.10.8.2.1]

$$\ell_d = \ell_{db}\left(\frac{\lambda_{rl} \times \lambda_{cf} \times \lambda_{rc} \times \lambda_{er}}{\lambda}\right)$$

$$where \; \ell_{db} = 2.4d_b\frac{f_y}{\sqrt{f'_c}}$$

$$and \; \lambda_{cf} = \lambda_{rc} = \lambda_{er} = 1.0$$

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#4	0.200	0.500	60.000	8.000	1.000	1.000	1.000	25.456
#6	0.440	0.750	60.000	8.000	1.000	1.000	1.000	38.184

Development Length of Longitudinal Rebar [5.10.8.2.1] in Deck Slab

Full-length deck bars are considered to be developed along entire length of girder.
Partial-length longitudinal rebar specified using A_s are considered to be developed along entire specified bar length.

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#9	1.000	1.128	60.000	4.500	1.000	1.000	1.000	76.571

Prestress Loss Details

Approximate Estimate of Time-Dependent Losses [5.9.3.3]

Elastic Shortening - LRFD 5.9.3.2.3a

$$f_{cgp}(Permanent\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_p}{I_g} - \frac{M_g e_p}{I_g}$$

$$f_{cgp}(Temporary\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_t}{I_g} - \frac{M_g e_t}{I_g}$$

$$\Delta f_{pES} = \frac{E_p}{E_{ci}} f_{cgp}$$

A_g = 654.000 in^2
I_g = 153070.0 in^4
E_p = 28500.000 KSI
E_{ci} = 4557.295 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	1149.59	7.007	0.00	7.007	2.127	13.299
0.417	0.417	0.000(0.0L_e) 0.000	1149.31	7.142	11.81	7.142	2.134	13.344
(FoS) 0.750	(FoS) 0.333	1149.09	7.251	21.17	7.251	2.140	13.381
(SZB) 1.753	(SZB) 1.337	1148.41	7.576	48.83	7.576	2.158	13.493
(Bar Develop.) 2.121	(Bar Develop.) 1.705	1148.15	7.696	58.79	7.696	2.164	13.535
(PSXFR) 3.000	(PSXFR) 2.583	1147.53	7.981	82.17	7.981	2.181	13.638
(Bar Develop.) 3.182	(Bar Develop.) 2.765	1147.40	8.040	86.94	8.040	2.184	13.659
(H) 4.250	(H) 3.833	1146.61	8.387	114.44	8.387	2.205	13.789
(CS) 4.545	(CS) 4.128	1146.39	8.483	121.89	8.483	2.211	13.825
(SZB) 5.419	(SZB) 5.003	1145.72	8.767	143.58	8.767	2.228	13.936
(1.5H) 6.000	(1.5H) 5.583	1145.26	8.955	157.68	8.955	2.240	14.011
7.260	6.843	1144.23	9.364	187.40	9.364	2.267	14.180
(0.1L_t) 7.700	7.283	1143.86	9.507	197.51	9.507	2.277	14.241
8.033	(0.1L_e) 7.617	1143.58	9.615	205.07	9.615	2.285	14.288
(SZB) 10.919	(SZB) 10.503	1140.96	10.552	267.07	10.552	2.354	14.719
14.962	14.545	1136.76	11.865	343.57	11.865	2.464	15.409
(0.2L_t) 15.400	14.983	1136.27	12.007	351.12	12.007	2.477	15.491
15.650	(0.2L_e) 15.233	1135.98	12.088	355.38	12.088	2.485	15.538
(SZB) 19.169	(SZB) 18.753	1131.64	13.231	410.32	13.231	2.599	16.253
(Deck Bar Cutoff) 21.199	(Deck Bar Cutoff) 20.783	1128.86	13.890	437.85	13.890	2.672	16.711
22.665	22.248	1126.71	14.366	455.82	14.366	2.729	17.063
(0.3L_t) 23.100	22.683	1126.05	14.507	460.85	14.507	2.746	17.172
23.266	(0.3L_e) 22.850	1125.80	14.561	462.74	14.561	2.753	17.214
(SZB) 30.169	(SZB) 29.753	1113.80	16.802	522.95	16.802	3.068	19.189
30.367	29.950	1113.41	16.867	524.15	16.867	3.079	19.253
(HP, 0.4L_t) 30.799	(HP) 30.383	1112.55	17.007	526.68	17.007	3.101	19.394
30.883	(0.4L_e) 30.466	1112.57	17.007	527.16	17.007	3.101	19.390
38.070	37.653	1113.53	17.007	548.56	17.007	3.075	19.233
(0.5L_t) 38.499	(0.5L_e) 38.083	1113.54	17.007	548.63	17.007	3.075	19.232
45.772	45.355	1112.66	17.007	529.05	17.007	3.098	19.376
46.116	(0.6L_e) 45.699	1112.57	17.007	527.16	17.007	3.101	19.390
(HP, 0.6L_t) 46.199	(HP) 45.783	1112.55	17.007	526.68	17.007	3.101	19.394
(SZB) 46.829	(SZB) 46.413	1113.80	16.802	522.95	16.802	3.068	19.189
53.475	53.058	1125.40	14.645	465.62	14.645	2.763	17.279
53.732	(0.7L_e) 53.316	1125.80	14.561	462.74	14.561	2.753	17.214
(0.7L_t) 53.899	53.482	1126.05	14.507	460.85	14.507	2.746	17.172
(SZB) 57.829	(SZB) 57.413	1131.64	13.231	410.32	13.231	2.599	16.253
61.177	60.760	1135.78	12.144	358.27	12.144	2.490	15.571
61.349	(0.8L_e) 60.932	1135.98	12.088	355.38	12.088	2.485	15.538
(0.8L_t) 61.599	61.182	1136.27	12.007	351.12	12.007	2.477	15.491
(SZB) 66.079	(SZB) 65.663	1140.96	10.552	267.07	10.552	2.354	14.719
68.880	68.463	1143.50	9.643	207.00	9.643	2.287	14.300
68.965	(0.9L_e) 68.549	1143.58	9.615	205.07	9.615	2.285	14.288
(0.9L_t) 69.299	68.882	1143.86	9.507	197.51	9.507	2.277	14.241
(1.5H) 70.999	(1.5H) 70.582	1145.26	8.955	157.68	8.955	2.240	14.011
(SZB) 71.579	(SZB) 71.163	1145.72	8.767	143.58	8.767	2.228	13.936
(CS) 72.658	(CS) 72.242	1146.54	8.416	116.73	8.416	2.207	13.800
(H) 72.749	(H) 72.332	1146.61	8.387	114.44	8.387	2.205	13.789
(Bar Develop.) 73.817	(Bar Develop.) 73.400	1147.40	8.040	86.94	8.040	2.184	13.659
(PSXFR) 73.999	(PSXFR) 73.582	1147.53	7.981	82.17	7.981	2.181	13.638
(Bar Develop.) 74.877	(Bar Develop.) 74.461	1148.15	7.696	58.79	7.696	2.164	13.535
(SZB) 75.245	(SZB) 74.829	1148.41	7.576	48.83	7.576	2.158	13.493
(FoS) 76.249	(FoS) 75.832	1149.09	7.251	21.17	7.251	2.140	13.381
76.582	76.582	(1.0L_e) 76.165	76.165	1149.31	7.142	11.81	7.142	2.134	13.344
(STLF, 1.0L_t) 76.999	(STLF) 76.582	1149.59	7.007	0.00	7.007	2.127	13.299

P is the prestressing force after transfer : $P = A_{ps}(f_{pj} - \Delta f_{pES})$

A_{ps} = area of prestressing strands
e_p = eccentricty of permanent prestressing strands
e_{ps} = eccentricty of all prestressing strands

Approximate Lump Sum Estimate of Time Dependent Losses at Hauling

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 3\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 3\gamma_h\gamma_{st} + \frac{\Delta f_{pR}}{4}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLTH} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	7.700

Losses at Hauling

$\Delta f_{pH} = \Delta f_{pES} + \Delta f_{pLTH}$

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	13.299	7.700	20.999
0.417 0.417	0.000(0.0L_e) 0.000	13.344	7.700	21.044
(FoS) 0.750	(FoS) 0.333	13.381	7.700	21.081
(SZB) 1.753	(SZB) 1.337	13.493	7.700	21.193
(Bar Develop.) 2.121	(Bar Develop.) 1.705	13.535	7.700	21.236
(PSXFR) 3.000	(PSXFR) 2.583	13.638	7.700	21.338
(Bar Develop.) 3.182	(Bar Develop.) 2.765	13.659	7.700	21.360
(H) 4.250	(H) 3.833	13.789	7.700	21.489
(CS) 4.545	(CS) 4.128	13.825	7.700	21.526
(SZB) 5.419	(SZB) 5.003	13.936	7.700	21.636
(1.5H) 6.000	(1.5H) 5.583	14.011	7.700	21.712
7.260	6.843	14.180	7.700	21.881
(0.1L_t) 7.700	7.283	14.241	7.700	21.942
8.033	(0.1L_e) 7.617	14.288	7.700	21.988
(SZB) 10.919	(SZB) 10.503	14.719	7.700	22.419
14.962	14.545	15.409	7.700	23.110
(0.2L_t) 15.400	14.983	15.491	7.700	23.191
15.650	(0.2L_e) 15.233	15.538	7.700	23.239
(SZB) 19.169	(SZB) 18.753	16.253	7.700	23.953
(Deck Bar Cutoff) 21.199	(Deck Bar Cutoff) 20.783	16.711	7.700	24.411
22.665	22.248	17.063	7.700	24.764
(0.3L_t) 23.100	22.683	17.172	7.700	24.872
23.266	(0.3L_e) 22.850	17.214	7.700	24.914
(SZB) 30.169	(SZB) 29.753	19.189	7.700	26.890
30.367	29.950	19.253	7.700	26.954
(HP, 0.4L_t) 30.799	(HP) 30.383	19.394	7.700	27.094
30.883	(0.4L_e) 30.466	19.390	7.700	27.091
38.070	37.653	19.233	7.700	26.933
(0.5L_t) 38.499	(0.5L_e) 38.083	19.232	7.700	26.932
45.772	45.355	19.376	7.700	27.077
46.116	(0.6L_e) 45.699	19.390	7.700	27.091
(HP, 0.6L_t) 46.199	(HP) 45.783	19.394	7.700	27.094
(SZB) 46.829	(SZB) 46.413	19.189	7.700	26.890
53.475	53.058	17.279	7.700	24.980
53.732	(0.7L_e) 53.316	17.214	7.700	24.914
(0.7L_t) 53.899	53.482	17.172	7.700	24.872
(SZB) 57.829	(SZB) 57.413	16.253	7.700	23.953
61.177	60.760	15.571	7.700	23.271
61.349	(0.8L_e) 60.932	15.538	7.700	23.239
(0.8L_t) 61.599	61.182	15.491	7.700	23.191
(SZB) 66.079	(SZB) 65.663	14.719	7.700	22.419
68.880	68.463	14.300	7.700	22.001
68.965	(0.9L_e) 68.549	14.288	7.700	21.988
(0.9L_t) 69.299	68.882	14.241	7.700	21.942
(1.5H) 70.999	(1.5H) 70.582	14.011	7.700	21.712
(SZB) 71.579	(SZB) 71.163	13.936	7.700	21.636
(CS) 72.658	(CS) 72.242	13.800	7.700	21.500
(H) 72.749	(H) 72.332	13.789	7.700	21.489
(Bar Develop.) 73.817	(Bar Develop.) 73.400	13.659	7.700	21.360
(PSXFR) 73.999	(PSXFR) 73.582	13.638	7.700	21.338
(Bar Develop.) 74.877	(Bar Develop.) 74.461	13.535	7.700	21.236
(SZB) 75.245	(SZB) 74.829	13.493	7.700	21.193
(FoS) 76.249	(FoS) 75.832	13.381	7.700	21.081
76.582 76.582	(1.0L_e) 76.165 76.165	13.344	7.700	21.044
(STLF, 1.0L_t) 76.999	(STLF) 76.582	13.299	7.700	20.999

Approximate Lump Sum Estimate of Time Dependent Losses

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 10\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 12\gamma_h\gamma_{st} + \Delta f_{pR}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	27.711

Elastic Gain Due to Additional Dead Load

Change in strand stress due to loads applied to the non-composite girder

$$M_{adl} = K_s M_{slab} + K_h M_{haunch} + K_d M_{diaphragm} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$M_{Diaphragm}$ includes shear key dead load if applicable

$$\Delta f'_{cd} = \frac{M_{adl} e_p}{I_g}$$

$$\Delta f_{pED} = \frac{E_p}{E_c} \Delta f'_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI
I_g = 153070.0 in^4

Slab: K_s = 1.00
Haunch: K_h = 1.00
Diaphragms: K_d = 1.00
User DC: K_{dc} = 1.00
User DW: K_{dw} = 1.00

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000
0.000	0.00	0.00	0.00	-0.00	0.00	-0.00	7.142	0.000	-0.000
($0.0L_e$) 0.000	0.00	0.00	0.00	-0.00	0.00	-0.00	7.142	0.000	-0.000
(FoS) 0.333	11.24	1.78	0.00	0.27	0.00	13.29	7.251	0.008	0.043
(SZB) 1.337	44.50	7.04	0.00	1.10	0.00	52.64	7.576	0.031	0.178
(Bar Develop.) 1.705	56.49	8.94	0.00	1.39	0.00	66.82	7.696	0.040	0.229
(PSXFR) 2.583	84.66	13.39	0.00	2.09	0.00	100.14	7.981	0.063	0.356
(Bar Develop.) 2.765	90.41	14.30	0.00	2.23	0.00	106.94	8.040	0.067	0.383
(H) 3.833	123.61	19.55	0.00	3.05	0.00	146.20	8.387	0.096	0.547
(CS) 4.128	132.61	20.97	0.00	3.27	0.00	156.85	8.483	0.104	0.593
(SZB) 5.003	158.84	25.11	0.00	3.91	0.00	187.87	8.767	0.129	0.734
(1.5H) 5.583	175.91	27.81	0.00	4.33	0.00	208.05	8.955	0.146	0.831
6.843	211.93	33.50	0.00	5.21	0.00	250.64	9.364	0.184	1.046
7.283	224.20	35.43	0.00	5.51	0.00	265.15	9.507	0.198	1.124
($0.1L_e$) 7.617	233.38	36.88	0.00	5.74	0.00	276.00	9.615	0.208	1.183
(SZB) 10.503	308.80	48.78	0.00	7.58	0.00	365.16	10.552	0.302	1.718
14.545	402.12	63.50	0.00	9.86	0.00	475.47	11.865	0.442	2.515
14.983	411.35	64.95	0.00	10.08	0.00	486.38	12.007	0.458	2.604
($0.2L_e$) 15.233	416.54	65.77	0.00	10.21	0.00	492.52	12.088	0.467	2.655
(SZB) 18.753	483.73	76.38	0.00	11.84	0.00	571.95	13.231	0.593	3.374
(Deck Bar Cutoff) 20.783	517.40	81.70	0.00	12.66	0.00	611.76	13.890	0.666	3.789
22.248	539.37	85.18	0.00	13.19	0.00	637.74	14.366	0.718	4.085
22.683	545.51	86.16	0.00	13.34	0.00	645.01	14.507	0.734	4.172
($0.3L_e$) 22.850	547.82	86.52	0.00	13.40	0.00	647.74	14.561	0.739	4.205
(SZB) 29.753	621.08	98.20	0.00	15.19	0.00	734.47	16.802	0.967	5.502
29.950	622.53	98.43	0.00	15.22	0.00	736.19	16.867	0.973	5.536
(HP) 30.383	625.59	98.92	0.00	15.30	0.00	739.81	17.007	0.986	5.610
($0.4L_e$) 30.466	626.15	99.02	0.00	15.31	0.00	740.48	17.007	0.987	5.615
37.653	651.08	103.17	0.00	15.95	0.00	770.21	17.007	1.027	5.840
($0.5L_e$) 38.083	651.07	103.19	0.00	15.95	0.00	770.20	17.007	1.027	5.840
45.355	625.11	99.38	0.00	15.37	0.00	739.87	17.007	0.986	5.610
($0.6L_e$) 45.699	622.69	99.02	0.00	15.31	0.00	737.02	17.007	0.983	5.589
(HP) 45.783	622.09	98.92	0.00	15.30	0.00	736.31	17.007	0.982	5.583
(SZB) 46.413	617.33	98.20	0.00	15.19	0.00	730.71	16.802	0.963	5.474
53.058	545.35	87.08	0.00	13.49	0.00	645.92	14.645	0.742	4.218
($0.7L_e$) 53.316	541.77	86.52	0.00	13.40	0.00	641.69	14.561	0.733	4.166
53.482	539.42	86.16	0.00	13.34	0.00	638.92	14.507	0.727	4.133
(SZB) 57.413	476.94	76.38	0.00	11.84	0.00	565.17	13.231	0.586	3.334
60.760	413.16	66.33	0.00	10.30	0.00	489.79	12.144	0.466	2.652
($0.8L_e$) 60.932	409.63	65.77	0.00	10.21	0.00	485.61	12.088	0.460	2.617
61.182	404.44	64.95	0.00	10.08	0.00	479.48	12.007	0.451	2.567
(SZB) 65.663	302.60	48.78	0.00	7.59	0.00	358.96	10.552	0.297	1.689
68.463	230.51	37.25	0.00	5.80	0.00	273.56	9.643	0.207	1.176
($0.9L_e$) 68.549	228.20	36.88	0.00	5.74	0.00	270.82	9.615	0.204	1.161
68.882	219.17	35.43	0.00	5.52	0.00	260.12	9.507	0.194	1.103
(1.5H) 70.582	171.74	27.81	0.00	4.33	0.00	203.88	8.955	0.143	0.814
(SZB) 71.163	155.01	25.11	0.00	3.92	0.00	184.04	8.767	0.126	0.719
(CS) 72.242	123.22	19.99	0.00	3.12	0.00	146.33	8.416	0.097	0.549
(H) 72.332	120.52	19.55	0.00	3.05	0.00	143.11	8.387	0.094	0.535
(Bar Develop.) 73.400	88.08	14.30	0.00	2.23	0.00	104.61	8.040	0.066	0.375
(PSXFR) 73.582	82.46	13.39	0.00	2.09	0.00	97.94	7.981	0.061	0.349
(Bar Develop.) 74.461	54.98	8.94	0.00	1.40	0.00	65.32	7.696	0.039	0.224
(SZB) 74.829	43.30	7.04	0.00	1.10	0.00	51.44	7.576	0.031	0.174
(FoS) 75.832	10.93	1.78	0.00	0.28	0.00	12.98	7.251	0.007	0.042
($1.0L_e$) 76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	0.000	0.000
76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	0.000	0.000
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000

Elastic Gain Due to Superimposed Dead Load

Change in strand stress due to loads applied to the composite girder

$$M_{sidl} = K_r M_{railing\ system} + K_r M_{sidewalk} + K_o M_{overlay} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$$\Delta f''_{cd} = \frac{M_{sidl}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pSIDL} = \frac{E_p}{E_c} \Delta f''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

Railing System: K_r = 1.00
Overlay: K_o = 1.00
User DC: K_{dc} = 1.00
User DW: K_{dw} = 1.00

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
(STRF) -0.417	-200.32	-83.87	-162.91	0.00	-28.76	-475.86	7.007	367703.6	33.740	21.150	-0.304	-1.731
0.000	-194.81	-81.57	-158.44	0.00	-27.97	-462.79	7.142	367944.0	33.754	21.150	-0.298	-1.695
(0.0L_e) 0.000	-194.81	-81.57	-158.44	0.00	-27.97	-462.79	7.142	367944.0	33.754	21.150	-0.298	-1.695
(FoS) 0.333	-190.44	-79.74	-154.89	0.00	-27.34	-452.40	7.251	368133.9	33.764	21.150	-0.293	-1.666
(SZB) 1.337	-177.46	-74.30	-144.33	0.00	-25.47	-421.57	7.576	368691.7	33.796	21.150	-0.277	-1.578
(Bar Develop.) 1.705	-172.77	-72.34	-140.51	0.00	-24.80	-410.42	7.696	368891.2	33.807	21.150	-0.272	-1.545
(PSXFR) 2.583	-161.72	-67.71	-131.53	0.00	-23.22	-384.18	7.981	369356.7	33.834	21.150	-0.258	-1.467
(Bar Develop.) 2.765	-159.46	-66.77	-129.69	0.00	-22.89	-378.81	8.040	369451.3	33.839	21.150	-0.255	-1.451
(H) 3.833	-146.38	-61.29	-119.05	0.00	-21.01	-347.73	8.387	369992.8	33.870	21.150	-0.238	-1.354
(CS) 4.128	-142.82	-59.80	-116.16	0.00	-20.50	-339.27	8.483	370138.6	33.878	21.150	-0.233	-1.327
(SZB) 5.003	-132.42	-55.44	-107.70	0.00	-19.01	-314.57	8.767	370560.4	33.902	21.150	-0.219	-1.247
(1.5H) 5.583	-125.63	-52.60	-102.17	0.00	-18.03	-298.43	8.955	370832.6	33.918	21.150	-0.210	-1.193
6.843	-111.22	-46.57	-90.46	0.00	-15.97	-264.21	9.364	371400.8	33.950	21.150	-0.189	-1.076
7.283	-106.29	-44.50	-86.45	0.00	-15.26	-252.49	9.507	371592.4	33.961	21.150	-0.182	-1.035
(0.1L_e) 7.617	-102.59	-42.95	-83.44	0.00	-14.73	-243.71	9.615	371735.1	33.969	21.150	-0.176	-1.004
(SZB) 10.503	-71.87	-30.09	-58.45	0.00	-10.32	-170.73	10.552	372063.7	33.988	21.150	-0.129	-0.733
14.545	-32.74	-13.71	-26.62	0.00	-4.70	-77.77	11.865	372063.7	33.988	21.150	-0.062	-0.352
14.983	-28.77	-12.05	-23.40	0.00	-4.13	-68.35	12.007	372063.7	33.988	21.150	-0.055	-0.311
(0.2L_e) 15.233	-26.53	-11.11	-21.58	0.00	-3.81	-63.03	12.088	372063.7	33.988	21.150	-0.051	-0.288
(SZB) 18.753	3.15	1.32	2.56	0.00	0.45	7.49	13.231	372063.7	33.988	21.150	0.006	0.036
(Deck Bar Cutoff) 20.783	18.70	7.83	15.21	0.00	2.69	44.43	13.890	372063.7	33.988	21.150	0.038	0.218
22.248	29.22	12.23	23.76	0.00	4.19	69.41	14.366	372063.7	33.988	21.150	0.061	0.346
22.683	32.22	13.49	26.21	0.00	4.63	76.55	14.507	372063.7	33.988	21.150	0.068	0.384
(0.3L_e) 22.850	33.36	13.97	27.13	0.00	4.79	79.25	14.561	372063.7	33.988	21.150	0.070	0.398
(SZB) 29.753	73.68	30.85	59.92	0.00	10.58	175.03	16.802	372063.7	33.988	21.150	0.167	0.952
29.950	74.64	31.25	60.70	0.00	10.71	177.31	16.867	372063.7	33.988	21.150	0.170	0.966
(HP) 30.383	76.70	32.11	62.38	0.00	11.01	182.20	17.007	372063.7	33.988	21.150	0.175	0.997
(0.4L_e) 30.466	77.09	32.28	62.70	0.00	11.07	183.13	17.007	372063.7	33.988	21.150	0.176	1.003
37.653	103.53	43.35	84.20	0.00	14.86	245.93	17.007	372063.7	33.988	21.150	0.237	1.346
(0.5L_e) 38.083	104.65	43.82	85.11	0.00	15.02	248.61	17.007	372063.7	33.988	21.150	0.239	1.361
45.355	115.88	48.52	94.25	0.00	16.64	275.29	17.007	372063.7	33.988	21.150	0.265	1.507
(0.6L_e) 45.699	116.05	48.59	94.39	0.00	16.66	275.69	17.007	372063.7	33.988	21.150	0.265	1.509
(HP) 45.783	116.09	48.60	94.41	0.00	16.66	275.77	17.007	372063.7	33.988	21.150	0.265	1.510
(SZB) 46.413	116.29	48.69	94.58	0.00	16.69	276.25	16.802	372063.7	33.988	21.150	0.264	1.502
53.058	111.71	46.77	90.86	0.00	16.04	265.38	14.645	372063.7	33.988	21.150	0.235	1.338
(0.7L_e) 53.316	111.29	46.59	90.51	0.00	15.98	264.36	14.561	372063.7	33.988	21.150	0.234	1.329
53.482	111.00	46.47	90.28	0.00	15.93	263.69	14.507	372063.7	33.988	21.150	0.233	1.323
(SZB) 57.413	102.04	42.72	82.99	0.00	14.65	242.39	13.231	371686.4	33.966	21.150	0.204	1.159
60.760	91.01	38.10	74.02	0.00	13.06	216.19	12.144	370151.4	33.879	21.150	0.174	0.991
(0.8L_e) 60.932	90.35	37.83	73.49	0.00	12.97	214.64	12.088	370066.8	33.874	21.150	0.173	0.982
61.182	89.39	37.43	72.70	0.00	12.83	212.36	12.007	369942.7	33.867	21.150	0.170	0.969
(SZB) 65.663	69.22	28.98	56.30	0.00	9.94	164.43	10.552	367509.9	33.729	21.150	0.124	0.706
68.463	53.77	22.51	43.73	0.00	7.72	127.73	9.643	365781.4	33.630	21.150	0.093	0.527
(0.9L_e) 68.549	53.26	22.30	43.32	0.00	7.65	126.52	9.615	365725.7	33.627	21.150	0.092	0.522
68.882	51.27	21.47	41.70	0.00	7.36	121.79	9.507	365508.3	33.615	21.150	0.088	0.500
(1.5H) 70.582	40.62	17.01	33.04	0.00	5.83	96.50	8.955	364362.1	33.550	21.150	0.068	0.386
(SZB) 71.163	36.80	15.41	29.93	0.00	5.28	87.43	8.767	363956.0	33.527	21.150	0.061	0.347
(CS) 72.242	29.46	12.33	23.96	0.00	4.23	69.98	8.416	363181.5	33.483	21.150	0.048	0.273
(H) 72.332	28.83	12.07	23.44	0.00	4.14	68.48	8.387	363115.4	33.479	21.150	0.047	0.267
(Bar Develop.) 73.400	21.21	8.88	17.25	0.00	3.04	50.38	8.040	362320.5	33.433	21.150	0.034	0.193
(PSXFR) 73.582	19.88	8.32	16.17	0.00	2.85	47.22	7.981	362182.4	33.426	21.150	0.032	0.180
(Bar Develop.) 74.461	13.32	5.58	10.84	0.00	1.91	31.65	7.696	361504.9	33.387	21.150	0.021	0.119
(SZB) 74.829	10.52	4.40	8.55	0.00	1.51	24.98	7.576	361215.8	33.371	21.150	0.016	0.093
(FoS) 75.832	2.67	1.12	2.17	0.00	0.38	6.34	7.251	360411.3	33.325	21.150	0.004	0.023
(1.0L_e) 76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	360138.7	33.309	21.150	0.000	0.000
76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	360138.7	33.309	21.150	0.000	0.000
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00	0.00	7.007	359794.1	33.290	21.150	0.000	0.000

Elastic Gain Due to Live Load

Change in strand stress due to live load applied to the composite girder

$$\Delta f'''_{cd} = \frac{K_{llim} M_{llim}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pLL} = \frac{E_p}{E_c} \Delta f'''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

K_{llim} = 0.00

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(STRF) -0.417	0.00	0.00	7.007	367703.6	33.740	21.150	0.000	0.000	0.000	0.000
0.000	0.00	0.00	7.142	367944.0	33.754	21.150	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.00	0.00	7.142	367944.0	33.754	21.150	0.000	0.000	0.000	0.000
(FoS) 0.333	0.00	0.00	7.251	368133.9	33.764	21.150	0.000	0.000	0.000	0.000
(SZB) 1.337	0.00	0.00	7.576	368691.7	33.796	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 1.705	0.00	0.00	7.696	368891.2	33.807	21.150	0.000	0.000	0.000	0.000
(PSXFR) 2.583	0.00	0.00	7.981	369356.7	33.834	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 2.765	0.00	0.00	8.040	369451.3	33.839	21.150	0.000	0.000	0.000	0.000
(H) 3.833	0.00	0.00	8.387	369992.8	33.870	21.150	0.000	0.000	0.000	0.000
(CS) 4.128	0.00	0.00	8.483	370138.6	33.878	21.150	0.000	0.000	0.000	0.000
(SZB) 5.003	0.00	0.00	8.767	370560.4	33.902	21.150	0.000	0.000	0.000	0.000
(1.5H) 5.583	0.00	0.00	8.955	370832.6	33.918	21.150	0.000	0.000	0.000	0.000
6.843	0.00	0.00	9.364	371400.8	33.950	21.150	0.000	0.000	0.000	0.000
7.283	0.00	0.00	9.507	371592.4	33.961	21.150	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	0.00	0.00	9.615	371735.1	33.969	21.150	0.000	0.000	0.000	0.000
(SZB) 10.503	0.00	0.00	10.552	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
14.545	0.00	0.00	11.865	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
14.983	0.00	0.00	12.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(0.2L_e) 15.233	0.00	0.00	12.088	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 18.753	0.00	0.00	13.231	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(Deck Bar Cutoff) 20.783	0.00	0.00	13.890	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
22.248	0.00	0.00	14.366	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
22.683	0.00	0.00	14.507	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(0.3L_e) 22.850	0.00	0.00	14.561	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 29.753	0.00	0.00	16.802	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
29.950	0.00	0.00	16.867	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 30.383	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(0.4L_e) 30.466	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
37.653	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(0.5L_e) 38.083	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
45.355	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(0.6L_e) 45.699	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 45.783	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 46.413	0.00	0.00	16.802	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
53.058	0.00	0.00	14.645	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(0.7L_e) 53.316	0.00	0.00	14.561	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
53.482	0.00	0.00	14.507	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 57.413	0.00	0.00	13.231	371686.4	33.966	21.150	0.000	0.000	0.000	0.000
60.760	0.00	0.00	12.144	370151.4	33.879	21.150	0.000	0.000	0.000	0.000
(0.8L_e) 60.932	0.00	0.00	12.088	370066.8	33.874	21.150	0.000	0.000	0.000	0.000
61.182	0.00	0.00	12.007	369942.7	33.867	21.150	0.000	0.000	0.000	0.000
(SZB) 65.663	0.00	0.00	10.552	367509.9	33.729	21.150	0.000	0.000	0.000	0.000
68.463	0.00	0.00	9.643	365781.4	33.630	21.150	0.000	0.000	0.000	0.000
(0.9L_e) 68.549	0.00	0.00	9.615	365725.7	33.627	21.150	0.000	0.000	0.000	0.000
68.882	0.00	0.00	9.507	365508.3	33.615	21.150	0.000	0.000	0.000	0.000
(1.5H) 70.582	0.00	0.00	8.955	364362.1	33.550	21.150	0.000	0.000	0.000	0.000
(SZB) 71.163	0.00	0.00	8.767	363956.0	33.527	21.150	0.000	0.000	0.000	0.000
(CS) 72.242	0.00	0.00	8.416	363181.5	33.483	21.150	0.000	0.000	0.000	0.000
(H) 72.332	0.00	0.00	8.387	363115.4	33.479	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 73.400	0.00	0.00	8.040	362320.5	33.433	21.150	0.000	0.000	0.000	0.000
(PSXFR) 73.582	0.00	0.00	7.981	362182.4	33.426	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 74.461	0.00	0.00	7.696	361504.9	33.387	21.150	0.000	0.000	0.000	0.000
(SZB) 74.829	0.00	0.00	7.576	361215.8	33.371	21.150	0.000	0.000	0.000	0.000
(FoS) 75.832	0.00	0.00	7.251	360411.3	33.325	21.150	0.000	0.000	0.000	0.000
(1.0L_e) 76.165	0.00	0.00	7.142	360138.7	33.309	21.150	0.000	0.000	0.000	0.000
76.165	0.00	0.00	7.142	360138.7	33.309	21.150	0.000	0.000	0.000	0.000
(STLF) 76.582	0.00	0.00	7.007	359794.1	33.290	21.150	0.000	0.000	0.000	0.000

Effective Prestress

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL}$

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL} + \Delta f_{pLL}$

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(STRF) -0.417	202.500	13.299	27.711	0.000	-1.731	42.740	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	202.500	13.344	27.711	-0.000	-1.695	42.750	0.139	22.188	0.000	0.000	22.188	22.188	22.188
(0.0L_e) 0.000	202.500	13.344	27.711	-0.000	-1.695	42.750	0.139	22.188	0.000	0.000	22.188	22.188	22.188
(FoS) 0.333	202.500	13.381	27.711	0.043	-1.666	42.715	0.250	39.946	0.000	0.000	39.946	39.946	39.946
(SZB) 1.337	202.500	13.493	27.711	0.178	-1.578	42.604	0.584	93.447	0.000	0.000	93.447	93.447	93.447
(Bar Develop.) 1.705	202.500	13.535	27.711	0.229	-1.545	42.562	0.707	113.093	0.000	0.000	113.093	113.093	113.093
(PSXFR) 2.583	202.500	13.638	27.711	0.356	-1.467	42.459	1.000	160.041	0.000	0.000	160.041	160.041	160.041
(Bar Develop.) 2.765	202.500	13.659	27.711	0.383	-1.451	42.437	1.000	160.063	0.000	0.000	160.063	160.063	160.063
(H) 3.833	202.500	13.789	27.711	0.547	-1.354	42.307	1.000	160.193	0.000	0.000	160.193	160.193	160.193
(CS) 4.128	202.500	13.825	27.711	0.593	-1.327	42.270	1.000	160.230	0.000	0.000	160.230	160.230	160.230
(SZB) 5.003	202.500	13.936	27.711	0.734	-1.247	42.159	1.000	160.341	0.000	0.000	160.341	160.341	160.341
(1.5H) 5.583	202.500	14.011	27.711	0.831	-1.193	42.085	1.000	160.415	0.000	0.000	160.415	160.415	160.415
6.843	202.500	14.180	27.711	1.046	-1.076	41.921	1.000	160.579	0.000	0.000	160.579	160.579	160.579
7.283	202.500	14.241	27.711	1.124	-1.035	41.863	1.000	160.637	0.000	0.000	160.637	160.637	160.637
(0.1L_e) 7.617	202.500	14.288	27.711	1.183	-1.004	41.819	1.000	160.681	0.000	0.000	160.681	160.681	160.681

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(SZB) 10.503	202.500	14.719	27.711	1.718	-0.733	41.444	1.000	161.056	0.000	0.000	161.056	161.056	161.056
14.545	202.500	15.409	27.711	2.515	-0.352	40.958	1.000	161.542	0.000	0.000	161.542	161.542	161.542
14.983	202.500	15.491	27.711	2.604	-0.311	40.910	1.000	161.590	0.000	0.000	161.590	161.590	161.590
($0.2L_e$) 15.233	202.500	15.538	27.711	2.655	-0.288	40.883	1.000	161.617	0.000	0.000	161.617	161.617	161.617
(SZB) 18.753	202.500	16.253	27.711	3.374	0.036	40.554	1.000	161.946	0.000	0.000	161.946	161.946	161.946
(Deck Bar Cutoff) 20.783	202.500	16.711	27.711	3.789	0.218	40.415	1.000	162.085	0.000	0.000	162.085	162.085	162.085
22.248	202.500	17.063	27.711	4.085	0.346	40.343	1.000	162.157	0.000	0.000	162.157	162.157	162.157
22.683	202.500	17.172	27.711	4.172	0.384	40.327	1.000	162.173	0.000	0.000	162.173	162.173	162.173
($0.3L_e$) 22.850	202.500	17.214	27.711	4.205	0.398	40.321	1.000	162.179	0.000	0.000	162.179	162.179	162.179
(SZB) 29.753	202.500	19.189	27.711	5.502	0.952	40.446	1.000	162.054	0.000	0.000	162.054	162.054	162.054
29.950	202.500	19.253	27.711	5.536	0.966	40.462	1.000	162.038	0.000	0.000	162.038	162.038	162.038
(HP) 30.383	202.500	19.394	27.711	5.610	0.997	40.498	1.000	162.002	0.000	0.000	162.002	162.002	162.002
($0.4L_e$) 30.466	202.500	19.390	27.711	5.615	1.003	40.484	1.000	162.016	0.000	0.000	162.016	162.016	162.016
37.653	202.500	19.233	27.711	5.840	1.346	39.757	1.000	162.743	0.000	0.000	162.743	162.743	162.743
($0.5L_e$) 38.083	202.500	19.232	27.711	5.840	1.361	39.742	1.000	162.758	0.000	0.000	162.758	162.758	162.758
45.355	202.500	19.376	27.711	5.610	1.507	39.970	1.000	162.530	0.000	0.000	162.530	162.530	162.530
($0.6L_e$) 45.699	202.500	19.390	27.711	5.589	1.509	40.004	1.000	162.496	0.000	0.000	162.496	162.496	162.496
(HP) 45.783	202.500	19.394	27.711	5.583	1.510	40.012	1.000	162.488	0.000	0.000	162.488	162.488	162.488
(SZB) 46.413	202.500	19.189	27.711	5.474	1.502	39.924	1.000	162.576	0.000	0.000	162.576	162.576	162.576
53.058	202.500	17.279	27.711	4.218	1.338	39.435	1.000	163.065	0.000	0.000	163.065	163.065	163.065
($0.7L_e$) 53.316	202.500	17.214	27.711	4.166	1.329	39.430	1.000	163.070	0.000	0.000	163.070	163.070	163.070
53.482	202.500	17.172	27.711	4.133	1.323	39.428	1.000	163.072	0.000	0.000	163.072	163.072	163.072
(SZB) 57.413	202.500	16.253	27.711	3.334	1.159	39.470	1.000	163.030	0.000	0.000	163.030	163.030	163.030
60.760	202.500	15.571	27.711	2.652	0.991	39.638	1.000	162.862	0.000	0.000	162.862	162.862	162.862
($0.8L_e$) 60.932	202.500	15.538	27.711	2.617	0.982	39.650	1.000	162.850	0.000	0.000	162.850	162.850	162.850
61.182	202.500	15.491	27.711	2.567	0.969	39.666	1.000	162.834	0.000	0.000	162.834	162.834	162.834
(SZB) 65.663	202.500	14.719	27.711	1.689	0.706	40.035	1.000	162.465	0.000	0.000	162.465	162.465	162.465
68.463	202.500	14.300	27.711	1.176	0.527	40.308	1.000	162.192	0.000	0.000	162.192	162.192	162.192
($0.9L_e$) 68.549	202.500	14.288	27.711	1.161	0.522	40.316	1.000	162.184	0.000	0.000	162.184	162.184	162.184
68.882	202.500	14.241	27.711	1.103	0.500	40.350	1.000	162.150	0.000	0.000	162.150	162.150	162.150
(1.5H) 70.582	202.500	14.011	27.711	0.814	0.386	40.522	1.000	161.978	0.000	0.000	161.978	161.978	161.978
(SZB) 71.163	202.500	13.936	27.711	0.719	0.347	40.581	1.000	161.919	0.000	0.000	161.919	161.919	161.919
(CS) 72.242	202.500	13.800	27.711	0.549	0.273	40.689	1.000	161.811	0.000	0.000	161.811	161.811	161.811
(H) 72.332	202.500	13.789	27.711	0.535	0.267	40.698	1.000	161.802	0.000	0.000	161.802	161.802	161.802
(Bar Develop.) 73.400	202.500	13.659	27.711	0.375	0.193	40.802	1.000	161.698	0.000	0.000	161.698	161.698	161.698
(PSXFR) 73.582	202.500	13.638	27.711	0.349	0.180	40.820	1.000	161.680	0.000	0.000	161.680	161.680	161.680
(Bar Develop.) 74.461	202.500	13.535	27.711	0.224	0.119	40.903	0.707	114.266	0.000	0.000	114.266	114.266	114.266
(SZB) 74.829	202.500	13.493	27.711	0.174	0.093	40.937	0.584	94.422	0.000	0.000	94.422	94.422	94.422
(FoS) 75.832	202.500	13.381	27.711	0.042	0.023	41.026	0.250	40.368	0.000	0.000	40.368	40.368	40.368
($1.0L_e$) 76.165	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
76.165	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
(STLF) 76.582	202.500	13.299	27.711	0.000	0.000	41.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Prestress Loss

% Loss Initial = $(\Delta f_{pES})/f_{pj}$

% Loss Final (Time dependent losses only) = $(\Delta f_{pLT})/f_{pj}$

% Loss Total (Time dependent losses and instantaneous effects) = $(f_{pj} - f_{pe})/f_{pj}$

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(STRF) -0.417	13.299	100.0	27.711	100.0	42.740	0.000	100.0
0.000	13.344	87.0	27.711	88.0	42.750	22.188	89.0
($0.0L_e$) 0.000	13.344	87.0	27.711	88.0	42.750	22.188	89.0
(FoS) 0.333	13.381	76.7	27.711	78.4	42.715	39.946	80.3
(SZB) 1.337	13.493	45.5	27.711	49.6	42.604	93.447	53.9
(Bar Develop.) 1.705	13.535	34.0	27.711	39.0	42.562	113.093	44.2
(PSXFR) 2.583	13.638	6.7	27.711	13.7	42.459	160.041	21.0
(Bar Develop.) 2.765	13.659	6.7	27.711	13.7	42.437	160.063	21.0
(H) 3.833	13.789	6.8	27.711	13.7	42.307	160.193	20.9
(CS) 4.128	13.825	6.8	27.711	13.7	42.270	160.230	20.9
(SZB) 5.003	13.936	6.9	27.711	13.7	42.159	160.341	20.8
(1.5H) 5.583	14.011	6.9	27.711	13.7	42.085	160.415	20.8
6.843	14.180	7.0	27.711	13.7	41.921	160.579	20.7
7.283	14.241	7.0	27.711	13.7	41.863	160.637	20.7
($0.1L_e$) 7.617	14.288	7.1	27.711	13.7	41.819	160.681	20.7
(SZB) 10.503	14.719	7.3	27.711	13.7	41.444	161.056	20.5
14.545	15.409	7.6	27.711	13.7	40.958	161.542	20.2
14.983	15.491	7.6	27.711	13.7	40.910	161.590	20.2
($0.2L_e$) 15.233	15.538	7.7	27.711	13.7	40.883	161.617	20.2
(SZB) 18.753	16.253	8.0	27.711	13.7	40.554	161.946	20.0
(Deck Bar Cutoff) 20.783	16.711	8.3	27.711	13.7	40.415	162.085	20.0
22.248	17.063	8.4	27.711	13.7	40.343	162.157	19.9
22.683	17.172	8.5	27.711	13.7	40.327	162.173	19.9
($0.3L_e$) 22.850	17.214	8.5	27.711	13.7	40.321	162.179	19.9
(SZB) 29.753	19.189	9.5	27.711	13.7	40.446	162.054	20.0
29.950	19.253	9.5	27.711	13.7	40.462	162.038	20.0
(HP) 30.383	19.394	9.6	27.711	13.7	40.498	162.002	20.0
($0.4L_e$) 30.466	19.390	9.6	27.711	13.7	40.484	162.016	20.0
37.653	19.233	9.5	27.711	13.7	39.757	162.743	19.6
($0.5L_e$) 38.083	19.232	9.5	27.711	13.7	39.742	162.758	19.6

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
45.355	19.376	9.6	27.711	13.7	39.970	162.530	19.7
(0.6L_e) 45.699	19.390	9.6	27.711	13.7	40.004	162.496	19.8
(HP) 45.783	19.394	9.6	27.711	13.7	40.012	162.488	19.8
(SZB) 46.413	19.189	9.5	27.711	13.7	39.924	162.576	19.7
53.058	17.279	8.5	27.711	13.7	39.435	163.065	19.5
(0.7L_e) 53.316	17.214	8.5	27.711	13.7	39.430	163.070	19.5
53.482	17.172	8.5	27.711	13.7	39.428	163.072	19.5
(SZB) 57.413	16.253	8.0	27.711	13.7	39.470	163.030	19.5
60.760	15.571	7.7	27.711	13.7	39.638	162.862	19.6
(0.8L_e) 60.932	15.538	7.7	27.711	13.7	39.650	162.850	19.6
61.182	15.491	7.6	27.711	13.7	39.666	162.834	19.6
(SZB) 65.663	14.719	7.3	27.711	13.7	40.035	162.465	19.8
68.463	14.300	7.1	27.711	13.7	40.308	162.192	19.9
(0.9L_e) 68.549	14.288	7.1	27.711	13.7	40.316	162.184	19.9
68.882	14.241	7.0	27.711	13.7	40.350	162.150	19.9
(1.5H) 70.582	14.011	6.9	27.711	13.7	40.522	161.978	20.0
(SZB) 71.163	13.936	6.9	27.711	13.7	40.581	161.919	20.0
(CS) 72.242	13.800	6.8	27.711	13.7	40.689	161.811	20.1
(H) 72.332	13.789	6.8	27.711	13.7	40.698	161.802	20.1
(Bar Develop.) 73.400	13.659	6.7	27.711	13.7	40.802	161.698	20.1
(PSXFR) 73.582	13.638	6.7	27.711	13.7	40.820	161.680	20.2
(Bar Develop.) 74.461	13.535	34.0	27.711	39.0	40.903	114.266	43.6
(SZB) 74.829	13.493	45.5	27.711	49.6	40.937	94.422	53.4
(FoS) 75.832	13.381	76.7	27.711	78.4	41.026	40.368	80.1
(1.0L_e) 76.165	13.344	87.0	27.711	88.0	41.055	22.423	88.9
76.165	13.344	87.0	27.711	88.0	41.055	22.423	88.9
(STLF) 76.582	13.299	100.0	27.711	100.0	41.010	0.000	100.0

Reinforcement Requirements for Tension Limits

Minimum amount of bonded reinforcement sufficent to resist the tensile force in the concrete [5.9.2.3][C5.9.2.3.1b]

Reinforcement required for tension stress limit, Interval 2 - Prestress Release, [C5.9.2.3.1b]

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.00	0.000	-
(PSXFR) 3.000	12.014	-0.641	-2.884	0.000	0.00	0.000	-
(0.1L_t) 7.700	10.630	-0.591	-2.924	0.000	0.00	0.000	-
(0.2L_t) 15.400	7.353	-0.453	-3.040	0.000	0.00	0.000	-
(0.3L_t) 23.100	3.541	-0.250	-3.215	0.000	0.00	0.000	-
(HP, 0.4L_t) 30.799	-0.185	0.015	-3.442	7.974	0.06	0.000	0.002
(0.5L_t) 38.499	0.246	-0.020	-3.410	0.000	0.00	0.000	-
(HP, 0.6L_t) 46.199	-0.185	0.015	-3.442	7.974	0.06	0.000	0.002
(0.7L_t) 53.899	3.541	-0.250	-3.215	0.000	0.00	0.000	-
(0.8L_t) 61.599	7.353	-0.453	-3.040	0.000	0.00	0.000	-
(0.9L_t) 69.299	10.630	-0.591	-2.924	0.000	0.00	0.000	-
(PSXFR) 73.999	12.014	-0.641	-2.884	0.000	0.00	0.000	-
(STLF, 1.0L_t) 76.999	0.000	0.000	0.000	0.000	0.00	0.000	-

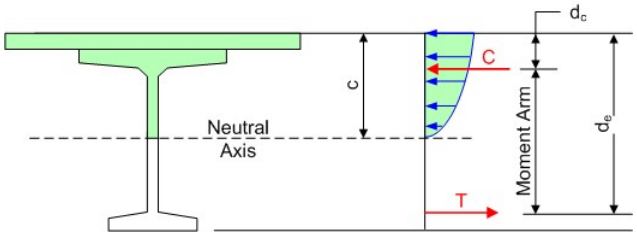
Y_{na}, the location of the neutral axis, is measured from the top of the non-composite girder

* to be considered sufficient, reinforcement must be fully developed and lie within the tension area of the section

** minimum area of sufficiently bonded reinforcement needed to use the alternative tensile stress limit

Moment Capacity Details

Positive Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(0.0L_s) 0.000	1.226	0.613	49.000	49.000	48.000	0.114	0.000	0.000	77.143	1.000	48.387	468.72	468.72	1890.00
(STRF) 0.443	1.223	0.611	49.000	49.000	48.000	0.115	0.000	0.000	77.143	1.000	48.389	468.72	468.72	1890.06
0.860	1.475	0.738	46.095	48.811	48.000	0.095	22.188	0.779	93.277	1.000	45.357	566.75	566.75	2142.19
0.860	1.475	0.738	46.095	48.811	48.000	0.095	22.188	0.779	93.277	1.000	45.357	566.75	566.75	2142.19
(FoS) 1.193	1.676	0.838	44.456	48.683	48.000	0.083	39.946	1.402	106.155	1.000	43.618	645.00	645.00	2344.47
2.193	2.272	1.136	41.481	48.389	48.000	0.060	93.272	3.273	144.607	1.000	40.346	878.63	878.63	2954.09
(SZB) 2.196	2.273	1.137	41.475	48.389	48.000	0.060	93.447	3.279	144.733	1.000	40.338	879.40	879.40	2956.10
(Bar Develop.) 2.564	2.490	1.245	40.808	48.305	48.000	0.055	113.093	3.968	158.820	1.000	39.563	964.99	964.99	3181.47
(PSXFR) 3.443	3.442	1.446	39.762	48.141	48.000	0.039	160.041	5.615	191.917	1.000	38.316	1166.09	1166.09	3723.27
3.485	3.449	1.449	39.763	48.139	48.000	0.039	160.046	5.616	192.234	1.000	38.314	1168.01	1168.01	3729.28

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(Bar Develop.) 3.625	3.473	1.457	39.766	48.135	48.000	0.038	160.063	5.616	193.303	1.000	38.309	1174.51	1174.51	3749.55
(H) 4.693	3.647	1.522	39.814	48.101	48.000	0.036	160.193	5.621	201.442	1.000	38.292	1223.96	1223.96	3905.66
(CS) 4.988	3.693	1.541	39.833	48.092	48.000	0.036	160.230	5.622	203.693	1.000	38.293	1237.64	1237.64	3949.37
5.443	3.763	1.569	39.867	46.204	48.000	0.035	160.287	5.624	207.165	1.000	38.298	1258.73	1258.73	4017.25
(SZB) 5.862	3.832	1.599	39.904	46.203	48.000	0.035	160.341	5.626	210.360	1.000	38.305	1278.15	1278.15	4080.00
(1.5H) 6.443	3.925	1.640	39.962	46.204	48.000	0.034	160.415	5.629	214.787	1.000	38.322	1305.05	1305.05	4167.71
($0.1L_s$) 7.702	4.119	1.730	40.115	44.551	48.000	0.032	160.579	5.634	224.399	1.000	38.385	1363.45	1363.45	4361.38
8.143	4.185	1.761	40.177	44.574	48.000	0.031	160.637	5.636	227.762	1.000	38.415	1383.88	1383.88	4430.19
8.476	4.233	1.785	40.226	44.593	48.000	0.031	160.681	5.638	230.308	1.000	38.441	1399.35	1399.35	4482.68
9.543	4.391	1.864	40.398	44.662	48.000	0.030	160.820	5.643	238.456	1.000	38.534	1448.86	1448.86	4652.51
(SZB) 11.362	4.673	2.010	40.738	43.387	48.000	0.028	161.056	5.651	252.340	1.000	38.728	1533.22	1533.22	4948.19
12.143	4.790	2.072	40.899	42.171	48.000	0.027	161.154	5.655	258.301	1.000	38.827	1569.44	1569.44	5078.06
($0.2L_s$) 15.405	4.976	2.172	41.805	41.805	48.000	0.026	161.542	5.668	267.975	1.000	39.633	1628.22	1628.22	5377.64
15.843	4.977	2.172	41.942	41.942	48.000	0.026	161.590	5.670	268.052	1.000	39.770	1628.68	1628.68	5397.67
16.093	4.978	2.173	42.020	42.020	48.000	0.026	161.617	5.671	268.096	1.000	39.847	1628.95	1628.95	5409.12
16.893	4.981	2.174	42.271	42.271	48.000	0.026	161.700	5.674	268.235	1.000	40.097	1629.80	1629.80	5445.84
18.843	4.987	2.178	42.885	42.885	48.000	0.026	161.883	5.680	268.573	1.000	40.708	1631.85	1631.85	5535.73
(SZB) 19.612	4.989	2.179	43.128	43.128	48.000	0.026	161.946	5.682	268.706	1.000	40.949	1632.65	1632.65	5571.35
(Deck Bar Cutoff) 21.642	4.996	2.183	43.772	43.772	48.000	0.026	162.085	5.687	269.053	1.000	41.590	1634.76	1634.76	5665.76
21.647	4.996	2.183	43.774	43.774	48.000	0.026	162.085	5.687	269.054	1.000	41.591	1634.77	1634.77	5665.99
($0.3L_s$) 23.107	5.000	2.185	44.239	44.239	48.000	0.026	162.157	5.690	269.289	1.000	42.054	1636.20	1636.20	5734.04
23.543	5.002	2.186	44.378	44.378	48.000	0.026	162.173	5.690	269.349	1.000	42.192	1636.56	1636.56	5754.17
23.709	5.002	2.186	44.431	44.431	48.000	0.026	162.179	5.690	269.371	1.000	42.245	1636.70	1636.70	5761.89
24.243	5.003	2.187	44.602	44.602	48.000	0.026	162.194	5.691	269.444	1.000	42.415	1637.14	1637.14	5786.61
25.543	5.006	2.188	45.018	45.018	48.000	0.026	162.216	5.692	269.602	1.000	42.830	1638.10	1638.10	5846.65
(SZB) 30.612	5.013	2.192	46.653	46.653	48.000	0.026	162.054	5.686	269.964	1.000	44.461	1640.30	1640.30	6077.51
($0.4L_s$) 30.810	5.013	2.192	46.717	46.717	48.000	0.026	162.038	5.686	269.971	1.000	44.525	1640.34	1640.34	6086.41
(HP) 31.242	5.014	2.192	46.857	46.857	48.000	0.026	162.002	5.684	269.986	1.000	44.665	1640.43	1640.43	6105.87
31.247	5.014	2.192	46.857	46.857	48.000	0.026	162.003	5.684	269.986	1.000	44.665	1640.43	1640.43	6105.87
31.326	5.014	2.192	46.857	46.857	48.000	0.026	162.016	5.685	269.986	1.000	44.665	1640.43	1640.43	6105.87
31.592	5.014	2.192	46.857	46.857	48.000	0.026	162.059	5.686	269.986	1.000	44.665	1640.43	1640.43	6105.87
32.242	5.014	2.192	46.857	46.857	48.000	0.026	162.159	5.690	269.986	1.000	44.665	1640.44	1640.44	6105.87
($0.5L_s$) 38.512	5.014	2.192	46.857	46.857	48.000	0.026	162.743	5.710	269.987	1.000	44.665	1640.44	1640.44	6105.90
38.942	5.014	2.192	46.857	46.857	48.000	0.026	162.758	5.711	269.987	1.000	44.665	1640.44	1640.44	6105.90
45.642	5.014	2.192	46.857	46.857	48.000	0.026	162.581	5.705	269.987	1.000	44.665	1640.44	1640.44	6105.89
($0.6L_s$) 46.215	5.014	2.192	46.857	46.857	48.000	0.026	162.530	5.703	269.987	1.000	44.665	1640.44	1640.44	6105.89
46.292	5.014	2.192	46.857	46.857	48.000	0.026	162.523	5.703	269.987	1.000	44.665	1640.44	1640.44	6105.89
46.559	5.014	2.192	46.857	46.857	48.000	0.026	162.496	5.702	269.987	1.000	44.665	1640.44	1640.44	6105.89
46.637	5.014	2.192	46.857	46.857	48.000	0.026	162.489	5.701	269.987	1.000	44.665	1640.44	1640.44	6105.89
(HP) 46.642	5.014	2.192	46.857	46.857	48.000	0.026	162.488	5.701	269.987	1.000	44.665	1640.44	1640.44	6105.89
(SZB) 47.272	5.013	2.192	46.653	46.653	48.000	0.026	162.576	5.704	269.965	1.000	44.461	1640.31	1640.31	6077.53
52.342	5.006	2.188	45.018	45.018	48.000	0.026	163.015	5.720	269.607	1.000	42.830	1638.13	1638.13	5846.74
53.642	5.004	2.187	44.601	44.601	48.000	0.026	163.059	5.721	269.452	1.000	42.415	1637.19	1637.19	5786.74
($0.7L_s$) 53.917	5.003	2.186	44.513	44.513	48.000	0.026	163.065	5.722	269.414	1.000	42.327	1636.96	1636.96	5773.96
54.175	5.002	2.186	44.431	44.431	48.000	0.026	163.070	5.722	269.379	1.000	42.245	1636.75	1636.75	5762.02
54.342	5.002	2.186	44.378	44.378	48.000	0.026	163.072	5.722	269.356	1.000	42.192	1636.61	1636.61	5754.30
(SZB) 58.272	5.007	2.189	43.129	43.129	48.000	0.026	163.030	5.720	268.695	1.000	40.940	1632.59	1632.59	5569.88
59.042	5.020	2.195	42.886	42.886	48.000	0.026	163.000	5.719	268.543	1.000	40.691	1631.67	1631.67	5532.83
60.992	5.055	2.214	42.274	42.274	48.000	0.025	162.901	5.716	268.158	1.000	40.060	1629.33	1629.33	5439.20
($0.8L_s$) 61.620	5.067	2.221	42.078	42.078	48.000	0.025	162.862	5.714	268.033	1.000	39.857	1628.57	1628.57	5409.13
61.792	5.070	2.223	42.024	42.024	48.000	0.025	162.850	5.714	267.999	1.000	39.801	1628.36	1628.36	5400.91
62.042	5.075	2.225	41.946	41.946	48.000	0.025	162.834	5.713	267.949	1.000	39.721	1628.06	1628.06	5388.95
65.742	4.977	2.172	40.909	42.180	48.000	0.026	162.537	5.703	258.110	1.000	38.736	1568.28	1568.28	5062.41
(SZB) 66.522	4.880	2.120	40.749	43.396	48.000	0.027	162.465	5.701	252.130	1.000	38.629	1531.94	1531.94	4931.47
68.342	4.646	1.995	40.414	44.671	48.000	0.028	162.290	5.694	238.202	1.000	38.418	1447.31	1447.31	4633.63
($0.9L_s$) 69.322	4.515	1.927	40.257	44.609	48.000	0.029	162.192	5.691	230.700	1.000	38.330	1401.74	1401.74	4477.34
69.408	4.503	1.921	40.244	44.604	48.000	0.029	162.184	5.691	230.043	1.000	38.323	1397.74	1397.74	4463.78
69.742	4.458	1.898	40.196	44.585	48.000	0.029	162.150	5.689	227.495	1.000	38.298	1382.26	1382.26	4411.42
(1.5H) 71.442	4.219	1.778	39.985	46.212	48.000	0.031	161.978	5.683	214.508	1.000	38.207	1303.35	1303.35	4149.73
(SZB) 72.022	4.133	1.737	39.928	46.211	48.000	0.032	161.919	5.681	210.076	1.000	38.191	1276.42	1276.42	4062.35
72.442	4.070	1.707	39.892	46.213	48.000	0.032	161.877	5.680	206.877	1.000	38.186	1256.98	1256.98	3999.90
(CS) 73.101	3.969	1.660	39.846	48.099	48.000	0.033	161.811	5.678	201.848	1.000	38.186	1226.43	1226.43	3902.73
(H) 73.192	3.955	1.653	39.841	48.101	48.000	0.033	161.802	5.677	201.158	1.000	38.187	1222.23	1222.23	3889.50
(Bar Develop.) 74.260	3.782	1.577	39.795	48.135	48.000	0.035	161.698	5.674	193.022	1.000	38.218	1172.80	1172.80	3735.18
74.400	3.759	1.568	39.792	48.139	48.000	0.035	161.684	5.673	191.953	1.000	38.224	1166.31	1166.31	3715.09
(PSXFR) 74.442	3.753	1.565	39.791	48.141	48.000	0.035	161.680	5.673	191.635	1.000	38.226	1164.38	1164.38	3709.12
(Bar Develop.) 75.320	2.813	1.292	40.853	48.305	48.000	0.048	114.266	4.009	158.494	1.000	39.561	963.01	963.01	3174.79
(SZB) 75.688	2.434	1.217	41.497	48.389	48.000	0.056	94.422	3.313	144.597	1.000	40.280	878.57	878.57	2949.06
75.692	2.432	1.216	41.504	48.389	48.000	0.056	94.245	3.307	144.471	1.000	40.288	877.81	877.81	2947.07
(FoS) 76.692	1.800	0.900	44.466	48.683	48.000	0.077	40.368	1.416	106.121	1.000	43.566	644.79	644.79	2340.90
($1.0L_s$) 77.025	1.586	0.793	46.099	48.811	48.000	0.088	22.423	0.787	93.264	1.000	45.306	566.67	566.67	2139.49
77.025	1.586	0.793	46.099	48.811	48.000	0.088	22.423	0.787	93.264	1.000	45.306	566.67	566.67	2139.49
(STLF) 77.442	1.316	0.658	49.000	49.000	48.000	0.106	0.000	0.000	77.143	1.000	48.342	468.72	468.72	1888.24

* Used to compute d_v for shear. Depth to resultant tension force for strands in tension. See PCI Bridge Design Manual, 3rd Edition, MNL-133-11, §8.4.1.2

ε_{cl} = 0.002

ε_{tl} = 0.005

$$0.75 \le \phi = 0.75 + \frac{0.25(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 1.0$$

Positive Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($0.0L_s$) 0.000	0.509	0.000	13173.4	13173.4	0.00	894.24
(STRF) 0.443	0.679	0.000	7237.4	10898.2	0.00	986.39
0.860	0.679	0.339	7237.4	10900.9	-0.00	1325.56
0.860	0.679	0.339	7237.4	10900.9	-0.00	1325.56
(FoS) 1.193	0.679	0.614	7237.4	10903.1	22.65	1589.30
2.193	0.679	1.460	7237.4	10909.3	89.44	2401.77
(SZB) 2.196	0.679	1.463	7237.4	10909.3	89.66	2404.49
(Bar Develop.) 2.564	0.679	1.781	7237.4	10911.6	113.80	2711.60
(PSXFR) 3.443	0.679	2.559	7237.4	10916.8	170.50	3462.39
3.485	0.679	2.561	7237.4	10917.0	173.15	3463.01
(Bar Develop.) 3.625	0.679	2.567	7237.4	10917.8	182.07	3465.12
(H) 4.693	0.679	2.616	7237.4	10923.9	248.83	3481.73
(CS) 4.988	0.679	2.630	7237.4	10925.5	266.93	3486.50
5.443	0.679	2.651	7237.4	10928.0	294.53	3494.01
(SZB) 5.862	0.679	2.670	7237.4	10930.3	319.64	3501.10
(1.5H) 6.443	0.679	2.696	7237.4	10933.3	353.92	3511.17
($0.1L_s$) 7.702	0.679	2.754	7237.4	10939.6	426.23	3534.06
8.143	0.679	2.775	7237.4	10941.8	450.85	3542.39
8.476	0.679	2.790	7237.4	10943.4	469.26	3548.82
9.543	0.679	2.839	7237.4	10947.0	526.84	3569.69
(SZB) 11.362	0.679	2.923	7237.4	10947.0	620.42	3606.04
12.143	0.679	2.959	7237.4	10947.0	658.76	3622.60
($0.2L_s$) 15.405	0.679	3.110	7237.4	10947.0	807.23	3697.80
15.843	0.679	3.130	7237.4	10947.0	825.69	3708.60
16.093	0.679	3.142	7237.4	10947.0	836.09	3714.85
16.893	0.679	3.179	7237.4	10947.0	868.59	3735.19
18.843	0.679	3.268	7237.4	10947.0	942.99	3787.00
(SZB) 19.612	0.679	3.303	7237.4	10947.0	970.46	3808.29
(Deck Bar Cutoff) 21.642	0.679	3.396	7237.4	10947.0	1037.79	3866.62
21.647	0.679	3.396	7237.4	10947.0	1037.95	3866.76
($0.3L_s$) 23.107	0.679	3.462	7237.4	10947.0	1081.75	3910.59
23.543	0.679	3.482	7237.4	10947.0	1094.05	3923.93
23.709	0.679	3.489	7237.4	10947.0	1098.67	3929.08
24.243	0.679	3.513	7237.4	10947.0	1113.12	3945.67
25.543	0.679	3.571	7237.4	10947.0	1146.16	3986.89
(SZB) 30.612	0.679	3.791	7237.4	10947.0	1245.60	4157.05
($0.4L_s$) 30.810	0.679	3.800	7237.4	10947.0	1248.53	4163.95
(HP) 31.242	0.679	3.818	7237.4	10947.0	1254.68	4179.11
31.247	0.679	3.818	7237.4	10947.0	1254.75	4179.10
31.326	0.679	3.818	7237.4	10947.0	1255.83	4178.85
31.592	0.679	3.819	7237.4	10947.0	1259.41	4178.03
32.242	0.679	3.822	7237.4	10947.0	1267.60	4176.19
($0.5L_s$) 38.512	0.679	3.836	7237.4	10947.0	1306.96	4169.84
38.942	0.679	3.836	7237.4	10947.0	1307.02	4170.17
45.642	0.679	3.832	7237.4	10947.0	1264.53	4187.75
($0.6L_s$) 46.215	0.679	3.831	7237.4	10947.0	1257.11	4190.35
46.292	0.679	3.830	7237.4	10947.0	1256.06	4190.71
46.559	0.679	3.830	7237.4	10947.0	1252.37	4191.99
46.637	0.679	3.830	7237.4	10947.0	1251.26	4192.37
(HP) 46.642	0.679	3.830	7237.4	10947.0	1251.19	4192.39
(SZB) 47.272	0.679	3.804	7237.4	10947.0	1241.85	4171.23
52.342	0.679	3.589	7237.4	10947.0	1140.61	4007.38
53.642	0.679	3.532	7237.4	10947.0	1107.20	3967.50
($0.7L_s$) 53.917	0.679	3.520	7237.4	10947.0	1099.73	3959.17
54.175	0.679	3.508	7237.4	10947.0	1092.62	3951.42
54.342	0.679	3.501	7237.4	10947.0	1087.96	3946.43
(SZB) 58.272	0.679	3.326	7237.4	10942.8	963.68	3832.84
59.042	0.679	3.291	7237.4	10939.1	936.14	3811.07
60.992	0.679	3.202	7237.4	10929.1	861.66	3757.67
($0.8L_s$) 61.620	0.679	3.173	7237.4	10925.7	836.25	3741.02
61.792	0.679	3.166	7237.4	10924.7	829.17	3736.51
62.042	0.679	3.154	7237.4	10923.4	818.79	3729.99
65.742	0.679	2.985	7237.4	10901.1	652.37	3638.77
(SZB) 66.522	0.679	2.949	7237.4	10896.0	614.22	3620.82
68.342	0.679	2.865	7237.4	10883.6	521.23	3580.76
($0.9L_s$) 69.322	0.679	2.820	7237.4	10876.5	468.75	3560.21
69.408	0.679	2.816	7237.4	10875.9	464.08	3558.44
69.742	0.679	2.801	7237.4	10873.4	445.82	3551.65
(1.5H) 71.442	0.679	2.723	7237.4	10860.4	349.75	3518.34
(SZB) 72.022	0.679	2.696	7237.4	10855.7	315.81	3507.47
72.442	0.679	2.677	7237.4	10852.3	290.95	3499.79
(CS) 73.101	0.679	2.647	7237.4	10846.9	251.25	3487.97
(H) 73.192	0.679	2.642	7237.4	10846.1	245.75	3486.38
(Bar Develop.) 74.260	0.679	2.594	7237.4	10837.1	179.74	3468.03
74.400	0.679	2.587	7237.4	10835.8	170.93	3465.69
(PSXFR) 74.442	0.679	2.585	7237.4	10835.5	168.30	3464.99
(Bar Develop.) 75.320	0.679	1.800	7237.4	10827.7	112.30	2710.72
(SZB) 75.688	0.679	1.478	7237.4	10824.4	88.46	2402.19
75.692	0.679	1.475	7237.4	10824.4	88.25	2399.46
(FoS) 76.692	0.679	0.621	7237.4	10815.1	22.34	1583.25
($1.0L_s$) 77.025	0.679	0.343	7237.4	10812.0	0.00	1318.31
77.025	0.679	0.343	7237.4	10812.0	0.00	1318.31

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STLF) 77.442	0.679	0.000	7237.4	10808.0	0.00	978.23

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement,γ_3 = 1

$$M_{cr} = \gamma_3\left[\left(\gamma_1 f_r + \gamma_2 f_{cpe}\right)S_c - M_{dnc}\left(\frac{S_c}{S_{nc}} - 1\right)\right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

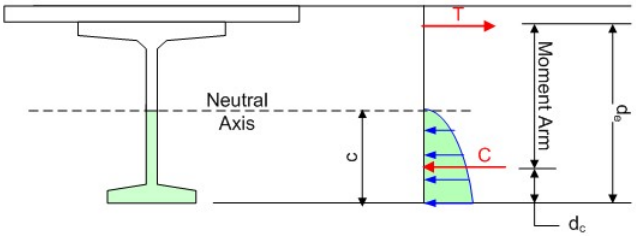
Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
($0.0L_s$) 0.000	894.24	Strength II	-391.56	-520.77	-520.77
(STRF) 0.443	986.39	Strength II	-380.36	-505.88	-505.88
0.860	1325.56	Strength II	-369.91	-491.98	-491.98
0.860	1325.56	Strength II	-369.91	-491.98	-491.98
(FoS) 1.193	1589.30	Strength II	-341.22	-453.82	-453.82
2.193	2401.77	Strength II	-256.54	-341.20	-341.20
(SZB) 2.196	2404.49	Strength II	-256.27	-340.84	-340.84
(Bar Develop.) 2.564	2711.60	Strength II	-225.63	-300.09	-300.09
(PSXFR) 3.443	3462.39	Strength II	-153.63	-204.33	-204.33
3.485	3463.01	Strength II	-150.26	-199.84	-199.84
(Bar Develop.) 3.625	3465.12	Strength II	-138.92	-184.76	-184.76
(H) 4.693	3481.73	Strength I	131.27	174.59	174.59
(CS) 4.988	3486.50	Strength I	180.20	239.66	239.66
5.443	3494.01	Strength I	255.29	339.54	339.54
(SZB) 5.862	3501.10	Strength I	324.53	431.62	431.62
(1.5H) 6.443	3511.17	Strength I	420.00	558.60	558.60
($0.1L_s$) 7.702	3534.06	Strength I	625.18	831.48	831.48
8.143	3542.39	Strength I	696.52	926.37	926.37
8.476	3548.82	Strength I	750.78	998.54	998.54
9.543	3569.69	Strength I	923.08	1227.70	1227.70
(SZB) 11.362	3606.04	Strength I	1212.71	1612.90	1612.90
12.143	3622.60	Strength I	1336.45	1777.48	1777.48
($0.2L_s$) 15.405	3697.80	Strength I	1891.62	2515.86	2515.86
15.843	3708.60	Strength I	1967.40	2616.65	2616.65
16.093	3714.85	Strength I	2010.13	2673.47	2673.47
16.893	3735.19	Strength I	2144.52	2852.22	2852.22
18.843	3787.00	Strength I	2458.74	3270.12	3270.12
(SZB) 19.612	3808.29	Strength I	2579.47	3430.69	3430.69
(Deck Bar Cutoff) 21.642	3866.62	Strength I	2884.31	3836.14	3836.14
21.647	3866.76	Strength I	2885.02	3837.07	3837.07
($0.3L_s$) 23.107	3910.59	Strength I	3085.74	4104.04	3910.59
23.543	3923.93	Strength I	3143.27	4180.54	3923.93
23.709	3929.08	Strength I	3165.18	4209.68	3929.08
24.243	3945.67	Strength I	3233.95	4301.16	3945.67
25.543	3986.89	Strength I	3395.37	4515.84	3986.89
(SZB) 30.612	4157.05	Strength I	3913.01	5204.30	4157.05
($0.4L_s$) 30.810	4163.95	Strength I	3929.34	5226.03	4163.95
(HP) 31.242	4179.11	Strength I	3964.08	5272.23	4179.11
31.247	4179.10	Strength I	3964.47	5272.74	4179.10
31.326	4178.85	Strength I	3970.61	5280.91	4178.85
31.592	4178.03	Strength I	3991.16	5308.24	4178.03
32.242	4176.19	Strength I	4039.64	5372.72	4176.19
($0.5L_s$) 38.512	4169.84	Strength I	4345.68	5779.76	4169.84
38.942	4170.17	Strength I	4355.67	5793.05	4170.17
45.642	4187.75	Strength I	4381.28	5827.11	4187.75
($0.6L_s$) 46.215	4190.35	Strength I	4370.23	5812.40	4190.35
46.292	4190.71	Strength I	4368.58	5810.21	4190.71
46.559	4191.99	Strength I	4362.61	5802.27	4191.99
46.637	4192.37	Strength I	4360.74	5799.79	4192.37
(HP) 46.642	4192.39	Strength I	4360.63	5799.63	4192.39
(SZB) 47.272	4171.23	Strength I	4343.78	5777.22	4171.23
52.342	4007.38	Strength I	4089.47	5438.99	4007.38
53.642	3967.50	Strength I	3991.19	5308.28	3967.50
($0.7L_s$) 53.917	3959.17	Strength I	3968.64	5278.29	3959.17
54.175	3951.42	Strength I	3947.98	5250.81	3951.42
54.342	3946.43	Strength I	3935.05	5233.62	3946.43
(SZB) 58.272	3832.84	Strength I	3563.02	4738.82	3832.84
59.042	3811.07	Strength I	3475.09	4621.87	3811.07
60.992	3757.67	Strength I	3230.87	4297.06	3757.67
($0.8L_s$) 61.620	3741.02	Strength I	3145.61	4183.66	3741.02
61.792	3736.51	Strength I	3121.71	4151.87	3736.51
62.042	3729.99	Strength I	3086.50	4105.05	3729.99
65.742	3638.77	Strength I	2502.93	3328.89	3328.89
(SZB) 66.522	3620.82	Strength I	2364.87	3145.28	3145.28

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
68.342	3580.76	Strength I	2023.26	2690.94	2690.94
(0.9L_s) 69.322	3560.21	Strength I	1827.40	2430.44	2430.44
69.408	3558.44	Strength I	1809.84	2407.08	2407.08
69.742	3551.65	Strength I	1741.12	2315.69	2315.69
(1.5H) 71.442	3518.34	Strength I	1375.75	1829.74	1829.74
(SZB) 72.022	3507.47	Strength I	1245.20	1656.11	1656.11
72.442	3499.79	Strength I	1149.14	1528.35	1528.35
(CS) 73.101	3487.97	Strength I	994.98	1323.32	1323.32
(H) 73.192	3486.38	Strength I	973.53	1294.80	1294.80
(Bar Develop.) 74.260	3468.03	Strength I	715.09	951.06	951.06
74.400	3465.69	Strength I	680.40	904.93	904.93
(PSXFR) 74.442	3464.99	Strength I	670.06	891.19	891.19
(Bar Develop.) 75.320	2710.72	Strength I	448.64	596.70	596.70
(SZB) 75.688	2402.19	Strength I	353.92	470.71	470.71
75.692	2399.46	Strength I	353.07	469.58	469.58
(FoS) 76.692	1583.25	Strength I	89.71	119.32	119.32
(1.0L_s) 77.025	1318.31	Strength II	0.00	0.00	0.00
77.025	1318.31	Strength II	0.00	0.00	0.00
(STLF) 77.442	978.23	Strength II	0.00	0.00	0.00

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Negative Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(0.0L_s) 0.000	32.938	9.455	50.990	50.990	0.002	0.750	41.535	1525.77	1525.77	-5281.11
(STRF) 0.443	16.059	5.274	51.044	51.044	0.007	0.900	45.769	1920.00	1920.00	-7323.10
0.860	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.19
0.860	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.19
(FoS) 1.193	16.059	5.274	50.966	50.966	0.007	0.900	45.692	1920.00	1920.00	-7310.72
2.193	16.059	5.274	50.865	50.865	0.007	0.900	45.592	1920.00	1920.00	-7294.68
(SZB) 2.196	16.059	5.274	50.865	50.865	0.007	0.900	45.591	1920.00	1920.00	-7294.63
(Bar Develop.) 2.564	16.059	5.273	50.829	50.829	0.006	0.900	45.555	1920.00	1920.00	-7288.86
(PSXFR) 3.443	16.059	5.273	50.744	50.744	0.006	0.900	45.471	1920.00	1920.00	-7275.35
3.485	16.059	5.273	50.740	50.740	0.006	0.900	45.467	1920.00	1920.00	-7274.72
(Bar Develop.) 3.625	16.059	5.273	50.727	50.727	0.006	0.900	45.454	1920.00	1920.00	-7272.60
(H) 4.693	16.059	5.273	50.628	50.628	0.006	0.900	45.355	1920.00	1920.00	-7256.80
(CS) 4.988	16.059	5.273	50.601	50.601	0.006	0.900	45.328	1920.00	1920.00	-7252.53
5.443	16.058	5.273	50.560	50.560	0.006	0.900	45.288	1920.00	1920.00	-7246.02
(SZB) 5.862	16.058	5.273	50.523	50.523	0.006	0.900	45.251	1920.00	1920.00	-7240.12
(1.5H) 6.443	16.058	5.272	50.473	50.473	0.006	0.900	45.200	1920.00	1920.00	-7232.07
(0.1L_s) 7.702	16.058	5.272	50.367	50.367	0.006	0.900	45.095	1920.00	1920.00	-7215.13
8.143	16.058	5.272	50.331	50.331	0.006	0.900	45.059	1920.00	1920.00	-7209.38
8.476	16.058	5.272	50.304	50.304	0.006	0.900	45.032	1920.00	1920.00	-7205.08
9.543	16.058	5.272	50.219	50.219	0.006	0.900	44.948	1920.00	1920.00	-7191.65
(SZB) 11.362	16.058	5.271	50.083	50.083	0.006	0.900	44.812	1920.00	1920.00	-7169.85
12.143	16.058	5.271	50.027	50.027	0.006	0.900	44.756	1920.00	1920.00	-7160.91
(0.2L_s) 15.405	16.057	5.270	49.809	49.809	0.006	0.900	44.539	1920.00	1920.00	-7126.22
15.843	16.057	5.270	49.782	49.782	0.006	0.900	44.512	1920.00	1920.00	-7121.88
16.093	16.057	5.270	49.767	49.767	0.006	0.900	44.497	1920.00	1920.00	-7119.44
16.893	16.057	5.270	49.719	49.719	0.006	0.900	44.449	1920.00	1920.00	-7111.79
18.843	12.578	4.560	49.609	49.609	0.009	0.900	45.048	1675.18	1675.18	-6288.64
(SZB) 19.612	11.389	4.256	49.568	49.568	0.010	0.900	45.312	1564.89	1564.89	-5908.96
(Deck Bar Cutoff) 21.642	8.804	3.454	49.466	49.466	0.014	0.900	46.012	1274.10	1274.10	-4885.30
21.647	8.798	3.452	49.466	49.466	0.014	0.900	46.014	1273.39	1273.39	-4882.81
(0.3L_s) 23.107	7.166	2.830	49.400	49.400	0.018	0.900	46.570	1064.34	1064.34	-4130.50
23.543	6.692	2.657	49.381	49.381	0.019	0.900	46.724	1002.09	1002.09	-3901.80
23.709	6.511	2.593	49.374	49.374	0.020	0.900	46.781	978.24	978.24	-3813.62
24.243	6.372	2.544	49.352	49.352	0.020	0.900	46.808	960.00	960.00	-3744.63
25.543	6.373	2.544	49.301	49.301	0.020	0.900	46.757	960.00	960.00	-3740.58
(SZB) 30.612	6.376	2.544	49.148	49.148	0.020	0.900	46.604	960.00	960.00	-3728.29
(0.4L_s) 30.810	6.376	2.544	49.143	49.143	0.020	0.900	46.599	960.00	960.00	-3727.93
(HP) 31.242	6.376	2.544	49.134	49.134	0.020	0.900	46.590	960.00	960.00	-3727.18
31.247	6.376	2.544	49.134	49.134	0.020	0.900	46.590	960.00	960.00	-3727.17
31.326	6.376	2.544	49.132	49.132	0.020	0.900	46.588	960.00	960.00	-3727.04
31.592	6.376	2.544	49.127	49.127	0.020	0.900	46.582	960.00	960.00	-3726.60
32.242	6.376	2.544	49.114	49.114	0.020	0.900	46.570	960.00	960.00	-3725.61
(0.5L_s) 38.512	6.377	2.544	49.058	49.058	0.020	0.900	46.514	960.00	960.00	-3721.13
38.942	6.377	2.544	49.059	49.059	0.020	0.900	46.514	960.00	960.00	-3721.16

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
45.642	6.376	2.544	49.131	49.131	0.020	0.900	46.587	960.00	960.00	-3726.93
($0.6L_s$) 46.215	6.376	2.544	49.143	49.143	0.020	0.900	46.599	960.00	960.00	-3727.90
46.292	6.376	2.544	49.145	49.145	0.020	0.900	46.600	960.00	960.00	-3728.04
46.559	6.375	2.544	49.151	49.151	0.020	0.900	46.607	960.00	960.00	-3728.52
46.637	6.375	2.544	49.152	49.152	0.020	0.900	46.608	960.00	960.00	-3728.67
(HP) 46.642	6.375	2.544	49.153	49.153	0.020	0.900	46.608	960.00	960.00	-3728.68
(SZB) 47.272	6.375	2.544	49.168	49.168	0.020	0.900	46.624	960.00	960.00	-3729.90
52.342	6.372	2.544	49.331	49.331	0.020	0.900	46.787	960.00	960.00	-3742.97
53.642	6.371	2.544	49.384	49.384	0.020	0.900	46.840	960.00	960.00	-3747.18
($0.7L_s$) 53.917	6.371	2.544	49.396	49.396	0.020	0.900	46.851	960.00	960.00	-3748.12
54.175	6.371	2.544	49.407	49.407	0.020	0.900	46.863	960.00	960.00	-3749.00
54.342	6.370	2.544	49.414	49.414	0.020	0.900	46.870	960.00	960.00	-3749.59
(SZB) 58.272	6.367	2.544	49.604	49.604	0.020	0.900	47.060	960.00	960.00	-3764.80
59.042	6.366	2.544	49.646	49.646	0.020	0.900	47.101	960.00	960.00	-3768.11
60.992	6.364	2.544	49.756	49.756	0.020	0.900	47.212	960.00	960.00	-3776.98
($0.8L_s$) 61.620	6.363	2.544	49.794	49.794	0.020	0.900	47.250	960.00	960.00	-3779.97
61.792	6.363	2.544	49.804	49.804	0.020	0.900	47.260	960.00	960.00	-3780.81
62.042	6.363	2.544	49.820	49.820	0.020	0.900	47.275	960.00	960.00	-3782.03
65.742	6.358	2.544	50.062	50.062	0.021	0.900	47.517	960.00	960.00	-3801.38
(SZB) 66.522	6.357	2.544	50.116	50.116	0.021	0.900	47.572	960.00	960.00	-3805.77
68.342	5.892	2.392	50.250	50.250	0.023	0.900	47.859	900.00	900.00	-3589.39
($0.9L_s$) 69.322	5.890	2.392	50.325	50.325	0.023	0.900	47.933	900.00	900.00	-3595.01
69.408	5.890	2.392	50.332	50.332	0.023	0.900	47.940	900.00	900.00	-3595.51
69.742	5.890	2.392	50.358	50.358	0.023	0.900	47.966	900.00	900.00	-3597.47
(1.5H) 71.442	5.887	2.392	50.496	50.496	0.023	0.900	48.103	900.00	900.00	-3607.75
(SZB) 72.022	5.886	2.392	50.544	50.544	0.023	0.900	48.152	900.00	900.00	-3611.39
72.442	5.885	2.393	50.580	50.580	0.023	0.900	48.187	900.00	900.00	-3614.04
(CS) 73.101	5.885	2.393	50.637	50.637	0.023	0.900	48.244	900.00	900.00	-3618.27
(H) 73.192	5.885	2.393	50.645	50.645	0.023	0.900	48.251	900.00	900.00	-3618.86
(Bar Develop.) 74.260	5.884	2.394	50.740	50.740	0.023	0.900	48.345	900.00	900.00	-3625.91
74.400	5.884	2.394	50.752	50.752	0.023	0.900	48.358	900.00	900.00	-3626.85
(PSXFR) 74.442	5.884	2.394	50.756	50.756	0.023	0.900	48.362	900.00	900.00	-3627.13
(Bar Develop.) 75.320	5.883	2.395	50.837	50.837	0.023	0.900	48.442	900.00	900.00	-3633.14
(SZB) 75.688	5.883	2.396	50.871	50.871	0.023	0.900	48.476	900.00	900.00	-3635.70
75.692	5.883	2.396	50.872	50.872	0.023	0.900	48.476	900.00	900.00	-3635.72
(FoS) 76.692	5.883	2.396	50.967	50.967	0.023	0.900	48.571	900.00	900.00	-3642.86
($1.0L_s$) 77.025	5.882	2.396	51.000	51.000	0.023	0.900	48.604	900.00	900.00	-3645.33
77.025	5.882	2.396	51.000	51.000	0.023	0.900	48.604	900.00	900.00	-3645.33
(STLF) 77.442	5.467	2.197	51.041	51.041	0.025	0.900	48.844	840.00	840.00	-3419.08

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.15(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 0.9$$

Negative Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($0.0L_s$) 0.000	0.509	0.000	-25717.8	-25717.8	0.00	-1163.86
(STRF) 0.443	0.509	0.000	-25758.0	-25758.0	0.00	-1165.67
0.860	0.509	0.000	-25795.3	-25795.3	0.00	-1167.36
0.860	0.509	0.000	-25795.3	-25795.3	0.00	-1167.36
(FoS) 1.193	0.509	0.000	-25824.8	-25824.8	0.00	-1168.70
2.193	0.509	0.000	-25911.3	-25911.3	0.00	-1172.61
(SZB) 2.196	0.509	0.000	-25911.6	-25911.6	0.00	-1172.62
(Bar Develop.) 2.564	0.509	0.000	-25942.7	-25942.7	0.00	-1174.03
(PSXFR) 3.443	0.509	0.000	-26015.5	-26015.5	0.00	-1177.33
3.485	0.509	0.000	-26018.9	-26018.9	0.00	-1177.48
(Bar Develop.) 3.625	0.509	0.000	-26030.3	-26030.3	0.00	-1178.00
(H) 4.693	0.509	0.000	-26115.3	-26115.3	0.00	-1181.84
(CS) 4.988	0.509	0.000	-26138.2	-26138.2	0.00	-1182.88
5.443	0.509	0.000	-26173.1	-26173.1	0.00	-1184.46
(SZB) 5.862	0.509	0.000	-26204.7	-26204.7	0.00	-1185.89
(1.5H) 6.443	0.509	0.000	-26247.7	-26247.7	0.00	-1187.84
($0.1L_s$) 7.702	0.509	0.000	-26337.7	-26337.7	0.00	-1191.91
8.143	0.509	0.000	-26368.1	-26368.1	0.00	-1193.29
8.476	0.509	0.000	-26390.8	-26390.8	0.00	-1194.31
9.543	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 11.362	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
12.143	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.2L_s$) 15.405	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
15.843	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
16.093	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
16.893	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
18.843	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 19.612	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(Deck Bar Cutoff) 21.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
21.647	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.3L_s$) 23.107	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
23.543	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
23.709	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
24.243	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
25.543	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 30.612	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.4L_s$) 30.810	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(HP) 31.242	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
31.247	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
31.326	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
31.592	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
32.242	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.5L_s$) 38.512	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
38.942	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
45.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.6L_s$) 46.215	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
46.292	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
46.559	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
46.637	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(HP) 46.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 47.272	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
52.342	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
53.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.7L_s$) 53.917	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
54.175	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
54.342	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 58.272	0.509	0.000	-26383.1	-26383.1	0.00	-1193.96
59.042	0.509	0.000	-26330.0	-26330.0	0.00	-1191.56
60.992	0.509	0.000	-26188.2	-26188.2	0.00	-1185.14
($0.8L_s$) 61.620	0.509	0.000	-26140.2	-26140.2	0.00	-1182.97
61.792	0.509	0.000	-26126.9	-26126.9	0.00	-1182.37
62.042	0.509	0.000	-26107.4	-26107.4	0.00	-1181.49
65.742	0.509	0.000	-25798.2	-25798.2	0.00	-1167.49
(SZB) 66.522	0.509	0.000	-25728.0	-25728.0	0.00	-1164.32
68.342	0.509	0.000	-25557.8	-25557.8	0.00	-1156.61
($0.9L_s$) 69.322	0.509	0.000	-25462.1	-25462.1	0.00	-1152.28
69.408	0.509	0.000	-25453.5	-25453.5	0.00	-1151.90
69.742	0.509	0.000	-25420.3	-25420.3	0.00	-1150.39
(1.5H) 71.442	0.509	0.000	-25245.9	-25245.9	0.00	-1142.50
(SZB) 72.022	0.509	0.000	-25184.4	-25184.4	0.00	-1139.71
72.442	0.509	0.000	-25139.3	-25139.3	0.00	-1137.68
(CS) 73.101	0.509	0.000	-25067.5	-25067.5	0.00	-1134.43
(H) 73.192	0.509	0.000	-25057.6	-25057.6	0.00	-1133.98
(Bar Develop.) 74.260	0.509	0.000	-24938.3	-24938.3	0.00	-1128.58
74.400	0.509	0.000	-24922.4	-24922.4	0.00	-1127.86
(PSXFR) 74.442	0.509	0.000	-24917.6	-24917.6	0.00	-1127.64
(Bar Develop.) 75.320	0.509	0.000	-24816.5	-24816.5	0.00	-1123.07
(SZB) 75.688	0.509	0.000	-24773.5	-24773.5	0.00	-1121.12
75.692	0.509	0.000	-24773.1	-24773.1	0.00	-1121.10
(FoS) 76.692	0.509	0.000	-24654.3	-24654.3	0.00	-1115.72
($1.0L_s$) 77.025	0.509	0.000	-24614.0	-24614.0	0.00	-1113.90
77.025	0.509	0.000	-24614.0	-24614.0	0.00	-1113.90
(STLF) 77.442	0.509	0.000	-24563.2	-24563.2	0.00	-1111.60

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, γ_3 = 0.67

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

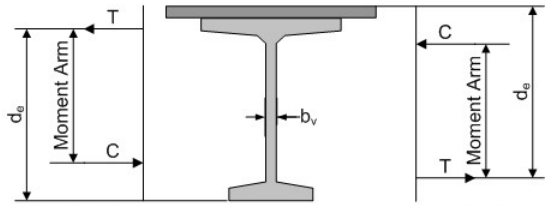
Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
($0.0L_s$) 0.000	-1163.86	Strength I	-3177.00	-4225.41	-1163.86
(STRF) 0.443	-1165.67	Strength I	-3099.29	-4122.06	-1165.67
0.860	-1167.36	Strength I	-3026.70	-4025.52	-1167.36
0.860	-1167.36	Strength I	-3026.70	-4025.52	-1167.36
(FoS) 1.193	-1168.70	Strength I	-2968.99	-3948.76	-1168.70
2.193	-1172.61	Strength I	-2797.93	-3721.24	-1172.61
(SZB) 2.196	-1172.62	Strength I	-2797.37	-3720.50	-1172.62
(Bar Develop.) 2.564	-1174.03	Strength I	-2735.21	-3637.83	-1174.03
(PSXFR) 3.443	-1177.33	Strength I	-2588.58	-3442.81	-1177.33
3.485	-1177.48	Strength I	-2581.69	-3433.65	-1177.48
(Bar Develop.) 3.625	-1178.00	Strength I	-2558.53	-3402.84	-1178.00
(H) 4.693	-1181.84	Strength I	-2311.71	-3074.57	-1181.84
(CS) 4.988	-1182.88	Strength I	-2267.15	-3015.31	-1182.88
5.443	-1184.46	Strength I	-2199.34	-2925.12	-1184.46
(SZB) 5.862	-1185.89	Strength I	-2137.47	-2842.84	-1185.89

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(1.5H) 6.443	-1187.84	Strength I	-2052.76	-2730.17	-1187.84
($0.1L_s$) 7.702	-1191.91	Strength I	-1859.96	-2473.74	-1191.91
8.143	-1193.29	Strength I	-1796.55	-2389.41	-1193.29
8.476	-1194.31	Strength I	-1749.01	-2326.19	-1194.31
9.543	-1196.68	Strength I	-1611.77	-2143.65	-1196.68
(SZB) 11.362	-1196.68	Strength I	-1434.85	-1908.34	-1196.68
12.143	-1196.68	Strength I	-1387.48	-1845.35	-1196.68
($0.2L_s$) 15.405	-1196.68	Strength I	-1220.46	-1623.22	-1196.68
15.843	-1196.68	Strength I	-1201.68	-1598.23	-1196.68
16.093	-1196.68	Strength I	-1191.01	-1584.05	-1196.68
16.893	-1196.68	Strength I	-1157.20	-1539.07	-1196.68
18.843	-1196.68	Strength I	-1076.80	-1432.15	-1196.68
(SZB) 19.612	-1196.68	Strength I	-1048.43	-1394.41	-1196.68
(Deck Bar Cutoff) 21.642	-1196.68	Strength I	-981.62	-1305.55	-1196.68
21.647	-1196.68	Strength I	-981.46	-1305.34	-1196.68
($0.3L_s$) 23.107	-1196.68	Strength I	-934.74	-1243.21	-1196.68
23.543	-1196.68	Strength I	-921.05	-1224.99	-1196.68
23.709	-1196.68	Strength I	-915.83	-1218.05	-1196.68
24.243	-1196.68	Strength I	-899.22	-1195.96	-1195.96
25.543	-1196.68	Strength I	-859.37	-1142.96	-1142.96
(SZB) 30.612	-1196.68	Strength I	-712.49	-947.62	-947.62
($0.4L_s$) 30.810	-1196.68	Strength I	-707.04	-940.36	-940.36
(HP) 31.242	-1196.68	Strength I	-695.19	-924.60	-924.60
31.247	-1196.68	Strength I	-695.05	-924.42	-924.42
31.326	-1196.68	Strength I	-692.91	-921.58	-921.58
31.592	-1196.68	Strength I	-685.67	-911.94	-911.94
32.242	-1196.68	Strength I	-668.16	-888.65	-888.65
($0.5L_s$) 38.512	-1196.68	Strength I	-510.17	-678.53	-678.53
38.942	-1196.68	Strength I	-500.15	-665.20	-665.20
45.642	-1196.68	Strength I	-356.53	-474.19	-474.19
($0.6L_s$) 46.215	-1196.68	Strength I	-345.36	-459.33	-459.33
46.292	-1196.68	Strength I	-343.87	-457.34	-457.34
46.559	-1196.68	Strength I	-338.73	-450.51	-450.51
46.637	-1196.68	Strength I	-337.23	-448.52	-448.52
(HP) 46.642	-1196.68	Strength I	-337.14	-448.39	-448.39
(SZB) 47.272	-1196.68	Strength I	-325.18	-432.49	-432.49
52.342	-1196.68	Strength I	-236.67	-314.77	-314.77
53.642	-1196.68	Strength I	-216.16	-287.50	-287.50
($0.7L_s$) 53.917	-1196.68	Strength I	-211.93	-281.87	-281.87
54.175	-1196.68	Strength I	-208.01	-276.65	-276.65
54.342	-1196.68	Strength I	-205.49	-273.30	-273.30
(SZB) 58.272	-1193.96	Strength I	-150.39	-200.02	-200.02
59.042	-1191.56	Strength I	-140.56	-186.94	-186.94
60.992	-1185.14	Strength I	-117.04	-155.67	-155.67
($0.8L_s$) 61.620	-1182.97	Strength I	-109.90	-146.17	-146.17
61.792	-1182.37	Strength I	-107.98	-143.61	-143.61
62.042	-1181.49	Strength I	-105.22	-139.94	-139.94
65.742	-1167.49	Strength I	-68.19	-90.69	-90.69
(SZB) 66.522	-1164.32	Strength I	-61.30	-81.54	-81.54
68.342	-1156.61	Strength I	-46.51	-61.85	-61.85
($0.9L_s$) 69.322	-1152.28	Strength I	-39.25	-52.21	-52.21
69.408	-1151.90	Strength I	-38.64	-51.40	-51.40
69.742	-1150.39	Strength I	-36.31	-48.29	-48.29
(1.5H) 71.442	-1142.50	Strength I	-25.32	-33.68	-33.68
(SZB) 72.022	-1139.71	Strength I	-21.92	-29.16	-29.16
72.442	-1137.68	Strength I	-19.58	-26.04	-26.04
(CS) 73.101	-1134.43	Strength I	-16.07	-21.38	-21.38
(H) 73.192	-1133.98	Strength I	-15.61	-20.76	-20.76
(Bar Develop.) 74.260	-1128.58	Strength I	-10.48	-13.94	-13.94
74.400	-1127.86	Strength I	-9.85	-13.10	-13.10
(PSXFR) 74.442	-1127.64	Strength I	-9.67	-12.86	-12.86
(Bar Develop.) 75.320	-1123.07	Strength I	-5.98	-7.96	-7.96
(SZB) 75.688	-1121.12	Strength I	-4.56	-6.07	-6.07
75.692	-1121.10	Strength I	-4.55	-6.05	-6.05
(FoS) 76.692	-1115.72	Strength I	-1.05	-1.40	-1.40
($1.0L_s$) 77.025	-1113.90	Strength II	0.00	0.00	0.00
77.025	-1113.90	Strength II	0.00	0.00	0.00
(STLF) 77.442	-1111.60	Strength II	0.00	0.00	0.00

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Shear Capacity Details

Effective Shear Dimensions for Strength I [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 4.988	7.000	50.601	51.000	45.541	36.720	45.328	45.541	Top
5.443	7.000	50.560	51.000	45.504	36.720	45.288	45.504	Top
(SZB) 5.862	7.000	50.523	51.000	45.471	36.720	45.251	45.471	Top
(1.5H) 6.443	7.000	50.473	51.000	45.426	36.720	45.200	45.426	Top
($0.1L_s$) 7.702	7.000	50.367	51.000	45.330	36.720	45.095	45.330	Top
8.143	7.000	50.331	51.000	45.298	36.720	45.059	45.298	Top
8.476	7.000	50.304	51.000	45.273	36.720	45.032	45.273	Top
9.543	7.000	50.219	51.000	45.198	36.720	44.948	45.198	Top
(SZB) 11.362	7.000	43.387	51.000	39.048	36.720	38.728	39.048	Bottom
12.143	7.000	42.171	51.000	37.954	36.720	38.827	38.827	Bottom
($0.2L_s$) 15.405	7.000	41.805	51.000	37.624	36.720	39.633	39.633	Bottom
15.843	7.000	41.942	51.000	37.748	36.720	39.770	39.770	Bottom
16.093	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
16.893	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
18.843	7.000	42.885	51.000	38.597	36.720	40.708	40.708	Bottom
(SZB) 19.612	7.000	43.128	51.000	38.816	36.720	40.949	40.949	Bottom
(Deck Bar Cutoff) 21.642	7.000	43.772	51.000	39.395	36.720	41.590	41.590	Bottom
21.647	7.000	43.774	51.000	39.396	36.720	41.591	41.591	Bottom
($0.3L_s$) 23.107	7.000	44.239	51.000	39.815	36.720	42.054	42.054	Bottom
23.543	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
23.709	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
24.243	7.000	44.602	51.000	40.141	36.720	42.415	42.415	Bottom
25.543	7.000	45.018	51.000	40.516	36.720	42.830	42.830	Bottom
(SZB) 30.612	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
($0.4L_s$) 30.810	7.000	46.717	51.000	42.046	36.720	44.525	44.525	Bottom
(HP) 31.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.247	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.326	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.592	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
32.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.512	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
38.942	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
45.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.6L_s$) 46.215	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.292	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.559	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.637	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(HP) 46.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(SZB) 47.272	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
52.342	7.000	45.018	51.000	40.516	36.720	42.830	42.830	Bottom
53.642	7.000	44.601	51.000	40.141	36.720	42.415	42.415	Bottom
($0.7L_s$) 53.917	7.000	44.513	51.000	40.062	36.720	42.327	42.327	Bottom
54.175	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
54.342	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
(SZB) 58.272	7.000	43.129	51.000	38.816	36.720	40.940	40.940	Bottom
59.042	7.000	42.886	51.000	38.598	36.720	40.691	40.691	Bottom
60.992	7.000	42.274	51.000	38.047	36.720	40.060	40.060	Bottom
($0.8L_s$) 61.620	7.000	42.078	51.000	37.870	36.720	39.857	39.857	Bottom
61.792	7.000	42.024	51.000	37.822	36.720	39.801	39.801	Bottom
62.042	7.000	41.946	51.000	37.751	36.720	39.721	39.721	Bottom
65.742	7.000	42.180	51.000	37.962	36.720	38.736	38.736	Bottom
(SZB) 66.522	7.000	43.396	51.000	39.056	36.720	38.629	39.056	Bottom
68.342	7.000	44.671	51.000	40.204	36.720	38.418	40.204	Bottom
($0.9L_s$) 69.322	7.000	44.609	51.000	40.148	36.720	38.330	40.148	Bottom
69.408	7.000	44.604	51.000	40.143	36.720	38.323	40.143	Bottom
69.742	7.000	44.585	51.000	40.127	36.720	38.298	40.127	Bottom
(1.5H) 71.442	7.000	46.212	51.000	41.591	36.720	38.207	41.591	Bottom
(SZB) 72.022	7.000	46.211	51.000	41.590	36.720	38.191	41.590	Bottom
72.442	7.000	46.213	51.000	41.592	36.720	38.186	41.592	Bottom
(CS) 73.101	7.000	48.099	51.000	43.289	36.720	38.186	43.289	Bottom

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength I

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 4.988	0.9	296.36	26.27	45.541	7.000	0.951
5.443	0.9	293.69	26.28	45.504	7.000	0.942
(SZB) 5.862	0.9	291.22	26.28	45.471	7.000	0.934
(1.5H) 6.443	0.9	287.80	26.30	45.426	7.000	0.923
($0.1L_s$) 7.702	0.9	280.37	26.32	45.330	7.000	0.899
8.143	0.9	277.77	26.33	45.298	7.000	0.890
8.476	0.9	275.79	26.34	45.273	7.000	0.884
9.543	0.9	269.46	26.36	45.198	7.000	0.863
(SZB) 11.362	0.9	258.61	26.40	39.048	7.000	0.955
12.143	0.9	253.92	26.42	38.827	7.000	0.941
($0.2L_s$) 15.405	0.9	234.28	26.48	39.633	7.000	0.843
15.843	0.9	231.65	26.49	39.770	7.000	0.829
16.093	0.9	230.14	26.49	39.847	7.000	0.822
16.893	0.9	225.31	26.51	40.097	7.000	0.798
18.843	0.9	213.48	26.54	40.708	7.000	0.739
(SZB) 19.612	0.9	208.79	26.55	40.949	7.000	0.717
(Deck Bar Cutoff) 21.642	0.9	196.41	26.57	41.590	7.000	0.658
21.647	0.9	196.38	26.57	41.591	7.000	0.658
($0.3L_s$) 23.107	0.9	187.49	26.58	42.054	7.000	0.617
23.543	0.9	184.85	26.58	42.192	7.000	0.605
23.709	0.9	183.83	26.59	42.245	7.000	0.601
24.243	0.9	180.59	26.59	42.415	7.000	0.586
25.543	0.9	172.64	26.59	42.830	7.000	0.551
(SZB) 30.612	0.9	141.66	26.56	44.461	7.000	0.420
($0.4L_s$) 30.810	0.9	140.46	26.56	44.525	7.000	0.415
(HP) 31.242	0.9	137.82	26.56	44.665	7.000	0.405
31.247	0.9	137.79	0.00	44.665	7.000	0.490
31.326	0.9	137.32	0.00	44.665	7.000	0.488
31.592	0.9	135.69	0.00	44.665	7.000	0.482
32.242	0.9	131.73	0.00	44.665	7.000	0.468
($0.5L_s$) 38.512	0.9	93.62	0.00	44.665	7.000	0.333
38.942	0.9	91.06	0.00	44.665	7.000	0.324
45.642	0.9	80.38	0.00	44.665	7.000	0.286
($0.6L_s$) 46.215	0.9	83.50	0.00	44.665	7.000	0.297
46.292	0.9	83.92	0.00	44.665	7.000	0.298
46.559	0.9	85.38	0.00	44.665	7.000	0.303
46.637	0.9	85.81	0.00	44.665	7.000	0.305
(HP) 46.642	0.9	85.84	26.64	44.665	7.000	0.220
(SZB) 47.272	0.9	89.30	26.65	44.461	7.000	0.233
52.342	0.9	118.46	26.72	42.830	7.000	0.350
53.642	0.9	126.13	26.73	42.415	7.000	0.382
($0.7L_s$) 53.917	0.9	127.76	26.73	42.327	7.000	0.389
54.175	0.9	129.30	26.73	42.245	7.000	0.395
54.342	0.9	130.29	26.73	42.192	7.000	0.400
(SZB) 58.272	0.9	153.78	26.72	40.940	7.000	0.503
59.042	0.9	158.42	26.72	40.691	7.000	0.524
60.992	0.9	170.25	26.70	40.060	7.000	0.579
($0.8L_s$) 61.620	0.9	174.09	26.70	39.857	7.000	0.598
61.792	0.9	175.15	26.70	39.801	7.000	0.603
62.042	0.9	176.68	26.69	39.721	7.000	0.610
65.742	0.9	199.48	26.64	38.736	7.000	0.719
(SZB) 66.522	0.9	204.31	26.63	39.056	7.000	0.733
68.342	0.9	215.66	26.60	40.204	7.000	0.757
($0.9L_s$) 69.322	0.9	221.81	26.59	40.148	7.000	0.782
69.408	0.9	222.35	26.59	40.143	7.000	0.785
69.742	0.9	224.45	26.58	40.127	7.000	0.793
(1.5H) 71.442	0.9	235.14	26.55	41.591	7.000	0.806
(SZB) 72.022	0.9	238.80	26.54	41.590	7.000	0.820
72.442	0.9	241.45	26.54	41.592	7.000	0.830
(CS) 73.101	0.9	245.62	26.53	43.289	7.000	0.813

f_{po} - Strength I

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength I

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps} + E_c A_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 4.988	2026.92	296.36	26.27	270.09	45.541	33.680	29000.000	1.858	28500.000	935.593	5011.145	0.44
5.443	1934.26	293.69	26.28	267.41	45.504	33.680	29000.000	1.874	28500.000	936.841	5011.145	0.411
(SZB) 5.862	1849.79	291.22	26.28	264.94	45.471	33.680	29000.000	1.891	28500.000	937.974	5011.145	0.384
(1.5H) 6.443	1734.23	287.80	26.30	261.51	45.426	33.680	29000.000	1.531	28500.000	939.514	5011.145	0.422
	1476.35	280.37	26.32	254.05	45.330	33.680	29000.000	1.572	28500.000	942.742	5011.145	0.341

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.1L_s$) 7.702												
8.143	1390.79	277.77	26.33	251.43	45.298	33.680	29000.000	1.189	28500.000	943.833	5011.145	0.391
8.476	1326.68	275.79	26.34	249.45	45.273	33.680	29000.000	1.197	28500.000	944.647	5011.145	0.371
9.543	1137.61	269.46	26.36	243.10	45.198	33.680	29000.000	1.223	28500.000	946.526	5011.145	0.31
(SZB) 11.362	1212.71	258.61	26.40	232.21	39.048	0.400	29000.000	5.109	28500.000	365.000	5011.145	-0.182
12.143	1336.45	253.92	26.42	227.50	38.827	0.400	29000.000	5.155	28500.000	365.000	5011.145	-0.168
($0.2L_s$) 15.405	1891.62	234.28	26.48	207.80	39.633	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.183
15.843	1967.40	231.65	26.49	205.16	39.770	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.174
16.093	2010.13	230.14	26.49	203.65	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.169
16.893	2144.52	225.31	26.51	198.81	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.153
18.843	2458.74	213.48	26.54	186.94	40.708	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.117
(SZB) 19.612	2579.47	208.79	26.55	182.24	40.949	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.104
(Deck Bar Cutoff) 21.642	2884.31	196.41	26.57	169.84	41.590	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0726
21.647	2885.02	196.38	26.57	169.81	41.591	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0726
($0.3L_s$) 23.107	3085.74	187.49	26.58	160.91	42.054	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0531
23.543	3143.27	184.85	26.58	158.26	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0477
23.709	3165.18	183.83	26.59	157.25	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0457
24.243	3233.95	180.59	26.59	154.00	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0394
25.543	3395.37	172.64	26.59	146.05	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0253
(SZB) 30.612	3913.01	141.66	26.56	115.10	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.124
($0.4L_s$) 30.810	3929.34	140.46	26.56	113.89	44.525	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.133
(HP) 31.242	3964.08	137.82	26.56	111.27	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.151
31.247	3964.47	137.79	0.00	137.79	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.295
31.326	3970.61	137.32	0.00	137.32	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.302
31.592	3991.16	135.69	0.00	135.69	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.323
32.242	4039.64	131.73	0.00	131.73	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.372
($0.5L_s$) 38.512	4345.68	93.62	0.00	93.62	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.61
38.942	4355.67	91.06	0.00	91.06	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.611
45.642	4381.28	80.38	0.00	80.38	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.591
($0.6L_s$) 46.215	4370.23	83.50	0.00	83.50	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.591
46.292	4368.58	83.92	0.00	83.92	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.591
46.559	4362.61	85.38	0.00	85.38	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.59
46.637	4360.74	85.81	0.00	85.81	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.59
(HP) 46.642	4360.63	85.84	26.64	59.20	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.446
(SZB) 47.272	4343.78	89.30	26.65	62.65	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.469
52.342	4089.47	118.46	26.72	91.74	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.483
53.642	3991.19	126.13	26.73	99.40	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.434
($0.7L_s$) 53.917	3968.64	127.76	26.73	101.03	42.327	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.421
54.175	3947.98	129.30	26.73	102.56	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.409
54.342	3935.05	130.29	26.73	103.55	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.403
(SZB) 58.272	3563.02	153.78	26.72	127.06	40.940	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.125
59.042	3475.09	158.42	26.72	131.70	40.691	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0442
60.992	3230.87	170.25	26.70	143.55	40.060	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0184
($0.8L_s$) 61.620	3145.61	174.09	26.70	147.40	39.857	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0268
61.792	3121.71	175.15	26.70	148.45	39.801	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0292
62.042	3086.50	176.68	26.69	149.99	39.721	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0327
65.742	2502.93	199.48	26.64	172.83	38.736	0.400	29000.000	5.168	28500.000	365.000	5011.145	-0.0143
(SZB) 66.522	2364.87	204.31	26.63	177.68	39.056	0.400	29000.000	5.123	28500.000	365.000	5011.145	-0.0322
68.342	2023.26	215.66	26.60	189.06	40.204	0.400	29000.000	4.604	28500.000	365.000	5011.145	-0.0391
($0.9L_s$) 69.322	1827.40	221.81	26.59	195.22	40.148	0.400	29000.000	4.550	28500.000	365.000	5011.145	-0.0602
69.408	1809.84	222.35	26.59	195.77	40.143	0.400	29000.000	4.546	28500.000	365.000	5011.145	-0.0621
69.742	1741.12	224.45	26.58	197.86	40.127	0.400	29000.000	4.527	28500.000	365.000	5011.145	-0.0696
(1.5H) 71.442	1375.75	235.14	26.55	208.59	41.591	0.400	29000.000	4.049	28500.000	365.000	5011.145	-0.0816
(SZB) 72.022	1245.20	238.80	26.54	212.26	41.590	0.400	29000.000	3.641	28500.000	365.000	5011.145	-0.06
72.442	1149.14	241.45	26.54	214.91	41.592	0.400	29000.000	3.626	28500.000	365.000	5011.145	-0.0714
(CS) 73.101	994.98	245.62	26.53	219.09	43.289	0.400	29000.000	3.603	28500.000	365.000	5011.145	-0.0958

Shear Parameter Summary - Strength I [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 4.988	Yes	1	---	---	0.119	0.44	3.61	30.54
5.443	Yes	1	---	---	0.118	0.411	3.67	30.44
(SZB) 5.862	Yes	1	---	---	0.117	0.384	3.73	30.34
(1.5H) 6.443	Yes	1	---	---	0.115	0.422	3.65	30.48
($0.1L_s$) 7.702	Yes	1	---	---	0.112	0.341	3.82	30.19
8.143	Yes	1	---	---	0.111	0.391	3.71	30.37
8.476	Yes	1	---	---	0.11	0.371	3.76	30.30
9.543	Yes	1	---	---	0.108	0.31	3.89	30.09
(SZB) 11.362	Yes	1	---	---	0.119	-0.182	5.56	28.36
12.143	Yes	1	---	---	0.118	-0.168	5.49	28.41
($0.2L_s$) 15.405	Yes	1	---	---	0.105	-0.183	5.56	28.36

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
15.843	Yes	1	---	---	0.104	-0.174	5.52	28.39
16.093	Yes	1	---	---	0.103	-0.169	5.49	28.41
16.893	Yes	1	---	---	0.0997	-0.153	5.42	28.47
18.843	Yes	1	---	---	0.0924	-0.117	5.26	28.59
(SZB) 19.612	Yes	1	---	---	0.0896	-0.104	5.21	28.63
(Deck Bar Cutoff) 21.642	Yes	1	---	---	0.0823	-0.0726	5.08	28.75
21.647	Yes	1	---	---	0.0823	-0.0726	5.08	28.75
($0.3L_s$) 23.107	Yes	1	---	---	0.0772	-0.0531	5	28.81
23.543	Yes	1	---	---	0.0757	-0.0477	4.98	28.83
23.709	Yes	1	---	---	0.0751	-0.0457	4.97	28.84
24.243	Yes	1	---	---	0.0733	-0.0394	4.95	28.86
25.543	Yes	1	---	---	0.0689	-0.0253	4.89	28.91
(SZB) 30.612	Yes	1	---	---	0.0525	0.124	4.39	29.43
($0.4L_s$) 30.810	Yes	1	---	---	0.0519	0.133	4.37	29.46
(HP) 31.242	Yes	1	---	---	0.0506	0.151	4.31	29.53
31.247	Yes	1	---	---	0.0612	0.295	3.93	30.03
31.326	Yes	1	---	---	0.061	0.302	3.91	30.06
31.592	Yes	1	---	---	0.0603	0.323	3.86	30.13
32.242	Yes	1	---	---	0.0585	0.372	3.75	30.30
($0.5L_s$) 38.512	Yes	1	---	---	0.0416	0.61	3.29	31.14
38.942	Yes	1	---	---	0.0405	0.611	3.29	31.14
45.642	Yes	1	---	---	0.0357	0.591	3.33	31.07
($0.6L_s$) 46.215	Yes	1	---	---	0.0371	0.591	3.33	31.07
46.292	Yes	1	---	---	0.0373	0.591	3.33	31.07
46.559	Yes	1	---	---	0.0379	0.59	3.33	31.07
46.637	Yes	1	---	---	0.0381	0.59	3.33	31.07
(HP) 46.642	Yes	1	---	---	0.0275	0.446	3.6	30.56
(SZB) 47.272	Yes	1	---	---	0.0291	0.469	3.55	30.64
52.342	Yes	1	---	---	0.0437	0.483	3.52	30.69
53.642	Yes	1	---	---	0.0477	0.434	3.62	30.52
($0.7L_s$) 53.917	Yes	1	---	---	0.0486	0.421	3.65	30.47
54.175	Yes	1	---	---	0.0494	0.409	3.67	30.43
54.342	Yes	1	---	---	0.05	0.403	3.69	30.41
(SZB) 58.272	Yes	1	---	---	0.0629	0.125	4.39	29.44
59.042	Yes	1	---	---	0.0655	0.0442	4.65	29.15
60.992	Yes	1	---	---	0.0724	-0.0184	4.87	28.94
($0.8L_s$) 61.620	Yes	1	---	---	0.0747	-0.0268	4.9	28.91
61.792	Yes	1	---	---	0.0753	-0.0292	4.91	28.90
62.042	Yes	1	---	---	0.0763	-0.0327	4.92	28.89
65.742	Yes	1	---	---	0.0899	-0.0143	4.85	28.95
(SZB) 66.522	Yes	1	---	---	0.0916	-0.0322	4.92	28.89
68.342	Yes	1	---	---	0.0946	-0.0391	4.95	28.86
($0.9L_s$) 69.322	Yes	1	---	---	0.0978	-0.0602	5.03	28.79
69.408	Yes	1	---	---	0.0981	-0.0621	5.03	28.78
69.742	Yes	1	---	---	0.0992	-0.0696	5.06	28.76
(1.5H) 71.442	Yes	1	---	---	0.101	-0.0816	5.11	28.71
(SZB) 72.022	Yes	1	---	---	0.103	-0.06	5.03	28.79
72.442	Yes	1	---	---	0.104	-0.0714	5.07	28.75
(CS) 73.101	Yes	1	---	---	0.102	-0.0958	5.17	28.66

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength I

$$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 4.988	3.61	8.000	-	7.000	45.541	102.83
5.443	3.67	8.000	-	7.000	45.504	104.46
(SZB) 5.862	3.73	8.000	-	7.000	45.471	106.02
(1.5H) 6.443	3.65	8.000	-	7.000	45.426	103.64
($0.1L_s$) 7.702	3.82	8.000	-	7.000	45.330	108.44
8.143	3.71	8.000	-	7.000	45.298	105.19
8.476	3.76	8.000	-	7.000	45.273	106.38
9.543	3.89	8.000	-	7.000	45.198	110.10
(SZB) 11.362	5.56	8.000	-	7.000	39.048	135.76
12.143	5.49	8.000	-	7.000	38.827	133.40
($0.2L_s$) 15.405	5.56	8.000	-	7.000	39.633	137.92
15.843	5.52	8.000	-	7.000	39.770	137.31
16.093	5.49	8.000	-	7.000	39.847	136.98
16.893	5.42	8.000	-	7.000	40.097	136.00
18.843	5.26	8.000	-	7.000	40.708	134.06
(SZB) 19.612	5.21	8.000	-	7.000	40.949	133.42
(Deck Bar Cutoff) 21.642	5.08	8.000	-	7.000	41.590	132.10
21.647	5.08	8.000	-	7.000	41.591	132.09
($0.3L_s$) 23.107	5	8.000	-	7.000	42.054	131.53
23.543	4.98	8.000	-	7.000	42.192	131.41
23.709	4.97	8.000	-	7.000	42.245	131.37
24.243	4.95	8.000	-	7.000	42.415	131.26
25.543	4.89	8.000	-	7.000	42.830	131.11
(SZB) 30.612	4.39	8.000	-	7.000	44.461	122.19
	4.37	8.000	-	7.000	44.525	121.61

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
($0.4L_s$) 30.810						
(HP) 31.242	4.31	8.000	-	7.000	44.665	120.48
31.247	3.93	8.000	-	7.000	44.665	109.82
31.326	3.91	8.000	-	7.000	44.665	109.39
31.592	3.86	8.000	-	7.000	44.665	108.00
32.242	3.75	8.000	-	7.000	44.665	104.89
($0.5L_s$) 38.512	3.29	8.000	-	7.000	44.665	92.01
38.942	3.29	8.000	-	7.000	44.665	91.98
45.642	3.33	8.000	-	7.000	44.665	92.96
($0.6L_s$) 46.215	3.33	8.000	-	7.000	44.665	92.92
46.292	3.33	8.000	-	7.000	44.665	92.93
46.559	3.33	8.000	-	7.000	44.665	92.97
46.637	3.33	8.000	-	7.000	44.665	92.98
(HP) 46.642	3.6	8.000	-	7.000	44.665	100.52
(SZB) 47.272	3.55	8.000	-	7.000	44.461	98.78
52.342	3.52	8.000	-	7.000	42.830	94.44
53.642	3.62	8.000	-	7.000	42.415	96.09
($0.7L_s$) 53.917	3.65	8.000	-	7.000	42.327	96.60
54.175	3.67	8.000	-	7.000	42.245	97.06
54.342	3.69	8.000	-	7.000	42.192	97.32
(SZB) 58.272	4.39	8.000	-	7.000	40.940	112.43
59.042	4.65	8.000	-	7.000	40.691	118.28
60.992	4.87	8.000	-	7.000	40.060	121.98
($0.8L_s$) 61.620	4.9	8.000	-	7.000	39.857	122.15
61.792	4.91	8.000	-	7.000	39.801	122.20
62.042	4.92	8.000	-	7.000	39.721	122.29
65.742	4.85	8.000	-	7.000	38.736	117.59
(SZB) 66.522	4.92	8.000	-	7.000	39.056	120.19
68.342	4.95	8.000	-	7.000	40.204	124.39
($0.9L_s$) 69.322	5.03	8.000	-	7.000	40.148	126.27
69.408	5.03	8.000	-	7.000	40.143	126.44
69.742	5.06	8.000	-	7.000	40.127	127.14
(1.5H) 71.442	5.11	8.000	-	7.000	41.591	133.05
(SZB) 72.022	5.03	8.000	-	7.000	41.590	130.79
72.442	5.07	8.000	-	7.000	41.592	131.97
(CS) 73.101	5.17	8.000	-	7.000	43.289	140.06

Shear Resistance Provided By Shear Reinforcement - Strength I

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 4.988	60.000	0.400	4.000	1.200	45.541	30.54	90.00	463.14
5.443	60.000	0.400	4.000	1.200	45.504	30.44	90.00	464.66
(SZB) 5.862	60.000	0.400	6.000	0.800	45.471	30.34	90.00	310.71
(1.5H) 6.443	60.000	0.400	6.000	0.800	45.426	30.48	90.00	308.76
($0.1L_s$) 7.702	60.000	0.400	6.000	0.800	45.330	30.19	90.00	311.64
8.143	60.000	0.400	6.000	0.800	45.298	30.37	90.00	309.22
8.476	60.000	0.400	6.000	0.800	45.273	30.30	90.00	309.93
9.543	60.000	0.400	6.000	0.800	45.198	30.09	90.00	312.05
(SZB) 11.362	60.000	0.400	9.000	0.533	39.048	28.36	90.00	192.87
12.143	60.000	0.400	9.000	0.533	38.827	28.41	90.00	191.39
($0.2L_s$) 15.405	60.000	0.400	9.000	0.533	39.633	28.36	90.00	195.79
15.843	60.000	0.400	9.000	0.533	39.770	28.39	90.00	196.20
16.093	60.000	0.400	9.000	0.533	39.847	28.41	90.00	196.44
16.893	60.000	0.400	9.000	0.533	40.097	28.47	90.00	197.22
18.843	60.000	0.400	9.000	0.533	40.708	28.59	90.00	199.19
(SZB) 19.612	60.000	0.400	12.000	0.400	40.949	28.63	90.00	150.00
(Deck Bar Cutoff) 21.642	60.000	0.400	12.000	0.400	41.590	28.75	90.00	151.64
21.647	60.000	0.400	12.000	0.400	41.591	28.75	90.00	151.65
($0.3L_s$) 23.107	60.000	0.400	12.000	0.400	42.054	28.81	90.00	152.90
23.543	60.000	0.400	12.000	0.400	42.192	28.83	90.00	153.29
23.709	60.000	0.400	12.000	0.400	42.245	28.84	90.00	153.43
24.243	60.000	0.400	12.000	0.400	42.415	28.86	90.00	153.91
25.543	60.000	0.400	12.000	0.400	42.830	28.91	90.00	155.10
(SZB) 30.612	60.000	0.400	18.000	0.267	44.461	29.43	90.00	105.07
($0.4L_s$) 30.810	60.000	0.400	18.000	0.267	44.525	29.46	90.00	105.08
(HP) 31.242	60.000	0.400	18.000	0.267	44.665	29.53	90.00	105.14
31.247	60.000	0.400	18.000	0.267	44.665	30.03	90.00	103.01
31.326	60.000	0.400	18.000	0.267	44.665	30.06	90.00	102.92
31.592	60.000	0.400	18.000	0.267	44.665	30.13	90.00	102.61
32.242	60.000	0.400	18.000	0.267	44.665	30.30	90.00	101.91
($0.5L_s$) 38.512	60.000	0.400	18.000	0.267	44.665	31.14	90.00	98.58
38.942	60.000	0.400	18.000	0.267	44.665	31.14	90.00	98.57
45.642	60.000	0.400	18.000	0.267	44.665	31.07	90.00	98.85
($0.6L_s$) 46.215	60.000	0.400	18.000	0.267	44.665	31.07	90.00	98.84
46.292	60.000	0.400	18.000	0.267	44.665	31.07	90.00	98.84
46.559	60.000	0.400	18.000	0.267	44.665	31.07	90.00	98.85
46.637	60.000	0.400	18.000	0.267	44.665	31.07	90.00	98.86
(HP) 46.642	60.000	0.400	18.000	0.267	44.665	30.56	90.00	100.86

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(SZB) 47.272	60.000	0.400	18.000	0.267	44.461	30.64	90.00	100.07
52.342	60.000	0.400	12.000	0.400	42.830	30.69	90.00	144.33
53.642	60.000	0.400	12.000	0.400	42.415	30.52	90.00	143.90
($0.7L_s$) 53.917	60.000	0.400	12.000	0.400	42.327	30.47	90.00	143.86
54.175	60.000	0.400	12.000	0.400	42.245	30.43	90.00	143.82
54.342	60.000	0.400	12.000	0.400	42.192	30.41	90.00	143.78
(SZB) 58.272	60.000	0.400	12.000	0.400	40.940	29.44	90.00	145.10
59.042	60.000	0.400	9.000	0.533	40.691	29.15	90.00	194.52
60.992	60.000	0.400	9.000	0.533	40.060	28.94	90.00	193.23
($0.8L_s$) 61.620	60.000	0.400	9.000	0.533	39.857	28.91	90.00	192.48
61.792	60.000	0.400	9.000	0.533	39.801	28.90	90.00	192.28
62.042	60.000	0.400	9.000	0.533	39.721	28.89	90.00	191.99
65.742	60.000	0.400	9.000	0.533	38.736	28.95	90.00	186.74
(SZB) 66.522	60.000	0.400	9.000	0.533	39.056	28.89	90.00	188.77
68.342	60.000	0.400	6.000	0.800	40.204	28.86	90.00	291.76
($0.9L_s$) 69.322	60.000	0.400	6.000	0.800	40.148	28.79	90.00	292.24
69.408	60.000	0.400	6.000	0.800	40.143	28.78	90.00	292.29
69.742	60.000	0.400	6.000	0.800	40.127	28.76	90.00	292.49
(1.5H) 71.442	60.000	0.400	6.000	0.800	41.591	28.71	90.00	303.69
(SZB) 72.022	60.000	0.400	6.000	0.800	41.590	28.79	90.00	302.73
72.442	60.000	0.400	4.000	1.200	41.592	28.75	90.00	454.87
(CS) 73.101	60.000	0.400	4.000	1.200	43.289	28.66	90.00	475.10

Nominal Shear Resistance - Strength I

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1} $ (kip)	V_{n2} # (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 4.988	8.000	7.000	45.541	26.27	102.83	463.14	592.23	663.84	592.23	0.9	533.01
5.443	8.000	7.000	45.504	26.28	104.46	464.66	595.40	663.34	595.40	0.9	535.86
(SZB) 5.862	8.000	7.000	45.471	26.28	106.02	310.71	443.01	662.88	443.01	0.9	398.71
(1.5H) 6.443	8.000	7.000	45.426	26.30	103.64	308.76	438.70	662.25	438.70	0.9	394.83
($0.1L_s$) 7.702	8.000	7.000	45.330	26.32	108.44	311.64	446.40	660.94	446.40	0.9	401.76
8.143	8.000	7.000	45.298	26.33	105.19	309.22	440.75	660.50	440.75	0.9	396.67
8.476	8.000	7.000	45.273	26.34	106.38	309.93	442.65	660.17	442.65	0.9	398.39
9.543	8.000	7.000	45.198	26.36	110.10	312.05	448.51	659.13	448.51	0.9	403.66
(SZB) 11.362	8.000	7.000	39.048	26.40	135.76	192.87	355.03	573.08	355.03	0.9	319.52
12.143	8.000	7.000	38.827	26.42	133.40	191.39	351.21	570.00	351.21	0.9	316.09
($0.2L_s$) 15.405	8.000	7.000	39.633	26.48	137.92	195.79	360.19	581.35	360.19	0.9	324.17
15.843	8.000	7.000	39.770	26.49	137.31	196.20	360.00	583.26	360.00	0.9	324.00
16.093	8.000	7.000	39.847	26.49	136.98	196.44	359.91	584.36	359.91	0.9	323.92
16.893	8.000	7.000	40.097	26.51	136.00	197.22	359.73	587.87	359.73	0.9	323.76
18.843	8.000	7.000	40.708	26.54	134.06	199.19	359.80	596.44	359.80	0.9	323.82
(SZB) 19.612	8.000	7.000	40.949	26.55	133.42	150.00	309.97	599.84	309.97	0.9	278.97
(Deck Bar Cutoff) 21.642	8.000	7.000	41.590	26.57	132.10	151.64	310.31	608.82	310.31	0.9	279.28
21.647	8.000	7.000	41.591	26.57	132.09	151.65	310.31	608.85	310.31	0.9	279.28
($0.3L_s$) 23.107	8.000	7.000	42.054	26.58	131.53	152.90	311.01	615.34	311.01	0.9	279.91
23.543	8.000	7.000	42.192	26.58	131.41	153.29	311.28	617.27	311.28	0.9	280.15
23.709	8.000	7.000	42.245	26.59	131.37	153.43	311.39	618.02	311.39	0.9	280.25
24.243	8.000	7.000	42.415	26.59	131.26	153.91	311.76	620.40	311.76	0.9	280.58
25.543	8.000	7.000	42.830	26.59	131.11	155.10	312.81	626.21	312.81	0.9	281.53
(SZB) 30.612	8.000	7.000	44.461	26.56	122.19	105.07	253.83	649.02	253.83	0.9	228.44
($0.4L_s$) 30.810	8.000	7.000	44.525	26.56	121.61	105.08	253.25	649.92	253.25	0.9	227.93
(HP) 31.242	8.000	7.000	44.665	26.56	120.48	105.14	252.18	651.87	252.18	0.9	226.96
31.247	8.000	7.000	44.665	0.00	109.82	103.01	212.83	625.31	212.83	0.9	191.55
31.326	8.000	7.000	44.665	0.00	109.39	102.92	212.31	625.31	212.31	0.9	191.08
31.592	8.000	7.000	44.665	0.00	108.00	102.61	210.61	625.31	210.61	0.9	189.55
32.242	8.000	7.000	44.665	0.00	104.89	101.91	206.80	625.31	206.80	0.9	186.12
($0.5L_s$) 38.512	8.000	7.000	44.665	0.00	92.01	98.58	190.59	625.31	190.59	0.9	171.53
38.942	8.000	7.000	44.665	0.00	91.98	98.57	190.55	625.31	190.55	0.9	171.49
45.642	8.000	7.000	44.665	0.00	92.96	98.85	191.81	625.31	191.81	0.9	172.63
($0.6L_s$) 46.215	8.000	7.000	44.665	0.00	92.92	98.84	191.76	625.31	191.76	0.9	172.59
46.292	8.000	7.000	44.665	0.00	92.93	98.84	191.77	625.31	191.77	0.9	172.59
46.559	8.000	7.000	44.665	0.00	92.97	98.85	191.82	625.31	191.82	0.9	172.64
46.637	8.000	7.000	44.665	0.00	92.98	98.86	191.84	625.31	191.84	0.9	172.66
(HP) 46.642	8.000	7.000	44.665	26.64	100.52	100.86	228.01	651.95	228.01	0.9	205.21
(SZB) 47.272	8.000	7.000	44.461	26.65	98.78	100.07	225.50	649.11	225.50	0.9	202.95
52.342	8.000	7.000	42.830	26.72	94.44	144.33	265.50	626.34	265.50	0.9	238.95
53.642	8.000	7.000	42.415	26.73	96.09	143.90	266.71	620.54	266.71	0.9	240.04
($0.7L_s$) 53.917	8.000	7.000	42.327	26.73	96.60	143.86	267.20	619.31	267.20	0.9	240.48
54.175	8.000	7.000	42.245	26.73	97.06	143.82	267.61	618.16	267.61	0.9	240.85
54.342	8.000	7.000	42.192	26.73	97.32	143.78	267.83	617.42	267.83	0.9	241.05
(SZB) 58.272	8.000	7.000	40.940	26.72	112.43	145.10	284.25	599.89	284.25	0.9	255.83
59.042	8.000	7.000	40.691	26.72	118.28	194.52	339.52	596.39	339.52	0.9	305.57
60.992	8.000	7.000	40.060	26.70	121.98	193.23	341.92	587.54	341.92	0.9	307.73
($0.8L_s$) 61.620	8.000	7.000	39.857	26.70	122.15	192.48	341.33	584.69	341.33	0.9	307.20
61.792	8.000	7.000	39.801	26.70	122.20	192.28	341.18	583.91	341.18	0.9	307.06
62.042	8.000	7.000	39.721	26.69	122.29	191.99	340.97	582.78	340.97	0.9	306.87
65.742	8.000	7.000	38.736	26.64	117.59	186.74	330.98	568.95	330.98	0.9	297.88
(SZB) 66.522	8.000	7.000	39.056	26.63	120.19	188.77	335.59	573.42	335.59	0.9	302.03
68.342	8.000	7.000	40.204	26.60	124.39	291.76	442.75	589.46	442.75	0.9	398.48
($0.9L_s$) 69.322	8.000	7.000	40.148	26.59	126.27	292.24	445.10	588.66	445.10	0.9	400.59

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
69.408	8.000	7.000	40.143	26.59	126.44	292.29	445.32	588.59	445.32	0.9	400.79
69.742	8.000	7.000	40.127	26.58	127.14	292.49	446.21	588.35	446.21	0.9	401.59
(1.5H) 71.442	8.000	7.000	41.591	26.55	133.05	303.69	463.29	608.82	463.29	0.9	416.96
(SZB) 72.022	8.000	7.000	41.590	26.54	130.79	302.73	460.06	608.81	460.06	0.9	414.06
72.442	8.000	7.000	41.592	26.54	131.97	454.87	613.38	608.82	608.82	0.9	547.94
(CS) 73.101	8.000	7.000	43.289	26.53	140.06	475.10	641.69	632.57	632.57	0.9	569.31

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength I

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

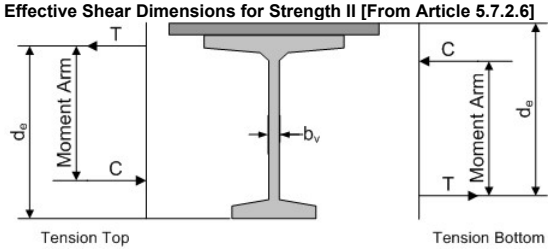
Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 4.988	329.29	102.83	26.27	200.19	60.000	45.541	30.54	0.519
5.443	326.32	104.46	26.28	195.58	60.000	45.504	30.44	0.505
(SZB) 5.862	323.58	106.02	26.28	191.28	60.000	45.471	30.34	0.493
(1.5H) 6.443	319.78	103.64	26.30	189.85	60.000	45.426	30.48	0.492
($0.1L_s$) 7.702	311.53	108.44	26.32	176.77	60.000	45.330	30.19	0.454
8.143	308.63	105.19	26.33	177.11	60.000	45.298	30.37	0.458
8.476	306.43	106.38	26.34	173.72	60.000	45.273	30.30	0.448
9.543	299.40	110.10	26.36	162.94	60.000	45.198	30.09	0.418
(SZB) 11.362	287.34	135.76	26.40	125.19	60.000	39.048	28.36	0.346
12.143	282.13	133.40	26.42	122.32	60.000	38.827	28.41	0.341
($0.2L_s$) 15.405	260.31	137.92	26.48	95.92	60.000	39.633	28.36	0.261
15.843	257.38	137.31	26.49	93.59	60.000	39.770	28.39	0.254
16.093	255.71	136.98	26.49	92.24	60.000	39.847	28.41	0.250
16.893	250.35	136.00	26.51	87.84	60.000	40.097	28.47	0.238
18.843	237.20	134.06	26.54	76.60	60.000	40.708	28.59	0.205
(SZB) 19.612	231.98	133.42	26.55	72.02	60.000	40.949	28.63	0.192
(Deck Bar Cutoff) 21.642	218.24	132.10	26.57	59.57	60.000	41.590	28.75	0.157
21.647	218.20	132.09	26.57	59.54	60.000	41.591	28.75	0.157
($0.3L_s$) 23.107	208.33	131.53	26.58	50.21	60.000	42.054	28.81	0.131
23.543	205.39	131.41	26.58	47.39	60.000	42.192	28.83	0.124
23.709	204.26	131.37	26.59	46.30	60.000	42.245	28.84	0.121
24.243	200.66	131.26	26.59	42.81	60.000	42.415	28.86	0.111
25.543	191.83	131.11	26.59	34.12	60.000	42.830	28.91	0.088
(SZB) 30.612	157.40	122.19	26.56	8.64	60.000	44.461	29.43	0.022
($0.4L_s$) 30.810	156.06	121.61	26.56	7.89	60.000	44.525	29.46	0.020
(HP) 31.242	153.14	120.48	26.56	6.10	60.000	44.665	29.53	0.015
31.247	153.10	109.82	0.00	43.28	60.000	44.665	30.03	0.112
31.326	152.57	109.39	0.00	43.18	60.000	44.665	30.06	0.112
31.592	150.77	108.00	0.00	42.77	60.000	44.665	30.13	0.111
32.242	146.36	104.89	0.00	41.47	60.000	44.665	30.30	0.109
($0.5L_s$) 38.512	104.03	92.01	0.00	12.02	60.000	44.665	31.14	0.033
38.942	101.18	91.98	0.00	9.20	60.000	44.665	31.14	0.025
45.642	89.31	92.96	0.00	0.00	60.000	44.665	31.07	0.000
($0.6L_s$) 46.215	92.77	92.92	0.00	0.00	60.000	44.665	31.07	0.000
46.292	93.24	92.93	0.00	0.31	60.000	44.665	31.07	0.001
46.559	94.87	92.97	0.00	1.90	60.000	44.665	31.07	0.005
46.637	95.35	92.98	0.00	2.36	60.000	44.665	31.07	0.006
(HP) 46.642	95.38	100.52	26.64	0.00	60.000	44.665	30.56	0.000
(SZB) 47.272	99.23	98.78	26.65	0.00	60.000	44.461	30.64	0.000
52.342	131.62	94.44	26.72	10.46	60.000	42.830	30.69	0.029
53.642	140.14	96.09	26.73	17.33	60.000	42.415	30.52	0.048
($0.7L_s$) 53.917	141.96	96.60	26.73	18.63	60.000	42.327	30.47	0.052
54.175	143.66	97.06	26.73	19.87	60.000	42.245	30.43	0.055
54.342	144.76	97.32	26.73	20.71	60.000	42.192	30.41	0.058
(SZB) 58.272	170.87	112.43	26.72	31.72	60.000	40.940	29.44	0.087
59.042	176.02	118.28	26.72	31.02	60.000	40.691	29.15	0.085
60.992	189.17	121.98	26.70	40.48	60.000	40.060	28.94	0.112
($0.8L_s$) 61.620	193.44	122.15	26.70	44.59	60.000	39.857	28.91	0.124
61.792	194.61	122.20	26.70	45.71	60.000	39.801	28.90	0.127
62.042	196.31	122.29	26.69	47.33	60.000	39.721	28.89	0.131
65.742	221.64	117.59	26.64	77.40	60.000	38.736	28.95	0.221
(SZB) 66.522	227.01	120.19	26.63	80.19	60.000	39.056	28.89	0.227
68.342	239.62	124.39	26.60	88.63	60.000	40.204	28.86	0.243
($0.9L_s$) 69.322	246.46	126.27	26.59	93.60	60.000	40.148	28.79	0.256
69.408	247.06	126.44	26.59	94.03	60.000	40.143	28.78	0.257
69.742	249.38	127.14	26.58	95.66	60.000	40.127	28.76	0.262
(1.5H) 71.442	261.27	133.05	26.55	101.67	60.000	41.591	28.71	0.268
(SZB) 72.022	265.33	130.79	26.54	108.01	60.000	41.590	28.79	0.285
72.442	268.28	131.97	26.54	109.77	60.000	41.592	28.75	0.290
(CS) 73.101	272.91	140.06	26.53	106.32	60.000	43.289	28.66	0.269

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength I

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 4.988	1.200	0.519	5.090	9.254	14.343
5.443	1.200	0.505	5.227	9.503	14.730
(SZB) 5.862	0.800	0.493	5.360	9.746	15.107
(1.5H) 6.443	0.800	0.492	5.367	9.758	15.125
($0.1L_s$) 7.702	0.800	0.454	5.818	10.578	16.396
8.143	0.800	0.458	5.762	10.476	16.238
8.476	0.800	0.448	5.888	10.705	16.593
9.543	0.800	0.418	6.320	11.491	17.811
(SZB) 11.362	0.533	0.346	7.626	13.866	21.492
12.143	0.533	0.341	7.746	14.083	21.828
($0.2L_s$) 15.405	0.533	0.261	10.104	18.371	28.475
15.843	0.533	0.254	10.377	18.868	29.245
16.093	0.533	0.250	10.542	19.167	29.709
16.893	0.533	0.238	11.114	20.207	31.321
18.843	0.533	0.205	12.873	23.405	36.278
(SZB) 19.612	0.400	0.192	13.747	24.994	38.741
(Deck Bar Cutoff) 21.642	0.400	0.157	16.800	30.546	47.347
21.647	0.400	0.157	16.810	30.563	47.372
($0.3L_s$) 23.107	0.400	0.131	20.097	36.540	56.637
23.543	0.400	0.124	21.348	38.815	60.163
23.709	0.400	0.121	21.870	39.763	61.632
24.243	0.400	0.111	23.729	43.143	66.872
25.543	0.400	0.088	30.001	54.547	84.548
(SZB) 30.612	0.267	0.022	120.347	218.813	339.160
($0.4L_s$) 30.810	0.267	0.020	131.832	239.695	371.528
(HP) 31.242	0.267	0.015	170.711	310.384	481.094
31.247	0.267	0.112	23.561	42.839	66.400
31.326	0.267	0.112	23.597	42.903	66.499
31.592	0.267	0.111	23.752	43.185	66.937
32.242	0.267	0.109	24.329	44.235	68.565
($0.5L_s$) 38.512	0.267	0.033	81.217	147.667	228.883
38.942	0.267	0.025	106.091	192.893	298.984
45.642	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.215	0.267	0.000	N/A	N/A	N/A
46.292	0.267	0.001	N/A	N/A	N/A
46.559	0.267	0.005	514.456	935.375	1449.831
46.637	0.267	0.006	414.354	753.371	1167.725
(HP) 46.642	0.267	0.000	N/A	N/A	N/A
(SZB) 47.272	0.267	0.000	N/A	N/A	N/A
52.342	0.400	0.029	91.089	165.616	256.706
53.642	0.400	0.048	54.813	99.660	154.474
($0.7L_s$) 53.917	0.400	0.052	50.977	92.685	143.662
54.175	0.400	0.055	47.769	86.853	134.622
54.342	0.400	0.058	45.826	83.319	129.145
(SZB) 58.272	0.400	0.087	30.194	54.898	85.091
59.042	0.533	0.085	31.043	56.442	87.485
60.992	0.533	0.112	23.629	42.961	66.590
($0.8L_s$) 61.620	0.533	0.124	21.366	38.847	60.213
61.792	0.533	0.127	20.821	37.857	58.678
62.042	0.533	0.131	20.078	36.506	56.584
65.742	0.533	0.221	11.942	21.713	33.656
(SZB) 66.522	0.533	0.227	11.653	21.186	32.839
68.342	0.800	0.243	10.863	19.751	30.614
($0.9L_s$) 69.322	0.800	0.256	10.303	18.733	29.036
69.408	0.800	0.257	10.258	18.651	28.910
69.742	0.800	0.262	10.090	18.345	28.436
(1.5H) 71.442	0.800	0.268	9.857	17.922	27.780
(SZB) 72.022	0.800	0.285	9.250	16.818	26.067
72.442	1.200	0.290	9.117	16.576	25.693
(CS) 73.101	1.200	0.269	9.831	17.874	27.704

Effective Shear Dimensions for Strength II [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 4.988	7.000	50.601	51.000	45.541	36.720	45.328	45.541	Top
5.443	7.000	50.560	51.000	45.504	36.720	45.288	45.504	Top

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(SZB) 5.862	7.000	50.523	51.000	45.471	36.720	45.251	45.471	Top
(1.5H) 6.443	7.000	50.473	51.000	45.426	36.720	45.200	45.426	Top
($0.1L_s$) 7.702	7.000	50.367	51.000	45.330	36.720	45.095	45.330	Top
8.143	7.000	50.331	51.000	45.298	36.720	45.059	45.298	Top
8.476	7.000	50.304	51.000	45.273	36.720	45.032	45.273	Top
9.543	7.000	50.219	51.000	45.198	36.720	44.948	45.198	Top
(SZB) 11.362	7.000	43.387	51.000	39.048	36.720	38.728	39.048	Bottom
12.143	7.000	42.171	51.000	37.954	36.720	38.827	38.827	Bottom
($0.2L_s$) 15.405	7.000	41.805	51.000	37.624	36.720	39.633	39.633	Bottom
15.843	7.000	41.942	51.000	37.748	36.720	39.770	39.770	Bottom
16.093	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
16.893	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
18.843	7.000	42.885	51.000	38.597	36.720	40.708	40.708	Bottom
(SZB) 19.612	7.000	43.128	51.000	38.816	36.720	40.949	40.949	Bottom
(Deck Bar Cutoff) 21.642	7.000	43.772	51.000	39.395	36.720	41.590	41.590	Bottom
21.647	7.000	43.774	51.000	39.396	36.720	41.591	41.591	Bottom
($0.3L_s$) 23.107	7.000	44.239	51.000	39.815	36.720	42.054	42.054	Bottom
23.543	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
23.709	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
24.243	7.000	44.602	51.000	40.141	36.720	42.415	42.415	Bottom
25.543	7.000	45.018	51.000	40.516	36.720	42.830	42.830	Bottom
(SZB) 30.612	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
($0.4L_s$) 30.810	7.000	46.717	51.000	42.046	36.720	44.525	44.525	Bottom
(HP) 31.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.247	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.326	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.592	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
32.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.512	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
38.942	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
45.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.6L_s$) 46.215	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.292	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.559	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.637	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(HP) 46.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(SZB) 47.272	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
52.342	7.000	45.018	51.000	40.516	36.720	42.830	42.830	Bottom
53.642	7.000	44.601	51.000	40.141	36.720	42.415	42.415	Bottom
($0.7L_s$) 53.917	7.000	44.513	51.000	40.062	36.720	42.327	42.327	Bottom
54.175	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
54.342	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
(SZB) 58.272	7.000	43.129	51.000	38.816	36.720	40.940	40.940	Bottom
59.042	7.000	42.886	51.000	38.598	36.720	40.691	40.691	Bottom
60.992	7.000	42.274	51.000	38.047	36.720	40.060	40.060	Bottom
($0.8L_s$) 61.620	7.000	42.078	51.000	37.870	36.720	39.857	39.857	Bottom
61.792	7.000	42.024	51.000	37.822	36.720	39.801	39.801	Bottom
62.042	7.000	41.946	51.000	37.751	36.720	39.721	39.721	Bottom
65.742	7.000	42.180	51.000	37.962	36.720	38.736	38.736	Bottom
(SZB) 66.522	7.000	43.396	51.000	39.056	36.720	38.629	39.056	Bottom
68.342	7.000	44.671	51.000	40.204	36.720	38.418	40.204	Bottom
($0.9L_s$) 69.322	7.000	44.609	51.000	40.148	36.720	38.330	40.148	Bottom
69.408	7.000	44.604	51.000	40.143	36.720	38.323	40.143	Bottom
69.742	7.000	44.585	51.000	40.127	36.720	38.298	40.127	Bottom
(1.5H) 71.442	7.000	46.212	51.000	41.591	36.720	38.207	41.591	Bottom
(SZB) 72.022	7.000	46.211	51.000	41.590	36.720	38.191	41.590	Bottom
72.442	7.000	46.213	51.000	41.592	36.720	38.186	41.592	Bottom
(CS) 73.101	7.000	48.099	51.000	43.289	36.720	38.186	43.289	Bottom

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength II

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 4.988	0.9	289.01	26.27	45.541	7.000	0.925
5.443	0.9	286.53	26.28	45.504	7.000	0.917
(SZB) 5.862	0.9	284.22	26.28	45.471	7.000	0.910
(1.5H) 6.443	0.9	281.02	26.30	45.426	7.000	0.899
($0.1L_s$) 7.702	0.9	274.04	26.32	45.330	7.000	0.877
8.143	0.9	271.59	26.33	45.298	7.000	0.869
8.476	0.9	269.72	26.34	45.273	7.000	0.863
9.543	0.9	263.72	26.36	45.198	7.000	0.843
(SZB) 11.362	0.9	253.36	26.40	39.048	7.000	0.933
12.143	0.9	248.86	26.42	38.827	7.000	0.920
($0.2L_s$) 15.405	0.9	229.68	26.48	39.633	7.000	0.824
15.843	0.9	227.07	26.49	39.770	7.000	0.811
16.093	0.9	225.58	26.49	39.847	7.000	0.804
16.893	0.9	220.78	26.51	40.097	7.000	0.780

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
18.843	0.9	208.98	26.54	40.708	7.000	0.722
(SZB) 19.612	0.9	204.26	26.55	40.949	7.000	0.699
(Deck Bar Cutoff) 21.642	0.9	191.68	26.57	41.590	7.000	0.640
21.647	0.9	191.65	26.57	41.591	7.000	0.640
($0.3L_s$) 23.107	0.9	182.51	26.58	42.054	7.000	0.599
23.543	0.9	179.77	26.58	42.192	7.000	0.586
23.709	0.9	178.71	26.59	42.245	7.000	0.582
24.243	0.9	175.33	26.59	42.415	7.000	0.567
25.543	0.9	167.07	26.59	42.830	7.000	0.530
(SZB) 30.612	0.9	134.19	26.56	44.461	7.000	0.394
($0.4L_s$) 30.810	0.9	132.89	26.56	44.525	7.000	0.389
(HP) 31.242	0.9	130.04	26.56	44.665	7.000	0.377
31.247	0.9	130.01	0.00	44.665	7.000	0.462
31.326	0.9	129.49	0.00	44.665	7.000	0.460
31.592	0.9	127.73	0.00	44.665	7.000	0.454
32.242	0.9	123.42	0.00	44.665	7.000	0.439
($0.5L_s$) 38.512	0.9	81.18	0.00	44.665	7.000	0.288
38.942	0.9	78.27	0.00	44.665	7.000	0.278
45.642	0.9	74.89	0.00	44.665	7.000	0.266
($0.6L_s$) 46.215	0.9	77.97	0.00	44.665	7.000	0.277
46.292	0.9	78.38	0.00	44.665	7.000	0.279
46.559	0.9	79.82	0.00	44.665	7.000	0.284
46.637	0.9	80.24	0.00	44.665	7.000	0.285
(HP) 46.642	0.9	80.27	26.64	44.665	7.000	0.200
(SZB) 47.272	0.9	83.68	26.65	44.461	7.000	0.213
52.342	0.9	112.34	26.72	42.830	7.000	0.327
53.642	0.9	119.84	26.73	42.415	7.000	0.358
($0.7L_s$) 53.917	0.9	121.43	26.73	42.327	7.000	0.365
54.175	0.9	122.92	26.73	42.245	7.000	0.371
54.342	0.9	123.89	26.73	42.192	7.000	0.376
(SZB) 58.272	0.9	146.78	26.72	40.940	7.000	0.476
59.042	0.9	151.29	26.72	40.691	7.000	0.496
60.992	0.9	162.80	26.70	40.060	7.000	0.550
($0.8L_s$) 61.620	0.9	166.50	26.70	39.857	7.000	0.567
61.792	0.9	167.52	26.70	39.801	7.000	0.572
62.042	0.9	169.00	26.69	39.721	7.000	0.579
65.742	0.9	190.92	26.64	38.736	7.000	0.684
(SZB) 66.522	0.9	195.58	26.63	39.056	7.000	0.697
68.342	0.9	206.46	26.60	40.204	7.000	0.721
($0.9L_s$) 69.322	0.9	212.33	26.59	40.148	7.000	0.745
69.408	0.9	212.84	26.59	40.143	7.000	0.747
69.742	0.9	214.84	26.58	40.127	7.000	0.755
(1.5H) 71.442	0.9	225.01	26.55	41.591	7.000	0.768
(SZB) 72.022	0.9	228.48	26.54	41.590	7.000	0.781
72.442	0.9	230.98	26.54	41.592	7.000	0.790
(CS) 73.101	0.9	234.94	26.53	43.289	7.000	0.774

f_{po} - Strength II

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength II

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \; for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \; for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 4.988	1641.44	289.01	26.27	262.74	45.541	33.680	29000.000	1.858	28500.000	935.593	5011.145	0.334
5.443	1560.68	286.53	26.28	260.25	45.504	33.680	29000.000	1.874	28500.000	936.841	5011.145	0.308
(SZB) 5.862	1486.66	284.22	26.28	257.94	45.471	33.680	29000.000	1.891	28500.000	937.974	5011.145	0.284
(1.5H) 6.443	1384.87	281.02	26.30	254.73	45.426	33.680	29000.000	1.531	28500.000	939.514	5011.145	0.325
($0.1L_s$) 7.702	1167.24	274.04	26.32	247.72	45.330	33.680	29000.000	1.572	28500.000	942.742	5011.145	0.254
8.143	1092.25	271.59	26.33	245.25	45.298	33.680	29000.000	1.189	28500.000	943.833	5011.145	0.307
8.476	1035.81	269.72	26.34	243.38	45.273	33.680	29000.000	1.197	28500.000	944.647	5011.145	0.288
9.543	893.99 $	263.72	26.36	237.35	45.198	33.680	29000.000	1.223	28500.000	946.526	5011.145	0.241
(SZB) 11.362	971.24	253.36	26.40	226.96	39.048	0.400	29000.000	5.109	28500.000	365.000	5011.145	-0.222
12.143	1126.18	248.86	26.42	222.44	38.827	0.400	29000.000	5.155	28500.000	365.000	5011.145	-0.203
($0.2L_s$) 15.405	1723.13	229.68	26.48	203.20	39.633	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.21
15.843	1797.30	227.07	26.49	200.58	39.770	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.201
16.093	1839.00	225.58	26.49	199.09	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.196
16.893	1969.89	220.78	26.51	194.27	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.181
18.843	2269.71	208.98	26.54	182.44	40.708	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.147
(SZB) 19.612	2384.95	204.26	26.55	177.71	40.949	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.135
(Deck Bar Cutoff) 21.642	2674.97	191.68	26.57	165.11	41.590	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.105
21.647	2675.64	191.65	26.57	165.08	41.591	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.105
	2871.01	182.51	26.58	155.93	42.054	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.086

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.3L_s$) 23.107												
23.543	2927.21	179.77	26.58	153.18	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0808
23.709	2948.48	178.71	26.59	152.13	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0788
24.243	3015.13	175.33	26.59	148.74	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0728
25.543	3168.64	167.07	26.59	140.48	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0596
(SZB) 30.612	3663.40	134.19	26.56	107.63	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0258
($0.4L_s$) 30.810	3679.11	132.89	26.56	106.33	44.525	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0251
(HP) 31.242	3712.54	130.04	26.56	103.49	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0236
31.247	3712.91	130.01	0.00	130.01	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0103
31.326	3718.84	129.49	0.00	129.49	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00981
31.592	3738.98	127.73	0.00	127.73	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.008
32.242	3788.44	123.42	0.00	123.42	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00354
($0.5L_s$) 38.512	4110.58	81.18	0.00	81.18	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.201
38.942	4122.13	78.27	0.00	78.27	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.202
45.642	4114.91	74.89	0.00	74.89	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.173
($0.6L_s$) 46.215	4097.52	77.97	0.00	77.97	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.165
46.292	4094.97	78.38	0.00	78.38	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.163
46.559	4085.79	79.82	0.00	79.82	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.158
46.637	4082.98	80.24	0.00	80.24	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.156
(HP) 46.642	4082.80	80.27	26.64	53.63	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0118
(SZB) 47.272	4058.21	83.68	26.65	57.03	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0214
52.342	3823.43	112.34	26.72	85.61	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.046
53.642	3743.53	119.84	26.73	93.11	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0209
($0.7L_s$) 53.917	3724.80	121.43	26.73	94.70	42.327	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0127
54.175	3706.69	122.92	26.73	96.19	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.00402
54.342	3694.71	123.89	26.73	97.15	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.000188
(SZB) 58.272	3347.55	146.78	26.72	120.05	40.940	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0234
59.042	3264.34	151.29	26.72	124.57	40.691	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0303
60.992	3030.75	162.80	26.70	136.09	40.060	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0518
($0.8L_s$) 61.620	2948.59	166.50	26.70	139.81	39.857	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.06
61.792	2925.54	167.52	26.70	140.82	39.801	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0623
62.042	2891.57	169.00	26.69	142.30	39.721	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0658
65.742	2346.87	190.92	26.64	164.28	38.736	0.400	29000.000	5.168	28500.000	365.000	5011.145	-0.043
(SZB) 66.522	2220.77	195.58	26.63	168.95	39.056	0.400	29000.000	5.123	28500.000	365.000	5011.145	-0.0589
68.342	1906.27	206.46	26.60	179.85	40.204	0.400	29000.000	4.604	28500.000	365.000	5011.145	-0.0615
($0.9L_s$) 69.322	1724.63	212.33	26.59	185.74	40.148	0.400	29000.000	4.550	28500.000	365.000	5011.145	-0.0806
69.408	1708.30	212.84	26.59	186.26	40.143	0.400	29000.000	4.546	28500.000	365.000	5011.145	-0.0823
69.742	1644.36	214.84	26.58	188.26	40.127	0.400	29000.000	4.527	28500.000	365.000	5011.145	-0.0892
(1.5H) 71.442	1302.94	225.01	26.55	198.45	41.591	0.400	29000.000	4.049	28500.000	365.000	5011.145	-0.0976
(SZB) 72.022	1180.39	228.48	26.54	201.94	41.590	0.400	29000.000	3.641	28500.000	365.000	5011.145	-0.0749
72.442	1090.04	230.98	26.54	204.45	41.592	0.400	29000.000	3.626	28500.000	365.000	5011.145	-0.0856
(CS) 73.101	944.83	234.94	26.53	208.42	43.289	0.400	29000.000	3.603	28500.000	365.000	5011.145	-0.108

$N_u = 0$

$ - Taken as $|V_u - V_p|d_v$ per definitions given in 5.7.3.4.2

Shear Parameter Summary - Strength II [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

$a_g = 0.750$ in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 4.988	Yes	1	---	---	0.116	0.334	3.84	30.17
5.443	Yes	1	---	---	0.115	0.308	3.9	30.08
(SZB) 5.862	Yes	1	---	---	0.114	0.284	3.96	29.99
(1.5H) 6.443	Yes	1	---	---	0.112	0.325	3.86	30.14
($0.1L_s$) 7.702	Yes	1	---	---	0.11	0.254	4.03	29.89
8.143	Yes	1	---	---	0.109	0.307	3.9	30.07
8.476	Yes	1	---	---	0.108	0.288	3.95	30.01
9.543	Yes	1	---	---	0.105	0.241	4.07	29.84
(SZB) 11.362	Yes	1	---	---	0.117	-0.222	5.76	28.22
12.143	Yes	1	---	---	0.115	-0.203	5.66	28.29
($0.2L_s$) 15.405	Yes	1	---	---	0.103	-0.21	5.7	28.26
15.843	Yes	1	---	---	0.101	-0.201	5.65	28.30
16.093	Yes	1	---	---	0.1	-0.196	5.63	28.31
16.893	Yes	1	---	---	0.0974	-0.181	5.55	28.37
18.843	Yes	1	---	---	0.0902	-0.147	5.4	28.48
(SZB) 19.612	Yes	1	---	---	0.0874	-0.135	5.34	28.53
(Deck Bar Cutoff) 21.642	Yes	1	---	---	0.08	-0.105	5.21	28.63
21.647	Yes	1	---	---	0.08	-0.105	5.21	28.63
($0.3L_s$) 23.107	Yes	1	---	---	0.0748	-0.086	5.13	28.70
23.543	Yes	1	---	---	0.0733	-0.0808	5.11	28.72
23.709	Yes	1	---	---	0.0727	-0.0788	5.1	28.72
24.243	Yes	1	---	---	0.0708	-0.0728	5.08	28.75
25.543	Yes	1	---	---	0.0663	-0.0596	5.02	28.79

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(SZB) 30.612	Yes	1	---	---	0.0492	-0.0258	4.89	28.91
($0.4L_s$) 30.810	Yes	1	---	---	0.0486	-0.0251	4.89	28.91
(HP) 31.242	Yes	1	---	---	0.0472	-0.0236	4.89	28.92
31.247	Yes	1	---	---	0.0578	-0.0103	4.84	28.96
31.326	Yes	1	---	---	0.0575	-0.00981	4.84	28.97
31.592	Yes	1	---	---	0.0567	-0.008	4.83	28.97
32.242	Yes	1	---	---	0.0548	-0.00354	4.81	28.99
($0.5L_s$) 38.512	Yes	1	---	---	0.0361	0.201	4.17	29.70
38.942	Yes	1	---	---	0.0348	0.202	4.17	29.71
45.642	Yes	1	---	---	0.0333	0.173	4.25	29.61
($0.6L_s$) 46.215	Yes	1	---	---	0.0346	0.165	4.27	29.58
46.292	Yes	1	---	---	0.0348	0.163	4.28	29.57
46.559	Yes	1	---	---	0.0355	0.158	4.29	29.55
46.637	Yes	1	---	---	0.0356	0.156	4.3	29.55
(HP) 46.642	Yes	1	---	---	0.025	0.0118	4.76	29.04
(SZB) 47.272	Yes	1	---	---	0.0266	0.0214	4.72	29.08
52.342	Yes	1	---	---	0.0409	0.046	4.64	29.16
53.642	Yes	1	---	---	0.0448	0.0209	4.73	29.07
($0.7L_s$) 53.917	Yes	1	---	---	0.0456	0.0127	4.75	29.04
54.175	Yes	1	---	---	0.0464	0.00402	4.79	29.01
54.342	Yes	1	---	---	0.0469	-0.000188	4.8	29.00
(SZB) 58.272	Yes	1	---	---	0.0595	-0.0234	4.89	28.92
59.042	Yes	1	---	---	0.062	-0.0303	4.91	28.89
60.992	Yes	1	---	---	0.0687	-0.0518	4.99	28.82
($0.8L_s$) 61.620	Yes	1	---	---	0.0709	-0.06	5.03	28.79
61.792	Yes	1	---	---	0.0715	-0.0623	5.04	28.78
62.042	Yes	1	---	---	0.0724	-0.0658	5.05	28.77
65.742	Yes	1	---	---	0.0855	-0.043	4.96	28.85
(SZB) 66.522	Yes	1	---	---	0.0872	-0.0589	5.02	28.79
68.342	Yes	1	---	---	0.0901	-0.0615	5.03	28.78
($0.9L_s$) 69.322	Yes	1	---	---	0.0931	-0.0806	5.11	28.72
69.408	Yes	1	---	---	0.0934	-0.0823	5.12	28.71
69.742	Yes	1	---	---	0.0944	-0.0892	5.14	28.69
(1.5H) 71.442	Yes	1	---	---	0.0959	-0.0976	5.18	28.66
(SZB) 72.022	Yes	1	---	---	0.0976	-0.0749	5.09	28.74
72.442	Yes	1	---	---	0.0988	-0.0856	5.13	28.70
(CS) 73.101	Yes	1	---	---	0.0967	-0.108	5.22	28.62

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength II

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 4.988	3.84	8.000	-	7.000	45.541	109.35
5.443	3.9	8.000	-	7.000	45.504	110.99
(SZB) 5.862	3.96	8.000	-	7.000	45.471	112.56
(1.5H) 6.443	3.86	8.000	-	7.000	45.426	109.71
($0.1L_s$) 7.702	4.03	8.000	-	7.000	45.330	114.33
8.143	3.9	8.000	-	7.000	45.298	110.60
8.476	3.95	8.000	-	7.000	45.273	111.78
9.543	4.07	8.000	-	7.000	45.198	114.97
(SZB) 11.362	5.76	8.000	-	7.000	39.048	140.64
12.143	5.66	8.000	-	7.000	38.827	137.56
($0.2L_s$) 15.405	5.7	8.000	-	7.000	39.633	141.31
15.843	5.65	8.000	-	7.000	39.770	140.67
16.093	5.63	8.000	-	7.000	39.847	140.33
16.893	5.55	8.000	-	7.000	40.097	139.33
18.843	5.4	8.000	-	7.000	40.708	137.44
(SZB) 19.612	5.34	8.000	-	7.000	40.949	136.82
(Deck Bar Cutoff) 21.642	5.21	8.000	-	7.000	41.590	135.57
21.647	5.21	8.000	-	7.000	41.591	135.57
($0.3L_s$) 23.107	5.13	8.000	-	7.000	42.054	135.00
23.543	5.11	8.000	-	7.000	42.192	134.88
23.709	5.1	8.000	-	7.000	42.245	134.84
24.243	5.08	8.000	-	7.000	42.415	134.73
25.543	5.02	8.000	-	7.000	42.830	134.65
(SZB) 30.612	4.89	8.000	-	7.000	44.461	136.16
($0.4L_s$) 30.810	4.89	8.000	-	7.000	44.525	136.28
(HP) 31.242	4.89	8.000	-	7.000	44.665	136.55
31.247	4.84	8.000	-	7.000	44.665	135.18
31.326	4.84	8.000	-	7.000	44.665	135.13
31.592	4.83	8.000	-	7.000	44.665	134.94
32.242	4.81	8.000	-	7.000	44.665	134.49
($0.5L_s$) 38.512	4.17	8.000	-	7.000	44.665	116.54
38.942	4.17	8.000	-	7.000	44.665	116.46
45.642	4.25	8.000	-	7.000	44.665	118.69
($0.6L_s$) 46.215	4.27	8.000	-	7.000	44.665	119.37
46.292	4.28	8.000	-	7.000	44.665	119.49
46.559	4.29	8.000	-	7.000	44.665	119.94

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
46.637	4.3	8.000	-	7.000	44.665	120.08
(HP) 46.642	4.76	8.000	-	7.000	44.665	132.96
(SZB) 47.272	4.72	8.000	-	7.000	44.461	131.41
52.342	4.64	8.000	-	7.000	42.830	124.34
53.642	4.73	8.000	-	7.000	42.415	125.41
($0.7L_s$) 53.917	4.75	8.000	-	7.000	42.327	125.91
54.175	4.79	8.000	-	7.000	42.245	126.48
54.342	4.8	8.000	-	7.000	42.192	126.72
(SZB) 58.272	4.89	8.000	-	7.000	40.940	125.14
59.042	4.91	8.000	-	7.000	40.691	125.05
60.992	4.99	8.000	-	7.000	40.060	125.17
($0.8L_s$) 61.620	5.03	8.000	-	7.000	39.857	125.33
61.792	5.04	8.000	-	7.000	39.801	125.39
62.042	5.05	8.000	-	7.000	39.721	125.48
65.742	4.96	8.000	-	7.000	38.736	120.20
(SZB) 66.522	5.02	8.000	-	7.000	39.056	122.71
68.342	5.03	8.000	-	7.000	40.204	126.58
($0.9L_s$) 69.322	5.11	8.000	-	7.000	40.148	128.33
69.408	5.12	8.000	-	7.000	40.143	128.49
69.742	5.14	8.000	-	7.000	40.127	129.14
(1.5H) 71.442	5.18	8.000	-	7.000	41.591	134.76
(SZB) 72.022	5.09	8.000	-	7.000	41.590	132.34
72.442	5.13	8.000	-	7.000	41.592	133.47
(CS) 73.101	5.22	8.000	-	7.000	43.289	141.51

Shear Resistance Provided By Shear Reinforcement - Strength II

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 4.988	60.000	0.400	4.000	1.200	45.541	30.17	90.00	470.05
5.443	60.000	0.400	4.000	1.200	45.504	30.08	90.00	471.39
(SZB) 5.862	60.000	0.400	6.000	0.800	45.471	29.99	90.00	315.10
(1.5H) 6.443	60.000	0.400	6.000	0.800	45.426	30.14	90.00	313.00
($0.1L_s$) 7.702	60.000	0.400	6.000	0.800	45.330	29.89	90.00	315.46
8.143	60.000	0.400	6.000	0.800	45.298	30.07	90.00	312.91
8.476	60.000	0.400	6.000	0.800	45.273	30.01	90.00	313.54
9.543	60.000	0.400	6.000	0.800	45.198	29.84	90.00	315.13
(SZB) 11.362	60.000	0.400	9.000	0.533	39.048	28.22	90.00	194.00
12.143	60.000	0.400	9.000	0.533	38.827	28.29	90.00	192.38
($0.2L_s$) 15.405	60.000	0.400	9.000	0.533	39.633	28.26	90.00	196.58
15.843	60.000	0.400	9.000	0.533	39.770	28.30	90.00	197.00
16.093	60.000	0.400	9.000	0.533	39.847	28.31	90.00	197.24
16.893	60.000	0.400	9.000	0.533	40.097	28.37	90.00	198.03
18.843	60.000	0.400	9.000	0.533	40.708	28.48	90.00	200.06
(SZB) 19.612	60.000	0.400	12.000	0.400	40.949	28.53	90.00	150.67
(Deck Bar Cutoff) 21.642	60.000	0.400	12.000	0.400	41.590	28.63	90.00	152.36
21.647	60.000	0.400	12.000	0.400	41.591	28.63	90.00	152.36
($0.3L_s$) 23.107	60.000	0.400	12.000	0.400	42.054	28.70	90.00	153.63
23.543	60.000	0.400	12.000	0.400	42.192	28.72	90.00	154.02
23.709	60.000	0.400	12.000	0.400	42.245	28.72	90.00	154.17
24.243	60.000	0.400	12.000	0.400	42.415	28.75	90.00	154.66
25.543	60.000	0.400	12.000	0.400	42.830	28.79	90.00	155.87
(SZB) 30.612	60.000	0.400	18.000	0.267	44.461	28.91	90.00	107.35
($0.4L_s$) 30.810	60.000	0.400	18.000	0.267	44.525	28.91	90.00	107.49
(HP) 31.242	60.000	0.400	18.000	0.267	44.665	28.92	90.00	107.80
31.247	60.000	0.400	18.000	0.267	44.665	28.96	90.00	107.60
31.326	60.000	0.400	18.000	0.267	44.665	28.97	90.00	107.59
31.592	60.000	0.400	18.000	0.267	44.665	28.97	90.00	107.56
32.242	60.000	0.400	18.000	0.267	44.665	28.99	90.00	107.49
($0.5L_s$) 38.512	60.000	0.400	18.000	0.267	44.665	29.70	90.00	104.39
38.942	60.000	0.400	18.000	0.267	44.665	29.71	90.00	104.37
45.642	60.000	0.400	18.000	0.267	44.665	29.61	90.00	104.80
($0.6L_s$) 46.215	60.000	0.400	18.000	0.267	44.665	29.58	90.00	104.93
46.292	60.000	0.400	18.000	0.267	44.665	29.57	90.00	104.95
46.559	60.000	0.400	18.000	0.267	44.665	29.55	90.00	105.04
46.637	60.000	0.400	18.000	0.267	44.665	29.55	90.00	105.06
(HP) 46.642	60.000	0.400	18.000	0.267	44.665	29.04	90.00	107.26
(SZB) 47.272	60.000	0.400	18.000	0.267	44.461	29.08	90.00	106.62
52.342	60.000	0.400	12.000	0.400	42.830	29.16	90.00	153.52
53.642	60.000	0.400	12.000	0.400	42.415	29.07	90.00	152.58
($0.7L_s$) 53.917	60.000	0.400	12.000	0.400	42.327	29.04	90.00	152.44
54.175	60.000	0.400	12.000	0.400	42.245	29.01	90.00	152.34
54.342	60.000	0.400	12.000	0.400	42.192	29.00	90.00	152.24
(SZB) 58.272	60.000	0.400	12.000	0.400	40.940	28.92	90.00	148.22
59.042	60.000	0.400	9.000	0.533	40.691	28.89	90.00	196.61
60.992	60.000	0.400	9.000	0.533	40.060	28.82	90.00	194.17
($0.8L_s$) 61.620	60.000	0.400	9.000	0.533	39.857	28.79	90.00	193.41
61.792	60.000	0.400	9.000	0.533	39.801	28.78	90.00	193.21
62.042	60.000	0.400	9.000	0.533	39.721	28.77	90.00	192.91

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
65.742	60.000	0.400	9.000	0.533	38.736	28.85	90.00	187.51
(SZB) 66.522	60.000	0.400	9.000	0.533	39.056	28.79	90.00	189.50
68.342	60.000	0.400	6.000	0.800	40.204	28.78	90.00	292.71
($0.9L_s$) 69.322	60.000	0.400	6.000	0.800	40.148	28.72	90.00	293.11
69.408	60.000	0.400	6.000	0.800	40.143	28.71	90.00	293.15
69.742	60.000	0.400	6.000	0.800	40.127	28.69	90.00	293.32
(1.5H) 71.442	60.000	0.400	6.000	0.800	41.591	28.66	90.00	304.39
(SZB) 72.022	60.000	0.400	6.000	0.800	41.590	28.74	90.00	303.39
72.442	60.000	0.400	4.000	1.200	41.592	28.70	90.00	455.80
(CS) 73.101	60.000	0.400	4.000	1.200	43.289	28.62	90.00	475.98

Nominal Shear Resistance - Strength II

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1} [$] (kip)	V_{n2} [#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 4.988	8.000	7.000	45.541	26.27	109.35	470.05	605.67	663.84	605.67	0.9	545.10
5.443	8.000	7.000	45.504	26.28	110.99	471.39	608.66	663.34	608.66	0.9	547.80
(SZB) 5.862	8.000	7.000	45.471	26.28	112.56	315.10	453.94	662.88	453.94	0.9	408.54
(1.5H) 6.443	8.000	7.000	45.426	26.30	109.71	313.00	449.00	662.25	449.00	0.9	404.10
($0.1L_s$) 7.702	8.000	7.000	45.330	26.32	114.33	315.46	456.11	660.94	456.11	0.9	410.50
8.143	8.000	7.000	45.298	26.33	110.60	312.91	449.84	660.50	449.84	0.9	404.86
8.476	8.000	7.000	45.273	26.34	111.78	313.54	451.66	660.17	451.66	0.9	406.49
9.543	8.000	7.000	45.198	26.36	114.97	315.13	456.46	659.13	456.46	0.9	410.82
(SZB) 11.362	8.000	7.000	39.048	26.40	140.64	194.00	361.04	573.08	361.04	0.9	324.94
12.143	8.000	7.000	38.827	26.42	137.56	192.38	356.36	570.00	356.36	0.9	320.72
($0.2L_s$) 15.405	8.000	7.000	39.633	26.48	141.31	196.58	364.37	581.35	364.37	0.9	327.93
15.843	8.000	7.000	39.770	26.49	140.67	197.00	364.16	583.26	364.16	0.9	327.75
16.093	8.000	7.000	39.847	26.49	140.33	197.24	364.07	584.36	364.07	0.9	327.66
16.893	8.000	7.000	40.097	26.51	139.33	198.03	363.87	587.87	363.87	0.9	327.48
18.843	8.000	7.000	40.708	26.54	137.44	200.06	364.04	596.44	364.04	0.9	327.64
(SZB) 19.612	8.000	7.000	40.949	26.55	136.82	150.67	314.04	599.84	314.04	0.9	282.63
(Deck Bar Cutoff) 21.642	8.000	7.000	41.590	26.57	135.57	152.36	314.50	608.82	314.50	0.9	283.05
21.647	8.000	7.000	41.591	26.57	135.57	152.36	314.50	608.85	314.50	0.9	283.05
($0.3L_s$) 23.107	8.000	7.000	42.054	26.58	135.00	153.63	315.21	615.34	315.21	0.9	283.69
23.543	8.000	7.000	42.192	26.58	134.88	154.02	315.48	617.27	315.48	0.9	283.93
23.709	8.000	7.000	42.245	26.59	134.84	154.17	315.59	618.02	315.59	0.9	284.03
24.243	8.000	7.000	42.415	26.59	134.73	154.66	315.98	620.40	315.98	0.9	284.38
25.543	8.000	7.000	42.830	26.59	134.65	155.87	317.11	626.21	317.11	0.9	285.40
(SZB) 30.612	8.000	7.000	44.461	26.56	136.16	107.35	270.07	649.02	270.07	0.9	243.06
($0.4L_s$) 30.810	8.000	7.000	44.525	26.56	136.28	107.49	270.33	649.92	270.33	0.9	243.30
(HP) 31.242	8.000	7.000	44.665	26.56	136.55	107.80	270.91	651.87	270.91	0.9	243.82
31.247	8.000	7.000	44.665	0.00	135.18	107.60	242.78	625.31	242.78	0.9	218.50
31.326	8.000	7.000	44.665	0.00	135.13	107.59	242.72	625.31	242.72	0.9	218.45
31.592	8.000	7.000	44.665	0.00	134.94	107.56	242.51	625.31	242.51	0.9	218.26
32.242	8.000	7.000	44.665	0.00	134.49	107.49	241.98	625.31	241.98	0.9	217.79
($0.5L_s$) 38.512	8.000	7.000	44.665	0.00	116.54	104.39	220.93	625.31	220.93	0.9	198.84
38.942	8.000	7.000	44.665	0.00	116.46	104.37	220.84	625.31	220.84	0.9	198.75
45.642	8.000	7.000	44.665	0.00	118.69	104.80	223.49	625.31	223.49	0.9	201.14
($0.6L_s$) 46.215	8.000	7.000	44.665	0.00	119.37	104.93	224.30	625.31	224.30	0.9	201.87
46.292	8.000	7.000	44.665	0.00	119.49	104.95	224.44	625.31	224.44	0.9	202.00
46.559	8.000	7.000	44.665	0.00	119.94	105.04	224.97	625.31	224.97	0.9	202.47
46.637	8.000	7.000	44.665	0.00	120.08	105.06	225.14	625.31	225.14	0.9	202.63
(HP) 46.642	8.000	7.000	44.665	26.64	132.96	107.26	266.85	651.95	266.85	0.9	240.17
(SZB) 47.272	8.000	7.000	44.461	26.65	131.41	106.62	264.68	649.11	264.68	0.9	238.21
52.342	8.000	7.000	42.830	26.72	124.34	153.52	304.57	626.34	304.57	0.9	274.12
53.642	8.000	7.000	42.415	26.73	125.41	152.58	304.71	620.54	304.71	0.9	274.24
($0.7L_s$) 53.917	8.000	7.000	42.327	26.73	125.91	152.44	305.09	619.31	305.09	0.9	274.58
54.175	8.000	7.000	42.245	26.73	126.48	152.34	305.55	618.16	305.55	0.9	275.00
54.342	8.000	7.000	42.192	26.73	126.72	152.24	305.69	617.42	305.69	0.9	275.12
(SZB) 58.272	8.000	7.000	40.940	26.72	125.14	148.22	300.08	599.89	300.08	0.9	270.08
59.042	8.000	7.000	40.691	26.72	125.05	196.61	348.38	596.39	348.38	0.9	313.54
60.992	8.000	7.000	40.060	26.70	125.17	194.17	346.04	587.54	346.04	0.9	311.44
($0.8L_s$) 61.620	8.000	7.000	39.857	26.70	125.33	193.41	345.44	584.69	345.44	0.9	310.90
61.792	8.000	7.000	39.801	26.70	125.39	193.21	345.29	583.91	345.29	0.9	310.76
62.042	8.000	7.000	39.721	26.69	125.48	192.91	345.08	582.78	345.08	0.9	310.57
65.742	8.000	7.000	38.736	26.64	120.20	187.51	334.36	568.95	334.36	0.9	300.92
(SZB) 66.522	8.000	7.000	39.056	26.63	122.71	189.50	338.84	573.42	338.84	0.9	304.95
68.342	8.000	7.000	40.204	26.60	126.58	292.71	445.89	589.46	445.89	0.9	401.30
($0.9L_s$) 69.322	8.000	7.000	40.148	26.59	128.33	293.11	448.02	588.66	448.02	0.9	403.22
69.408	8.000	7.000	40.143	26.59	128.49	293.15	448.23	588.59	448.23	0.9	403.40
69.742	8.000	7.000	40.127	26.58	129.14	293.32	449.04	588.35	449.04	0.9	404.14
(1.5H) 71.442	8.000	7.000	41.591	26.55	134.76	304.39	465.70	608.82	465.70	0.9	419.13
(SZB) 72.022	8.000	7.000	41.590	26.54	132.34	303.39	462.27	608.81	462.27	0.9	416.04
72.442	8.000	7.000	41.592	26.54	133.47	455.80	615.81	608.82	608.82	0.9	547.94
(CS) 73.101	8.000	7.000	43.289	26.53	141.51	475.98	644.01	632.57	632.57	0.9	569.31

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength II

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 4.988	321.12	109.35	26.27	185.50	60.000	45.541	30.17	0.474
5.443	318.36	110.99	26.28	181.09	60.000	45.504	30.08	0.461
(SZB) 5.862	315.80	112.56	26.28	176.96	60.000	45.471	29.99	0.449
(1.5H) 6.443	312.25	109.71	26.30	176.24	60.000	45.426	30.14	0.450
($0.1L_s$) 7.702	304.49	114.33	26.32	163.84	60.000	45.330	29.89	0.415
8.143	301.76	110.60	26.33	164.83	60.000	45.298	30.07	0.421
8.476	299.69	111.78	26.34	161.57	60.000	45.273	30.01	0.412
9.543	293.02	114.97	26.36	151.69	60.000	45.198	29.84	0.385
(SZB) 11.362	281.52	140.64	26.40	114.47	60.000	39.048	28.22	0.315
12.143	276.51	137.56	26.42	112.54	60.000	38.827	28.29	0.312
($0.2L_s$) 15.405	255.20	141.31	26.48	87.41	60.000	39.633	28.26	0.237
15.843	252.30	140.67	26.49	85.14	60.000	39.770	28.30	0.230
16.093	250.64	140.33	26.49	83.82	60.000	39.847	28.31	0.227
16.893	245.31	139.33	26.51	79.47	60.000	40.097	28.37	0.214
18.843	232.20	137.44	26.54	68.21	60.000	40.708	28.48	0.182
(SZB) 19.612	226.95	136.82	26.55	63.58	60.000	40.949	28.53	0.169
(Deck Bar Cutoff) 21.642	212.97	135.57	26.57	50.83	60.000	41.590	28.63	0.133
21.647	212.94	135.57	26.57	50.80	60.000	41.591	28.63	0.133
($0.3L_s$) 23.107	202.79	135.00	26.58	41.21	60.000	42.054	28.70	0.107
23.543	199.74	134.88	26.58	38.28	60.000	42.192	28.72	0.099
23.709	198.57	134.84	26.59	37.15	60.000	42.245	28.72	0.096
24.243	194.81	134.73	26.59	33.49	60.000	42.415	28.75	0.087
25.543	185.63	134.65	26.59	24.40	60.000	42.830	28.79	0.063
(SZB) 30.612	149.10	136.16	26.56	0.00	60.000	44.461	28.91	0.000
($0.4L_s$) 30.810	147.66	136.28	26.56	0.00	60.000	44.525	28.91	0.000
(HP) 31.242	144.49	136.55	26.56	0.00	60.000	44.665	28.92	0.000
31.247	144.46	135.18	0.00	9.27	60.000	44.665	28.96	0.023
31.326	143.88	135.13	0.00	8.75	60.000	44.665	28.97	0.022
31.592	141.92	134.94	0.00	6.98	60.000	44.665	28.97	0.017
32.242	137.13	134.49	0.00	2.64	60.000	44.665	28.99	0.007
($0.5L_s$) 38.512	90.20	116.54	0.00	0.00	60.000	44.665	29.70	0.000
38.942	86.97	116.46	0.00	0.00	60.000	44.665	29.71	0.000
45.642	83.21	118.69	0.00	0.00	60.000	44.665	29.61	0.000
($0.6L_s$) 46.215	86.63	119.37	0.00	0.00	60.000	44.665	29.58	0.000
46.292	87.09	119.49	0.00	0.00	60.000	44.665	29.57	0.000
46.559	88.69	119.94	0.00	0.00	60.000	44.665	29.55	0.000
46.637	89.16	120.08	0.00	0.00	60.000	44.665	29.55	0.000
(HP) 46.642	89.19	132.96	26.64	0.00	60.000	44.665	29.04	0.000
(SZB) 47.272	92.98	131.41	26.65	0.00	60.000	44.461	29.08	0.000
52.342	124.82	124.34	26.72	0.00	60.000	42.830	29.16	0.000
53.642	133.15	125.41	26.73	0.00	60.000	42.415	29.07	0.000
($0.7L_s$) 53.917	134.92	125.91	26.73	0.00	60.000	42.327	29.04	0.000
54.175	136.58	126.48	26.73	0.00	60.000	42.245	29.01	0.000
54.342	137.65	126.72	26.73	0.00	60.000	42.192	29.00	0.000
(SZB) 58.272	163.09	125.14	26.72	11.22	60.000	40.940	28.92	0.030
59.042	168.11	125.05	26.72	16.34	60.000	40.691	28.89	0.044
60.992	180.89	125.17	26.70	29.01	60.000	40.060	28.82	0.080
($0.8L_s$) 61.620	185.00	125.33	26.70	32.97	60.000	39.857	28.79	0.091
61.792	186.13	125.39	26.70	34.05	60.000	39.801	28.78	0.094
62.042	187.77	125.48	26.69	35.61	60.000	39.721	28.77	0.098
65.742	212.14	120.20	26.64	65.29	60.000	38.736	28.85	0.186
(SZB) 66.522	217.31	122.71	26.63	67.97	60.000	39.056	28.79	0.191
68.342	229.40	126.58	26.60	76.22	60.000	40.204	28.78	0.208
($0.9L_s$) 69.322	235.92	128.33	26.59	81.01	60.000	40.148	28.72	0.221
69.408	236.49	128.49	26.59	81.42	60.000	40.143	28.71	0.222
69.742	238.71	129.14	26.58	82.98	60.000	40.127	28.69	0.226
(1.5H) 71.442	250.01	134.76	26.55	88.69	60.000	41.591	28.66	0.233
(SZB) 72.022	253.86	132.34	26.54	94.98	60.000	41.590	28.74	0.250
72.442	256.65	133.47	26.54	96.64	60.000	41.592	28.70	0.254
(CS) 73.101	261.04	141.51	26.53	93.01	60.000	43.289	28.62	0.234

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength II

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 4.988	1.200	0.474	5.575	10.136	15.710
5.443	1.200	0.461	5.727	10.412	16.139
(SZB) 5.862	0.800	0.449	5.876	10.684	16.560
(1.5H) 6.443	0.800	0.450	5.861	10.656	16.516
($0.1L_s$) 7.702	0.800	0.415	6.354	11.553	17.906
8.143	0.800	0.421	6.265	11.390	17.655
8.476	0.800	0.412	6.404	11.643	18.047
9.543	0.800	0.385	6.856	12.465	19.321
(SZB) 11.362	0.533	0.315	8.389	15.253	23.642
12.143	0.533	0.312	8.462	15.386	23.848
($0.2L_s$) 15.405	0.533	0.237	11.132	20.240	31.371

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
15.843	0.533	0.230	11.453	20.824	32.278
16.093	0.533	0.227	11.649	21.179	32.828
16.893	0.533	0.214	12.335	22.428	34.763
18.843	0.533	0.182	14.518	26.396	40.914
(SZB) 19.612	0.400	0.169	15.639	28.435	44.074
(Deck Bar Cutoff) 21.642	0.400	0.133	19.782	35.967	55.749
21.647	0.400	0.133	19.795	35.991	55.786
($0.3L_s$) 23.107	0.400	0.107	24.605	44.737	69.342
23.543	0.400	0.099	26.555	48.281	74.835
23.709	0.400	0.096	27.390	49.799	77.189
24.243	0.400	0.087	30.474	55.408	85.882
25.543	0.400	0.063	42.170	76.673	118.843
(SZB) 30.612	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.810	0.267	0.000	N/A	N/A	N/A
(HP) 31.242	0.267	0.000	N/A	N/A	N/A
31.247	0.267	0.023	114.886	208.884	323.771
31.326	0.267	0.022	121.710	221.291	343.002
31.592	0.267	0.017	152.641	277.529	430.171
32.242	0.267	0.007	402.979	732.689	1135.668
($0.5L_s$) 38.512	0.267	0.000	N/A	N/A	N/A
38.942	0.267	0.000	N/A	N/A	N/A
45.642	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.215	0.267	0.000	N/A	N/A	N/A
46.292	0.267	0.000	N/A	N/A	N/A
46.559	0.267	0.000	N/A	N/A	N/A
46.637	0.267	0.000	N/A	N/A	N/A
(HP) 46.642	0.267	0.000	N/A	N/A	N/A
(SZB) 47.272	0.267	0.000	N/A	N/A	N/A
52.342	0.400	0.000	N/A	N/A	N/A
53.642	0.400	0.000	N/A	N/A	N/A
($0.7L_s$) 53.917	0.400	0.000	N/A	N/A	N/A
54.175	0.400	0.000	N/A	N/A	N/A
54.342	0.400	0.000	N/A	N/A	N/A
(SZB) 58.272	0.400	0.030	87.190	158.528	245.719
59.042	0.533	0.044	59.562	108.295	167.857
60.992	0.533	0.080	33.130	60.235	93.365
($0.8L_s$) 61.620	0.533	0.091	29.036	52.793	81.829
61.792	0.533	0.094	28.089	51.070	79.159
62.042	0.533	0.098	26.820	48.763	75.582
65.742	0.533	0.186	14.216	25.848	40.064
(SZB) 66.522	0.533	0.191	13.800	25.092	38.892
68.342	0.800	0.208	12.673	23.042	35.715
($0.9L_s$) 69.322	0.800	0.221	11.940	21.710	33.650
69.408	0.800	0.222	11.882	21.604	33.486
69.742	0.800	0.226	11.664	21.208	32.872
(1.5H) 71.442	0.800	0.233	11.325	20.591	31.917
(SZB) 72.022	0.800	0.250	10.540	19.165	29.705
72.442	1.200	0.254	10.376	18.866	29.242
(CS) 73.101	1.200	0.234	11.258	20.469	31.727

Horizontal Interface Shear Capacity Details

Strength I

Details for Horizontal Interface Shear Capacity (Strength I) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.860	367944.0	8242.8	296.36	79.669	43.000	0.154
(FoS) 1.193	368133.9	8249.8	296.36	79.696	43.000	0.154
(SZB) 2.196	368691.7	8270.6	296.36	79.776	43.000	0.155
(Bar Develop.) 2.564	368891.2	8278.0	296.36	79.804	43.000	0.155
(Bar Develop.) 3.625	369451.3	8298.8	296.36	79.884	43.000	0.155
(H) 4.693	369992.8	8319.0	296.36	79.960	43.000	0.155
(CS) 4.988	370138.6	8324.4	296.36	79.981	43.000	0.155
(SZB) 5.862	370560.4	8340.1	291.22	78.654	43.000	0.152
(1.5H) 6.443	370832.6	8350.2	287.80	77.767	43.000	0.151
($0.1L_s$) 7.702	371400.8	8371.3	280.37	75.835	43.000	0.147
(SZB) 11.362	372063.7	8395.9	258.61	70.029	43.000	0.136
($0.2L_s$) 15.405	372063.7	8395.9	234.28	63.441	43.000	0.123
(SZB) 19.612	372063.7	8395.9	208.79	56.537	43.000	0.110
(Deck Bar Cutoff) 21.642	372063.7	8395.9	196.41	53.187	43.000	0.103
($0.3L_s$) 23.107	372063.7	8395.9	187.49	50.771	43.000	0.098
(SZB) 30.612	372063.7	8395.9	141.66	38.360	43.000	0.074
($0.4L_s$) 30.810	372063.7	8395.9	140.46	38.034	43.000	0.074
(HP) 31.242	372063.7	8395.9	137.82	37.321	43.000	0.072
($0.5L_s$) 38.512	372063.7	8395.9	93.62	25.352	43.000	0.049
($0.6L_s$) 46.215	372063.7	8395.9	83.50	22.610	43.000	0.044
(HP) 46.642	372063.7	8395.9	85.84	23.244	43.000	0.045
(SZB) 47.272	372063.7	8395.9	89.30	24.182	43.000	0.047
($0.7L_s$) 53.917	372063.7	8395.9	127.76	34.597	43.000	0.067
(SZB) 58.272	371686.4	8381.9	153.78	41.616	43.000	0.081

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
($0.8L_s$) 61.620	370151.4	8324.9	174.09	46.985	43.000	0.091
(SZB) 66.522	367509.9	8226.6	204.31	54.882	43.000	0.106
($0.9L_s$) 69.322	365781.4	8162.3	221.81	59.396	43.000	0.115
(1.5H) 71.442	364362.1	8109.5	235.14	62.802	43.000	0.122
(SZB) 72.022	363956.0	8094.4	238.80	63.731	43.000	0.124
(CS) 73.101	363181.5	8065.6	245.62	65.457	43.000	0.127
(H) 73.192	363115.4	8063.1	245.62	65.449	43.000	0.127
(Bar Develop.) 74.260	362320.5	8033.5	245.62	65.351	43.000	0.127
(Bar Develop.) 75.320	361504.9	8003.1	245.62	65.251	43.000	0.126
(SZB) 75.688	361215.8	7992.4	245.62	65.215	43.000	0.126
(FoS) 76.692	360411.3	7962.4	245.62	65.116	43.000	0.126
($1.0L_s$) 77.025	360138.7	7952.2	245.62	65.082	43.000	0.126
77.025	360138.7	7952.2	245.62	65.082	43.000	0.126

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.860	0.000	∞	0.220	12.000	0.220
(FoS) 1.193	0.000	∞	0.220	12.000	0.220
(SZB) 2.196	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.564	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 3.625	0.000	∞	0.220	12.000	0.220
(H) 4.693	0.000	∞	0.220	12.000	0.220
(CS) 4.988	0.000	∞	0.220	12.000	0.220
(SZB) 5.862	0.000	∞	0.220	12.000	0.220
(1.5H) 6.443	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.702	0.000	∞	0.220	12.000	0.220
(SZB) 11.362	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.405	0.000	∞	0.220	9.000	0.293
(SZB) 19.612	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 21.642	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.107	0.000	∞	0.220	12.000	0.220
(SZB) 30.612	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.810	0.000	∞	0.220	18.000	0.147
(HP) 31.242	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.512	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.215	0.000	∞	0.220	18.000	0.147
(HP) 46.642	0.000	∞	0.220	18.000	0.147
(SZB) 47.272	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 53.917	0.000	∞	0.220	12.000	0.220
(SZB) 58.272	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.620	0.000	∞	0.220	9.000	0.293
(SZB) 66.522	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.322	0.000	∞	0.220	12.000	0.220
(1.5H) 71.442	0.000	∞	0.220	12.000	0.220
(SZB) 72.022	0.000	∞	0.220	12.000	0.220
(CS) 73.101	0.000	∞	0.220	12.000	0.220
(H) 73.192	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.260	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 75.320	0.000	∞	0.220	12.000	0.220
(SZB) 75.688	0.000	∞	0.220	12.000	0.220
(FoS) 76.692	0.000	∞	0.220	12.000	0.220
($1.0L_s$) 77.025	0.000	∞	0.220	12.000	0.220
77.025	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.860	516.000	0.220	0.754	158.359	696.600	928.800	142.523
(FoS) 1.193	516.000	0.220	0.755	158.360	696.600	928.800	142.524
(SZB) 2.196	516.000	0.220	0.759	158.363	696.600	928.800	142.527
(Bar Develop.) 2.564	516.000	0.220	0.761	158.365	696.600	928.800	142.528
(Bar Develop.) 3.625	516.000	0.220	0.765	158.368	696.600	928.800	142.531
(H) 4.693	516.000	0.220	0.769	158.372	696.600	928.800	142.535
(CS) 4.988	516.000	0.220	0.770	158.373	696.600	928.800	142.535
(SZB) 5.862	516.000	0.220	0.773	158.375	696.600	928.800	142.538
(1.5H) 6.443	516.000	0.220	0.775	158.377	696.600	928.800	142.539
($0.1L_s$) 7.702	516.000	0.220	0.779	158.381	696.600	928.800	142.543
(SZB) 11.362	516.000	0.293	0.789	162.790	696.600	928.800	146.511
($0.2L_s$) 15.405	516.000	0.293	0.799	162.799	696.600	928.800	146.519
(SZB) 19.612	516.000	0.220	0.807	158.407	696.600	928.800	142.566
(Deck Bar Cutoff) 21.642	516.000	0.220	0.811	158.409	696.600	928.800	142.569
($0.3L_s$) 23.107	516.000	0.220	0.813	158.411	696.600	928.800	142.570
(SZB) 30.612	516.000	0.147	0.818	154.017	696.600	928.800	138.615
($0.4L_s$) 30.810	516.000	0.147	0.819	154.017	696.600	928.800	138.615
(HP) 31.242	516.000	0.147	0.819	154.017	696.600	928.800	138.615
($0.5L_s$) 38.512	516.000	0.147	0.817	154.016	696.600	928.800	138.614

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
(0.6L_s) 46.215	516.000	0.147	0.809	154.008	696.600	928.800	138.607
(HP) 46.642	516.000	0.147	0.808	154.007	696.600	928.800	138.606
(SZB) 47.272	516.000	0.147	0.807	154.006	696.600	928.800	138.606
(0.7L_s) 53.917	516.000	0.220	0.793	158.394	696.600	928.800	142.554
(SZB) 58.272	516.000	0.220	0.781	158.383	696.600	928.800	142.544
(0.8L_s) 61.620	516.000	0.293	0.770	162.773	696.600	928.800	146.495
(SZB) 66.522	516.000	0.293	0.751	162.756	696.600	928.800	146.480
(0.9L_s) 69.322	516.000	0.220	0.739	158.345	696.600	928.800	142.511
(1.5H) 71.442	516.000	0.220	0.730	158.337	696.600	928.800	142.503
(SZB) 72.022	516.000	0.220	0.727	158.334	696.600	928.800	142.501
(CS) 73.101	516.000	0.220	0.722	158.329	696.600	928.800	142.497
(H) 73.192	516.000	0.220	0.721	158.329	696.600	928.800	142.496
(Bar Develop.) 74.260	516.000	0.220	0.716	158.324	696.600	928.800	142.492
(Bar Develop.) 75.320	516.000	0.220	0.710	158.319	696.600	928.800	142.487
(SZB) 75.688	516.000	0.220	0.709	158.318	696.600	928.800	142.486
(FoS) 76.692	516.000	0.220	0.703	158.313	696.600	928.800	142.482
(1.0L_s) 77.025	516.000	0.220	0.701	158.311	696.600	928.800	142.480
77.025	516.000	0.220	0.701	158.311	696.600	928.800	142.480

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \text{lesser of, but not} < 0.0 \begin{cases} \frac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \frac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3) \text{ rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.860	516.000	0.154	0.430	-0.458	0.000	No
(FoS) 1.193	516.000	0.154	0.430	-0.458	0.000	No
(SZB) 2.196	516.000	0.155	0.430	-0.456	0.000	No
(Bar Develop.) 2.564	516.000	0.155	0.430	-0.455	0.000	No
(Bar Develop.) 3.625	516.000	0.155	0.430	-0.453	0.000	No
(H) 4.693	516.000	0.155	0.430	-0.451	0.000	No
(CS) 4.988	516.000	0.155	0.430	-0.451	0.000	No
(SZB) 5.862	516.000	0.152	0.430	-0.484	0.000	No
(1.5H) 6.443	516.000	0.151	0.430	-0.506	0.000	No
(0.1L_s) 7.702	516.000	0.147	0.430	-0.553	0.000	No
(SZB) 11.362	516.000	0.136	0.430	-0.696	0.000	No
(0.2L_s) 15.405	516.000	0.123	0.430	-0.859	0.000	No
(SZB) 19.612	516.000	0.110	0.430	-1.029	0.000	No
(Deck Bar Cutoff) 21.642	516.000	0.103	0.430	-1.112	0.000	No
(0.3L_s) 23.107	516.000	0.098	0.430	-1.171	0.000	No
(SZB) 30.612	516.000	0.074	0.430	-1.477	0.000	No
(0.4L_s) 30.810	516.000	0.074	0.430	-1.485	0.000	No
(HP) 31.242	516.000	0.072	0.430	-1.502	0.000	No
(0.5L_s) 38.512	516.000	0.049	0.430	-1.797	0.000	No
(0.6L_s) 46.215	516.000	0.044	0.430	-1.865	0.000	No
(HP) 46.642	516.000	0.045	0.430	-1.849	0.000	No
(SZB) 47.272	516.000	0.047	0.430	-1.826	0.000	No
(0.7L_s) 53.917	516.000	0.067	0.430	-1.569	0.000	No
(SZB) 58.272	516.000	0.081	0.430	-1.396	0.000	No
(0.8L_s) 61.620	516.000	0.091	0.430	-1.264	0.000	No
(SZB) 66.522	516.000	0.106	0.430	-1.069	0.000	No
(0.9L_s) 69.322	516.000	0.115	0.430	-0.957	0.000	No
(1.5H) 71.442	516.000	0.122	0.430	-0.873	0.000	No
(SZB) 72.022	516.000	0.124	0.430	-0.850	0.000	No
(CS) 73.101	516.000	0.127	0.430	-0.808	0.000	No
(H) 73.192	516.000	0.127	0.430	-0.808	0.000	No
(Bar Develop.) 74.260	516.000	0.127	0.430	-0.810	0.000	No
(Bar Develop.) 75.320	516.000	0.126	0.430	-0.813	0.000	No
(SZB) 75.688	516.000	0.126	0.430	-0.814	0.000	No
(FoS) 76.692	516.000	0.126	0.430	-0.816	0.000	No
(1.0L_s) 77.025	516.000	0.126	0.430	-0.817	0.000	No
77.025	516.000	0.126	0.430	-0.817	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Strength II

Details for Horizontal Interface Shear Capacity (Strength II) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.860	367944.0	8242.8	289.01	77.693	43.000	0.151
(FoS) 1.193	368133.9	8249.8	289.01	77.719	43.000	0.151
(SZB) 2.196	368691.7	8270.6	289.01	77.797	43.000	0.151
(Bar Develop.) 2.564	368891.2	8278.0	289.01	77.825	43.000	0.151
(Bar Develop.) 3.625	369451.3	8298.8	289.01	77.902	43.000	0.151
(H) 4.693	369992.8	8319.0	289.01	77.977	43.000	0.151
(SZB) 5.862	370560.4	8340.1	284.22	76.763	43.000	0.149
(1.5H) 6.443	370832.6	8350.2	281.02	75.934	43.000	0.147
(0.1L_s) 7.702	371400.8	8371.3	274.04	74.122	43.000	0.144

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
(SZB) 11.362	372063.7	8395.9	253.36	68.608	43.000	0.133
($0.2L_s$) 15.405	372063.7	8395.9	229.68	62.196	43.000	0.121
(SZB) 19.612	372063.7	8395.9	204.26	55.311	43.000	0.107
(Deck Bar Cutoff) 21.642	372063.7	8395.9	191.68	51.904	43.000	0.101
($0.3L_s$) 23.107	372063.7	8395.9	182.51	49.423	43.000	0.096
(SZB) 30.612	372063.7	8395.9	134.19	36.338	43.000	0.070
($0.4L_s$) 30.810	372063.7	8395.9	132.89	35.986	43.000	0.070
(HP) 31.242	372063.7	8395.9	130.04	35.214	43.000	0.068
($0.5L_s$) 38.512	372063.7	8395.9	81.18	21.983	43.000	0.043
($0.6L_s$) 46.215	372063.7	8395.9	77.97	21.112	43.000	0.041
(HP) 46.642	372063.7	8395.9	80.27	21.736	43.000	0.042
(SZB) 47.272	372063.7	8395.9	83.68	22.659	43.000	0.044
($0.7L_s$) 53.917	372063.7	8395.9	121.43	32.882	43.000	0.064
(SZB) 58.272	371686.4	8381.9	146.78	39.720	43.000	0.077
($0.8L_s$) 61.620	370151.4	8324.9	166.50	44.937	43.000	0.087
(SZB) 66.522	367509.9	8226.6	195.58	52.536	43.000	0.102
($0.9L_s$) 69.322	365781.4	8162.3	212.33	56.857	43.000	0.110
(1.5H) 71.442	364362.1	8109.5	225.01	60.095	43.000	0.116
(SZB) 72.022	363956.0	8094.4	228.48	60.976	43.000	0.118
(H) 73.192	363115.4	8063.1	234.94	62.603	43.000	0.121
(Bar Develop.) 74.260	362320.5	8033.5	234.94	62.510	43.000	0.121
(Bar Develop.) 75.320	361504.9	8003.1	234.94	62.414	43.000	0.121
(SZB) 75.688	361215.8	7992.4	234.94	62.380	43.000	0.121
(FoS) 76.692	360411.3	7962.4	234.94	62.285	43.000	0.121
($1.0L_s$) 77.025	360138.7	7952.2	234.94	62.253	43.000	0.121
77.025	360138.7	7952.2	234.94	62.253	43.000	0.121

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.860	0.000	∞	0.220	12.000	0.220
(FoS) 1.193	0.000	∞	0.220	12.000	0.220
(SZB) 2.196	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.564	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 3.625	0.000	∞	0.220	12.000	0.220
(H) 4.693	0.000	∞	0.220	12.000	0.220
(SZB) 5.862	0.000	∞	0.220	12.000	0.220
(1.5H) 6.443	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.702	0.000	∞	0.220	12.000	0.220
(SZB) 11.362	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.405	0.000	∞	0.220	9.000	0.293
(SZB) 19.612	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 21.642	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.107	0.000	∞	0.220	12.000	0.220
(SZB) 30.612	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.810	0.000	∞	0.220	18.000	0.147
(HP) 31.242	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.512	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.215	0.000	∞	0.220	18.000	0.147
(HP) 46.642	0.000	∞	0.220	18.000	0.147
(SZB) 47.272	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 53.917	0.000	∞	0.220	12.000	0.220
(SZB) 58.272	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.620	0.000	∞	0.220	9.000	0.293
(SZB) 66.522	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.322	0.000	∞	0.220	12.000	0.220
(1.5H) 71.442	0.000	∞	0.220	12.000	0.220
(SZB) 72.022	0.000	∞	0.220	12.000	0.220
(H) 73.192	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.260	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 75.320	0.000	∞	0.220	12.000	0.220
(SZB) 75.688	0.000	∞	0.220	12.000	0.220
(FoS) 76.692	0.000	∞	0.220	12.000	0.220
($1.0L_s$) 77.025	0.000	∞	0.220	12.000	0.220
77.025	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, $\mu = 1$, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, $\gamma_{DC} = 0.9$, $K_1 = 0.3$, $K_2 = 1.800$ KSI, $\phi = 0.9$, $f'_c = 4.500$ KSI, $f_y = 60.000$ KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c], K_1 f'_c a_{cv}, K_2 a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
0.860	516.000	0.220	0.754	158.359	696.600	928.800	142.523
(FoS) 1.193	516.000	0.220	0.755	158.360	696.600	928.800	142.524
(SZB) 2.196	516.000	0.220	0.759	158.363	696.600	928.800	142.527
(Bar Develop.) 2.564	516.000	0.220	0.761	158.365	696.600	928.800	142.528
(Bar Develop.) 3.625	516.000	0.220	0.765	158.368	696.600	928.800	142.531
(H) 4.693	516.000	0.220	0.769	158.372	696.600	928.800	142.535
(SZB) 5.862	516.000	0.220	0.773	158.375	696.600	928.800	142.538
(1.5H) 6.443	516.000	0.220	0.775	158.377	696.600	928.800	142.539

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
($0.1L_s$) 7.702	516.000	0.220	0.779	158.381	696.600	928.800	142.543
(SZB) 11.362	516.000	0.293	0.789	162.790	696.600	928.800	146.511
($0.2L_s$) 15.405	516.000	0.293	0.799	162.799	696.600	928.800	146.519
(SZB) 19.612	516.000	0.220	0.807	158.407	696.600	928.800	142.566
(Deck Bar Cutoff) 21.642	516.000	0.220	0.811	158.409	696.600	928.800	142.569
($0.3L_s$) 23.107	516.000	0.220	0.813	158.411	696.600	928.800	142.570
(SZB) 30.612	516.000	0.147	0.818	154.017	696.600	928.800	138.615
($0.4L_s$) 30.810	516.000	0.147	0.819	154.017	696.600	928.800	138.615
(HP) 31.242	516.000	0.147	0.819	154.017	696.600	928.800	138.615
($0.5L_s$) 38.512	516.000	0.147	0.817	154.016	696.600	928.800	138.614
($0.6L_s$) 46.215	516.000	0.147	0.809	154.008	696.600	928.800	138.607
(HP) 46.642	516.000	0.147	0.808	154.007	696.600	928.800	138.606
(SZB) 47.272	516.000	0.147	0.807	154.006	696.600	928.800	138.606
($0.7L_s$) 53.917	516.000	0.220	0.793	158.394	696.600	928.800	142.554
(SZB) 58.272	516.000	0.220	0.781	158.383	696.600	928.800	142.544
($0.8L_s$) 61.620	516.000	0.293	0.770	162.773	696.600	928.800	146.495
(SZB) 66.522	516.000	0.293	0.751	162.756	696.600	928.800	146.480
($0.9L_s$) 69.322	516.000	0.220	0.739	158.345	696.600	928.800	142.511
(1.5H) 71.442	516.000	0.220	0.730	158.337	696.600	928.800	142.503
(SZB) 72.022	516.000	0.220	0.727	158.334	696.600	928.800	142.501
(H) 73.192	516.000	0.220	0.721	158.329	696.600	928.800	142.496
(Bar Develop.) 74.260	516.000	0.220	0.716	158.324	696.600	928.800	142.492
(Bar Develop.) 75.320	516.000	0.220	0.710	158.319	696.600	928.800	142.487
(SZB) 75.688	516.000	0.220	0.709	158.318	696.600	928.800	142.486
(FoS) 76.692	516.000	0.220	0.703	158.313	696.600	928.800	142.482
($1.0L_s$) 77.025	516.000	0.220	0.701	158.311	696.600	928.800	142.480
77.025	516.000	0.220	0.701	158.311	696.600	928.800	142.480

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{matrix} lesser\ of, \\ but\ not < 0.0 \end{matrix} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.860	516.000	0.151	0.430	-0.507	0.000	No
(FoS) 1.193	516.000	0.151	0.430	-0.506	0.000	No
(SZB) 2.196	516.000	0.151	0.430	-0.505	0.000	No
(Bar Develop.) 2.564	516.000	0.151	0.430	-0.504	0.000	No
(Bar Develop.) 3.625	516.000	0.151	0.430	-0.502	0.000	No
(H) 4.693	516.000	0.151	0.430	-0.500	0.000	No
(SZB) 5.862	516.000	0.149	0.430	-0.530	0.000	No
(1.5H) 6.443	516.000	0.147	0.430	-0.551	0.000	No
($0.1L_s$) 7.702	516.000	0.144	0.430	-0.595	0.000	No
(SZB) 11.362	516.000	0.133	0.430	-0.731	0.000	No
($0.2L_s$) 15.405	516.000	0.121	0.430	-0.889	0.000	No
(SZB) 19.612	516.000	0.107	0.430	-1.059	0.000	No
(Deck Bar Cutoff) 21.642	516.000	0.101	0.430	-1.143	0.000	No
($0.3L_s$) 23.107	516.000	0.096	0.430	-1.204	0.000	No
(SZB) 30.612	516.000	0.070	0.430	-1.527	0.000	No
($0.4L_s$) 30.810	516.000	0.070	0.430	-1.535	0.000	No
(HP) 31.242	516.000	0.068	0.430	-1.554	0.000	No
($0.5L_s$) 38.512	516.000	0.043	0.430	-1.880	0.000	No
($0.6L_s$) 46.215	516.000	0.041	0.430	-1.901	0.000	No
(HP) 46.642	516.000	0.042	0.430	-1.886	0.000	No
(SZB) 47.272	516.000	0.044	0.430	-1.863	0.000	No
($0.7L_s$) 53.917	516.000	0.064	0.430	-1.611	0.000	No
(SZB) 58.272	516.000	0.077	0.430	-1.443	0.000	No
($0.8L_s$) 61.620	516.000	0.087	0.430	-1.314	0.000	No
(SZB) 66.522	516.000	0.102	0.430	-1.127	0.000	No
($0.9L_s$) 69.322	516.000	0.110	0.430	-1.020	0.000	No
(1.5H) 71.442	516.000	0.116	0.430	-0.940	0.000	No
(SZB) 72.022	516.000	0.118	0.430	-0.918	0.000	No
(H) 73.192	516.000	0.121	0.430	-0.878	0.000	No
(Bar Develop.) 74.260	516.000	0.121	0.430	-0.880	0.000	No
(Bar Develop.) 75.320	516.000	0.121	0.430	-0.883	0.000	No
(SZB) 75.688	516.000	0.121	0.430	-0.883	0.000	No
(FoS) 76.692	516.000	0.121	0.430	-0.886	0.000	No
($1.0L_s$) 77.025	516.000	0.121	0.430	-0.886	0.000	No
77.025	516.000	0.121	0.430	-0.886	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Stirrup Detailing Check Details

$$\frac{A_v}{S} min = \frac{0.0316 \lambda \sqrt{f'_c}\, b_v}{f_y}$$

f'_c = 8.000 KSI

f_y = 60.000 KSI

Details for Minimum Transverse Reinforcement Check - 5.7.2.5-1

Location from Left Support (ft)	b_v (in)	A_v/S_{min} (in^2/ft)
0.000	7.000	0.125
(FoS) 0.333	7.000	0.125
(SZB) 1.337	7.000	0.125
(Bar Develop.) 1.705	7.000	0.125
(Bar Develop.) 2.765	7.000	0.125
(H) 3.833	7.000	0.125
(CS) 4.128	7.000	0.125
(SZB) 5.003	7.000	0.125
(1.5H) 5.583	7.000	0.125
6.843	7.000	0.125
(SZB) 10.503	7.000	0.125
14.545	7.000	0.125
(SZB) 18.753	7.000	0.125
(Deck Bar Cutoff) 20.783	7.000	0.125
22.248	7.000	0.125
(SZB) 29.753	7.000	0.125
29.950	7.000	0.125
(HP) 30.383	7.000	0.125
37.653	7.000	0.125
45.355	7.000	0.125
(HP) 45.783	7.000	0.125
(SZB) 46.413	7.000	0.125
53.058	7.000	0.125
(SZB) 57.413	7.000	0.125
60.760	7.000	0.125
(SZB) 65.663	7.000	0.125
68.463	7.000	0.125
(1.5H) 70.582	7.000	0.125
(SZB) 71.163	7.000	0.125
(CS) 72.242	7.000	0.125
(H) 72.332	7.000	0.125
(Bar Develop.) 73.400	7.000	0.125
(Bar Develop.) 74.461	7.000	0.125
(SZB) 74.829	7.000	0.125
(FoS) 75.832	7.000	0.125
($1.0L_e$) 76.165	7.000	0.125
76.165	7.000	N/A

Strength I - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	1.014	1.000	7.000	45.900	12.000
(FoS) 0.333	1.005	1.000	7.000	45.869	12.000
(SZB) 1.337	0.980	1.000	7.000	45.779	18.000
(Bar Develop.) 1.705	0.970	1.000	7.000	45.746	18.000
(Bar Develop.) 2.765	0.948	1.000	7.000	45.654	18.000
(H) 3.833	0.950	1.000	7.000	45.565	18.000
(CS) 4.128	0.951	1.000	7.000	45.541	18.000
(SZB) 5.003	0.934	1.000	7.000	45.471	18.000
(1.5H) 5.583	0.923	1.000	7.000	45.426	18.000
6.843	0.899	1.000	7.000	45.330	18.000
(SZB) 10.503	0.955	1.000	7.000	39.048	18.000
14.545	0.843	1.000	7.000	39.633	18.000
(SZB) 18.753	0.717	1.000	7.000	40.949	18.000
(Deck Bar Cutoff) 20.783	0.658	1.000	7.000	41.590	18.000
22.248	0.617	1.000	7.000	42.054	18.000
(SZB) 29.753	0.420	1.000	7.000	44.461	18.000
29.950	0.415	1.000	7.000	44.525	18.000
(HP) 30.383	0.405	1.000	7.000	44.665	18.000
37.653	0.333	1.000	7.000	44.665	18.000
45.355	0.297	1.000	7.000	44.665	18.000
(HP) 45.783	0.220	1.000	7.000	44.665	18.000
(SZB) 46.413	0.233	1.000	7.000	44.461	18.000
53.058	0.389	1.000	7.000	42.327	18.000
(SZB) 57.413	0.503	1.000	7.000	40.940	18.000
60.760	0.598	1.000	7.000	39.857	18.000
(SZB) 65.663	0.733	1.000	7.000	39.056	18.000
68.463	0.782	1.000	7.000	40.148	18.000
(1.5H) 70.582	0.806	1.000	7.000	41.591	18.000
(SZB) 71.163	0.820	1.000	7.000	41.590	18.000
(CS) 72.242	0.813	1.000	7.000	43.289	18.000
(H) 72.332	0.813	1.000	7.000	43.291	18.000
(Bar Develop.) 73.400	0.813	1.000	7.000	43.321	18.000
(Bar Develop.) 74.461	0.835	1.000	7.000	43.474	18.000
(SZB) 74.829	0.844	1.000	7.000	43.550	18.000
(FoS) 75.832	0.868	1.000	7.000	43.815	18.000
($1.0L_e$) 76.165	0.849	1.000	7.000	45.306	18.000

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
76.165	0.849	1.000	7.000	45.306	N/A

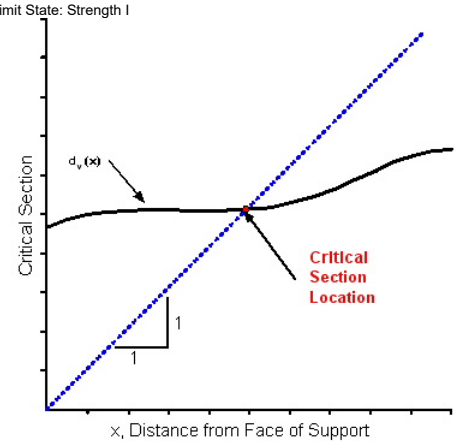
Strength II - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	1.014	1.000	7.000	45.900	12.000
(FoS) 0.333	1.005	1.000	7.000	45.869	12.000
(SZB) 1.337	0.980	1.000	7.000	45.779	18.000
(Bar Develop.) 1.705	0.970	1.000	7.000	45.746	18.000
(Bar Develop.) 2.765	0.948	1.000	7.000	45.654	18.000
(H) 3.833	0.950	1.000	7.000	45.565	18.000
(CS) 4.128	0.951	1.000	7.000	45.541	18.000
(SZB) 5.003	0.934	1.000	7.000	45.471	18.000
(1.5H) 5.583	0.923	1.000	7.000	45.426	18.000
6.843	0.899	1.000	7.000	45.330	18.000
(SZB) 10.503	0.955	1.000	7.000	39.048	18.000
14.545	0.843	1.000	7.000	39.633	18.000
(SZB) 18.753	0.717	1.000	7.000	40.949	18.000
(Deck Bar Cutoff) 20.783	0.658	1.000	7.000	41.590	18.000
22.248	0.617	1.000	7.000	42.054	18.000
(SZB) 29.753	0.420	1.000	7.000	44.461	18.000
29.950	0.415	1.000	7.000	44.525	18.000
(HP) 30.383	0.405	1.000	7.000	44.665	18.000
37.653	0.333	1.000	7.000	44.665	18.000
45.355	0.297	1.000	7.000	44.665	18.000
(HP) 45.783	0.220	1.000	7.000	44.665	18.000
(SZB) 46.413	0.233	1.000	7.000	44.461	18.000
53.058	0.389	1.000	7.000	42.327	18.000
(SZB) 57.413	0.503	1.000	7.000	40.940	18.000
60.760	0.598	1.000	7.000	39.857	18.000
(SZB) 65.663	0.733	1.000	7.000	39.056	18.000
68.463	0.782	1.000	7.000	40.148	18.000
(1.5H) 70.582	0.806	1.000	7.000	41.591	18.000
(SZB) 71.163	0.820	1.000	7.000	41.590	18.000
(CS) 72.242	0.813	1.000	7.000	43.289	18.000
(H) 72.332	0.813	1.000	7.000	43.291	18.000
(Bar Develop.) 73.400	0.813	1.000	7.000	43.321	18.000
(Bar Develop.) 74.461	0.835	1.000	7.000	43.474	18.000
(SZB) 74.829	0.844	1.000	7.000	43.550	18.000
(FoS) 75.832	0.868	1.000	7.000	43.815	18.000
(1.0L_e) 76.165	0.849	1.000	7.000	45.306	18.000
76.165	0.849	1.000	7.000	45.306	N/A

Critical Section for Shear Details

Limit State: Strength I



LRFD 5.8.3.2
Critical Section = d_v measured at d_v from the face of support

Critical Section Calculation for Ahead side of Pier 2

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(FoS) 0.333	0.000	45.869	No
1.333	12.000	45.779	No
(SZB) 1.337	12.039	45.779	No
(Bar Develop.) 1.705	16.456	45.746	No
(PSXFR) 2.583	27.000	45.670	No
2.625	27.500	45.666	No
(Bar Develop.) 2.765	29.184	45.654	No
(H) 3.833	42.000	45.565	No

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
4.128	45.541	45.541	*Yes
4.583	51.000	45.504	No
(SZB) 5.003	56.031	45.471	No
(1.5H) 5.583	63.000	45.426	No
6.843	78.115	45.330	No
7.283	83.398	45.298	No
($0.1L_e$) 7.617	87.398	45.273	No
8.683	100.198	45.198	No

* - Intersection values are linearly interpolated
Critical Section is at 3.795 ft (45.541 in) from the face of support on the Ahead side of Pier 2

Critical Section Calculation for Back side of Pier 3

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
67.482	100.198	40.204	No
68.463	88.430	40.148	No
($0.9L_e$) 68.549	87.398	40.143	No
68.882	83.398	40.127	No
(1.5H) 70.582	63.000	41.591	No
(SZB) 71.163	56.031	41.590	No
71.582	51.000	41.592	No
72.242	43.086	43.086	*Yes
(H) 72.332	42.000	43.291	No
(Bar Develop.) 73.400	29.184	43.321	No
73.540	27.500	43.325	No
(PSXFR) 73.582	27.000	43.326	No
(Bar Develop.) 74.461	16.456	43.474	No
(SZB) 74.829	12.039	43.550	No
74.832	12.000	43.550	No
(FoS) 75.832	0.000	43.815	No

* - Intersection values are linearly interpolated
Critical Section is at 3.591 ft (43.086 in) from the face of support on the Back side of Pier 3

Longitudinal Reinforcement for Shear

$$A_s f_y + A_{ps} f_{ps} \geq \left[\frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right] \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Strength I

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y* (KSI)	A_{ps} (in^2)	f_{ps}* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 1.193	33.680	57.881	2.170	0.000	2940.68	45.869	0.9
(SZB) 2.196	33.680	59.049	2.170	0.000	2685.30	45.779	0.9
(Bar Develop.) 2.564	33.680	59.477	2.170	0.000	2592.96	45.746	0.9
(Bar Develop.) 3.625	33.680	60.000	2.170	0.000	2330.94	45.654	0.9
(H) 4.693	33.680	60.000	2.170	0.000	2087.76	45.565	0.9
(CS) 4.988	33.680	60.000	2.170	0.000	2026.92	45.541	0.9
(SZB) 5.862	33.680	60.000	2.170	0.000	1849.79	45.471	0.9
(1.5H) 6.443	33.680	60.000	1.736	0.000	1734.23	45.426	0.9
($0.1L_s$) 7.702	33.680	60.000	1.736	0.000	1476.35	45.330	0.9
(SZB) 11.362	0.400	60.000	5.208	252.340	1212.71	39.048	1
($0.2L_s$) 15.405	0.400	60.000	6.076	267.975	1891.62	39.633	1
(SZB) 19.612	0.400	60.000	6.076	268.706	2579.47	40.949	1
(Deck Bar Cutoff) 21.642	0.400	60.000	6.076	269.053	2884.31	41.590	1
($0.3L_s$) 23.107	0.400	60.000	6.076	269.289	3085.74	42.054	1
(SZB) 30.612	0.400	60.000	6.076	269.964	3913.01	44.461	1
($0.4L_s$) 30.810	0.400	60.000	6.076	269.971	3929.34	44.525	1
(HP) 31.242	0.400	60.000	6.076	269.986	3964.08	44.665	1
($0.5L_s$) 38.512	0.400	60.000	6.076	269.987	4345.68	44.665	1
($0.6L_s$) 46.215	0.400	60.000	6.076	269.987	4370.23	44.665	1
(HP) 46.642	0.400	60.000	6.076	269.987	4360.63	44.665	1
(SZB) 47.272	0.400	60.000	6.076	269.965	4343.78	44.461	1
($0.7L_s$) 53.917	0.400	60.000	6.076	269.414	3968.64	42.327	1
(SZB) 58.272	0.400	60.000	6.076	268.695	3563.02	40.940	1
($0.8L_s$) 61.620	0.400	60.000	6.076	268.033	3145.61	39.857	1
(SZB) 66.522	0.400	60.000	5.208	252.130	2364.87	39.056	1
($0.9L_s$) 69.322	0.400	60.000	4.774	230.700	1827.40	40.148	1
(1.5H) 71.442	0.400	60.000	4.340	214.508	1375.75	41.591	1
(SZB) 72.022	0.400	60.000	3.906	210.076	1245.20	41.590	1
(CS) 73.101	0.400	60.000	3.906	201.848	994.98	43.289	1
(H) 73.192	0.400	60.000	3.906	201.158	973.53	43.291	1
(Bar Develop.) 74.260	0.400	60.000	3.906	193.022	715.09	43.321	1
(Bar Develop.) 75.320	0.400	60.000	3.906	158.494	448.64	43.474	1
(SZB) 75.688	0.400	49.590	3.906	144.597	353.92	43.550	1
(FoS) 76.692	0.400	21.213	3.906	106.121	89.71	43.815	1

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 1.193	0.00	0.75	296.36	0.9	329.29	26.27	30.54
(SZB) 2.196	0.00	0.75	296.36	0.9	329.29	26.27	30.54
(Bar Develop.) 2.564	0.00	0.75	296.36	0.9	329.29	26.27	30.54
(Bar Develop.) 3.625	0.00	0.75	296.36	0.9	329.29	26.27	30.54
(H) 4.693	0.00	0.75	296.36	0.9	329.29	26.27	30.54
(CS) 4.988	0.00	0.75	296.36	0.9	329.29	26.27	30.54
(SZB) 5.862	0.00	0.75	291.22	0.9	310.71	26.28	30.34
(1.5H) 6.443	0.00	0.75	287.80	0.9	308.76	26.30	30.48
($0.1L_s$) 7.702	0.00	0.75	280.37	0.9	311.53	26.32	30.19
(SZB) 11.362	0.00	0.75	258.61	0.9	192.87	26.40	28.36
($0.2L_s$) 15.405	0.00	0.75	234.28	0.9	195.79	26.48	28.36
(SZB) 19.612	0.00	0.75	208.79	0.9	150.00	26.55	28.63
(Deck Bar Cutoff) 21.642	0.00	0.75	196.41	0.9	151.64	26.57	28.75
($0.3L_s$) 23.107	0.00	0.75	187.49	0.9	152.90	26.58	28.81
(SZB) 30.612	0.00	0.75	141.66	0.9	105.07	26.56	29.43
($0.4L_s$) 30.810	0.00	0.75	140.46	0.9	105.08	26.56	29.46
(HP) 31.242	0.00	0.75	137.82	0.9	105.14	26.56	29.53
($0.5L_s$) 38.512	0.00	0.75	93.62	0.9	98.58	0.00	31.14
($0.6L_s$) 46.215	0.00	0.75	83.50	0.9	92.77	0.00	31.07
(HP) 46.642	0.00	0.75	85.84	0.9	95.38	26.64	30.56
(SZB) 47.272	0.00	0.75	89.30	0.9	99.23	26.65	30.64
($0.7L_s$) 53.917	0.00	0.75	127.76	0.9	141.96	26.73	30.47
(SZB) 58.272	0.00	0.75	153.78	0.9	145.10	26.72	29.44
($0.8L_s$) 61.620	0.00	0.75	174.09	0.9	192.48	26.70	28.91
(SZB) 66.522	0.00	0.75	204.31	0.9	188.77	26.63	28.89
($0.9L_s$) 69.322	0.00	0.75	221.81	0.9	246.46	26.59	28.79
(1.5H) 71.442	0.00	0.75	235.14	0.9	261.27	26.55	28.71
(SZB) 72.022	0.00	0.75	238.80	0.9	265.33	26.54	28.79
(CS) 73.101	0.00	0.75	245.62	0.9	272.91	26.53	28.66
(H) 73.192	0.00	0.75	245.62	0.9	272.91	26.53	28.66
(Bar Develop.) 74.260	0.00	0.75	245.62	0.9	272.91	26.53	28.66
(Bar Develop.) 75.320	0.00	0.75	245.62	0.9	272.91	26.53	28.66
(SZB) 75.688	0.00	0.75	245.62	0.9	272.91	26.53	28.66
(FoS) 76.692	0.00	0.75	245.62	0.9	272.91	26.53	28.66

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 1.193	1089.34	1949.42	5.7.3.5-1
(SZB) 2.196	1016.66	1988.77	5.7.3.5-1
(Bar Develop.) 2.564	990.30	2003.20	5.7.3.5-1
(Bar Develop.) 3.625	915.29	2020.80	5.7.3.5-1
(H) 4.693	845.47	2020.80	5.7.3.5-1
(CS) 4.988	827.98	2020.80	5.7.3.5-1
(SZB) 5.862	784.89	2020.80	5.7.3.5-1
(1.5H) 6.443	745.41	2020.80	5.7.3.5-1
($0.1L_s$) 7.702	656.73	2020.80	5.7.3.5-1
(SZB) 11.362	677.38	1338.18	5.7.3.5-1
($0.2L_s$) 15.405	824.56	1652.22	5.7.3.5-1
(SZB) 19.612	994.80	1656.65	5.7.3.5-1
(Deck Bar Cutoff) 21.642	1043.42	1658.76	5.7.3.5-1
($0.3L_s$) 23.107	1071.93	1660.20	5.7.3.5-1
(SZB) 30.612	1194.89	1664.30	5.7.3.5-1
($0.4L_s$) 30.810	1195.21	1664.34	5.7.3.5-1
(HP) 31.242	1195.67	1664.43	5.7.3.5-1
($0.5L_s$) 38.512	1258.14	1664.44	5.7.3.5-1
($0.6L_s$) 46.215	1251.12	1664.44	5.7.3.5-1
(HP) 46.642	1207.20	1664.44	5.7.3.5-1
(SZB) 47.272	1211.14	1664.31	5.7.3.5-1
($0.7L_s$) 53.917	1200.34	1660.96	5.7.3.5-1
(SZB) 58.272	1171.23	1656.59	5.7.3.5-1
($0.8L_s$) 61.620	1074.75	1652.57	5.7.3.5-1
(SZB) 66.522	918.72	1337.09	5.7.3.5-1
($0.9L_s$) 69.322	722.07	1125.36	5.7.3.5-1
(1.5H) 71.442	586.94	954.97	5.7.3.5-1
(SZB) 72.022	552.40	844.56	5.7.3.5-1
(CS) 73.101	476.90	812.42	5.7.3.5-1
(H) 73.192	201.08	809.72	5.7.3.5-2
(Bar Develop.) 74.260	201.08	777.94	5.7.3.5-2
(Bar Develop.) 75.320	201.08	643.08	5.7.3.5-2
(SZB) 75.688	201.08	584.63	5.7.3.5-2
(FoS) 76.692	201.08	422.99	5.7.3.5-2

Strength II

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 1.193	33.680	57.881	2.170	0.000	2424.82	45.869	0.9

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(SZB) 2.196	33.680	59.049	2.170	0.000	2206.86	45.779	0.9
(Bar Develop.) 2.564	33.680	59.477	2.170	0.000	2127.72	45.746	0.9
(Bar Develop.) 3.625	33.680	60.000	2.170	0.000	1902.34	45.654	0.9
(H) 4.693	33.680	60.000	2.170	0.000	1694.12	45.565	0.9
(SZB) 5.862	33.680	60.000	2.170	0.000	1486.66	45.471	0.9
(1.5H) 6.443	33.680	60.000	1.736	0.000	1384.87	45.426	0.9
($0.1L_s$) 7.702	33.680	60.000	1.736	0.000	1167.24	45.330	0.9
(SZB) 11.362	0.400	60.000	5.208	252.340	971.24	39.048	1
($0.2L_s$) 15.405	0.400	60.000	6.076	267.975	1723.13	39.633	1
(SZB) 19.612	0.400	60.000	6.076	268.706	2384.95	40.949	1
(Deck Bar Cutoff) 21.642	0.400	60.000	6.076	269.053	2674.97	41.590	1
($0.3L_s$) 23.107	0.400	60.000	6.076	269.289	2871.01	42.054	1
(SZB) 30.612	0.400	60.000	6.076	269.964	3663.40	44.461	1
($0.4L_s$) 30.810	0.400	60.000	6.076	269.971	3679.11	44.525	1
(HP) 31.242	0.400	60.000	6.076	269.986	3712.54	44.665	1
($0.5L_s$) 38.512	0.400	60.000	6.076	269.987	4110.58	44.665	1
($0.6L_s$) 46.215	0.400	60.000	6.076	269.987	4097.52	44.665	1
(HP) 46.642	0.400	60.000	6.076	269.987	4082.80	44.665	1
(SZB) 47.272	0.400	60.000	6.076	269.965	4058.21	44.461	1
($0.7L_s$) 53.917	0.400	60.000	6.076	269.414	3724.80	42.327	1
(SZB) 58.272	0.400	60.000	6.076	268.695	3347.55	40.940	1
($0.8L_s$) 61.620	0.400	60.000	6.076	268.033	2948.59	39.857	1
(SZB) 66.522	0.400	60.000	5.208	252.130	2220.77	39.056	1
($0.9L_s$) 69.322	0.400	60.000	4.774	230.700	1724.63	40.148	1
(1.5H) 71.442	0.400	60.000	4.340	214.508	1302.94	41.591	1
(SZB) 72.022	0.400	60.000	3.906	210.076	1180.39	41.590	1
(H) 73.192	0.400	60.000	3.906	201.158	924.60	43.291	1
(Bar Develop.) 74.260	0.400	60.000	3.906	193.022	680.31	43.321	1
(Bar Develop.) 75.320	0.400	60.000	3.906	158.494	427.55	43.474	1
(SZB) 75.688	0.400	49.590	3.906	144.597	337.46	43.550	1
(FoS) 76.692	0.400	21.213	3.906	106.121	85.67	43.815	1

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 1.193	0.00	0.75	289.01	0.9	321.12	26.27	30.17
(SZB) 2.196	0.00	0.75	289.01	0.9	321.12	26.27	30.17
(Bar Develop.) 2.564	0.00	0.75	289.01	0.9	321.12	26.27	30.17
(Bar Develop.) 3.625	0.00	0.75	289.01	0.9	321.12	26.27	30.17
(H) 4.693	0.00	0.75	289.01	0.9	321.12	26.27	30.17
(SZB) 5.862	0.00	0.75	284.22	0.9	315.10	26.28	29.99
(1.5H) 6.443	0.00	0.75	281.02	0.9	312.25	26.30	30.14
($0.1L_s$) 7.702	0.00	0.75	274.04	0.9	304.49	26.32	29.89
(SZB) 11.362	0.00	0.75	253.36	0.9	194.00	26.40	28.22
($0.2L_s$) 15.405	0.00	0.75	229.68	0.9	196.58	26.48	28.26
(SZB) 19.612	0.00	0.75	204.26	0.9	150.67	26.55	28.53
(Deck Bar Cutoff) 21.642	0.00	0.75	191.68	0.9	152.36	26.57	28.63
($0.3L_s$) 23.107	0.00	0.75	182.51	0.9	153.63	26.58	28.70
(SZB) 30.612	0.00	0.75	134.19	0.9	107.35	26.56	28.91
($0.4L_s$) 30.810	0.00	0.75	132.89	0.9	107.49	26.56	28.91
(HP) 31.242	0.00	0.75	130.04	0.9	107.80	26.56	28.92
($0.5L_s$) 38.512	0.00	0.75	81.18	0.9	90.20	0.00	29.70
($0.6L_s$) 46.215	0.00	0.75	77.97	0.9	86.63	0.00	29.58
(HP) 46.642	0.00	0.75	80.27	0.9	89.19	26.64	29.04
(SZB) 47.272	0.00	0.75	83.68	0.9	92.98	26.65	29.08
($0.7L_s$) 53.917	0.00	0.75	121.43	0.9	134.92	26.73	29.04
(SZB) 58.272	0.00	0.75	146.78	0.9	148.22	26.72	28.92
($0.8L_s$) 61.620	0.00	0.75	166.50	0.9	185.00	26.70	28.79
(SZB) 66.522	0.00	0.75	195.58	0.9	189.50	26.63	28.79
($0.9L_s$) 69.322	0.00	0.75	212.33	0.9	235.92	26.59	28.72
(1.5H) 71.442	0.00	0.75	225.01	0.9	250.01	26.55	28.66
(SZB) 72.022	0.00	0.75	228.48	0.9	253.86	26.54	28.74
(H) 73.192	0.00	0.75	234.94	0.9	261.04	26.53	28.62
(Bar Develop.) 74.260	0.00	0.75	234.94	0.9	261.04	26.53	28.62
(Bar Develop.) 75.320	0.00	0.75	234.94	0.9	261.04	26.53	28.62
(SZB) 75.688	0.00	0.75	234.94	0.9	261.04	26.53	28.62
(FoS) 76.692	0.00	0.75	234.94	0.9	261.04	26.53	28.62

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 1.193	935.87	1949.42	5.7.3.5-1
(SZB) 2.196	873.78	1988.77	5.7.3.5-1
(Bar Develop.) 2.564	851.17	2003.20	5.7.3.5-1
(Bar Develop.) 3.625	786.60	2020.80	5.7.3.5-1
(H) 4.693	726.75	2020.80	5.7.3.5-1

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(SZB) 5.862	664.56	2020.80	5.7.3.5-1
(1.5H) 6.443	630.12	2020.80	5.7.3.5-1
($0.1L_s$) 7.702	562.41	2020.80	5.7.3.5-1
(SZB) 11.362	593.05	1338.18	5.7.3.5-1
($0.2L_s$) 15.405	764.32	1652.22	5.7.3.5-1
(SZB) 19.612	928.99	1656.65	5.7.3.5-1
(Deck Bar Cutoff) 21.642	973.72	1658.76	5.7.3.5-1
($0.3L_s$) 23.107	1000.79	1660.20	5.7.3.5-1
(SZB) 30.612	1113.44	1664.30	5.7.3.5-1
($0.4L_s$) 30.810	1113.50	1664.34	5.7.3.5-1
(HP) 31.242	1113.34	1664.43	5.7.3.5-1
($0.5L_s$) 38.512	1183.43	1664.44	5.7.3.5-1
($0.6L_s$) 46.215	1177.18	1664.44	5.7.3.5-1
(HP) 46.642	1129.25	1664.44	5.7.3.5-1
(SZB) 47.272	1130.98	1664.31	5.7.3.5-1
($0.7L_s$) 53.917	1129.35	1660.96	5.7.3.5-1
(SZB) 58.272	1093.89	1656.59	5.7.3.5-1
($0.8L_s$) 61.620	1007.50	1652.57	5.7.3.5-1
(SZB) 66.522	856.87	1337.09	5.7.3.5-1
($0.9L_s$) 69.322	682.26	1125.36	5.7.3.5-1
(1.5H) 71.442	556.07	954.97	5.7.3.5-1
(SZB) 72.022	523.66	844.56	5.7.3.5-1
(H) 73.192	190.58	809.72	5.7.3.5-2
(Bar Develop.) 74.260	190.58	777.94	5.7.3.5-2
(Bar Develop.) 75.320	190.58	643.08	5.7.3.5-2
(SZB) 75.688	190.58	584.63	5.7.3.5-2
(FoS) 76.692	190.58	422.99	5.7.3.5-2

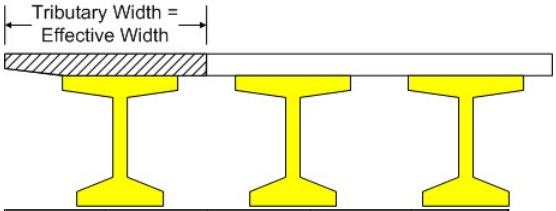
Splitting Resistance Details

Check for Splitting resistance (LRFD 5.9.4.4.1) is disabled in Project Criteria library.

Effective Flange Width Details

LRFD 4.6.2.6.1

Effective flange width is measured at top CL girder and is taken as one-half the distance to the adjacent girder plus the full overhang width



Location from Left Support (ft)	Left Overhang (in)	Effective Left Overhang (in)	Right Spacing (in)	Effective Flange Width (in)
($0.0L_s$) 0.000	43.080	43.080	94.001	90.080
0.860	43.497	43.497	94.001	90.497
($0.1L_s$) 7.702	46.429	46.429	94.001	93.429
($0.2L_s$) 15.405	48.903	47.001	94.001	94.001
($0.3L_s$) 23.107	50.502	47.001	94.001	94.001
($0.4L_s$) 30.810	51.225	47.001	94.001	94.001
($0.5L_s$) 38.512	51.072	47.001	94.001	94.001
($0.6L_s$) 46.215	50.043	47.001	94.001	94.001
($0.7L_s$) 53.917	48.139	47.001	94.001	94.001
($0.8L_s$) 61.620	45.359	45.359	94.001	92.360
($0.9L_s$) 69.322	41.705	41.705	94.001	88.706
($1.0L_s$) 77.025	37.178	37.178	94.001	84.178
77.025	37.178	37.178	94.001	84.178

Live Load Distribution Factor Details

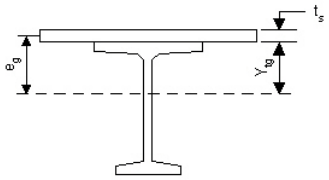
Moment and Shear

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
($0.0L_s$) 0.000	0.856	0.856	0.896	0.714	0.714	0.746
0.860	0.856	0.856	0.895	0.714	0.714	0.746
($0.1L_s$) 7.702	0.856	0.856	0.888	0.714	0.714	0.740
($0.2L_s$) 15.405	0.856	0.856	0.880	0.714	0.714	0.733
($0.3L_s$) 23.107	0.856	0.856	0.872	0.714	0.714	0.727
($0.4L_s$) 30.810	0.856	0.856	0.864	0.714	0.714	0.720
($0.5L_s$) 38.512	0.856	0.856	0.856	0.714	0.714	0.714
($0.6L_s$) 46.215	0.856	0.856	0.856	0.714	0.714	0.714
($0.7L_s$) 53.917	0.856	0.856	0.856	0.714	0.714	0.714
($0.8L_s$) 61.620	0.856	0.856	0.856	0.714	0.714	0.714
($0.9L_s$) 69.322	0.856	0.856	0.856	0.714	0.714	0.714
($1.0L_s$) 77.025	0.856	0.856	0.856	0.714	0.714	0.714

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
77.025	0.856	0.856	0.856	0.714	0.714	0.714

Method of Computation:
Type (k) cross section. With AASHTO LRFD Method per Article 4.6.2.2

Longitudinal Stiffness Parameters
Modular ratio: n = 1.209
Moment of Inertia: I_g = 153070.0 in^4
Area: A_g = 654.000 in^2
Top centroidal distance: Y_{tg} = 20.850 in
Slab Thickness: t_s = 8.000 in



Distance between CG of slab and girder: $e_g = Y_{tg} + \frac{t_s}{2} + fillet$ e_g = 25.850 in

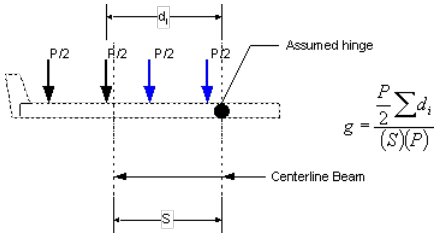
Stiffness Parameter: $K_g = n(I_g + A_g e_g^2)$ K_g = 713476.7 in^4

Distribution Factor Parameters
Deck Width, Girder Spacing and Deck Overhang are measured along a line that is normal to the alignment and passing through a point 38.096 ft from the left support along the centerline of girder. The measurement line passes through Station 95+13.43 (42.744 L)
Bridge Width: W = 94.000 ft
Roadway Width: w = 91.000 ft
Number of Design Lanes: N_L = 7
Lane Width: wLane = 12.000 ft
Number of Girders: N_b = 12
Girder Spacing: S_{avg} = 7.835 ft
Deck Overhang = 4.255 ft
Distance from exterior web of exterior girder to curb line: d_e = 2.756 ft
Skew Angle at start: θ = 17.50 deg
Skew Angle at end: θ = 11.64 deg

Strength and Service Limit States

Distribution Factor for Negative Moment over Pier 2
Average Skew Angle: θ = 17.50 deg
Span Length: L = 76.949 ft

1 Loaded Lane: Lever Rule



$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$

Multiple Presence Factor: m = 1.2
mg^{ME}_1 = (1.2)[(8.590 ft)(P/2) + (2.590 ft)(P/2)]/[(7.834 ft)(P)] = 0.856

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663
e = 1.073
mg^{ME}_{2+} = 0.711 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

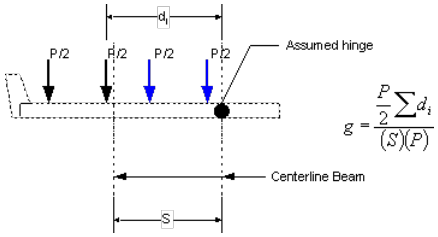
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_1 = 0.856 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.711

Distribution Factor for Positive and Negative Moment in Span 2
Average Skew Angle: θ = 14.57 deg
Span Length: L = 77.025 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{ME}_{1} = (1.2)[(8.590 ft)(P/2) + (2.590 ft)(P/2)]/[(7.834 ft)(P)] = 0.856

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663
e = 1.073
mg^{ME}_{2+} = 0.711 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

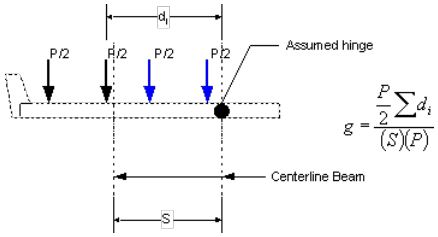
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_{1} = 0.856 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.711

Distribution Factor for Shear in Span 2
Average Skew Angle: θ = 14.57 deg
Span Length: L = 77.025 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{VE}_{1} = (1.2)[(8.590 ft)(P/2) + (2.590 ft)(P/2)]/[(7.834 ft)(P)] = 0.856

2+ Loaded Lanes: Spec Equation

$$mg^{VE}_{2+} = e(mg^{VI}_{2+})$$

$$e = 0.6 + \frac{d_e}{10.0}$$

$$mg^{VI}_{2+} = 0.2 + \left(\frac{S}{12}\right) - \left(\frac{S}{35}\right)^{2.0}$$

mg^{VI}_{2+} = 0.803
e = 0.876
mg^{VE}_{2+} = 0.703

Skew Correction

$$1.0 + 0.20\left(\frac{12.0Lt_s^3}{K_g}\right)^{0.3}\tan\theta$$

Skew Correction Factor: = 1.046

Skew Corrected Factor: mg^{VE}_{1} = 0.896 **< Controls**
Skew Corrected Factor: mg^{VE}_{2+} = 0.735

Fatigue Limit States
Distribution Factor for Positive and Negative Moment in Span 2
$gME_{Fatigue}$ = $mgME_1$/m = 0.856/ 1.200 = 0.714
Distribution Factor for Shear in Span 2
$gVE_{Fatigue}$ = $mgVE_1$/m = 0.896/ 1.200 = 0.746

Creep Coefficient Details

$$\psi(t,t_i) = 1.9K_1K_2k_sk_{hc}k_fk_{td}t_i^{-0.118}$$

for which:

$$k_s = 1.45 - 0.13(V/S) \geq 1.0$$

$$k_{hc} = 1.56 - 0.008H$$

$$k_f = \frac{5}{1 + f'_{ci}}$$

$$k_{td} = \frac{t}{12\left(\frac{100 - 4f'_{ci}}{f'_{ci} + 20}\right) + t}$$

where:
H = 55%, V/S = 3.326 in, K_1 = 1, K_2 = 1
Curing Method = Normal

Minimum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805307

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970086

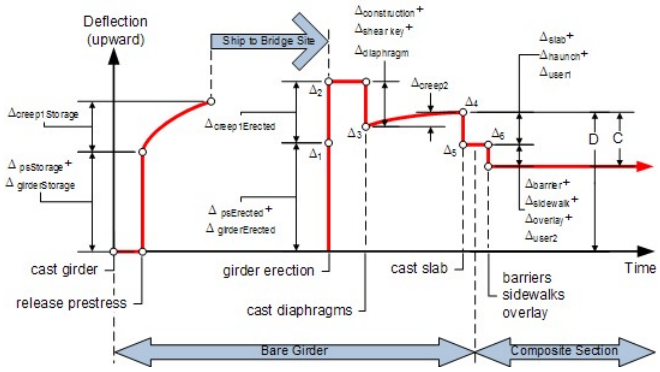
Maximum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805307

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970086

Camber Details



Minimum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.700	-0.263	0.833	0.569
(0.2L_r) 15.400	-0.498	1.536	1.038
(0.3L_r) 23.100	-0.682	2.076	1.393
(HP, 0.4L_r) 30.799	-0.799	2.418	1.619
(0.5L_r) 38.499	-0.839	2.534	1.694
(HP, 0.6L_r) 46.199	-0.799	2.418	1.619
(0.7L_r) 53.899	-0.682	2.076	1.393
(0.8L_r) 61.599	-0.498	1.536	1.038
(0.9L_r) 69.299	-0.263	0.833	0.569
76.582	-0.015	0.048	0.033
(STLF, 1.0L_r) 76.999	0.000	0.000	0.000

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.617	-0.252	0.818	0.000	0.566
(0.2L_{st}) 15.233	-0.477	1.509	0.000	1.031
(0.3L_{st}) 22.850	-0.653	2.038	0.000	1.384
(0.4L_{st}) 30.466	-0.765	2.373	0.000	1.607
(0.5L_{st}) 38.083	-0.803	2.486	0.000	1.682
(0.6L_{st}) 45.699	-0.765	2.373	0.000	1.607
(0.7L_{st}) 53.316	-0.653	2.038	0.000	1.384
(0.8L_{st}) 60.932	-0.477	1.509	0.000	1.031
(0.9L_{st}) 68.549	-0.252	0.818	0.000	0.566
(1.0L_{st}) 76.165	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.582	0.014	-0.048	0.000	-0.034

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release $\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	$\Delta_{girder\ Erected}$ (in)	$\Delta_{ps\ Erected}$ (in)	δ_{girder} (in)	$\Delta_{creep1\ Erected}$ (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	$\Delta_{User1} = \Delta_{UserDC} + \Delta_{UserDW}$ (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	$\Delta_{User2} = \Delta_{UserDC} + \Delta_{UserDW}$ (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	-0.252	0.818	0.000	0.000	0.000	0.549	-0.278	-0.044	-0.007	-0.006	-0.002	-0.005	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(0.2L_e) 15.233	-0.477	1.509	0.000	0.000	0.000	1.001	-0.525	-0.083	-0.013	-0.017	-0.007	-0.014	0.000
(0.3L_e) 22.850	-0.653	2.038	0.000	0.000	0.000	1.343	-0.719	-0.114	-0.018	-0.030	-0.012	-0.024	0.000
(0.4L_e) 30.466	-0.765	2.373	0.000	0.000	0.000	1.559	-0.842	-0.134	-0.021	-0.041	-0.017	-0.033	0.000
(0.5L_e) 38.083	-0.803	2.486	0.000	0.000	0.000	1.632	-0.884	-0.140	-0.022	-0.048	-0.020	-0.039	0.000
(0.6L_e) 45.699	-0.765	2.373	0.000	0.000	0.000	1.559	-0.841	-0.134	-0.021	-0.049	-0.021	-0.040	0.000
(0.7L_e) 53.316	-0.653	2.038	0.000	0.000	0.000	1.343	-0.717	-0.114	-0.018	-0.044	-0.019	-0.036	0.000
(0.8L_e) 60.932	-0.477	1.509	0.000	0.000	0.000	1.001	-0.523	-0.083	-0.013	-0.034	-0.014	-0.027	0.000
(0.9L_e) 68.549	-0.252	0.818	0.000	0.000	0.000	0.549	-0.276	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.048	-0.048	-0.018
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	0.566	0.566	0.566	1.116	0.787	0.774	0.341
(0.2L_e) 15.233	1.031	1.031	1.031	2.032	1.410	1.373	0.660
(0.3L_e) 22.850	1.384	1.384	1.384	2.727	1.876	1.810	0.917
(0.4L_e) 30.466	1.607	1.607	1.607	3.167	2.170	2.079	1.087
(0.5L_e) 38.083	1.682	1.682	1.682	3.315	2.269	2.162	1.152
(0.6L_e) 45.699	1.607	1.607	1.607	3.167	2.172	2.062	1.105
(0.7L_e) 53.316	1.384	1.384	1.384	2.727	1.879	1.779	0.948
(0.8L_e) 60.932	1.031	1.031	1.031	2.032	1.413	1.337	0.695
(0.9L_e) 68.549	0.566	0.566	0.566	1.116	0.788	0.748	0.368
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	-0.034	-0.034	-0.034	-0.067	-0.048	-0.046	-0.021

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Maximum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.700	-0.263	0.833	0.569
(0.2L_r) 15.400	-0.498	1.536	1.038
(0.3L_r) 23.100	-0.682	2.076	1.393
(HP, 0.4L_r) 30.799	-0.799	2.418	1.619
(0.5L_r) 38.499	-0.839	2.534	1.694
(HP, 0.6L_r) 46.199	-0.799	2.418	1.619
(0.7L_r) 53.899	-0.682	2.076	1.393
(0.8L_r) 61.599	-0.498	1.536	1.038
(0.9L_r) 69.299	-0.263	0.833	0.569
76.582	-0.015	0.048	0.033
(STLF, 1.0L_r) 76.999	0.000	0.000	0.000

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.617	-0.252	0.818	0.000	0.566
(0.2L_{st}) 15.233	-0.477	1.509	0.000	1.031
(0.3L_{st}) 22.850	-0.653	2.038	0.000	1.384
(0.4L_{st}) 30.466	-0.765	2.373	0.000	1.607
(0.5L_{st}) 38.083	-0.803	2.486	0.000	1.682
(0.6L_{st}) 45.699	-0.765	2.373	0.000	1.607
(0.7L_{st}) 53.316	-0.653	2.038	0.000	1.384
(0.8L_{st}) 60.932	-0.477	1.509	0.000	1.031
(0.9L_{st}) 68.549	-0.252	0.818	0.000	0.566
(1.0L_{st}) 76.165	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.582	0.014	-0.048	0.000	-0.034

$\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	-0.252	0.818	0.000	0.000	0.000	0.549	-0.278	-0.044	-0.007	-0.006	-0.002	-0.005	0.000
(0.2L_e) 15.233	-0.477	1.509	0.000	0.000	0.000	1.001	-0.525	-0.083	-0.013	-0.017	-0.007	-0.014	0.000
(0.3L_e) 22.850	-0.653	2.038	0.000	0.000	0.000	1.343	-0.719	-0.114	-0.018	-0.030	-0.012	-0.024	0.000
(0.4L_e) 30.466	-0.765	2.373	0.000	0.000	0.000	1.559	-0.842	-0.134	-0.021	-0.041	-0.017	-0.033	0.000
(0.5L_e) 38.083	-0.803	2.486	0.000	0.000	0.000	1.632	-0.884	-0.140	-0.022	-0.048	-0.020	-0.039	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
($0.6L_e$) 45.699	-0.765	2.373	0.000	0.000	0.000	1.559	-0.841	-0.134	-0.021	-0.049	-0.021	-0.040	0.000
($0.7L_e$) 53.316	-0.653	2.038	0.000	0.000	0.000	1.343	-0.717	-0.114	-0.018	-0.044	-0.019	-0.036	0.000
($0.8L_e$) 60.932	-0.477	1.509	0.000	0.000	0.000	1.001	-0.523	-0.083	-0.013	-0.034	-0.014	-0.027	0.000
($0.9L_e$) 68.549	-0.252	0.818	0.000	0.000	0.000	0.549	-0.276	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
($1.0L_e$) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

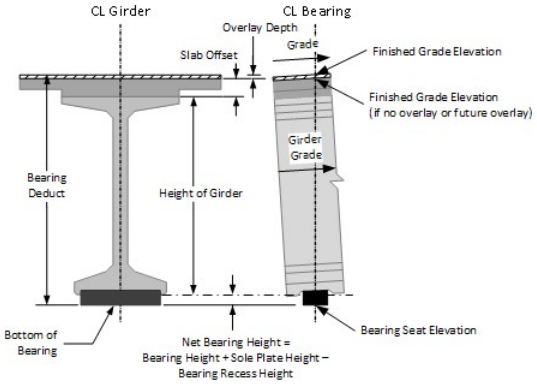
Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.048	-0.048	-0.018
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
($0.1L_e$) 7.617	0.566	0.566	0.566	1.116	0.787	0.774	0.341
($0.2L_e$) 15.233	1.031	1.031	1.031	2.032	1.410	1.373	0.660
($0.3L_e$) 22.850	1.384	1.384	1.384	2.727	1.876	1.810	0.917
($0.4L_e$) 30.466	1.607	1.607	1.607	3.167	2.170	2.079	1.087
($0.5L_e$) 38.083	1.682	1.682	1.682	3.315	2.269	2.162	1.152
($0.6L_e$) 45.699	1.607	1.607	1.607	3.167	2.172	2.062	1.105
($0.7L_e$) 53.316	1.384	1.384	1.384	2.727	1.879	1.779	0.948
($0.8L_e$) 60.932	1.031	1.031	1.031	2.032	1.413	1.337	0.695
($0.9L_e$) 68.549	0.566	0.566	0.566	1.116	0.788	0.748	0.368
($1.0L_e$) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	-0.034	-0.034	-0.034	-0.067	-0.048	-0.046	-0.021

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Haunch Details

Slab Offset check disabled in Project Criteria. No analysis performed.

Bearing Seat Elevation Details



NOTE: Vertical height dimensions listed in the tables below are adjusted for girder and roadway grade and orientation.
NOTE: Bearing Deduct is a nominal value rounded to 1/8"

Abutment 1 Ahead

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+04.36	43.319 L	-0.866	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.533	0.000	-5.533	56.000
B	1	94+01.38	35.605 L	-0.712	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	93+98.35	27.903 L	-0.558	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	93+95.26	20.214 L	-0.404	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.071	0.000	-5.071	56.000
E	1	93+92.11	12.537 L	-0.251	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.917	0.000	-4.917	56.000
F	1	93+88.90	4.874 L	-0.097	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.764	0.000	-4.764	56.000
G	1	93+85.21	3.734 R	-0.075	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.741	0.000	-4.741	56.000
H	1	93+81.83	11.432 R	-0.229	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	93+78.38	19.114 R	-0.382	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	93+74.86	26.781 R	-0.536	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.202	0.000	-5.202	56.000
K	1	93+71.27	34.433 R	-0.689	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.355	0.000	-5.355	56.000
L	1	93+67.60	42.068 R	-0.841	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.508	0.000	-5.508	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Back

Girder	Bearing # *	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+76.29	43.946 L	-0.879	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.546	0.000	-5.546	56.000
B	1	94+74.02	35.973 L	-0.719	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	94+71.71	28.007 L	-0.560	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.227	0.000	-5.227	56.000
D	1	94+69.34	20.048 L	-0.401	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.068	0.000	-5.068	56.000
E	1	94+66.93	12.097 L	-0.242	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.909	0.000	-4.909	56.000
F	1	94+64.47	4.154 L	-0.083	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.750	0.000	-4.750	56.000
G	1	94+62.21	3.014 R	-0.060	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.727	0.000	-4.727	56.000
H	1	94+59.63	11.009 R	-0.220	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	94+56.99	18.995 R	-0.380	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.047	0.000	-5.047	56.000
J	1	94+54.30	26.971 R	-0.539	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.206	0.000	-5.206	56.000
K	1	94+51.55	34.939 R	-0.699	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.365	0.000	-5.365	56.000
L	1	94+48.74	42.897 R	-0.858	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.525	0.000	-5.525	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Ahead

Girder	Bearing # *	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+77.78	43.375 L	-0.868	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.534	0.000	-5.534	56.000
B	1	94+75.59	35.630 L	-0.713	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	94+73.35	27.892 L	-0.558	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	94+71.08	20.161 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.070	0.000	-5.070	56.000
E	1	94+68.75	12.436 L	-0.249	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.915	0.000	-4.915	56.000
F	1	94+66.39	4.719 L	-0.094	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.761	0.000	-4.761	56.000
G	1	94+63.76	3.662 R	-0.073	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.740	0.000	-4.740	56.000
H	1	94+61.28	11.394 R	-0.228	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	94+58.75	19.119 R	-0.382	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	94+56.17	26.836 R	-0.537	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.203	0.000	-5.203	56.000
K	1	94+53.53	34.543 R	-0.691	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.358	0.000	-5.358	56.000
L	1	94+50.84	42.242 R	-0.845	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.512	0.000	-5.512	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Abutment 3 Back

Girder	Bearing # *	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	95+49.88	43.902 L	-0.878	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.545	0.000	-5.545	56.000
B	1	95+48.39	35.975 L	-0.719	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	95+46.88	28.051 L	-0.561	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.228	0.000	-5.228	56.000
D	1	95+45.33	20.130 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.069	0.000	-5.069	56.000
E	1	95+43.75	12.213 L	-0.244	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.911	0.000	-4.911	56.000
F	1	95+42.14	4.298 L	-0.086	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.753	0.000	-4.753	56.000
G	1	95+40.61	3.069 R	-0.061	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.728	0.000	-4.728	56.000
H	1	95+38.92	11.009 R	-0.220	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	95+37.20	18.945 R	-0.379	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.046	0.000	-5.046	56.000
J	1	95+35.45	26.877 R	-0.538	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.204	0.000	-5.204	56.000
K	1	95+33.65	34.805 R	-0.696	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.363	0.000	-5.363	56.000
L	1	95+31.82	42.729 R	-0.855	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.521	0.000	-5.521	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Bearing Design Parameters

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian Max (kip)	$ Pedestrian Min (kip)	* Design Live Load Max (kip)	* Design Live Load Min (kip)	* Fatigue Live Load Max (kip)	* Fatigue Live Load Min (kip)	* Permit Live Load Max (kip)	* Permit Live Load Min (kip)
Pier 2 - Ahead	28.50	0.00	34.19	5.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Abutment 3 - Back	28.50	2.60	33.22	5.41	8.17	3.42	6.55	3.58	-0.51	103.02 (D0)	-11.66 (D0)	59.29 (F0)	-6.30 (F0)	128.52 (P0)	-14.31 (P0)

* Live Load values are per lane and include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Girder Bearing Reactions due to User Defined Loads in Interval 17: Open to Traffic

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3 - Back	0.84	1.16	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
Abutment 3 - Back	0.00	0.00	82.16	7.71	178.08

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	88.21	-9.99	42.30	-4.49	110.05	-12.25	91.79	-10.49	42.30	-4.49	110.05	-12.25

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	178.08	160.44	108.39	268.63	61.48	262.83	62.42

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	70.91	-8.16	36.79	-3.91	82.74	-9.21	74.49	-8.67	36.79	-3.91	82.74	-9.21

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Without Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	160.78	146.59	100.11	238.35	64.68	225.97	66.52

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load		* Legal Routine		* Legal Special		* Legal Emergency	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 3 - Back	-0.00281	0.00000	-0.00310	-0.00049	-0.00001	0.00000	-0.00001	0.00007	-0.00008	0.00120 (D0)	-0.00129 (D0)	0.00058 (F0)	-0.00062 (F0)	0.00136 (P0)	-0.00146 (P0)	0.00072 (R1)	-0.00077 (R1)	0.00092 (S0)	-0.00098 (S0)	0.00100 (E1)	-0.00107 (E1)

* Live Load values are per girder and do not include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Rotations due to User Defined Loads in Interval 17: Open to Traffic

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 3 - Back	0.00008	0.00003	0.00000

Prestress and Time-Dependent Rotations

	Pre-tensioning (rad)	Creep (rad)
Pier 2 - Ahead	0.00765	0.00643
Abutment 3 - Back	-0.00765	-0.00643

Corresponding Live Load Bearing Reactions and Rotations

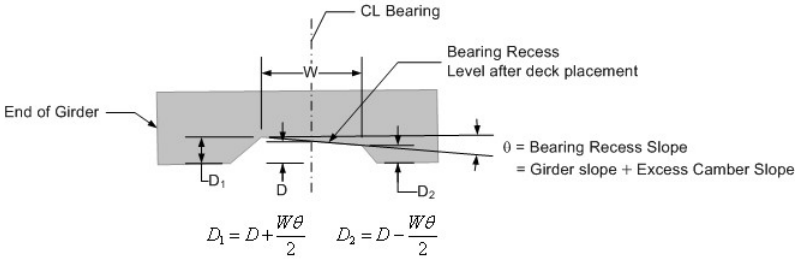
	* Reactions				* Rotations			
	R_{Max} (kip)	θ (rad)	R_{Min} (kip)	θ (rad)	θ_{Max} (rad)	R (kip)	θ_{Min} (rad)	R (kip)
Abutment 3	70.91	0.00054	-8.16	0.00027	0.00191	31.03	-0.00062	12.93

* Live Load values are per girder and do not include impact.

Bearing Recess Geometry

	Girder Slope (ft/ft)	Excess Camber Slope (ft/ft)	Bearing Recess Slope (ft/ft)	* W Recess Length	D Recess Height	D_1	D_2
Abutment 3	-0.000	-0.009	-0.009	8"	0"	0"	0"

* W is maximum of input bearing length and recess length



Lifting Check Details

Details for Check for Lifting In Casting Yard [5.5.4.3][5.9.2.3.1]
Lifting analysis disabled in Project Criteria. No analysis performed.

Hauling Check Details

Details for Check for Hauling to Bridge Site [5.5.4.3][5.9.2.3.1]
Hauling analysis disabled in Project Criteria. No analysis performed.

Details Report

For

Span 1 Girder B

March 15, 2021 8:06:35 am

PGSuper™ (x64)

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Version 5.0.3 - Built on Jul 9 2020



Project Properties

Bridge Name	Belford over Happy Canyon Creek
Bridge ID	
Company	FHU
Engineer	J. Lynch
Job Number	115360
Comments	Belford Ave over Happy Canyon Creek. Updated design for full width and current design codes.
File	C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

Configuration
Configuration Name: WSDOT
Configuration Source: ftp://ftp.wsdot.wa.gov/public/bridge/Software/PGSuper/Version_5.0.0/WSDOT.pgz
Configuration Date Stamp: September 25, 2020 2:10:27 pm

Library	Entry	Source
Girders	BT-42 CDOT	Project Library
Traffic Barriers	Parker Rail	Project Library
Project Criteria	CDOT based on AASHTO LRFD Bridge Design Specification, Eighth Edition 2017	Project Library
Vehicular Live Load	CDOT Permit	Project Library
Vehicular Live Load	OL1	Master Library
Vehicular Live Load	OL2	Master Library
Load Rating Criteria	WSDOT based on The Manual for Bridge Evaluation, Second Edition 2011, with 2011-2016 interim provisions	Master Library
Haul Trucks	HT40-72	Master Library

Analysis Controls
Structural Analysis Method: Simple Spans made Continuous
Section Properties: Gross
Losses: Approximate lump sum estimate per AASHTO LRFD 5.9.3.3

Notes

Symbol	Definition
L_r	Span Length of Girder at Release
L_l	Span Length of Girder during Lifting
L_{st}	Span Length of Girder during Storage
L_h	Span Length of Girder during Hauling
L_e	Span Length of Girder after Erection
L_s	Length of Span
Debond	Point where bond begins for a debonded strand
PSXFR	Point of prestress transfer
FoS	Face of Support
ST	Section Transitions
STLF	Section Transitions, Left Face
STRF	Section Transitions, Right Face
SDCR	Start of Deck Casting Region
EDCR	End of Deck Casting Region
Diaphragm	Location of a precast or cast in place diaphragm
Bar Cutoff	End of a reinforcing bar in the girder
Deck Bar Cutoff	End of a reinforcing bar in the deck
CS	Critical Section for Shear
SZB	Stirrup Zone Boundary
H	H from end of girder or face of support
1.5H	1.5H from end of girder or face of support
HP	Harp Point
Pick Point	Support point where girder is lifted from form
Bunk Point	Point where girder is supported during transportation

Status Items

Level	Description
Warning	Span 1, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)

Alignment

Alignment Details

Direction: N 49° 48' 33.38" E
Ref. Point: 0+00.00 (E (X) 0.000, N (Y) 0.000)

Horizontal Curve Data

Curve Parameters	Curve 1
Back Tangent Bearing	N 49° 48' 33.38" E
Forward Tangent Bearing	S 24° 47' 12.62" E
PC Station	81+65.50
PI Station	91+76.34
PT Station	95+82.03
Delta (Δ_{cc})	105° 24' 14.00" R
Degree Curvature (DC)	7° 26' 27.64"
Radius (R)	770.000 ft
Tangent (T)	1010.841 ft
Length (L)	1416.527 ft
Chord (C)	1225.061 ft
External (E)	500.708 ft
Mid Ordinate (MO)	303.410 ft
Curve Points (x,y)	
PC	5269.475 ft, 6237.629 ft
PI	5921.805 ft, 7009.810 ft
PT	5004.089 ft, 7433.599 ft
Center of Circular Curve (CCC)	4681.272 ft, 6734.536 ft

Profile Details

Station: 0+00.00
Elevation: 0.000 ft
Grade: 0%

Roadway Cross Sections

Each Roadway Cross Section Template contains 3 segments per section.
Ridge Point #1 is the controlling ridge point. It defines the slope sign convention and coincides with the horizontal alignment, profile grade, and superelevation pivot location.

Template	Station	Segment 1	Segment 2		Segment 3
		Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Slope (ft/ft)
1	0+00.00	-0.02	0.000	0	-0.02

Bridge Description

General Bridge Information

Number of Spans	2
Girder Type	BT-42 CDOT

Concrete Properties

Element	Type	f'_{ci} (KSI)	E_{ci} (KSI)	f'_c (KSI)	E_c (KSI)	w_w (kip/ft^3)	w_c (kip/ft^3)	D_{agg} (in)	f_{ct} (KSI)	E_c		Creep		Shrinkage		λ
										K_1	K_2	K_1	K_2	K_1	K_2	
Girder B	Normal Weight Concrete	6.000	4557.295	8.000	5011.145	0.163	0.145	0.750	N/A	1	1	1	1	1	1	1
Deck	Normal Weight Concrete	-	-	4.500	4144.550	0.150	0.145	0.750	N/A	1	1	1	1	1	1	1

$$E_c = 120{,}000 K_1 K_2 w_c^{2.0} f_c'^{0.33}$$

* = Modulus of elasticity was input

Pier Layout

	Station	Bearing	Skew Angle	Boundary Condition
Abutment 1	93+85.19	N 73° 56' 01.00" E	23° 22' 01.32" R	Hinge
Pier 2	94+64.04	N 73° 56' 01.00" E	17° 29' 59.26" R	Continuous after deck placement
Abutment 3	95+42.78	N 73° 56' 01.00" E	11° 38' 26.68" R	Hinge

Pier Diaphragms

	Diaphragm - Back				Diaphragm - Ahead			
	Height (in)	Width (in)	Loading	Location(*) (in)	Height (in)	Width (in)	Loading	Location(*) (in)
Abutment 1					Compute	Compute	Apply load at centerline bearing	N/A
Pier 2	Compute	Compute	Apply load at centerline bearing	N/A	Compute	Compute	Apply load at centerline bearing	N/A
Abutment 3	Compute	Compute	Apply load at centerline bearing	N/A				

(*) Distance from Abutment/Pier Line to Centroid of Diaphragm

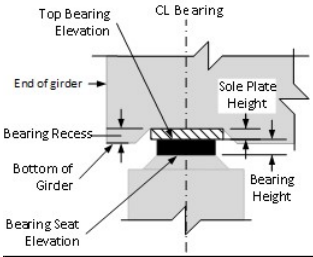
Pier Connections

	Back				Ahead			
	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure
Abutment 1					18.000	FA-NA	5.000	FCLB-AG
Pier 2	10.000	FP-NP	5.000	FCLB-AG	10.000	FP-NP	5.000	FCLB-AG
Abutment 3	18.000	FA-NA	5.000	FCLB-AG				

Bearing Offset Measure
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

End Distance Measure
FCLB-AG = Measured From CL Bearing along Girder
FCLB-NCLB = Measured From and Normal to CL Bearing
FCLB-NCLB = Measured From and Normal to CL Bearing
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

Bearing Details



Location	Shape	# of Bearings	Spacing (in)	Length or Diameter (in)	Width (in)	Height (in)	Recess Height (in)	Recess Length (in)	Sole Plate Height (in)
Abutment 1 - Ahead	Rectangular	1	N/A	8.000	12.000	0.000	0.000	0.000	0.000

Spans

Span	# Girders	Start of Span		End of Span	
		Girder Spacing	Datum	Girder Spacing	Datum
1	12	Between A & F : 8.323 ft Between F & G : 9.368 ft Between G & L : 8.393 ft	4	Between A & F : 8.323 ft Between F & G : 7.519 ft Between G & L : 8.393 ft	4
2	12	Between A & F : 8.080 ft Between F & G : 8.784 ft Between G & L : 8.113 ft	4	Between A & F : 8.080 ft Between F & G : 7.525 ft Between G & L : 8.113 ft	4

Girder Spacing Datum:
(1) Measured normal to the alignment at the abutment/pier line
(2) Measured normal to the alignment at the centerline of bearing
(3) Measured at and along the abutment/pier line
(4) Measured at and along the centerline of bearing

Girder spacing is measured at the work point elevation, which is at top centerline of girder.
Girder orientation is set plumb

Span 1, Girder B

Girder Type	BT-42 CDOT
Slab Offset ("A" Dimension) at Abutment 1	11.000 in
Slab Offset ("A" Dimension) at Pier 2	11.000 in
Strand Fill Type	Sequence of Straight/Harped Strands
Type of Adjustable Web Strands	Harped
Number of Straight Strands	18 8 extended at left end 8 extended at right end
Straight Strand P_{jack}	790.97 kip
Number of Harped Strands	10
Harped Strand P_{jack}	439.43 kip
Total Number of Permanent Strands	28
Distance from top of girder to top-most harped strand at ends of girder	4.000 in
Distance from bottom of girder to lowest harped strand at harp point	2.000 in
Specified Release Strength f'_{ci}	6.000 KSI
Specified 28 day Strength f'_c	8.000 KSI
Prestressing Strand (Permanent)	0.600 in Dia. Grade 270 Low Relaxation

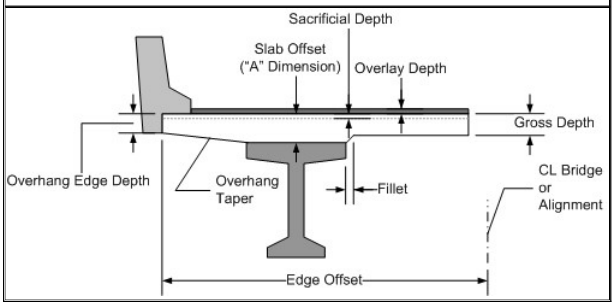
Deck Geometry

Deck Type
Composite cast-in-place deck
Cross Section
Gross Depth = 8.000 in
Left Overhang Edge Depth = 8.000 in
Left Overhang Taper = Taper overhang to bottom of girder top flange
Right Overhang Edge Depth = 8.000 in
Right Overhang Taper = Taper overhang to bottom of girder top flange
Fillet = 1.000 in
Slab Offset ("A" Dimension) = 11.000 in

Plan (Edge of Deck)

Station	Measured From	Left Offset (ft)	Right Offset (ft)
0+00.00	Bridge Line	47.000	47.000

Wearing Surface
Wearing Surface: Overlay
Overlay Weight = 0.037 KSF



Deck Reinforcement
Reinforcement: AASHTO M31 (A615) - Grade 60
Top Mat Cover: 2.000 in
Bottom Mat Cover: 1.000 in
Primary Reinforcement - Longitudinal reinforcement running the full length of the bridge

Mat	Bars		Lump Sum (in^2/ft)
Top	#9 @ 6.000	AND	0.000
Bottom	None @ 18.000	AND	0.000

Supplemental Reinforcement - Negative moment reinforcement at continuous piers

Pier	Mat	A_s (in^2/ft)	Bar	Spacing (in)	Left Cutoff (ft)	Right Cutoff (ft)
2	Top	0.000	#9	6.000	22.000	22.000

Analysis Intervals

Interval	Description	Start Event	End Event	Start (day)	Middle (day)	End (day)	Duration (day)
1	Tension strand, cast girder, strand relaxation, and concrete curing	1	1	0	0.5	1	1
2	Prestress Release	1	1	1	1	1	0
3	Lift girders	1	1	1	1	1	0
4	Place girders into storage	1	1	1	1	1	0
5	Time Step	1	2	1	14.5	28	27
6	Haul Girders	2	2	28	28	28	0
7	Erect Girders	2	2	28	28	28	0
8	Time Step	2	3	28	44.5	61	33
9	Install Intermediate Diaphragms	3	3	61	61	61	0
10	Time Step	3	4	61	61.5	62	1
11	Cast Deck, Apply User Defined Loads	4	4	62	62	62	0
12	Deck curing	4	4	62	62	62	0
13	Composite deck	4	4	62	62	62	0
14	Time Step	4	5	62	62.5	63	1
15	Apply User Defined Loads, Install Railing System and Overlay	5	5	63	63	63	0
16	Time Step	5	6	63	63.5	64	1
17	Open to Traffic	6	6	64	64	64	0

Span Lengths

C-C Pier = Abutment/Pier Line to Abutment/Pier Line length measured along the girder
C-C Bearing = Centerline bearing to centerline bearing length measured along the girder centerline
Girder Length, Plan = End to end length of the girder projected into a horizontal plane
Girder Length, Along Grade = End to end length of girder measured along grade of the girder (slope adjusted) = $L_g\sqrt{1+grade^2}$

C-C Pier (ft)	C-C Bearing (ft)	Girder Length		Grade (ft/ft)	End Distance	
		Plan (ft)	Along Grade (ft)		Start (ft)	End (ft)
78.466	75.987	76.820	76.820	-0.0001	0.417	0.417

Section Properties

Left Traffic Barrier Area = 2145.000 in^2
Left Traffic Barrier I_{yy} = 298512.8 in^4
Left Traffic Barrier Y_b = 12.798 in
Left Exterior Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Left Exterior Traffic Barrier to Left Edge of Deck = 9.000 in
Left Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Left Sidewalk to Left Edge of Deck = 69.000 in
Left Sidewalk Actual Width = 120.000 in
Left Sidewalk Face Depth = 11.000 in
Left Sidewalk Back Depth = 15.750 in
Left Sidewalk Weight = 1.672 kip/ft

Right Traffic Barrier Area = 2145.000 in^2
Right Traffic Barrier I_{yy} = 298512.8 in^4
Right Traffic Barrier Y_b = 12.798 in
Right Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Right Exterior Traffic Barrier to Right Edge of Deck = 9.000 in
Right Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Right Sidewalk to Right Edge of Deck = 69.000 in
Right Sidewalk Actual Width = 120.000 in
Right Sidewalk Face Depth = 11.000 in
Right Sidewalk Back Depth = 15.750 in
Right Sidewalk Weight = 1.672 kip/ft

Deck E_c = 4144.550 KSI

Bending Stiffness of Entire Bridge Section at center of Span 1
EI_{xx} = 2.13e+10 kip-in^2 (used to compute Live Load Deflections per LRFD 3.6.1.3.2)
EI_{yy} = 8.13e+12 kip-in^2
EI_{xy} = -1.96e+09 kip-in^2

Section Properties

	Girder	Composite
Area (in^2)	654.000	1311.576
I_x (in^4)	153070.0	372072.4
I_y (in^4)	42346.5	-
d (girder depth) (in)	42.000	51.000
Y_{tg} (in)	20.850	8.012
Y_{bg} (in)	21.150	33.988
Y_{td} (in)	-	17.012
Y_{bd} (in)	-	8.012
S_{tg} (in^3)	7341.4	46440.2
S_{bg} (in^3)	7237.4	10947.1
$S_{td} = n(I_x/Y_{td})$ (in^3)	-	26444.5

	Girder	Composite
$S_{bd} = n(I_x/Y_{bd})$ (in^3)	-	56150.5
Q_{deck} (in^3)	-	8396.2
Effective Flange Width (in)	-	94.009
k_t (in) (Top kern point)	11.066	-
k_b (in) (Bottom kern point)	11.225	-
Perimeter (in)	195.230	-
Span/Depth Ratio	22	18
Weight (kip/ft)	0.740	-
Total Weight (kip)	56.87	-

User Defined Loads

Locations are measured from left support.
Point loads were not defined for this girder

Distributed Loads

Event	Load Case	Start Location	End Location	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Event 5: Final without Live Load	DW	0.00 %	100.00 %	0.040	0.040	Utility Load
Event 4: Cast Deck	DC	0.00 %	100.00 %	0.022	0.022	SIP Forms

Moment loads were not defined for this girder

Moments, Shears, and Reactions

Load Responses - Casting Yard

At Release

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF, 0.0L_r) 0.000	0.00	28.43	0.000
(PSXFR) 3.000	81.97	26.21	-0.104
(0.1L_r) 7.682	196.59	22.75	-0.261
(0.2L_r) 15.364	349.50	17.06	-0.494
(0.3L_r) 23.046	458.72	11.37	-0.676
(HP, 0.4L_r) 30.728	524.25	5.69	-0.792
(0.5L_r) 38.410	546.09	0.00	-0.832
(HP, 0.6L_r) 46.092	524.25	-5.69	-0.792
(0.7L_r) 53.774	458.72	-11.37	-0.676
(0.8L_r) 61.456	349.50	-17.06	-0.494
(0.9L_r) 69.138	196.59	-22.75	-0.261
(PSXFR) 73.820	81.97	-26.21	-0.104
(STLF, 1.0L_r) 76.820	0.00	-28.43	0.000

During Storage

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF) -0.417	0.00	0.00	0.014
(0.0L_{st}) 0.000	-0.06	-0.31 28.13	0.000
(PSXFR) 2.583	70.12	26.21	-0.086
(0.1L_{st}) 7.599	192.29	22.50	-0.250
(0.2L_{st}) 15.197	341.89	16.88	-0.473
(0.3L_{st}) 22.796	448.75	11.25	-0.647
(HP) 30.311	512.40	5.69	-0.757
(0.4L_{st}) 30.395	512.87	5.63	-0.758
(0.5L_{st}) 37.993	534.24	0.00	-0.796
(0.6L_{st}) 45.592	512.87	-5.63	-0.758
(HP) 45.675	512.40	-5.69	-0.757
(0.7L_{st}) 53.191	448.75	-11.25	-0.647
(0.8L_{st}) 60.790	341.89	-16.88	-0.473
(0.9L_{st}) 68.388	192.29	-22.50	-0.250
(PSXFR) 73.404	70.12	-26.21	-0.086
(1.0L_{st}) 75.987	-0.06	-28.13 0.31	0.000
(STLF) 76.404	0.00	0.00	0.014

Responses from Externally Applied Loads at the Bridge Site

Moments

Location from Left Support (ft)	Girder (kip-ft)	Diaphragm (kip-ft)	Slab (kip-ft)	Haunch (kip-ft)	Sidewalk (kip-ft)	Railing System (kip-ft)	Overlay (kip-ft)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
(0.0L_e) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
(PSXFR) 2.583	70.19	0.00	74.28	13.36	19.81	8.29	16.11	8.88	-1.32	253.66 (D0)	-30.33 (D0)	144.72 (F0)	-16.38 (F0)	314.29 (P0)	-37.20 (P0)
(0.1L_e) 7.599	192.35	0.00	203.55	36.72	52.95	22.17	43.07	24.10	-3.89	676.46 (D0)	-89.22 (D0)	378.62 (F0)	-48.18 (F0)	825.89 (P0)	-109.41 (P0)
(0.2L_e) 15.197	341.96	0.00	361.87	65.48	89.81	37.60	73.05	42.06	-7.78	1145.69 (D0)	-178.44 (D0)	620.09 (F0)	-96.36 (F0)	1379.67 (P0)	-218.83 (P0)
(0.3L_e) 22.796	448.82	0.00	474.96	86.14	110.59	46.30	89.94	53.89	-11.67	1418.09 (D0)	-267.66 (D0)	771.19 (F0)	-144.53 (F0)	1711.90 (P0)	-328.24 (P0)
(0.4L_e) 30.395	512.93	0.00	542.81	98.58	115.27	48.26	93.75	59.58	-15.56	1544.60 (D0)	-356.88 (D0)	815.83 (F0)	-192.71 (F0)	1853.57 (P0)	-437.66 (P0)
(0.5L_e) 37.993	534.31	0.00	565.42	102.73	103.87	43.49	84.48	59.14	-19.45	1519.72 (D0)	-446.10 (D0)	770.67 (F0)	-240.89 (F0)	1858.41 (P0)	-547.07 (P0)
(0.6L_e) 45.592	512.93	0.00	542.81	98.58	76.38	31.98	62.12	52.56	-23.34	1373.24 (D0)	-535.32 (D0)	735.50 (F0)	-289.07 (F0)	1642.52 (P0)	-656.49 (P0)
(0.7L_e) 53.191	448.82	0.00	474.96	86.14	32.79	13.73	26.67	39.85	-27.23	1076.80 (D0)	-624.54 (D0)	591.98 (F0)	-337.25 (F0)	1269.07 (P0)	-765.90 (P0)
(0.8L_e) 60.790	341.96	0.00	361.87	65.48	-26.88	-11.25	-21.86	21.00	-31.12	662.82 (D0)	-713.76 (D0)	359.57 (F0)	-385.42 (F0)	742.60 (P0)	-875.32 (P0)
(0.9L_e) 68.388	192.35	0.00	203.55	36.72	-102.64	-42.97	-83.48	4.79	-43.78	269.01 (D1)	-930.34 (D2)	61.38 (F0)	-433.60 (F0)	58.25 (P0)	-1021.82 (P0)
(PSXFR) 73.404	70.19	0.00	74.28	13.36	-161.46	-67.60	-131.32	0.70	-62.11	79.48 (D0)	-1306.68 (D2)	0.00 (F0)	-465.40 (F0)	0.00 (P0)	-1414.39 (P0)
(1.0L_e) 75.987	0.00	0.00	0.00	0.00	-194.49	-81.43	-158.18	0.04	-74.04	19.22 (D0)	-1514.02 (D2)	0.00 (F0)	-481.78 (F0)	0.00 (P0)	-1620.88 (P0)
75.987	0.00	0.00	0.00	0.00	-194.49	-81.43	-158.18	0.04	-74.04	19.22 (D0)	-1514.02 (D2)	0.00 (F0)	-481.78 (F0)	0.00 (P0)	-1620.88 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.
(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane

(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Moment due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip-ft)	User DW (kip-ft)	User LL+IM (kip-ft)
0.000	0.00	0.00	0.00
(0.0L_e) 0.000	0.00	0.00	0.00
(PSXFR) 2.583	2.09	0.00	0.00
(0.1L_e) 7.599	5.72	0.00	0.00
(0.2L_e) 15.197	10.16	0.00	0.00
(0.3L_e) 22.796	13.34	0.00	0.00
(0.4L_e) 30.395	15.24	0.00	0.00
(0.5L_e) 37.993	15.88	0.00	0.00
(0.6L_e) 45.592	15.24	0.00	0.00
(0.7L_e) 53.191	13.34	0.00	0.00
(0.8L_e) 60.790	10.16	0.00	0.00
(0.9L_e) 68.388	5.71	0.00	0.00
(PSXFR) 73.404	2.08	0.00	0.00
(1.0L_e) 75.987	-0.00	0.00	0.00
75.987	-0.00	0.00	0.00

Shears

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
(0.0L_e) 0.000	28.43 28.13	3.05 0.00	30.09 29.76	5.40 5.35	8.14 8.03	3.41 3.36	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
(0.1L_e) 7.599	22.50	0.00	23.81	4.31	5.91	2.47	4.81	2.82	-0.56	86.89 (D0)	-12.04 (D0)	49.83 (F0)	-6.34 (F0)	108.69 (P0)	-14.40 (P0)
(0.2L_e) 15.197	16.88	0.00	17.86	3.26	3.79	1.59	3.08	2.16	-0.71	71.72 (D0)	-18.46 (D1)	40.80 (F0)	-9.02 (F0)	89.64 (P0)	-15.68 (P0)
(0.3L_e) 22.796	11.25	0.00	11.91	2.18	1.68	0.70	1.36	1.60	-0.96	57.59 (D0)	-27.91 (D1)	32.31 (F0)	-13.40 (F0)	71.56 (P0)	-26.11 (P0)
(0.4L_e) 30.395	5.63	0.00	5.95	1.09	-0.44	-0.19	-0.36	1.13	-1.30	44.60 (D0)	-39.84 (D0)	24.46 (F0)	-17.85 (F0)	54.70 (P0)	-38.25 (P0)
(0.5L_e) 37.993	0.00	0.00	0.00	0.00	-2.56	-1.07	-2.08	0.75	-1.73	32.88 (D0)	-53.41 (D0)	17.38 (F0)	-26.39 (F0)	37.89 (P0)	-60.77 (P0)
(0.6L_e) 45.592	-5.63	0.00	-5.95	-1.09	-4.68	-1.96	-3.80	0.46	-2.24	22.54 (D0)	-66.97 (D0)	11.17 (F0)	-34.85 (F0)	16.35 (P0)	-83.45 (P0)
(0.7L_e) 53.191	-11.25	0.00	-11.91	-2.18	-6.79	-2.84	-5.53	0.25	-2.84	14.50 (D1)	-80.33 (D0)	5.91 (F0)	-43.77 (F0)	1.91 (P0)	-104.01 (P0)
(0.8L_e) 60.790	-16.88	0.00	-17.86	-3.26	-8.91	-3.73	-7.25	0.11	-3.50	8.34 (D1)	-93.34 (D0)	1.63 (F0)	-52.14 (F0)	0.00 (P0)	-122.34 (P0)
(0.9L_e) 68.388	-22.50	0.00	-23.81	-4.31	-11.03	-4.62	-8.97	0.03	-4.23	3.35 (D1)	-105.78 (D0)	0.00 (F0)	-59.84 (F0)	0.00 (P0)	-138.28 (P0)
(1.0L_e) 75.987	-28.13 -28.43	0.00 -2.43	-29.76 -30.09	-5.35 -5.40	-13.15	-5.50	-10.69	0.00	-5.01	0.25 (D0)	-117.45 (D0)	0.00 (F0)	-66.75 (F0)	0.00 (P0)	-151.78 (P0)
75.987	0.00	0.00	0.00	0.00	-13.15	-5.50	-10.69	0.00	-5.01	0.25 (D0)	-117.45 (D0)	0.00 (F0)	-66.75 (F0)	0.00 (P0)	-151.78 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Shears due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip)	User DW (kip)	User LL+IM (kip)
0.000	0.00	0.00	0.00
(0.0L_e) 0.000	0.84	0.00	0.00
(0.1L_e) 7.599	0.67	0.00	0.00
(0.2L_e) 15.197	0.50	0.00	0.00
(0.3L_e) 22.796	0.33	0.00	0.00
(0.4L_e) 30.395	0.17	0.00	0.00
(0.5L_e) 37.993	-0.00	0.00	0.00
(0.6L_e) 45.592	-0.17	0.00	0.00
(0.7L_e) 53.191	-0.33	0.00	0.00
(0.8L_e) 60.790	-0.50	0.00	0.00
(0.9L_e) 68.388	-0.67	0.00	0.00
(1.0L_e) 75.987	-0.84	0.00	0.00
75.987	0.01	0.00	0.00

Girder Line Pier Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1	28.43	3.05	30.09	5.40	8.14	3.41	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
Pier 2	56.94	0.00	60.25	10.82	26.80	11.22	21.61	10.22	0.00	170.57 (D2)	0.00 (D0)	77.34 (F0)	0.00 (F0)	213.56 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	28.43	3.05	30.09	5.40	8.14	3.41	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
Pier 2 - Back	28.43	0.00	30.09	5.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Line Pier Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1	0.84	0.00	0.00
Pier 2	1.70	0.00	0.00

Girder Bearing Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1 - Ahead	0.84	0.00	0.00

Deflections

Location from Left Support (ft)	Girder (in)	Diaphragm (in)	Slab (in)	Haunch (in)	Sidewalk (in)	Railing System (in)	Overlay (in)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
($0.1L_e$) 7.599	-0.250	0.000	-0.241	-0.044	-0.018	-0.008	-0.015	0.004	-0.010	0.081 (D0)	-0.244 (D0)	0.044 (F0)	-0.130 (F0)	0.099 (P0)	-0.302 (P0)
($0.2L_e$) 15.197	-0.473	0.000	-0.455	-0.083	-0.033	-0.014	-0.027	0.007	-0.019	0.157 (D0)	-0.461 (D0)	0.085 (F0)	-0.245 (F0)	0.192 (P0)	-0.571 (P0)
($0.3L_e$) 22.796	-0.647	0.000	-0.623	-0.113	-0.044	-0.018	-0.036	0.010	-0.026	0.223 (D0)	-0.627 (D0)	0.120 (F0)	-0.331 (F0)	0.273 (P0)	-0.774 (P0)
($0.4L_e$) 30.395	-0.758	0.000	-0.730	-0.132	-0.049	-0.020	-0.039	0.012	-0.030	0.275 (D0)	-0.722 (D0)	0.148 (F0)	-0.379 (F0)	0.337 (P0)	-0.890 (P0)
($0.5L_e$) 37.993	-0.796	0.000	-0.766	-0.139	-0.047	-0.020	-0.038	0.013	-0.031	0.308 (D0)	-0.742 (D0)	0.166 (F0)	-0.387 (F0)	0.377 (P0)	-0.914 (P0)
($0.6L_e$) 45.592	-0.758	0.000	-0.730	-0.132	-0.040	-0.017	-0.033	0.014	-0.029	0.317 (D0)	-0.686 (D0)	0.171 (F0)	-0.361 (F0)	0.388 (P0)	-0.844 (P0)
($0.7L_e$) 53.191	-0.647	0.000	-0.623	-0.113	-0.029	-0.012	-0.024	0.013	-0.024	0.297 (D0)	-0.564 (D0)	0.160 (F0)	-0.301 (F0)	0.364 (P0)	-0.694 (P0)
($0.8L_e$) 60.790	-0.473	0.000	-0.455	-0.083	-0.017	-0.007	-0.014	0.011	-0.017	0.244 (D0)	-0.396 (D0)	0.132 (F0)	-0.212 (F0)	0.299 (P0)	-0.486 (P0)
($0.9L_e$) 68.388	-0.250	0.000	-0.241	-0.044	-0.006	-0.002	-0.005	0.007	-0.009	0.153 (D0)	-0.203 (D0)	0.083 (F0)	-0.109 (F0)	0.187 (P0)	-0.249 (P0)
($1.0L_e$) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.023 (P0)	-0.024 (P0)
75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.023 (P0)	-0.024 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Deflections due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.000	0.000	0.000
($0.1L_e$) 7.599	-0.007	0.000	0.000

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
(0.2L_e) 15.197	-0.013	0.000	0.000
(0.3L_e) 22.796	-0.017	0.000	0.000
(0.4L_e) 30.395	-0.020	0.000	0.000
(0.5L_e) 37.993	-0.022	0.000	0.000
(0.6L_e) 45.592	-0.020	0.000	0.000
(0.7L_e) 53.191	-0.017	0.000	0.000
(0.8L_e) 60.790	-0.013	0.000	0.000
(0.9L_e) 68.388	-0.007	0.000	0.000
(1.0L_e) 75.987	0.000	0.000	0.000
75.987	0.000	0.000	0.000

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 1 - Ahead	-0.00279	0.00000	-0.00269	-0.00049	-0.00020	-0.00009	-0.00017	0.00004	-0.00012	0.00089 (D0)	-0.00273 (D0)	0.00048 (F0)	-0.00146 (F0)	0.00110 (P0)	-0.00338 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Rotations due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 1 - Ahead	-0.00008	0.00000	0.00000

Deflections For The LRFD Optional Deflection Live Load (LRFD 3.6.1.3.2)

Location from Left Support (ft)	D1 (in)	D2 (in)	D Controlling (in)
0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000
(0.1L_e) 7.599	-0.072	-0.043	-0.072
(0.2L_e) 15.197	-0.137	-0.081	-0.137
(0.3L_e) 22.796	-0.187	-0.110	-0.187
(0.4L_e) 30.395	-0.215	-0.127	-0.215
(0.5L_e) 37.993	-0.221	-0.130	-0.221
(0.6L_e) 45.592	-0.204	-0.121	-0.204
(0.7L_e) 53.191	-0.167	-0.100	-0.167
(0.8L_e) 60.790	-0.117	-0.070	-0.117
(0.9L_e) 68.388	-0.060	-0.036	-0.060
(1.0L_e) 75.987	-0.006	-0.003	-0.006
75.987	-0.006	-0.003	-0.006

D1 = LRFD Design truck without lane load and including impact
D2 = 0.25*(Design truck) + lane load, including impact
D(Controlling) = Max(D1, D2)
EI = Bridge EI / Number of Girders
Live Load Distribution Factor = (Multiple Presence Factor)(Number of Lanes)/(Number of Girders)

Combined Results - Interval 2: Prestress Release

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)	Service I (kip-ft)
(STRF, 0.0L_r) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.750	21.12	0.00	21.12	0.00	21.12
(SZB) 1.753	48.72	0.00	48.72	0.00	48.72
(Bar Develop.) 2.121	58.65	0.00	58.65	0.00	58.65
(PSXFR) 3.000	81.97	0.00	81.97	0.00	81.97
(Bar Develop.) 3.182	86.73	0.00	86.73	0.00	86.73
(H) 4.250	114.16	0.00	114.16	0.00	114.16
(SZB) 5.419	143.22	0.00	143.22	0.00	143.22
(1.5H) 6.000	157.28	0.00	157.28	0.00	157.28
(0.1L_r) 7.682	196.59	0.00	196.59	0.00	196.59
(SZB) 10.919	266.35	0.00	266.35	0.00	266.35
(0.2L_r) 15.364	349.50	0.00	349.50	0.00	349.50
(SZB) 19.169	409.06	0.00	409.06	0.00	409.06
(0.3L_r) 23.046	458.72	0.00	458.72	0.00	458.72
(SZB) 30.169	520.95	0.00	520.95	0.00	520.95
(HP, 0.4L_r) 30.728	524.25	0.00	524.25	0.00	524.25
(0.5L_r) 38.410	546.09	0.00	546.09	0.00	546.09
(HP, 0.6L_r) 46.092	524.25	0.00	524.25	0.00	524.25

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(SZB) 46.651	520.95	0.00	520.95	0.00	520.95
(0.7L_t) 53.774	458.72	0.00	458.72	0.00	458.72
(Deck Bar Cutoff) 54.998	444.25	0.00	444.25	0.00	444.25
(SZB) 57.651	409.06	0.00	409.06	0.00	409.06
(0.8L_t) 61.456	349.50	0.00	349.50	0.00	349.50
(SZB) 65.901	266.35	0.00	266.35	0.00	266.35
(0.9L_t) 69.138	196.59	0.00	196.59	0.00	196.59
(1.5H) 70.820	157.28	0.00	157.28	0.00	157.28
(SZB) 71.401	143.22	0.00	143.22	0.00	143.22
(H) 72.570	114.16	0.00	114.16	0.00	114.16
(Bar Develop.) 73.638	86.73	0.00	86.73	0.00	86.73
(PSXFR) 73.820	81.97	0.00	81.97	0.00	81.97
(Bar Develop.) 74.699	58.65	0.00	58.65	0.00	58.65
(SZB) 75.067	48.72	0.00	48.72	0.00	48.72
(FoS) 76.070	21.12	0.00	21.12	0.00	21.12
(STLF, 1.0L_t) 76.820	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF, 0.0L_t) 0.000	28.43	0.00	28.43	0.00	28.43
(FoS) 0.750	27.88	0.00	27.88	0.00	27.88
(SZB) 1.753	27.14	0.00	27.14	0.00	27.14
(Bar Develop.) 2.121	26.86	0.00	26.86	0.00	26.86
(PSXFR) 3.000	26.21	0.00	26.21	0.00	26.21
(Bar Develop.) 3.182	26.08	0.00	26.08	0.00	26.08
(H) 4.250	25.29	0.00	25.29	0.00	25.29
(SZB) 5.419	24.42	0.00	24.42	0.00	24.42
(1.5H) 6.000	23.99	0.00	23.99	0.00	23.99
(0.1L_t) 7.682	22.75	0.00	22.75	0.00	22.75
(SZB) 10.919	20.35	0.00	20.35	0.00	20.35
(0.2L_t) 15.364	17.06	0.00	17.06	0.00	17.06
(SZB) 19.169	14.24	0.00	14.24	0.00	14.24
(0.3L_t) 23.046	11.37	0.00	11.37	0.00	11.37
(SZB) 30.169	6.10	0.00	6.10	0.00	6.10
(HP, 0.4L_t) 30.728	5.69	0.00	5.69	0.00	5.69
(0.5L_t) 38.410	0.00	0.00	0.00	0.00	0.00
(HP, 0.6L_t) 46.092	-5.69	0.00	-5.69	0.00	-5.69
(SZB) 46.651	-6.10	0.00	-6.10	0.00	-6.10
(0.7L_t) 53.774	-11.37	0.00	-11.37	0.00	-11.37
(Deck Bar Cutoff) 54.998	-12.28	0.00	-12.28	0.00	-12.28
(SZB) 57.651	-14.24	0.00	-14.24	0.00	-14.24
(0.8L_t) 61.456	-17.06	0.00	-17.06	0.00	-17.06
(SZB) 65.901	-20.35	0.00	-20.35	0.00	-20.35
(0.9L_t) 69.138	-22.75	0.00	-22.75	0.00	-22.75
(1.5H) 70.820	-23.99	0.00	-23.99	0.00	-23.99
(SZB) 71.401	-24.42	0.00	-24.42	0.00	-24.42
(H) 72.570	-25.29	0.00	-25.29	0.00	-25.29
(Bar Develop.) 73.638	-26.08	0.00	-26.08	0.00	-26.08
(PSXFR) 73.820	-26.21	0.00	-26.21	0.00	-26.21
(Bar Develop.) 74.699	-26.86	0.00	-26.86	0.00	-26.86
(SZB) 75.067	-27.14	0.00	-27.14	0.00	-27.14
(FoS) 76.070	-27.88	0.00	-27.88	0.00	-27.88
(STLF, 1.0L_t) 76.820	-28.43	0.00	-28.43	0.00	-28.43

Combined Results - Interval 11: Cast Deck, Apply User Defined Loads

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00
(0.0L_e) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	11.93	0.00	21.26	0.00	21.26
(SZB) 1.337	47.21	0.00	84.14	0.00	84.14
(Bar Develop.) 1.705	59.91	0.00	106.78	0.00	106.78
(PSXFR) 2.583	89.73	0.00	159.92	0.00	159.92
(Bar Develop.) 2.765	95.81	0.00	170.76	0.00	170.76
(H) 3.833	130.89	0.00	233.27	0.00	233.27
(SZB) 5.003	168.06	0.00	299.50	0.00	299.50
(1.5H) 5.583	186.04	0.00	331.54	0.00	331.54
(0.1L_e) 7.599	245.99	0.00	438.34	0.00	438.34
(SZB) 10.503	325.62	0.00	580.19	0.00	580.19
(0.2L_e) 15.197	437.52	0.00	779.47	0.00	779.47
(SZB) 18.753	508.38	0.00	905.66	0.00	905.66
(0.3L_e) 22.796	574.43	0.00	1023.25	0.00	1023.25
(SZB) 29.753	651.80	0.00	1160.97	0.00	1160.97
(HP) 30.311	656.02	0.00	1168.49	0.00	1168.49
(0.4L_e) 30.395	656.63	0.00	1169.56	0.00	1169.56
(0.5L_e) 37.993	684.03	0.00	1218.34	0.00	1218.34

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(0.6L_e) 45.592	656.63	0.00	1169.56	0.00	1169.56
(HP) 45.675	656.02	0.00	1168.49	0.00	1168.49
(SZB) 46.234	651.80	0.00	1160.97	0.00	1160.97
(0.7L_e) 53.191	574.43	0.00	1023.25	0.00	1023.25
(Deck Bar Cutoff) 54.581	553.47	0.00	985.93	0.00	985.93
(SZB) 57.234	508.38	0.00	905.65	0.00	905.65
(0.8L_e) 60.790	437.51	0.00	779.47	0.00	779.47
(SZB) 65.484	325.62	0.00	580.19	0.00	580.19
(0.9L_e) 68.388	245.98	0.00	438.33	0.00	438.33
(1.5H) 70.404	186.04	0.00	331.54	0.00	331.54
(SZB) 70.984	168.06	0.00	299.50	0.00	299.50
(H) 72.154	130.88	0.00	233.26	0.00	233.26
(Bar Develop.) 73.222	95.81	0.00	170.75	0.00	170.75
(PSXFR) 73.404	89.72	0.00	159.91	0.00	159.91
(Bar Develop.) 74.282	59.91	0.00	106.78	0.00	106.78
(SZB) 74.650	47.20	0.00	84.14	0.00	84.14
(FoS) 75.654	11.93	0.00	21.26	0.00	21.26
(1.0L_e) 75.987	-0.00	0.00	-0.00	0.00	-0.00
75.987	-0.00	0.00	-0.00	0.00	-0.00
(STLF) 76.404	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00
(0.0L_e) 0.000	36.33 35.95	0.00	67.81 64.07	0.00	67.81 64.07
(FoS) 0.333	35.63	0.00	63.51	0.00	63.51
(SZB) 1.337	34.69	0.00	61.83	0.00	61.83
(Bar Develop.) 1.705	34.34	0.00	61.21	0.00	61.21
(PSXFR) 2.583	33.52	0.00	59.73	0.00	59.73
(Bar Develop.) 2.765	33.35	0.00	59.43	0.00	59.43
(H) 3.833	32.34	0.00	57.63	0.00	57.63
(SZB) 5.003	31.24	0.00	55.66	0.00	55.66
(1.5H) 5.583	30.69	0.00	54.69	0.00	54.69
(0.1L_e) 7.599	28.79	0.00	51.29	0.00	51.29
(SZB) 10.503	26.05	0.00	46.40	0.00	46.40
(0.2L_e) 15.197	21.62	0.00	38.49	0.00	38.49
(SZB) 18.753	18.25	0.00	32.49	0.00	32.49
(0.3L_e) 22.796	14.42	0.00	25.67	0.00	25.67
(SZB) 29.753	7.82	0.00	13.92	0.00	13.92
(HP) 30.311	7.29	0.00	12.98	0.00	12.98
(0.4L_e) 30.395	7.21	0.00	12.84	0.00	12.84
(0.5L_e) 37.993	-0.00	0.00	-0.00	0.00	-0.00
(0.6L_e) 45.592	-7.21	0.00	-12.84	0.00	-12.84
(HP) 45.675	-7.29	0.00	-12.98	0.00	-12.98
(SZB) 46.234	-7.82	0.00	-13.92	0.00	-13.92
(0.7L_e) 53.191	-14.42	0.00	-25.67	0.00	-25.67
(Deck Bar Cutoff) 54.581	-15.74	0.00	-28.02	0.00	-28.02
(SZB) 57.234	-18.25	0.00	-32.49	0.00	-32.49
(0.8L_e) 60.790	-21.62	0.00	-38.49	0.00	-38.49
(SZB) 65.484	-26.05	0.00	-46.40	0.00	-46.40
(0.9L_e) 68.388	-28.79	0.00	-51.29	0.00	-51.29
(1.5H) 70.404	-30.69	0.00	-54.69	0.00	-54.69
(SZB) 70.984	-31.24	0.00	-55.66	0.00	-55.66
(H) 72.154	-32.34	0.00	-57.63	0.00	-57.63
(Bar Develop.) 73.222	-33.35	0.00	-59.43	0.00	-59.43
(PSXFR) 73.404	-33.52	0.00	-59.73	0.00	-59.73
(Bar Develop.) 74.282	-34.34	0.00	-61.21	0.00	-61.21
(SZB) 74.650	-34.69	0.00	-61.83	0.00	-61.83
(FoS) 75.654	-35.63	0.00	-63.51	0.00	-63.51
(1.0L_e) 75.987	-35.95 -38.76	0.00	-64.07 -67.19	0.00	-64.07 -67.19
75.987	0.01	0.00	0.01	0.00	0.01
(STLF) 76.404	0.01	0.00	0.01	0.00	0.01

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Abutment 1	36.33	0.00	67.81	0.00
Pier 2	77.59	0.00	134.52	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Abutment 1 - Ahead	36.33	0.00	67.81	0.00
Pier 2 - Back	38.77	0.00	67.21	0.00

Combined Results - Interval 17: Open to Traffic

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	0.00	0.00
(FoS) 0.333	0.00	0.00	25.04	2.55
(SZB) 1.337	0.00	0.00	99.01	10.03
(Bar Develop.) 1.705	0.00	0.00	125.62	12.71
(PSXFR) 2.583	0.00	0.00	188.02	18.95
(Bar Develop.) 2.765	0.00	0.00	200.74	20.22
(H) 3.833	0.00	0.00	274.02	27.48
(SZB) 5.003	0.00	0.00	351.53	35.09
(1.5H) 5.583	0.00	0.00	388.96	38.73
($0.1L_s$) 7.687	0.00	0.00	518.73	51.17
(SZB) 10.503	0.00	0.00	677.99	65.96
($0.2L_s$) 15.374	0.00	0.00	914.63	86.58
(SZB) 18.753	0.00	0.00	1049.71	97.16
($0.3L_s$) 23.062	0.00	0.00	1187.52	106.23
(SZB) 29.753	0.00	0.00	1324.83	110.52
(HP) 30.311	0.00	0.00	1332.07	110.33
($0.4L_s$) 30.749	0.00	0.00	1337.29	110.13
($0.5L_s$) 38.436	0.00	0.00	1363.89	98.28
(HP) 45.675	0.00	0.00	1276.28	72.71
($0.6L_s$) 46.123	0.00	0.00	1267.28	70.66
(SZB) 46.234	0.00	0.00	1264.98	70.15
($0.7L_s$) 53.811	0.00	0.00	1047.49	27.30
(Deck Bar Cutoff) 54.581	0.00	0.00	1018.67	22.08
(SZB) 57.234	0.00	0.00	909.97	2.91
($0.8L_s$) 61.498	0.00	0.00	704.60	-31.83
(SZB) 65.484	0.00	0.00	478.34	-68.69
($0.9L_s$) 69.185	0.00	0.00	238.72	-106.71
(1.5H) 70.404	0.00	0.00	153.59	-120.02
(SZB) 70.984	0.00	0.00	111.93	-126.51
(H) 72.154	0.00	0.00	25.93	-139.84
(Bar Develop.) 73.222	0.00	0.00	-55.10	-152.33
(PSXFR) 73.404	0.00	0.00	-69.15	-154.49
(Bar Develop.) 74.282	0.00	0.00	-137.92	-165.04
(SZB) 74.650	0.00	0.00	-167.21	-169.52
(FoS) 75.654	0.00	0.00	-248.46	-181.92
75.987	0.00	0.00	-275.92	-186.10
(STLF) 76.404	0.00	0.00	-283.72	-191.34
($1.0L_s$) 76.872	0.00	0.00	-292.59	-197.28

Moment - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	1.19	-0.17	22.62	-2.59	7.79	-0.84	28.19	-3.18	23.80	-2.77	7.79	-0.84	28.19	-3.18
(SZB) 1.337	4.68	-0.68	89.04	-10.40	30.55	-3.36	110.71	-12.76	93.73	-11.09	30.55	-3.36	110.71	-12.76
(Bar Develop.) 1.705	5.94	-0.87	112.79	-13.27	38.65	-4.29	140.10	-16.27	118.73	-14.14	38.65	-4.29	140.10	-16.27
(PSXFR) 2.583	8.88	-1.32	168.16	-20.11	57.46	-6.50	208.36	-24.66	177.05	-21.43	57.46	-6.50	208.36	-24.66
(Bar Develop.) 2.765	9.48	-1.42	179.40	-21.53	61.26	-6.96	222.16	-26.40	188.88	-22.94	61.26	-6.96	222.16	-26.40
(H) 3.833	12.92	-1.96	243.70	-29.84	82.91	-9.65	300.86	-36.59	256.62	-31.80	82.91	-9.65	300.86	-36.59
(SZB) 5.003	16.55	-2.56	310.94	-38.94	105.33	-12.59	382.58	-47.75	327.49	-41.50	105.33	-12.59	382.58	-47.75
(1.5H) 5.583	18.30	-2.86	343.11	-43.46	115.96	-14.05	421.46	-53.30	361.42	-46.32	115.96	-14.05	421.46	-53.30
($0.1L_s$) 7.687	24.34	-3.94	452.86	-59.84	151.74	-19.35	552.75	-73.38	477.21	-63.77	151.74	-19.35	552.75	-73.38
(SZB) 10.503	31.69	-5.38	583.19	-81.75	193.24	-26.44	705.23	-100.26	614.87	-87.13	193.24	-26.44	705.23	-100.26
($0.2L_s$) 15.374	42.41	-7.87	765.18	-119.68	247.81	-38.70	921.82	-146.76	807.58	-127.55	247.81	-38.70	921.82	-146.76
(SZB) 18.753	48.36	-9.60	859.84	-145.97	277.95	-47.21	1039.83	-179.01	908.20	-155.57	277.95	-47.21	1039.83	-179.01
($0.3L_s$) 23.062	54.19	-11.81	944.59	-179.51	307.57	-58.05	1139.55	-220.15	998.78	-191.32	307.57	-58.05	1139.55	-220.15
(SZB) 29.753	59.34	-15.23	1021.65	-231.60	324.10	-74.90	1221.01	-284.02	1080.98	-246.83	324.10	-74.90	1221.01	-284.02
(HP) 30.311	59.55	-15.52	1023.74	-235.95	323.95	-76.30	1227.89	-289.35	1083.29	-251.46	323.95	-76.30	1227.89	-289.35
($0.4L_s$) 30.749	59.70	-15.74	1024.95	-239.35	323.68	-77.40	1232.58	-293.53	1084.64	-255.09	323.68	-77.40	1232.58	-293.53
($0.5L_s$) 38.436	58.92	-19.68	1004.82	-299.19	306.46	-96.75	1227.40	-366.91	1063.74	-318.87	306.46	-96.75	1227.40	-366.91
(HP) 45.675	52.46	-23.38	908.78	-355.54	291.61	-114.98	1086.84	-436.02	961.24	-378.92	291.61	-114.98	1086.84	-436.02
($0.6L_s$) 46.123	51.87	-23.61	899.90	-359.03	289.34	-116.11	1075.50	-440.29	951.77	-382.64	289.34	-116.11	1075.50	-440.29
(SZB) 46.234	51.73	-23.67	897.65	-359.89	288.77	-116.38	1072.63	-441.35	949.37	-383.56	288.77	-116.38	1072.63	-441.35
($0.7L_s$) 53.811	38.54	-27.55	694.45	-418.87	228.73	-135.46	815.96	-513.67	732.99	-446.41	228.73	-135.46	815.96	-513.67
(Deck Bar Cutoff) 54.581	36.86	-27.94	670.05	-424.86	220.54	-137.40	783.55	-521.03	706.91	-452.80	220.54	-137.40	783.55	-521.03
(SZB) 57.234	30.59	-29.30	578.10	-445.40	190.02	-144.08	668.16	-546.21	608.69	-474.70	190.02	-144.08	668.16	-546.21
($0.8L_s$) 61.498	18.94	-31.48	410.26	-478.58	132.73	-154.81	454.00	-586.90	429.20	-510.06	132.73	-154.81	454.00	-586.90
(SZB) 65.484	9.33	-36.56	263.74	-521.72	72.74	-164.84	214.57	-624.94	273.07	-558.28	72.74	-164.84	214.57	-624.94
($0.9L_s$) 69.185	3.85	-46.22	155.72	-654.55	11.05	-174.16	0.00	-718.22	159.58	-700.78	11.05	-174.16	0.00	-718.22
(1.5H) 70.404	2.64	-50.32	122.25	-717.23	0.00	-177.23	0.00	-781.25	124.89	-767.55	0.00	-177.23	0.00	-781.25
(SZB) 70.984	2.16	-52.41	106.51	-744.89	0.00	-178.69	0.00	-811.39	108.67	-797.31	0.00	-178.69	0.00	-811.39
(H) 72.154	1.34	-56.91	75.52	-801.61	0.00	-181.63	0.00	-872.15	76.86	-858.52	0.00	-181.63	0.00	-872.15
(Bar Develop.) 73.222	0.78	-61.33	55.66	-856.57	0.00	-184.32	0.00	-927.89	56.44	-917.90	0.00	-184.32	0.00	-927.89
(PSXFR) 73.404	0.70	-62.11	52.69	-866.04	0.00	-184.78	0.00	-937.43	53.39	-928.14	0.00	-184.78	0.00	-937.43

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(Bar Develop.) 74.282	0.38	-65.99	38.63	-912.15	0.00	-186.99	0.00	-983.65	39.02	-978.14	0.00	-186.99	0.00	-983.65
(SZB) 74.650	0.28	-67.67	32.89	-931.66	0.00	-187.92	0.00	-1003.09	33.17	-999.33	0.00	-187.92	0.00	-1003.09
(FoS) 75.654	0.08	-72.41	17.66	-985.42	0.00	-190.44	0.00	-1056.36	17.75	-1057.83	0.00	-190.44	0.00	-1056.36
75.987	0.04	-74.04	12.74	-1003.46	0.00	-191.28	0.00	-1074.29	12.78	-1077.50	0.00	-191.28	0.00	-1074.29
(STLF) 76.404	0.01	-76.10	6.69	-1026.14	0.00	-192.33	0.00	-1096.70	6.70	-1102.24	0.00	-192.33	0.00	-1096.70
($1.0L_s$) 76.872	0.00	-78.47	0.00	-1051.83	0.00	-193.38	0.00	-1121.97	0.00	-1130.30	0.00	-193.38	0.00	-1121.97

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Moment, Mu

Location from Left Support (ft)	Design								
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II		
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	51.39	46.63	25.47	76.77	19.35	0.21	73.18	19.89	0.76
(SZB) 1.337	202.76	184.02	100.34	302.83	76.22	0.49	288.26	78.40	2.67
(Bar Develop.) 1.705	257.06	233.31	127.14	383.87	96.57	0.47	365.22	99.35	3.25
(PSXFR) 2.583	384.01	348.60	189.67	573.28	144.03	0.10	544.73	148.24	4.32
(Bar Develop.) 2.765	409.83	372.06	202.37	611.79	153.66	-0.02	581.17	158.17	4.49
(H) 3.833	558.12	506.80	275.11	832.83	208.83	-1.11	789.91	215.08	5.14
(SZB) 5.003	714.11	648.61	351.30	1065.15	266.55	-3.00	1008.53	274.71	5.16
(1.5H) 5.583	789.11	716.83	387.79	1176.78	294.18	-4.21	1113.28	303.29	4.90
($0.1L_s$) 7.687	1047.11	951.66	512.56	1560.28	388.52	-10.07	1471.38	401.05	2.47
(SZB) 10.503	1358.83	1235.85	661.83	2022.46	500.59	-21.58	1898.50	517.72	-4.45
($0.2L_s$) 15.374	1808.79	1647.27	872.32	2686.42	656.23	-51.40	2517.61	681.31	-26.33
(SZB) 18.753	2055.06	1873.42	990.35	3047.21	735.64	-79.46	2861.64	766.22	-48.87
($0.3L_s$) 23.062	2292.53	2092.77	1108.23	3391.61	803.01	-124.00	3182.13	840.62	-86.39
(SZB) 29.753	2516.33	2300.13	1203.82	3713.53	832.23	-212.64	3470.18	880.76	-164.12
(HP) 30.311	2525.70	2309.04	1207.13	3726.36	830.52	-221.12	3488.24	879.96	-171.68
($0.4L_s$) 30.749	2532.07	2315.14	1209.23	3734.94	828.74	-227.87	3500.80	878.89	-177.71
($0.5L_s$) 38.436	2525.91	2313.16	1190.77	3713.82	733.36	-363.00	3509.26	796.05	-300.31
(HP) 45.675	2310.23	2117.98	1111.91	3386.59	532.80	-518.84	3171.65	607.29	-444.34
($0.6L_s$) 46.123	2289.71	2099.36	1102.99	3355.69	516.86	-529.39	3142.02	592.09	-454.17
(SZB) 46.234	2284.50	2094.63	1100.71	3347.85	512.85	-532.02	3134.50	588.26	-456.61
($0.7L_s$) 53.811	1807.78	1661.18	880.48	2633.04	179.26	-727.05	2451.85	267.02	-639.29
(Deck Bar Cutoff) 54.581	1747.67	1606.29	851.18	2543.56	138.75	-748.59	2364.25	227.77	-659.57
(SZB) 57.234	1521.57	1399.83	741.47	2207.04	-9.86	-824.95	2043.84	83.48	-731.61
($0.8L_s$) 61.498	1101.97	1016.13	535.49	1611.16	-306.21	-982.81	1472.95	-205.92	-882.52
(SZB) 65.484	682.73	628.11	313.93	1031.16	-649.52	-1171.69	842.94	-516.20	-1038.37
($0.9L_s$) 69.185	291.59	259.68	82.59	508.30	-1171.57	-1528.80	229.04	-914.81	-1272.05
(1.5H) 70.404	158.46	133.48	16.78	332.54	-1385.01	-1683.40	113.97	-1096.49	-1394.88
(SZB) 70.984	94.09	72.36	-7.29	247.85	-1484.31	-1753.85	57.69	-1184.40	-1453.94
(H) 72.154	-37.05	-52.42	-56.95	76.03	-1688.83	-1898.77	-58.48	-1363.82	-1573.76
(Bar Develop.) 73.222	-151.00	-162.28	-103.72	-49.84	-1903.70	-2117.14	-148.61	-1550.03	-1763.47
(PSXFR) 73.404	-170.25	-180.93	-111.82	-69.22	-1942.43	-2142.32	-162.65	-1583.70	-1783.59
(Bar Develop.) 74.282	-263.95	-271.75	-151.48	-163.13	-2131.72	-2265.19	-231.41	-1747.89	-1881.37
(SZB) 74.650	-303.56	-310.20	-168.37	-202.63	-2212.13	-2317.30	-260.68	-1817.47	-1922.64
(FoS) 75.654	-412.64	-416.19	-215.19	-310.81	-2434.67	-2461.24	-341.87	-2009.55	-2036.13
75.987	-449.24	-451.79	-231.01	-346.92	-2509.67	-2509.67	-369.30	-2074.34	-2074.33
(STLF) 76.404	-468.37	-469.71	-237.53	-368.01	-2570.59	-2570.59	-379.73	-2122.21	-2122.21
($1.0L_s$) 76.872	-489.86	-489.86	-244.93	-391.56	-2639.68	-2639.68	-391.56	-2176.30	-2176.30

* Deck moment (Mu) is for negative moment deck design, and is from superimposed dead load and live load only.

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	79.37 75.46	7.68
(FoS) 0.333	0.00	0.00	74.77	7.59
(SZB) 1.337	0.00	0.00	72.69	7.32
(Bar Develop.) 1.705	0.00	0.00	71.92	7.23
(PSXFR) 2.583	0.00	0.00	70.10	6.99
(Bar Develop.) 2.765	0.00	0.00	69.72	6.94
(H) 3.833	0.00	0.00	67.50	6.66
(SZB) 5.003	0.00	0.00	65.07	6.35
(1.5H) 5.583	0.00	0.00	63.87	6.19
($0.1L_s$) 7.687	0.00	0.00	59.49	5.63
(SZB) 10.503	0.00	0.00	53.64	4.88
($0.2L_s$) 15.374	0.00	0.00	43.50	3.58
(SZB) 18.753	0.00	0.00	36.47	2.68
($0.3L_s$) 23.062	0.00	0.00	27.49	1.53
(SZB) 29.753	0.00	0.00	13.55	-0.25
(HP) 30.311	0.00	0.00	12.38	-0.40
($0.4L_s$) 30.749	0.00	0.00	11.47	-0.52
	0.00	0.00	-4.55	-2.57

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
($0.5L_s$) 38.436				
(HP) 45.675	0.00	0.00	-19.65	-4.50
($0.6L_s$) 46.123	0.00	0.00	-20.58	-4.62
(SZB) 46.234	0.00	0.00	-20.81	-4.65
($0.7L_s$) 53.811	0.00	0.00	-36.60	-6.67
(Deck Bar Cutoff) 54.581	0.00	0.00	-38.21	-6.87
(SZB) 57.234	0.00	0.00	-43.73	-7.58
($0.8L_s$) 61.498	0.00	0.00	-52.61	-8.72
(SZB) 65.484	0.00	0.00	-60.90	-9.78
($0.9L_s$) 69.185	0.00	0.00	-68.60	-10.77
(1.5H) 70.404	0.00	0.00	-71.13	-11.09
(SZB) 70.984	0.00	0.00	-72.34	-11.25
(H) 72.154	0.00	0.00	-74.76	-11.56
(Bar Develop.) 73.222	0.00	0.00	-76.98	-11.84
(PSXFR) 73.404	0.00	0.00	-77.36	-11.89
(Bar Develop.) 74.282	0.00	0.00	-79.19	-12.12
(SZB) 74.650	0.00	0.00	-79.95	-12.22
(FoS) 75.654	0.00	0.00	-82.03	-12.49
75.987	0.00	0.00	-18.64	-12.58
(STLF) 76.404	0.00	0.00	-18.81	-12.60
($1.0L_s$) 76.872	0.00	0.00	-19.01	-12.72

Shear - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	3.57	-0.51	88.04	-10.04	35.41	-3.79	109.84	-12.31	91.61	-10.55	35.41	-3.79	109.84	-12.31
(FoS) 0.333	3.54	-0.51	87.37	-10.03	35.14	-3.79	109.03	-12.31	90.91	-10.55	35.14	-3.79	109.03	-12.31
(SZB) 1.337	3.43	-0.51	85.38	-10.03	34.33	-3.78	106.60	-12.29	88.82	-10.54	34.33	-3.78	106.60	-12.29
(Bar Develop.) 1.705	3.40	-0.51	84.66	-10.03	34.04	-3.78	105.71	-12.28	88.05	-10.54	34.04	-3.78	105.71	-12.28
(PSXFR) 2.583	3.31	-0.52	82.94	-10.03	33.34	-3.77	103.59	-12.26	86.24	-10.55	33.34	-3.77	103.59	-12.26
(Bar Develop.) 2.765	3.29	-0.52	82.58	-10.03	33.20	-3.77	103.16	-12.26	85.87	-10.55	33.20	-3.77	103.16	-12.26
(H) 3.833	3.18	-0.52	80.51	-10.04	32.36	-3.77	100.60	-12.24	83.69	-10.57	32.36	-3.77	100.60	-12.24
(SZB) 5.003	3.07	-0.53	78.27	-10.07	31.44	-3.76	97.84	-12.21	81.34	-10.60	31.44	-3.76	97.84	-12.21
(1.5H) 5.583	3.01	-0.54	77.17	-10.09	30.99	-3.76	96.49	-12.20	80.18	-10.63	30.99	-3.76	96.49	-12.20
($0.1L_s$) 7.687	2.81	-0.56	73.22	-10.17	29.35	-3.74	91.60	-12.16	76.03	-10.74	29.35	-3.74	91.60	-12.16
(SZB) 10.503	2.55	-0.61	68.06	-10.78	27.23	-3.73	85.14	-12.10	70.62	-11.39	27.23	-3.73	85.14	-12.10
($0.2L_s$) 15.374	2.14	-0.72	59.52	-15.57	23.67	-5.32	74.39	-13.28	61.67	-16.29	23.67	-5.32	74.39	-13.28
(SZB) 18.753	1.88	-0.81	53.89	-18.94	21.32	-6.43	67.20	-17.07	55.77	-19.75	21.32	-6.43	67.20	-17.07
($0.3L_s$) 23.062	1.58	-0.97	47.03	-23.25	18.43	-7.80	58.42	-21.80	48.60	-24.22	18.43	-7.80	58.42	-21.80
(SZB) 29.753	1.17	-1.26	37.17	-31.51	14.28	-9.83	45.66	-29.68	38.34	-32.77	14.28	-9.83	45.66	-29.68
(HP) 30.311	1.14	-1.29	36.39	-32.29	13.96	-10.10	44.64	-30.92	37.52	-33.58	13.96	-10.10	44.64	-30.92
($0.4L_s$) 30.749	1.11	-1.32	35.78	-32.89	13.70	-10.37	43.85	-31.88	36.89	-34.21	13.70	-10.37	43.85	-31.88
($0.5L_s$) 38.436	0.73	-1.76	25.88	-43.51	9.54	-15.08	29.57	-49.89	26.61	-45.27	9.54	-15.08	29.57	-49.89
(HP) 45.675	0.46	-2.25	18.01	-53.88	6.23	-19.61	12.92	-67.18	18.47	-56.13	6.23	-19.61	12.92	-67.18
($0.6L_s$) 46.123	0.44	-2.28	17.56	-54.51	6.05	-19.91	11.82	-68.20	18.00	-56.80	6.05	-19.91	11.82	-68.20
(SZB) 46.234	0.44	-2.29	17.44	-54.67	6.00	-19.99	11.55	-68.45	17.89	-56.96	6.00	-19.99	11.55	-68.45
($0.7L_s$) 53.811	0.24	-2.89	11.21	-65.35	3.10	-24.96	0.99	-84.77	11.44	-68.24	3.10	-24.96	0.99	-84.77
(Deck Bar Cutoff) 54.581	0.22	-2.95	10.67	-66.41	2.84	-25.45	0.34	-86.33	10.89	-69.37	2.84	-25.45	0.34	-86.33
(SZB) 57.234	0.17	-3.18	8.90	-70.08	1.97	-27.10	0.00	-91.57	9.06	-73.27	1.97	-27.10	0.00	-91.57
($0.8L_s$) 61.498	0.10	-3.57	6.28	-75.87	0.72	-29.68	0.00	-99.49	6.38	-79.44	0.72	-29.68	0.00	-99.49
(SZB) 65.484	0.05	-3.95	4.11	-81.17	0.00	-31.96	0.00	-106.37	4.16	-85.12	0.00	-31.96	0.00	-106.37
($0.9L_s$) 69.185	0.02	-4.31	2.32	-85.93	0.00	-34.00	0.00	-112.24	2.35	-90.24	0.00	-34.00	0.00	-112.24
(1.5H) 70.404	0.02	-4.43	1.79	-87.47	0.00	-34.64	0.00	-114.09	1.80	-91.90	0.00	-34.64	0.00	-114.09
(SZB) 70.984	0.01	-4.49	1.54	-88.20	0.00	-34.94	0.00	-114.95	1.55	-92.69	0.00	-34.94	0.00	-114.95
(H) 72.154	0.01	-4.61	1.18	-89.65	0.00	-35.55	0.00	-116.67	1.19	-94.26	0.00	-35.55	0.00	-116.67
(Bar Develop.) 73.222	0.00	-4.72	0.89	-90.96	0.00	-36.09	0.00	-118.17	0.90	-95.69	0.00	-36.09	0.00	-118.17
(PSXFR) 73.404	0.00	-4.74	0.84	-91.19	0.00	-36.18	0.00	-118.42	0.85	-95.93	0.00	-36.18	0.00	-118.42
(Bar Develop.) 74.282	0.00	-4.83	0.62	-92.26	0.00	-36.63	0.00	-119.60	0.62	-97.09	0.00	-36.63	0.00	-119.60
(SZB) 74.650	0.00	-4.87	0.52	-92.70	0.00	-36.81	0.00	-120.09	0.53	-97.57	0.00	-36.81	0.00	-120.09
(FoS) 75.654	0.00	-4.98	0.28	-93.90	0.00	-37.30	0.00	-121.41	0.28	-98.87	0.00	-37.30	0.00	-121.41
75.987	0.00	-5.01	0.20	-94.29	0.00	-37.45	0.00	-121.84	0.20	-99.30	0.00	-37.45	0.00	-121.84
(STLF) 76.404	0.00	-5.05	0.11	-94.78	0.00	-37.65	0.00	-122.38	0.11	-99.83	0.00	-37.65	0.00	-122.38
($1.0L_s$) 76.872	0.00	-5.10	0.00	-99.66	0.00	-39.59	0.00	-128.57	0.00	-104.77	0.00	-39.59	0.00	-128.57

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Shear, Vu

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	178.66 174.76	160.34 156.43	96.64 94.69	271.05 266.17	57.96 54.44	259.02 254.14	59.80 56.29
(FoS) 0.333	173.27	155.09	93.90	263.95	53.77	252.05	55.61
(SZB) 1.337	168.83	151.06	91.51	257.27	51.74	245.76	53.59

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
(Bar Develop.) 1.705	167.20	149.59	90.64	254.84	50.98	243.46	52.85
(PSXFR) 2.583	163.33	146.08	88.56	249.03	49.18	237.96	51.08
(Bar Develop.) 2.765	162.53	145.36	88.13	247.84	48.80	236.83	50.71
(H) 3.833	157.85	141.12	85.62	240.83	46.59	230.18	48.56
(SZB) 5.003	152.76	136.49	82.87	233.20	44.14	222.95	46.20
(1.5H) 5.583	150.24	134.20	81.51	229.44	42.91	219.38	45.03
($0.1L_s$) 7.687	141.16	125.95	76.59	215.87	38.41	206.47	40.79
(SZB) 10.503	129.14	115.02	70.11	197.95	31.52	189.31	35.11
($0.2L_s$) 15.374	108.75	96.42	59.04	167.67	12.98	160.18	23.55
(SZB) 18.753	94.92	83.77	51.55	147.21	0.00	140.33	11.51
($0.3L_s$) 23.062	77.63	67.91	42.16	121.72	-16.65	115.53	-3.68
(SZB) 29.753	51.63	43.97	28.08	83.86	-45.54	78.41	-28.26
(HP) 30.311	49.50	42.00	26.93	80.88	-48.22	75.48	-31.20
($0.4L_s$) 30.749	47.84	40.47	26.03	78.56	-50.32	73.20	-33.49
($0.5L_s$) 38.436	19.49	14.17	10.75	40.81	-88.77	34.16	-76.89
(HP) 45.675	-5.68	-9.37	-2.72	11.71	-129.53	-3.16	-122.00
($0.6L_s$) 46.123	-7.20	-10.80	-3.53	9.98	-132.04	-5.57	-124.72
(SZB) 46.234	-7.57	-11.15	-3.73	9.55	-132.67	-6.16	-125.40
($0.7L_s$) 53.811	-31.83	-34.11	-16.98	-17.25	-175.17	-35.93	-170.19
(Deck Bar Cutoff) 54.581	-34.19	-36.37	-18.28	-19.79	-179.46	-38.40	-174.60
(SZB) 57.234	-42.25	-44.06	-22.70	-28.43	-194.25	-44.28	-189.65
($0.8L_s$) 61.498	-54.94	-56.22	-29.59	-41.85	-217.86	-53.01	-213.14
(SZB) 65.484	-66.52	-67.35	-35.34	-53.89	-239.75	-61.17	-234.40
($0.9L_s$) 69.185	-77.02	-77.49	-39.68	-64.63	-259.81	-68.73	-253.42
(1.5H) 70.404	-80.42	-80.78	-41.11	-68.07	-266.37	-71.22	-259.56
(SZB) 70.984	-82.03	-82.34	-41.79	-69.69	-269.49	-72.41	-262.47
(H) 72.154	-85.13	-85.37	-43.16	-72.71	-275.76	-74.80	-268.29
(Bar Develop.) 73.222	-87.93	-88.11	-44.41	-75.41	-281.44	-76.98	-273.52
(PSXFR) 73.404	-88.40	-88.57	-44.63	-75.87	-282.41	-77.35	-274.40
(Bar Develop.) 74.282	-90.69	-90.81	-45.65	-78.06	-287.07	-79.15	-278.63
(SZB) 74.650	-91.65	-91.75	-46.09	-78.98	-289.02	-79.90	-280.40
(FoS) 75.654	-94.24	-94.30	-47.26	-81.46	-294.30	-81.95	-285.18
75.987	-31.01	-31.05	-15.61	-24.60	-215.94	-24.95	-206.65
(STLF) 76.404	-31.30	-31.32	-15.70	-24.93	-217.12	-25.12	-207.62
($1.0L_s$) 76.872	-31.73	-31.73	-15.86	-25.37	-226.18	-25.37	-216.41

Girder Line Pier Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Abutment 1	0.00	0.00	79.37	7.68
Pier 2	0.00	0.00	172.54	25.46

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
Abutment 1 - Ahead	0.00	0.00	79.37	7.68	175.14

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	88.10	-10.05	35.44	-3.79	109.92	-12.32	91.67	-10.56	35.44	-3.79	109.92	-12.32

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	175.14	157.52	96.68	264.90	58.84	259.12	59.79

Live Load Reactions Without Impact

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	70.81	-8.21	30.82	-3.30	82.64	-9.26	74.39	-8.72	30.82	-3.30	82.64	-9.26

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Stresses

Product Load Stresses

At Release

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF, $0.0L_r$) 0.000	0.000	0.000
(PSXFR) 3.000	-0.134	0.136
($0.1L_r$) 7.682	-0.321	0.326

During Storage

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF) -0.417	0.000	0.000
($0.0L_{st}$) 0.000	0.000	-0.000
(PSXFR) 2.583	-0.115	0.116

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
($0.2L_t$) 15.364	-0.571	0.579
($0.3L_t$) 23.046	-0.750	0.761
(HP, $0.4L_t$) 30.728	-0.857	0.869
($0.5L_t$) 38.410	-0.893	0.905
(HP, $0.6L_t$) 46.092	-0.857	0.869
($0.7L_t$) 53.774	-0.750	0.761
($0.8L_t$) 61.456	-0.571	0.579
($0.9L_t$) 69.138	-0.321	0.326
(PSXFR) 73.820	-0.134	0.136
(STLF, $1.0L_t$) 76.820	0.000	0.000

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
($0.1L_{st}$) 7.599	-0.314	0.319
($0.2L_{st}$) 15.197	-0.559	0.567
($0.3L_{st}$) 22.796	-0.734	0.744
(HP) 30.311	-0.838	0.850
($0.4L_{st}$) 30.395	-0.838	0.850
($0.5L_{st}$) 37.993	-0.873	0.886
($0.6L_{st}$) 45.592	-0.838	0.850
(HP) 45.675	-0.838	0.850
($0.7L_{st}$) 53.191	-0.734	0.744
($0.8L_{st}$) 60.790	-0.559	0.567
($0.9L_{st}$) 68.388	-0.314	0.319
(PSXFR) 73.404	-0.115	0.116
($1.0L_{st}$) 75.987	0.000	-0.000
(STLF) 76.404	0.000	0.000

Girder Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_e$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.115 f_b = 0.116	f_t = 0.000 f_b = 0.000	f_t = -0.121 f_b = 0.123	f_t = -0.022 f_b = 0.022	f_t = -0.005 f_b = 0.022	f_t = -0.002 f_b = 0.009	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.008 f_b = 0.278	f_t = -0.066 f_b = -0.033	f_t = 0.004 f_b = 0.159	f_t = -0.037 f_b = -0.018	f_t = 0.010 f_b = 0.345	f_t = -0.081 f_b = -0.041
($0.1L_e$) 7.599	f_t = -0.314 f_b = 0.319	f_t = 0.000 f_b = 0.000	f_t = -0.333 f_b = 0.338	f_t = -0.060 f_b = 0.061	f_t = -0.014 f_b = 0.058	f_t = -0.006 f_b = 0.024	f_t = -0.011 f_b = 0.047	f_t = 0.001 f_b = 0.026	f_t = -0.006 f_b = -0.004	f_t = 0.023 f_b = 0.742	f_t = -0.175 f_b = -0.098	f_t = 0.012 f_b = 0.415	f_t = -0.098 f_b = -0.053	f_t = 0.028 f_b = 0.905	f_t = -0.213 f_b = -0.120
($0.2L_e$) 15.197	f_t = -0.559 f_b = 0.567	f_t = 0.000 f_b = 0.000	f_t = -0.592 f_b = 0.600	f_t = -0.107 f_b = 0.109	f_t = -0.023 f_b = 0.098	f_t = -0.010 f_b = 0.041	f_t = -0.019 f_b = 0.080	f_t = 0.002 f_b = 0.046	f_t = -0.011 f_b = -0.009	f_t = 0.046 f_b = 1.256	f_t = -0.296 f_b = -0.196	f_t = 0.025 f_b = 0.680	f_t = -0.160 f_b = -0.106	f_t = 0.057 f_b = 1.512	f_t = -0.357 f_b = -0.240
($0.3L_e$) 22.796	f_t = -0.734 f_b = 0.744	f_t = 0.000 f_b = 0.000	f_t = -0.776 f_b = 0.788	f_t = -0.141 f_b = 0.143	f_t = -0.029 f_b = 0.121	f_t = -0.012 f_b = 0.051	f_t = -0.023 f_b = 0.099	f_t = 0.003 f_b = 0.059	f_t = -0.014 f_b = -0.013	f_t = 0.069 f_b = 1.554	f_t = -0.366 f_b = -0.293	f_t = 0.037 f_b = 0.845	f_t = -0.199 f_b = -0.158	f_t = 0.085 f_b = 1.877	f_t = -0.442 f_b = -0.360
(HP) 30.311	f_t = -0.838 f_b = 0.850	f_t = 0.000 f_b = 0.000	f_t = -0.886 f_b = 0.899	f_t = -0.161 f_b = 0.163	f_t = -0.030 f_b = 0.126	f_t = -0.012 f_b = 0.053	f_t = -0.024 f_b = 0.103	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.092 f_b = 1.693	f_t = -0.399 f_b = -0.390	f_t = 0.050 f_b = 0.894	f_t = -0.211 f_b = -0.211	f_t = 0.113 f_b = 2.030	f_t = -0.479 f_b = -0.478
($0.4L_e$) 30.395	f_t = -0.838 f_b = 0.850	f_t = 0.000 f_b = 0.000	f_t = -0.887 f_b = 0.900	f_t = -0.161 f_b = 0.163	f_t = -0.030 f_b = 0.126	f_t = -0.012 f_b = 0.053	f_t = -0.024 f_b = 0.103	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.092 f_b = 1.693	f_t = -0.399 f_b = -0.391	f_t = 0.050 f_b = 0.894	f_t = -0.211 f_b = -0.211	f_t = 0.113 f_b = 2.032	f_t = -0.479 f_b = -0.480
($0.5L_e$) 37.993	f_t = -0.873 f_b = 0.886	f_t = 0.000 f_b = 0.000	f_t = -0.924 f_b = 0.938	f_t = -0.168 f_b = 0.170	f_t = -0.027 f_b = 0.114	f_t = -0.011 f_b = 0.048	f_t = -0.022 f_b = 0.093	f_t = 0.005 f_b = 0.065	f_t = -0.015 f_b = -0.021	f_t = 0.115 f_b = 1.666	f_t = -0.393 f_b = -0.489	f_t = 0.062 f_b = 0.845	f_t = -0.199 f_b = -0.264	f_t = 0.141 f_b = 2.037	f_t = -0.480 f_b = -0.600
($0.6L_e$) 45.592	f_t = -0.838 f_b = 0.850	f_t = 0.000 f_b = 0.000	f_t = -0.887 f_b = 0.900	f_t = -0.161 f_b = 0.163	f_t = -0.020 f_b = 0.084	f_t = -0.008 f_b = 0.035	f_t = -0.016 f_b = 0.068	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.138 f_b = 1.505	f_t = -0.355 f_b = -0.587	f_t = 0.075 f_b = 0.806	f_t = -0.190 f_b = -0.317	f_t = 0.170 f_b = 1.800	f_t = -0.424 f_b = -0.720
(HP) 45.675	f_t = -0.838 f_b = 0.850	f_t = 0.000 f_b = 0.000	f_t = -0.886 f_b = 0.899	f_t = -0.161 f_b = 0.163	f_t = -0.020 f_b = 0.083	f_t = -0.008 f_b = 0.035	f_t = -0.016 f_b = 0.068	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.139 f_b = 1.503	f_t = -0.354 f_b = -0.588	f_t = 0.075 f_b = 0.805	f_t = -0.190 f_b = -0.317	f_t = 0.170 f_b = 1.797	f_t = -0.424 f_b = -0.721
($0.7L_e$) 53.191	f_t = -0.734 f_b = 0.744	f_t = 0.000 f_b = 0.000	f_t = -0.776 f_b = 0.788	f_t = -0.141 f_b = 0.143	f_t = -0.008 f_b = 0.036	f_t = -0.004 f_b = 0.015	f_t = -0.007 f_b = 0.029	f_t = 0.007 f_b = 0.044	f_t = -0.010 f_b = -0.030	f_t = 0.161 f_b = 1.180	f_t = -0.278 f_b = -0.685	f_t = 0.087 f_b = 0.649	f_t = -0.153 f_b = -0.370	f_t = 0.198 f_b = 1.391	f_t = -0.328 f_b = -0.840
($0.8L_e$) 60.790	f_t = -0.559 f_b = 0.567	f_t = 0.000 f_b = 0.000	f_t = -0.592 f_b = 0.600	f_t = -0.107 f_b = 0.109	f_t = 0.007 f_b = -0.029	f_t = 0.003 f_b = -0.012	f_t = 0.006 f_b = -0.024	f_t = 0.008 f_b = 0.023	f_t = -0.005 f_b = -0.034	f_t = 0.184 f_b = 0.727	f_t = -0.171 f_b = -0.782	f_t = 0.100 f_b = 0.394	f_t = -0.093 f_b = -0.422	f_t = 0.226 f_b = 0.814	f_t = -0.192 f_b = -0.960
($0.9L_e$) 68.388	f_t = -0.314 f_b = 0.319	f_t = 0.000 f_b = 0.000	f_t = -0.333 f_b = 0.338	f_t = -0.060 f_b = 0.061	f_t = 0.027 f_b = -0.113	f_t = 0.011 f_b = -0.047	f_t = 0.022 f_b = -0.092	f_t = 0.011 f_b = 0.005	f_t = -0.001 f_b = -0.048	f_t = 0.240 f_b = 0.295	f_t = -0.070 f_b = -1.020	f_t = 0.112 f_b = 0.067	f_t = -0.016 f_b = -0.475	f_t = 0.264 f_b = 0.064	f_t = -0.015 f_b = -1.120
(PSXFR) 73.404	f_t = -0.115 f_b = 0.116	f_t = 0.000 f_b = 0.000	f_t = -0.121 f_b = 0.123	f_t = -0.022 f_b = 0.022	f_t = 0.042 f_b = -0.177	f_t = 0.017 f_b = -0.074	f_t = 0.034 f_b = -0.144	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.338 f_b = 0.087	f_t = -0.021 f_b = -1.432	f_t = 0.120 f_b = 0.000	f_t = 0.000 f_b = -0.510	f_t = 0.365 f_b = 0.000	f_t = 0.000 f_b = -1.550
($1.0L_e$) 75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.050 f_b = -0.213	f_t = 0.021 f_b = -0.089	f_t = 0.041 f_b = -0.173	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.391 f_b = 0.021	f_t = -0.005 f_b = -1.660	f_t = 0.124 f_b = 0.000	f_t = 0.000 f_b = -0.528	f_t = 0.419 f_b = 0.000	f_t = 0.000 f_b = -1.777
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.050 f_b = -0.213	f_t = 0.021 f_b = -0.089	f_t = 0.041 f_b = -0.173	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.391 f_b = 0.021	f_t = -0.005 f_b = -1.660	f_t = 0.124 f_b = 0.000	f_t = 0.000 f_b = -0.528	f_t = 0.419 f_b = 0.000	f_t = 0.000 f_b = -1.777
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.052 f_b = -0.219	f_t = 0.022 f_b = -0.092	f_t = 0.042 f_b = -0.178	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.083	f_t = 0.400 f_b = 0.011	f_t = -0.003 f_b = -1.697	f_t = 0.125 f_b = 0.000	f_t = 0.000 f_b = -0.531	f_t = 0.428 f_b = 0.000	f_t = 0.000 f_b = -1.814

* Live Load values are per lane and include impact.

Deck Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_e$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.004 f_b = -0.002	f_t = -0.007 f_b = -0.003	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.014 f_b = 0.006	f_t = -0.115 f_b = -0.054	f_t = 0.007 f_b = 0.004	f_t = -0.066 f_b = -0.031	f_t = 0.017 f_b = 0.008	f_t = -0.143 f_b = -0.067
($0.1L_e$) 7.599	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.024 f_b = -0.011	f_t = -0.010 f_b = -0.005	f_t = -0.020 f_b = -0.009	f_t = 0.002 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.040 f_b = 0.019	f_t = -0.307 f_b = -0.145	f_t = 0.022 f_b = 0.010	f_t = -0.172 f_b = -0.081	f_t = 0.050 f_b = 0.023	f_t = -0.375 f_b = -0.177
($0.2L_e$) 15.197	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.041 f_b = -0.019	f_t = -0.017 f_b = -0.008	f_t = -0.033 f_b = -0.016	f_t = 0.004 f_b = 0.002	f_t = -0.019 f_b = -0.009	f_t = 0.081 f_b = 0.038	f_t = -0.520 f_b = -0.245	f_t = 0.044 f_b = 0.021	f_t = -0.281 f_b = -0.133	f_t = 0.099 f_b = 0.047	f_t = -0.626 f_b = -0.295

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.3L_e$) 22.796	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.050	f_t = -0.021	f_t = -0.041	f_t = 0.005	f_t = -0.024	f_t = 0.121	f_t = -0.644	f_t = 0.066	f_t = -0.350	f_t = 0.149	f_t = -0.777
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.019	f_b = 0.002	f_b = -0.012	f_b = 0.057	f_b = -0.303	f_b = 0.031	f_b = -0.165	f_b = 0.070	f_b = -0.366
(HP) 30.311	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.052	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.162	f_t = -0.701	f_t = 0.087	f_t = -0.370	f_t = 0.198	f_t = -0.840
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.330	f_b = 0.041	f_b = -0.174	f_b = 0.093	f_b = -0.396
($0.4L_e$) 30.395	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.052	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.162	f_t = -0.701	f_t = 0.087	f_t = -0.370	f_t = 0.199	f_t = -0.841
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.330	f_b = 0.041	f_b = -0.174	f_b = 0.094	f_b = -0.396
($0.5L_e$) 37.993	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.047	f_t = -0.020	f_t = -0.038	f_t = 0.009	f_t = -0.027	f_t = 0.202	f_t = -0.690	f_t = 0.109	f_t = -0.350	f_t = 0.248	f_t = -0.843
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.022	f_b = -0.009	f_b = -0.018	f_b = 0.004	f_b = -0.013	f_b = 0.095	f_b = -0.325	f_b = 0.051	f_b = -0.165	f_b = 0.117	f_b = -0.397
($0.6L_e$) 45.592	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.035	f_t = -0.015	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.243	f_t = -0.623	f_t = 0.131	f_t = -0.334	f_t = 0.298	f_t = -0.745
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.114	f_b = -0.293	f_b = 0.062	f_b = -0.157	f_b = 0.140	f_b = -0.351
(HP) 45.675	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.034	f_t = -0.014	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.243	f_t = -0.622	f_t = 0.131	f_t = -0.333	f_t = 0.298	f_t = -0.744
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.115	f_b = -0.293	f_b = 0.062	f_b = -0.157	f_b = 0.141	f_b = -0.350
($0.7L_e$) 53.191	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.015	f_t = -0.006	f_t = -0.012	f_t = 0.012	f_t = -0.018	f_t = 0.283	f_t = -0.489	f_t = 0.153	f_t = -0.269	f_t = 0.348	f_t = -0.576
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.007	f_b = -0.003	f_b = -0.006	f_b = 0.006	f_b = -0.009	f_b = 0.133	f_b = -0.230	f_b = 0.072	f_b = -0.127	f_b = 0.164	f_b = -0.271
($0.8L_e$) 60.790	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.012	f_t = 0.005	f_t = 0.010	f_t = 0.014	f_t = -0.010	f_t = 0.324	f_t = -0.301	f_t = 0.175	f_t = -0.163	f_t = 0.397	f_t = -0.337
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.006	f_b = 0.002	f_b = 0.005	f_b = 0.007	f_b = -0.004	f_b = 0.153	f_b = -0.142	f_b = 0.082	f_b = -0.077	f_b = 0.187	f_b = -0.159
($0.9L_e$) 68.388	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.047	f_t = 0.020	f_t = 0.038	f_t = 0.020	f_t = -0.002	f_t = 0.422	f_t = -0.122	f_t = 0.197	f_t = -0.028	f_t = 0.464	f_t = -0.026
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.009	f_b = -0.001	f_b = 0.199	f_b = -0.057	f_b = 0.093	f_b = -0.013	f_b = 0.218	f_b = -0.012
(PSXFR) 73.404	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.073	f_t = 0.031	f_t = 0.060	f_t = 0.028	f_t = -0.000	f_t = 0.593	f_t = -0.036	f_t = 0.211	f_t = 0.000	f_t = 0.642	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.035	f_b = 0.014	f_b = 0.028	f_b = 0.013	f_b = -0.000	f_b = 0.279	f_b = -0.017	f_b = 0.099	f_b = 0.000	f_b = 0.302	f_b = 0.000
($1.0L_e$) 75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.088	f_t = 0.037	f_t = 0.072	f_t = 0.034	f_t = -0.000	f_t = 0.687	f_t = -0.009	f_t = 0.219	f_t = 0.000	f_t = 0.736	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.017	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.324	f_b = -0.004	f_b = 0.103	f_b = 0.000	f_b = 0.346	f_b = 0.000
75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.088	f_t = 0.037	f_t = 0.072	f_t = 0.034	f_t = -0.000	f_t = 0.687	f_t = -0.009	f_t = 0.219	f_t = 0.000	f_t = 0.736	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.017	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.324	f_b = -0.004	f_b = 0.103	f_b = 0.000	f_b = 0.346	f_b = 0.000
(STLF) 76.404	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.091	f_t = 0.038	f_t = 0.074	f_t = 0.035	f_t = 0.000	f_t = 0.703	f_t = -0.005	f_t = 0.220	f_t = 0.000	f_t = 0.751	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.018	f_b = 0.035	f_b = 0.016	f_b = 0.000	f_b = 0.331	f_b = -0.002	f_b = 0.104	f_b = 0.000	f_b = 0.354	f_b = 0.000

* Live Load values are per lane and include impact.

Girder Stresses due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
7.599	f_t = -0.009	f_t = 0.000	f_t = 0.000
	f_b = 0.009	f_b = 0.000	f_b = 0.000
15.197	f_t = -0.017	f_t = 0.000	f_t = 0.000
	f_b = 0.017	f_b = 0.000	f_b = 0.000
22.796	f_t = -0.022	f_t = 0.000	f_t = 0.000
	f_b = 0.022	f_b = 0.000	f_b = 0.000
30.395	f_t = -0.025	f_t = 0.000	f_t = 0.000
	f_b = 0.025	f_b = 0.000	f_b = 0.000
37.993	f_t = -0.026	f_t = 0.000	f_t = 0.000
	f_b = 0.026	f_b = 0.000	f_b = 0.000
45.592	f_t = -0.025	f_t = 0.000	f_t = 0.000
	f_b = 0.025	f_b = 0.000	f_b = 0.000
53.191	f_t = -0.022	f_t = 0.000	f_t = 0.000
	f_b = 0.022	f_b = 0.000	f_b = 0.000
60.790	f_t = -0.017	f_t = 0.000	f_t = 0.000
	f_b = 0.017	f_b = 0.000	f_b = 0.000
68.388	f_t = -0.009	f_t = 0.000	f_t = 0.000
	f_b = 0.009	f_b = 0.000	f_b = 0.000
75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
75.987	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000

Girder Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
7.599	f_t = 0.000	f_t = -0.002	f_t = 0.000
	f_b = 0.000	f_b = 0.008	f_b = 0.000
15.197	f_t = 0.000	f_t = -0.003	f_t = 0.000
	f_b = 0.000	f_b = 0.014	f_b = 0.000
22.796	f_t = 0.000	f_t = -0.004	f_t = 0.000

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
	f_b = 0.000	f_b = 0.017	f_b = 0.000
30.395	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
37.993	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.016	f_t = 0.000 f_b = 0.000
45.592	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.012	f_t = 0.000 f_b = 0.000
53.191	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = 0.005	f_t = 0.000 f_b = 0.000
60.790	f_t = 0.000 f_b = 0.000	f_t = 0.001 f_b = -0.004	f_t = 0.000 f_b = 0.000
68.388	f_t = 0.000 f_b = 0.000	f_t = 0.004 f_b = -0.016	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000

Deck Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.599	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.002	f_t = 0.000 f_b = 0.000
15.197	f_t = 0.000 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.000
22.796	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
30.395	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
37.993	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
45.592	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = -0.002	f_t = 0.000 f_b = 0.000
53.191	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.000 f_b = 0.000
60.790	f_t = 0.000 f_b = 0.000	f_t = 0.002 f_b = 0.001	f_t = 0.000 f_b = 0.000
68.388	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = 0.003	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 2: Prestress Release

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	ΣDC (KSI)	ΣDW (KSI)
(STRF, 0.0L_T) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.750	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.753	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.121	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(PSXFR) 3.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.182	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(H) 4.250	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000
(SZB) 5.419	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000
(1.5H) 6.000	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000
(0.1L_T) 7.682	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(SZB) 10.919	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000
(0.2L_t) 15.364	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000
(SZB) 19.169	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000
(0.3L_t) 23.046	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000
(SZB) 30.169	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000
(HP, 0.4L_t) 30.728	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000
(0.5L_t) 38.410	f_t = -0.893 f_b = 0.905	f_t = 0.000 f_b = 0.000	f_t = -0.893 f_b = 0.905	f_t = 0.000 f_b = 0.000
(HP, 0.6L_t) 46.092	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000	f_t = -0.857 f_b = 0.869	f_t = 0.000 f_b = 0.000
(SZB) 46.651	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000	f_t = -0.852 f_b = 0.864	f_t = 0.000 f_b = 0.000
(0.7L_t) 53.774	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000	f_t = -0.750 f_b = 0.761	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 54.998	f_t = -0.726 f_b = 0.737	f_t = 0.000 f_b = 0.000	f_t = -0.726 f_b = 0.737	f_t = 0.000 f_b = 0.000
(SZB) 57.651	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000	f_t = -0.669 f_b = 0.678	f_t = 0.000 f_b = 0.000
(0.8L_t) 61.456	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000	f_t = -0.571 f_b = 0.579	f_t = 0.000 f_b = 0.000
(SZB) 65.901	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000	f_t = -0.435 f_b = 0.442	f_t = 0.000 f_b = 0.000
(0.9L_t) 69.138	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000	f_t = -0.321 f_b = 0.326	f_t = 0.000 f_b = 0.000
(1.5H) 70.820	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.257 f_b = 0.261	f_t = 0.000 f_b = 0.000
(SZB) 71.401	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000	f_t = -0.234 f_b = 0.237	f_t = 0.000 f_b = 0.000
(H) 72.570	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.189	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.638	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(PSXFR) 73.820	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.699	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(SZB) 75.067	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(FoS) 76.070	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(STLF, 1.0L_t) 76.820	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 11: Cast Deck, Apply User Defined Loads

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.020 f_b = 0.020	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.337	f_t = -0.077 f_b = 0.078	f_t = 0.000 f_b = 0.000	f_t = -0.138 f_b = 0.140	f_t = 0.000 f_b = 0.000
(Bar Develop.) 1.705	f_t = -0.098 f_b = 0.099	f_t = 0.000 f_b = 0.000	f_t = -0.175 f_b = 0.177	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.147 f_b = 0.149	f_t = 0.000 f_b = 0.000	f_t = -0.261 f_b = 0.265	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.765	f_t = -0.157 f_b = 0.159	f_t = 0.000 f_b = 0.000	f_t = -0.279 f_b = 0.283	f_t = 0.000 f_b = 0.000
(H) 3.833	f_t = -0.214 f_b = 0.217	f_t = 0.000 f_b = 0.000	f_t = -0.381 f_b = 0.387	f_t = 0.000 f_b = 0.000
(SZB) 5.003	f_t = -0.275 f_b = 0.279	f_t = 0.000 f_b = 0.000	f_t = -0.490 f_b = 0.497	f_t = 0.000 f_b = 0.000
(1.5H) 5.583	f_t = -0.304	f_t = 0.000	f_t = -0.542	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.308	f_b = 0.000	f_b = 0.550	f_b = 0.000
($0.1L_e$) 7.599	f_t = -0.402 f_b = 0.408	f_t = 0.000 f_b = 0.000	f_t = -0.716 f_b = 0.727	f_t = 0.000 f_b = 0.000
(SZB) 10.503	f_t = -0.532 f_b = 0.540	f_t = 0.000 f_b = 0.000	f_t = -0.948 f_b = 0.962	f_t = 0.000 f_b = 0.000
($0.2L_e$) 15.197	f_t = -0.715 f_b = 0.725	f_t = 0.000 f_b = 0.000	f_t = -1.274 f_b = 1.292	f_t = 0.000 f_b = 0.000
(SZB) 18.753	f_t = -0.831 f_b = 0.843	f_t = 0.000 f_b = 0.000	f_t = -1.480 f_b = 1.502	f_t = 0.000 f_b = 0.000
($0.3L_e$) 22.796	f_t = -0.939 f_b = 0.952	f_t = 0.000 f_b = 0.000	f_t = -1.673 f_b = 1.697	f_t = 0.000 f_b = 0.000
(SZB) 29.753	f_t = -1.065 f_b = 1.081	f_t = 0.000 f_b = 0.000	f_t = -1.898 f_b = 1.925	f_t = 0.000 f_b = 0.000
(HP) 30.311	f_t = -1.072 f_b = 1.088	f_t = 0.000 f_b = 0.000	f_t = -1.910 f_b = 1.937	f_t = 0.000 f_b = 0.000
($0.4L_e$) 30.395	f_t = -1.073 f_b = 1.089	f_t = 0.000 f_b = 0.000	f_t = -1.912 f_b = 1.939	f_t = 0.000 f_b = 0.000
($0.5L_e$) 37.993	f_t = -1.118 f_b = 1.134	f_t = 0.000 f_b = 0.000	f_t = -1.991 f_b = 2.020	f_t = 0.000 f_b = 0.000
($0.6L_e$) 45.592	f_t = -1.073 f_b = 1.089	f_t = 0.000 f_b = 0.000	f_t = -1.912 f_b = 1.939	f_t = 0.000 f_b = 0.000
(HP) 45.675	f_t = -1.072 f_b = 1.088	f_t = 0.000 f_b = 0.000	f_t = -1.910 f_b = 1.937	f_t = 0.000 f_b = 0.000
(SZB) 46.234	f_t = -1.065 f_b = 1.081	f_t = 0.000 f_b = 0.000	f_t = -1.898 f_b = 1.925	f_t = 0.000 f_b = 0.000
($0.7L_e$) 53.191	f_t = -0.939 f_b = 0.952	f_t = 0.000 f_b = 0.000	f_t = -1.673 f_b = 1.697	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 54.581	f_t = -0.905 f_b = 0.918	f_t = 0.000 f_b = 0.000	f_t = -1.612 f_b = 1.635	f_t = 0.000 f_b = 0.000
(SZB) 57.234	f_t = -0.831 f_b = 0.843	f_t = 0.000 f_b = 0.000	f_t = -1.480 f_b = 1.502	f_t = 0.000 f_b = 0.000
($0.8L_e$) 60.790	f_t = -0.715 f_b = 0.725	f_t = 0.000 f_b = 0.000	f_t = -1.274 f_b = 1.292	f_t = 0.000 f_b = 0.000
(SZB) 65.484	f_t = -0.532 f_b = 0.540	f_t = 0.000 f_b = 0.000	f_t = -0.948 f_b = 0.962	f_t = 0.000 f_b = 0.000
($0.9L_e$) 68.388	f_t = -0.402 f_b = 0.408	f_t = 0.000 f_b = 0.000	f_t = -0.716 f_b = 0.727	f_t = 0.000 f_b = 0.000
(1.5H) 70.404	f_t = -0.304 f_b = 0.308	f_t = 0.000 f_b = 0.000	f_t = -0.542 f_b = 0.550	f_t = 0.000 f_b = 0.000
(SZB) 70.984	f_t = -0.275 f_b = 0.279	f_t = 0.000 f_b = 0.000	f_t = -0.490 f_b = 0.497	f_t = 0.000 f_b = 0.000
(H) 72.154	f_t = -0.214 f_b = 0.217	f_t = 0.000 f_b = 0.000	f_t = -0.381 f_b = 0.387	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.222	f_t = -0.157 f_b = 0.159	f_t = 0.000 f_b = 0.000	f_t = -0.279 f_b = 0.283	f_t = 0.000 f_b = 0.000
(PSXFR) 73.404	f_t = -0.147 f_b = 0.149	f_t = 0.000 f_b = 0.000	f_t = -0.261 f_b = 0.265	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.282	f_t = -0.098 f_b = 0.099	f_t = 0.000 f_b = 0.000	f_t = -0.175 f_b = 0.177	f_t = 0.000 f_b = 0.000
(SZB) 74.650	f_t = -0.077 f_b = 0.078	f_t = 0.000 f_b = 0.000	f_t = -0.138 f_b = 0.140	f_t = 0.000 f_b = 0.000
(FoS) 75.654	f_t = -0.019 f_b = 0.020	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
($1.0L_e$) 75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 17: Open to Traffic

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = 0.039	f_t = -0.001 f_b = 0.003
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.141 f_b = 0.156	f_t = -0.003 f_b = 0.011
(Bar Develop.) 1.705				

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.179 f_b = 0.198	f_t = -0.003 f_b = 0.014
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.269 f_b = 0.296	f_t = -0.005 f_b = 0.021
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.287 f_b = 0.316	f_t = -0.005 f_b = 0.022
(H) 3.833	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.392 f_b = 0.431	f_t = -0.007 f_b = 0.030
(SZB) 5.003	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.503 f_b = 0.554	f_t = -0.009 f_b = 0.038
(1.5H) 5.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.557 f_b = 0.613	f_t = -0.010 f_b = 0.042
($0.1L_s$) 7.687	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.744 f_b = 0.817	f_t = -0.013 f_b = 0.056
(SZB) 10.503	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.974 f_b = 1.069	f_t = -0.017 f_b = 0.072
($0.2L_s$) 15.374	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.318 f_b = 1.444	f_t = -0.022 f_b = 0.095
(SZB) 18.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.518 f_b = 1.660	f_t = -0.025 f_b = 0.107
($0.3L_s$) 23.062	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.724 f_b = 1.880	f_t = -0.027 f_b = 0.116
(SZB) 29.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.940 f_b = 2.105	f_t = -0.029 f_b = 0.121
(HP) 30.311	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.952 f_b = 2.117	f_t = -0.029 f_b = 0.121
($0.4L_s$) 30.749	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.961 f_b = 2.126	f_t = -0.028 f_b = 0.121
($0.5L_s$) 38.436	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.029 f_b = 2.180	f_t = -0.025 f_b = 0.108
(HP) 45.675	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.938 f_b = 2.056	f_t = -0.019 f_b = 0.080
($0.6L_s$) 46.123	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.927 f_b = 2.042	f_t = -0.018 f_b = 0.077
(SZB) 46.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.925 f_b = 2.039	f_t = -0.018 f_b = 0.077
($0.7L_s$) 53.811	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.656 f_b = 1.714	f_t = -0.007 f_b = 0.030
(Deck Bar Cutoff) 54.581	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.620 f_b = 1.671	f_t = -0.006 f_b = 0.024
(SZB) 57.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.481 f_b = 1.506	f_t = -0.001 f_b = 0.003
($0.8L_s$) 61.498	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.217 f_b = 1.195	f_t = 0.008 f_b = -0.035
(SZB) 65.484	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.922 f_b = 0.850	f_t = 0.018 f_b = -0.075
($0.9L_s$) 69.185	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.608 f_b = 0.485	f_t = 0.028 f_b = -0.117
(1.5H) 70.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.496 f_b = 0.355	f_t = 0.031 f_b = -0.132
(SZB) 70.984	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.441 f_b = 0.291	f_t = 0.033 f_b = -0.139
(H) 72.154	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.328 f_b = 0.159	f_t = 0.036 f_b = -0.153
(Bar Develop.) 73.222	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.221 f_b = 0.036	f_t = 0.039 f_b = -0.167
(PSXFR) 73.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.202 f_b = 0.014	f_t = 0.040 f_b = -0.169
(Bar Develop.) 74.282	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.111 f_b = -0.091	f_t = 0.043 f_b = -0.181
(SZB) 74.650	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.073 f_b = -0.136	f_t = 0.044 f_b = -0.186
(FoS) 75.654	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.035 f_b = -0.260	f_t = 0.047 f_b = -0.199
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.071 f_b = -0.302	f_t = 0.048 f_b = -0.204
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = -0.311	f_t = 0.049 f_b = -0.210
($1.0L_s$) 76.872	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.063 f_b = -0.265	f_t = 0.042 f_b = -0.179

Girder Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.001	f_t = -0.000 f_b = -0.000	f_t = 0.001 f_b = 0.025	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.009	f_t = -0.002 f_b = -0.001	f_t = 0.001 f_b = 0.026	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.009	f_t = -0.002 f_b = -0.001
(SZB) 1.337	f_t = 0.000 f_b = 0.005	f_t = -0.001 f_b = -0.001	f_t = 0.003 f_b = 0.098	f_t = -0.023 f_b = -0.011	f_t = 0.001 f_b = 0.033	f_t = -0.008 f_b = -0.004	f_t = 0.003 f_b = 0.103	f_t = -0.024 f_b = -0.012	f_t = 0.001 f_b = 0.033	f_t = -0.008 f_b = -0.004
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.007	f_t = -0.002 f_b = -0.001	f_t = 0.003 f_b = 0.124	f_t = -0.029 f_b = -0.015	f_t = 0.001 f_b = 0.042	f_t = -0.010 f_b = -0.005	f_t = 0.004 f_b = 0.130	f_t = -0.031 f_b = -0.016	f_t = 0.001 f_b = 0.042	f_t = -0.010 f_b = -0.005
(PSXFR) 2.583	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.184	f_t = -0.043 f_b = -0.022	f_t = 0.002 f_b = 0.063	f_t = -0.015 f_b = -0.007	f_t = 0.006 f_b = 0.194	f_t = -0.046 f_b = -0.023	f_t = 0.002 f_b = 0.063	f_t = -0.015 f_b = -0.007
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.002	f_t = 0.006 f_b = 0.197	f_t = -0.046 f_b = -0.024	f_t = 0.002 f_b = 0.067	f_t = -0.016 f_b = -0.008	f_t = 0.006 f_b = 0.207	f_t = -0.049 f_b = -0.025	f_t = 0.002 f_b = 0.067	f_t = -0.016 f_b = -0.008
(H) 3.833	f_t = 0.001 f_b = 0.014	f_t = -0.003 f_b = -0.002	f_t = 0.008 f_b = 0.267	f_t = -0.063 f_b = -0.033	f_t = 0.002 f_b = 0.091	f_t = -0.021 f_b = -0.011	f_t = 0.008 f_b = 0.281	f_t = -0.066 f_b = -0.035	f_t = 0.002 f_b = 0.091	f_t = -0.021 f_b = -0.011
(SZB) 5.003	f_t = 0.001 f_b = 0.018	f_t = -0.004 f_b = -0.003	f_t = 0.010 f_b = 0.341	f_t = -0.080 f_b = -0.043	f_t = 0.003 f_b = 0.115	f_t = -0.027 f_b = -0.014	f_t = 0.011 f_b = 0.359	f_t = -0.085 f_b = -0.045	f_t = 0.003 f_b = 0.115	f_t = -0.027 f_b = -0.014
(1.5H) 5.583	f_t = 0.001 f_b = 0.020	f_t = -0.005 f_b = -0.003	f_t = 0.011 f_b = 0.376	f_t = -0.089 f_b = -0.048	f_t = 0.004 f_b = 0.127	f_t = -0.030 f_b = -0.015	f_t = 0.012 f_b = 0.396	f_t = -0.093 f_b = -0.051	f_t = 0.004 f_b = 0.127	f_t = -0.030 f_b = -0.015
($0.1L_s$) 7.687	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.015 f_b = 0.496	f_t = -0.117 f_b = -0.066	f_t = 0.005 f_b = 0.166	f_t = -0.039 f_b = -0.021	f_t = 0.016 f_b = 0.523	f_t = -0.123 f_b = -0.070	f_t = 0.005 f_b = 0.166	f_t = -0.039 f_b = -0.021
(SZB) 10.503	f_t = 0.001 f_b = 0.035	f_t = -0.008 f_b = -0.006	f_t = 0.021 f_b = 0.639	f_t = -0.151 f_b = -0.090	f_t = 0.007 f_b = 0.212	f_t = -0.050 f_b = -0.029	f_t = 0.023 f_b = 0.674	f_t = -0.159 f_b = -0.096	f_t = 0.007 f_b = 0.212	f_t = -0.050 f_b = -0.029
($0.2L_s$) 15.374	f_t = 0.002 f_b = 0.046	f_t = -0.011 f_b = -0.009	f_t = 0.031 f_b = 0.839	f_t = -0.198 f_b = -0.131	f_t = 0.010 f_b = 0.272	f_t = -0.064 f_b = -0.042	f_t = 0.033 f_b = 0.885	f_t = -0.209 f_b = -0.140	f_t = 0.010 f_b = 0.272	f_t = -0.064 f_b = -0.042
(SZB) 18.753	f_t = 0.002 f_b = 0.053	f_t = -0.012 f_b = -0.011	f_t = 0.038 f_b = 0.943	f_t = -0.222 f_b = -0.160	f_t = 0.012 f_b = 0.305	f_t = -0.072 f_b = -0.052	f_t = 0.040 f_b = 0.996	f_t = -0.235 f_b = -0.171	f_t = 0.012 f_b = 0.305	f_t = -0.072 f_b = -0.052
($0.3L_s$) 23.062	f_t = 0.003 f_b = 0.059	f_t = -0.014 f_b = -0.013	f_t = 0.046 f_b = 1.035	f_t = -0.244 f_b = -0.197	f_t = 0.015 f_b = 0.337	f_t = -0.079 f_b = -0.064	f_t = 0.049 f_b = 1.095	f_t = -0.258 f_b = -0.210	f_t = 0.015 f_b = 0.337	f_t = -0.079 f_b = -0.064
(SZB) 29.753	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.060 f_b = 1.120	f_t = -0.264 f_b = -0.254	f_t = 0.019 f_b = 0.355	f_t = -0.084 f_b = -0.082	f_t = 0.064 f_b = 1.185	f_t = -0.279 f_b = -0.271	f_t = 0.019 f_b = 0.355	f_t = -0.084 f_b = -0.082
(HP) 30.311	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.061 f_b = 1.122	f_t = -0.265 f_b = -0.259	f_t = 0.020 f_b = 0.355	f_t = -0.084 f_b = -0.084	f_t = 0.065 f_b = 1.187	f_t = -0.280 f_b = -0.276	f_t = 0.020 f_b = 0.355	f_t = -0.084 f_b = -0.084
($0.4L_s$) 30.749	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.062 f_b = 1.124	f_t = -0.265 f_b = -0.262	f_t = 0.020 f_b = 0.355	f_t = -0.084 f_b = -0.085	f_t = 0.066 f_b = 1.189	f_t = -0.280 f_b = -0.280	f_t = 0.020 f_b = 0.355	f_t = -0.084 f_b = -0.085
($0.5L_s$) 38.436	f_t = 0.005 f_b = 0.065	f_t = -0.015 f_b = -0.022	f_t = 0.077 f_b = 1.101	f_t = -0.260 f_b = -0.328	f_t = 0.025 f_b = 0.336	f_t = -0.079 f_b = -0.106	f_t = 0.082 f_b = 1.166	f_t = -0.275 f_b = -0.350	f_t = 0.025 f_b = 0.336	f_t = -0.079 f_b = -0.106
(HP) 45.675	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.092 f_b = 0.996	f_t = -0.235 f_b = -0.390	f_t = 0.030 f_b = 0.320	f_t = -0.075 f_b = -0.126	f_t = 0.098 f_b = 1.054	f_t = -0.248 f_b = -0.415	f_t = 0.030 f_b = 0.320	f_t = -0.075 f_b = -0.126
($0.6L_s$) 46.123	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.093 f_b = 0.986	f_t = -0.233 f_b = -0.394	f_t = 0.030 f_b = 0.317	f_t = -0.075 f_b = -0.127	f_t = 0.099 f_b = 1.043	f_t = -0.246 f_b = -0.419	f_t = 0.030 f_b = 0.317	f_t = -0.075 f_b = -0.127
(SZB) 46.234	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.093 f_b = 0.984	f_t = -0.232 f_b = -0.395	f_t = 0.030 f_b = 0.317	f_t = -0.075 f_b = -0.128	f_t = 0.099 f_b = 1.041	f_t = -0.245 f_b = -0.420	f_t = 0.030 f_b = 0.317	f_t = -0.075 f_b = -0.128
($0.7L_s$) 53.811	f_t = 0.007 f_b = 0.042	f_t = -0.010 f_b = -0.030	f_t = 0.108 f_b = 0.761	f_t = -0.179 f_b = -0.459	f_t = 0.035 f_b = 0.251	f_t = -0.059 f_b = -0.148	f_t = 0.115 f_b = 0.803	f_t = -0.189 f_b = -0.489	f_t = 0.035 f_b = 0.251	f_t = -0.059 f_b = -0.148
(Deck Bar Cutoff) 54.581	f_t = 0.007 f_b = 0.040	f_t = -0.010 f_b = -0.031	f_t = 0.110 f_b = 0.734	f_t = -0.173 f_b = -0.466	f_t = 0.036 f_b = 0.242	f_t = -0.057 f_b = -0.151	f_t = 0.117 f_b = 0.775	f_t = -0.183 f_b = -0.496	f_t = 0.036 f_b = 0.242	f_t = -0.057 f_b = -0.151
(SZB) 57.234	f_t = 0.008 f_b = 0.034	f_t = -0.008 f_b = -0.032	f_t = 0.115 f_b = 0.634	f_t = -0.149 f_b = -0.488	f_t = 0.037 f_b = 0.208	f_t = -0.049 f_b = -0.158	f_t = 0.123 f_b = 0.667	f_t = -0.157 f_b = -0.520	f_t = 0.037 f_b = 0.208	f_t = -0.049 f_b = -0.158
($0.8L_s$) 61.498	f_t = 0.008 f_b = 0.021	f_t = -0.005 f_b = -0.035	f_t = 0.124 f_b = 0.450	f_t = -0.106 f_b = -0.525	f_t = 0.040 f_b = 0.145	f_t = -0.034 f_b = -0.170	f_t = 0.132 f_b = 0.470	f_t = -0.111 f_b = -0.559	f_t = 0.040 f_b = 0.145	f_t = -0.034 f_b = -0.170
(SZB) 65.484	f_t = 0.009 f_b = 0.010	f_t = -0.002 f_b = -0.040	f_t = 0.135 f_b = 0.289	f_t = -0.068 f_b = -0.572	f_t = 0.043 f_b = 0.080	f_t = -0.019 f_b = -0.181	f_t = 0.144 f_b = 0.299	f_t = -0.071 f_b = -0.612	f_t = 0.043 f_b = 0.080	f_t = -0.019 f_b = -0.181
($0.9L_s$) 69.185	f_t = 0.012 f_b = 0.004	f_t = -0.001 f_b = -0.051	f_t = 0.169 f_b = 0.171	f_t = -0.040 f_b = -0.718	f_t = 0.045 f_b = 0.012	f_t = -0.003 f_b = -0.191	f_t = 0.181 f_b = 0.175	f_t = -0.041 f_b = -0.768	f_t = 0.045 f_b = 0.012	f_t = -0.003 f_b = -0.191
(1.5H) 70.404	f_t = 0.013 f_b = 0.003	f_t = -0.001 f_b = -0.055	f_t = 0.185 f_b = 0.134	f_t = -0.032 f_b = -0.786	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.194	f_t = 0.198 f_b = 0.137	f_t = -0.032 f_b = -0.841	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.194
(SZB) 70.984	f_t = 0.014 f_b = 0.002	f_t = -0.001 f_b = -0.057	f_t = 0.192 f_b = 0.117	f_t = -0.028 f_b = -0.817	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.196	f_t = 0.206 f_b = 0.119	f_t = -0.028 f_b = -0.874	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.196
(H) 72.154	f_t = 0.015 f_b = 0.001	f_t = -0.000 f_b = -0.062	f_t = 0.207 f_b = 0.083	f_t = -0.020 f_b = -0.879	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.199	f_t = 0.222 f_b = 0.084	f_t = -0.020 f_b = -0.941	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.199
(Bar Develop.) 73.222	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.067	f_t = 0.221 f_b = 0.061	f_t = -0.014 f_b = -0.939	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.202	f_t = 0.237 f_b = 0.062	f_t = -0.015 f_b = -1.006	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.202
(PSXFR) 73.404	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.224 f_b = 0.058	f_t = -0.014 f_b = -0.949	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.203	f_t = 0.240 f_b = 0.059	f_t = -0.014 f_b = -1.017	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.203
(Bar Develop.) 74.282	f_t = 0.017 f_b = 0.000	f_t = -0.000 f_b = -0.072	f_t = 0.236 f_b = 0.042	f_t = -0.010 f_b = -1.000	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.205	f_t = 0.253 f_b = 0.043	f_t = -0.010 f_b = -1.072	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.205
(SZB) 74.650	f_t = 0.017 f_b = 0.000	f_t = -0.000 f_b = -0.074	f_t = 0.241 f_b = 0.036	f_t = -0.008 f_b = -1.021	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.206	f_t = 0.258 f_b = 0.036	f_t = -0.009 f_b = -1.095	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.206
(FoS) 75.654	f_t = 0.019	f_t = -0.000	f_t = 0.255	f_t = -0.005	f_t = 0.049	f_t = 0.000	f_t = 0.273	f_t = -0.005	f_t = 0.049	f_t = 0.000

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.000	f_b = -0.079	f_b = 0.019	f_b = -1.080	f_b = 0.000	f_b = -0.209	f_b = 0.019	f_b = -1.160	f_b = 0.000	f_b = -0.209
75.987	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.259 f_b = 0.014	f_t = -0.003 f_b = -1.100	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.210	f_t = 0.278 f_b = 0.014	f_t = -0.003 f_b = -1.181	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.210
(STLF) 76.404	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.083	f_t = 0.265 f_b = 0.007	f_t = -0.002 f_b = -1.125	f_t = 0.050 f_b = 0.000	f_t = 0.000 f_b = -0.211	f_t = 0.285 f_b = 0.007	f_t = -0.002 f_b = -1.208	f_t = 0.050 f_b = 0.000	f_t = 0.000 f_b = -0.211
($1.0L_s$) 76.872	f_t = 0.017 f_b = 0.000	f_t = 0.000 f_b = -0.071	f_t = 0.225 f_b = 0.000	f_t = 0.000 f_b = -0.954	f_t = 0.041 f_b = 0.000	f_t = 0.000 f_b = -0.175	f_t = 0.242 f_b = 0.000	f_t = 0.000 f_b = -1.025	f_t = 0.041 f_b = 0.000	f_t = 0.000 f_b = -0.175

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Girder Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.036 f_b = 0.068	f_t = -0.043 f_b = 0.039	f_t = -0.036 f_b = 0.063	f_t = -0.041 f_b = 0.040	f_t = -0.018 f_b = 0.034	f_t = -0.021 f_b = 0.020
(SZB) 1.337	f_t = -0.141 f_b = 0.270	f_t = -0.168 f_b = 0.155	f_t = -0.142 f_b = 0.249	f_t = -0.163 f_b = 0.157	f_t = -0.071 f_b = 0.134	f_t = -0.084 f_b = 0.078
(Bar Develop.) 1.705	f_t = -0.179 f_b = 0.342	f_t = -0.213 f_b = 0.196	f_t = -0.180 f_b = 0.316	f_t = -0.207 f_b = 0.199	f_t = -0.090 f_b = 0.169	f_t = -0.106 f_b = 0.099
(PSXFR) 2.583	f_t = -0.268 f_b = 0.511	f_t = -0.319 f_b = 0.293	f_t = -0.269 f_b = 0.472	f_t = -0.310 f_b = 0.298	f_t = -0.134 f_b = 0.253	f_t = -0.159 f_b = 0.148
(Bar Develop.) 2.765	f_t = -0.286 f_b = 0.545	f_t = -0.341 f_b = 0.313	f_t = -0.287 f_b = 0.504	f_t = -0.331 f_b = 0.318	f_t = -0.143 f_b = 0.270	f_t = -0.170 f_b = 0.158
(H) 3.833	f_t = -0.391 f_b = 0.743	f_t = -0.465 f_b = 0.427	f_t = -0.392 f_b = 0.687	f_t = -0.452 f_b = 0.434	f_t = -0.196 f_b = 0.367	f_t = -0.232 f_b = 0.215
(SZB) 5.003	f_t = -0.501 f_b = 0.951	f_t = -0.597 f_b = 0.547	f_t = -0.503 f_b = 0.879	f_t = -0.580 f_b = 0.556	f_t = -0.251 f_b = 0.469	f_t = -0.297 f_b = 0.275
(1.5H) 5.583	f_t = -0.555 f_b = 1.051	f_t = -0.660 f_b = 0.604	f_t = -0.557 f_b = 0.972	f_t = -0.641 f_b = 0.614	f_t = -0.278 f_b = 0.518	f_t = -0.328 f_b = 0.304
($0.1L_s$) 7.687	f_t = -0.740 f_b = 1.397	f_t = -0.880 f_b = 0.804	f_t = -0.744 f_b = 1.292	f_t = -0.855 f_b = 0.818	f_t = -0.371 f_b = 0.686	f_t = -0.437 f_b = 0.405
(SZB) 10.503	f_t = -0.968 f_b = 1.816	f_t = -1.150 f_b = 1.046	f_t = -0.973 f_b = 1.681	f_t = -1.118 f_b = 1.065	f_t = -0.485 f_b = 0.888	f_t = -0.570 f_b = 0.527
($0.2L_s$) 15.374	f_t = -1.308 f_b = 2.425	f_t = -1.549 f_b = 1.399	f_t = -1.314 f_b = 2.247	f_t = -1.508 f_b = 1.427	f_t = -0.655 f_b = 1.177	f_t = -0.766 f_b = 0.706
(SZB) 18.753	f_t = -1.502 f_b = 2.762	f_t = -1.777 f_b = 1.595	f_t = -1.511 f_b = 2.562	f_t = -1.730 f_b = 1.630	f_t = -0.753 f_b = 1.340	f_t = -0.879 f_b = 0.805
($0.3L_s$) 23.062	f_t = -1.702 f_b = 3.092	f_t = -2.010 f_b = 1.787	f_t = -1.712 f_b = 2.873	f_t = -1.958 f_b = 1.829	f_t = -0.853 f_b = 1.504	f_t = -0.995 f_b = 0.903
(SZB) 29.753	f_t = -1.905 f_b = 3.411	f_t = -2.248 f_b = 1.955	f_t = -1.918 f_b = 3.174	f_t = -2.192 f_b = 2.009	f_t = -0.955 f_b = 1.646	f_t = -1.110 f_b = 0.990
(HP) 30.311	f_t = -1.916 f_b = 3.425	f_t = -2.261 f_b = 1.962	f_t = -1.929 f_b = 3.188	f_t = -2.205 f_b = 2.017	f_t = -0.961 f_b = 1.651	f_t = -1.116 f_b = 0.993
($0.4L_s$) 30.749	f_t = -1.924 f_b = 3.435	f_t = -2.270 f_b = 1.967	f_t = -1.937 f_b = 3.197	f_t = -2.214 f_b = 2.023	f_t = -0.965 f_b = 1.655	f_t = -1.120 f_b = 0.996
($0.5L_s$) 38.436	f_t = -1.972 f_b = 3.453	f_t = -2.329 f_b = 1.938	f_t = -1.988 f_b = 3.220	f_t = -2.274 f_b = 2.008	f_t = -0.990 f_b = 1.648	f_t = -1.146 f_b = 0.985
(HP) 45.675	f_t = -1.859 f_b = 3.189	f_t = -2.205 f_b = 1.720	f_t = -1.878 f_b = 2.978	f_t = -2.155 f_b = 1.803	f_t = -0.934 f_b = 1.547	f_t = -1.091 f_b = 0.879
($0.6L_s$) 46.123	f_t = -1.847 f_b = 3.163	f_t = -2.191 f_b = 1.700	f_t = -1.866 f_b = 2.954	f_t = -2.142 f_b = 1.784	f_t = -0.928 f_b = 1.536	f_t = -1.085 f_b = 0.869
(SZB) 46.234	f_t = -1.844 f_b = 3.157	f_t = -2.188 f_b = 1.695	f_t = -1.863 f_b = 2.948	f_t = -2.139 f_b = 1.779	f_t = -0.926 f_b = 1.533	f_t = -1.083 f_b = 0.867
($0.7L_s$) 53.811	f_t = -1.548 f_b = 2.547	f_t = -1.853 f_b = 1.255	f_t = -1.571 f_b = 2.387	f_t = -1.815 f_b = 1.352	f_t = -0.779 f_b = 1.248	f_t = -0.920 f_b = 0.649
(Deck Bar Cutoff) 54.581	f_t = -1.509 f_b = 2.470	f_t = -1.808 f_b = 1.198	f_t = -1.532 f_b = 2.315	f_t = -1.772 f_b = 1.298	f_t = -0.760 f_b = 1.210	f_t = -0.898 f_b = 0.621
(SZB) 57.234	f_t = -1.360 f_b = 2.177	f_t = -1.639 f_b = 0.989	f_t = -1.384 f_b = 2.043	f_t = -1.608 f_b = 1.093	f_t = -0.685 f_b = 1.067	f_t = -0.815 f_b = 0.518
($0.8L_s$) 61.498	f_t = -1.077 f_b = 1.630	f_t = -1.319 f_b = 0.601	f_t = -1.103 f_b = 1.536	f_t = -1.297 f_b = 0.713	f_t = -0.544 f_b = 0.798	f_t = -0.656 f_b = 0.325
(SZB) 65.484	f_t = -0.760 f_b = 1.074	f_t = -0.975 f_b = 0.163	f_t = -0.789 f_b = 1.015	f_t = -0.961 f_b = 0.285	f_t = -0.388 f_b = 0.507	f_t = -0.480 f_b = 0.116
($0.9L_s$) 69.185	f_t = -0.399 f_b = 0.543	f_t = -0.622 f_b = -0.400	f_t = -0.435 f_b = 0.508	f_t = -0.613 f_b = -0.247	f_t = -0.223 f_b = 0.202	f_t = -0.294 f_b = -0.102
(1.5H) 70.404	f_t = -0.267 f_b = 0.360	f_t = -0.497 f_b = -0.618	f_t = -0.306 f_b = 0.333	f_t = -0.491 f_b = -0.450	f_t = -0.164 f_b = 0.112	f_t = -0.232 f_b = -0.180

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 70.984	f_t = -0.202 f_b = 0.271	f_t = -0.436 f_b = -0.722	f_t = -0.244 f_b = 0.248	f_t = -0.431 f_b = -0.547	f_t = -0.135 f_b = 0.076	f_t = -0.204 f_b = -0.218
(H) 72.154	f_t = -0.070 f_b = 0.090	f_t = -0.311 f_b = -0.935	f_t = -0.114 f_b = 0.074	f_t = -0.307 f_b = -0.747	f_t = -0.075 f_b = 0.003	f_t = -0.146 f_b = -0.296
(Bar Develop.) 73.222	f_t = 0.056 f_b = -0.070	f_t = -0.196 f_b = -1.138	f_t = 0.008 f_b = -0.082	f_t = -0.193 f_b = -0.936	f_t = -0.019 f_b = -0.066	f_t = -0.091 f_b = -0.369
(PSXFR) 73.404	f_t = 0.078 f_b = -0.097	f_t = -0.176 f_b = -1.173	f_t = 0.030 f_b = -0.108	f_t = -0.173 f_b = -0.969	f_t = -0.010 f_b = -0.078	f_t = -0.081 f_b = -0.381
(Bar Develop.) 74.282	f_t = 0.184 f_b = -0.229	f_t = -0.079 f_b = -1.344	f_t = 0.134 f_b = -0.238	f_t = -0.077 f_b = -1.130	f_t = 0.038 f_b = -0.136	f_t = -0.034 f_b = -0.444
(SZB) 74.650	f_t = 0.229 f_b = -0.285	f_t = -0.037 f_b = -1.417	f_t = 0.178 f_b = -0.293	f_t = -0.036 f_b = -1.198	f_t = 0.058 f_b = -0.161	f_t = -0.014 f_b = -0.470
(FoS) 75.654	f_t = 0.355 f_b = -0.440	f_t = 0.077 f_b = -1.619	f_t = 0.301 f_b = -0.444	f_t = 0.078 f_b = -1.387	f_t = 0.115 f_b = -0.230	f_t = 0.041 f_b = -0.543
75.987	f_t = 0.398 f_b = -0.492	f_t = 0.116 f_b = -1.688	f_t = 0.342 f_b = -0.495	f_t = 0.117 f_b = -1.451	f_t = 0.134 f_b = -0.253	f_t = 0.060 f_b = -0.568
(STLF) 76.404	f_t = 0.408 f_b = -0.513	f_t = 0.121 f_b = -1.729	f_t = 0.351 f_b = -0.515	f_t = 0.121 f_b = -1.487	f_t = 0.136 f_b = -0.260	f_t = 0.061 f_b = -0.577
(1.0L_s) 76.872	f_t = 0.346 f_b = -0.444	f_t = 0.105 f_b = -1.469	f_t = 0.298 f_b = -0.444	f_t = 0.105 f_b = -1.264	f_t = 0.114 f_b = -0.222	f_t = 0.052 f_b = -0.485

* Live Load values are per girder and include impact.

Deck Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = -0.005 f_b = -0.002
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.006 f_b = -0.003
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.013 f_b = -0.006	f_t = -0.009 f_b = -0.004
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.006	f_t = -0.009 f_b = -0.004
(H) 3.833	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.018 f_b = -0.009	f_t = -0.012 f_b = -0.006
(SZB) 5.003	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.024 f_b = -0.011	f_t = -0.016 f_b = -0.007
(1.5H) 5.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.026 f_b = -0.012	f_t = -0.018 f_b = -0.008
(0.1L_s) 7.687	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.034 f_b = -0.016	f_t = -0.023 f_b = -0.011
(SZB) 10.503	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.044 f_b = -0.021	f_t = -0.030 f_b = -0.014
(0.2L_s) 15.374	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.058 f_b = -0.027	f_t = -0.039 f_b = -0.019
(SZB) 18.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.065 f_b = -0.031	f_t = -0.044 f_b = -0.021
(0.3L_s) 23.062	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.071 f_b = -0.034	f_t = -0.048 f_b = -0.023
(SZB) 29.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.074 f_b = -0.035	f_t = -0.050 f_b = -0.024
(HP) 30.311	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.074 f_b = -0.035	f_t = -0.050 f_b = -0.024
(0.4L_s) 30.749	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.074 f_b = -0.035	f_t = -0.050 f_b = -0.024
(0.5L_s) 38.436	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.066 f_b = -0.031	f_t = -0.045 f_b = -0.021
(HP) 45.675	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.049 f_b = -0.023	f_t = -0.033 f_b = -0.016
(0.6L_s) 46.123	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.048 f_b = -0.022	f_t = -0.032 f_b = -0.015
(SZB) 46.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.047 f_b = -0.022	f_t = -0.032 f_b = -0.015
(0.7L_s) 53.811	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.018 f_b = -0.009	f_t = -0.012 f_b = -0.006
(Deck Bar Cutoff) 54.581	f_t = 0.000	f_t = 0.000	f_t = -0.015	f_t = -0.010

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = -0.007	f_b = -0.005
(SZB) 57.234	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(0.8L_s) 61.498	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.021 f_b = 0.010	f_t = 0.014 f_b = 0.007
(SZB) 65.484	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.046 f_b = 0.022	f_t = 0.031 f_b = 0.015
(0.9L_s) 69.185	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.072 f_b = 0.034	f_t = 0.048 f_b = 0.023
(1.5H) 70.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.081 f_b = 0.038	f_t = 0.054 f_b = 0.026
(SZB) 70.984	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.085 f_b = 0.040	f_t = 0.057 f_b = 0.027
(H) 72.154	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.094 f_b = 0.044	f_t = 0.063 f_b = 0.030
(Bar Develop.) 73.222	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.102 f_b = 0.048	f_t = 0.069 f_b = 0.033
(PSXFR) 73.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.104 f_b = 0.049	f_t = 0.070 f_b = 0.033
(Bar Develop.) 74.282	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.111 f_b = 0.052	f_t = 0.075 f_b = 0.035
(SZB) 74.650	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.114 f_b = 0.054	f_t = 0.077 f_b = 0.036
(FoS) 75.654	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.122 f_b = 0.058	f_t = 0.083 f_b = 0.039
75.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.125 f_b = 0.059	f_t = 0.084 f_b = 0.040
(STLF) 76.404	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.129 f_b = 0.061	f_t = 0.087 f_b = 0.041
(1.0L_s) 76.872	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.110 f_b = 0.052	f_t = 0.074 f_b = 0.035

Deck Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = -0.000	f_t = 0.001 f_b = 0.001	f_t = -0.010 f_b = -0.005	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.001 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = -0.002
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.002	f_t = -0.040 f_b = -0.019	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007	f_t = 0.005 f_b = 0.002	f_t = -0.043 f_b = -0.020	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.001	f_t = 0.006 f_b = 0.003	f_t = -0.051 f_b = -0.024	f_t = 0.002 f_b = 0.001	f_t = -0.018 f_b = -0.008	f_t = 0.006 f_b = 0.003	f_t = -0.054 f_b = -0.025	f_t = 0.002 f_b = 0.001	f_t = -0.018 f_b = -0.008
(PSXFR) 2.583	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.009 f_b = 0.004	f_t = -0.076 f_b = -0.036	f_t = 0.003 f_b = 0.001	f_t = -0.026 f_b = -0.012	f_t = 0.010 f_b = 0.005	f_t = -0.080 f_b = -0.038	f_t = 0.003 f_b = 0.001	f_t = -0.026 f_b = -0.012
(Bar Develop.) 2.765	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.010 f_b = 0.005	f_t = -0.081 f_b = -0.038	f_t = 0.003 f_b = 0.001	f_t = -0.028 f_b = -0.013	f_t = 0.010 f_b = 0.005	f_t = -0.086 f_b = -0.040	f_t = 0.003 f_b = 0.001	f_t = -0.028 f_b = -0.013
(H) 3.833	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.014 f_b = 0.006	f_t = -0.111 f_b = -0.052	f_t = 0.004 f_b = 0.002	f_t = -0.038 f_b = -0.018	f_t = 0.014 f_b = 0.007	f_t = -0.116 f_b = -0.055	f_t = 0.004 f_b = 0.002	f_t = -0.038 f_b = -0.018
(SZB) 5.003	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.018 f_b = 0.008	f_t = -0.141 f_b = -0.066	f_t = 0.006 f_b = 0.003	f_t = -0.048 f_b = -0.023	f_t = 0.019 f_b = 0.009	f_t = -0.149 f_b = -0.070	f_t = 0.006 f_b = 0.003	f_t = -0.048 f_b = -0.023
(1.5H) 5.583	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.020 f_b = 0.009	f_t = -0.156 f_b = -0.073	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.025	f_t = 0.021 f_b = 0.010	f_t = -0.164 f_b = -0.077	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.025
(0.1L_s) 7.687	f_t = 0.002 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.027 f_b = 0.013	f_t = -0.206 f_b = -0.097	f_t = 0.009 f_b = 0.004	f_t = -0.069 f_b = -0.032	f_t = 0.029 f_b = 0.014	f_t = -0.217 f_b = -0.102	f_t = 0.009 f_b = 0.004	f_t = -0.069 f_b = -0.032
(SZB) 10.503	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007	f_t = 0.037 f_b = 0.017	f_t = -0.265 f_b = -0.125	f_t = 0.012 f_b = 0.006	f_t = -0.088 f_b = -0.041	f_t = 0.040 f_b = 0.019	f_t = -0.279 f_b = -0.131	f_t = 0.012 f_b = 0.006	f_t = -0.088 f_b = -0.041
(0.2L_s) 15.374	f_t = 0.004 f_b = 0.002	f_t = -0.019 f_b = -0.009	f_t = 0.054 f_b = 0.026	f_t = -0.347 f_b = -0.164	f_t = 0.018 f_b = 0.008	f_t = -0.112 f_b = -0.053	f_t = 0.058 f_b = 0.027	f_t = -0.366 f_b = -0.173	f_t = 0.018 f_b = 0.008	f_t = -0.112 f_b = -0.053
(SZB) 18.753	f_t = 0.004 f_b = 0.002	f_t = -0.022 f_b = -0.010	f_t = 0.066 f_b = 0.031	f_t = -0.390 f_b = -0.184	f_t = 0.021 f_b = 0.010	f_t = -0.126 f_b = -0.059	f_t = 0.071 f_b = 0.033	f_t = -0.412 f_b = -0.194	f_t = 0.021 f_b = 0.010	f_t = -0.126 f_b = -0.059
(0.3L_s) 23.062	f_t = 0.005 f_b = 0.003	f_t = -0.025 f_b = -0.012	f_t = 0.081 f_b = 0.038	f_t = -0.429 f_b = -0.202	f_t = 0.026 f_b = 0.012	f_t = -0.140 f_b = -0.066	f_t = 0.087 f_b = 0.041	f_t = -0.453 f_b = -0.213	f_t = 0.026 f_b = 0.012	f_t = -0.140 f_b = -0.066
(SZB) 29.753	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.105 f_b = 0.049	f_t = -0.464 f_b = -0.218	f_t = 0.034 f_b = 0.016	f_t = -0.147 f_b = -0.069	f_t = 0.112 f_b = 0.053	f_t = -0.491 f_b = -0.231	f_t = 0.034 f_b = 0.016	f_t = -0.147 f_b = -0.069
(HP) 30.311	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.107 f_b = 0.050	f_t = -0.465 f_b = -0.219	f_t = 0.035 f_b = 0.016	f_t = -0.147 f_b = -0.069	f_t = 0.114 f_b = 0.054	f_t = -0.492 f_b = -0.232	f_t = 0.035 f_b = 0.016	f_t = -0.147 f_b = -0.069
(0.4L_s) 30.749	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.109 f_b = 0.051	f_t = -0.465 f_b = -0.219	f_t = 0.035 f_b = 0.017	f_t = -0.147 f_b = -0.069	f_t = 0.116 f_b = 0.055	f_t = -0.492 f_b = -0.232	f_t = 0.035 f_b = 0.017	f_t = -0.147 f_b = -0.069

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.5L_s$) 38.436	f_t = 0.009 f_b = 0.004	f_t = -0.027 f_b = -0.013	f_t = 0.136 f_b = 0.064	f_t = -0.456 f_b = -0.215	f_t = 0.044 f_b = 0.021	f_t = -0.139 f_b = -0.065	f_t = 0.145 f_b = 0.068	f_t = -0.483 f_b = -0.227	f_t = 0.044 f_b = 0.021	f_t = -0.139 f_b = -0.065
(HP) 45.675	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.161 f_b = 0.076	f_t = -0.412 f_b = -0.194	f_t = 0.052 f_b = 0.025	f_t = -0.132 f_b = -0.062	f_t = 0.172 f_b = 0.081	f_t = -0.436 f_b = -0.205	f_t = 0.052 f_b = 0.025	f_t = -0.132 f_b = -0.062
($0.6L_s$) 46.123	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.163 f_b = 0.077	f_t = -0.408 f_b = -0.192	f_t = 0.053 f_b = 0.025	f_t = -0.131 f_b = -0.062	f_t = 0.174 f_b = 0.082	f_t = -0.432 f_b = -0.203	f_t = 0.053 f_b = 0.025	f_t = -0.131 f_b = -0.062
(SZB) 46.234	f_t = 0.011 f_b = 0.005	f_t = -0.023 f_b = -0.011	f_t = 0.163 f_b = 0.077	f_t = -0.407 f_b = -0.192	f_t = 0.053 f_b = 0.025	f_t = -0.131 f_b = -0.062	f_t = 0.174 f_b = 0.082	f_t = -0.431 f_b = -0.203	f_t = 0.053 f_b = 0.025	f_t = -0.131 f_b = -0.062
($0.7L_s$) 53.811	f_t = 0.013 f_b = 0.006	f_t = -0.017 f_b = -0.008	f_t = 0.190 f_b = 0.090	f_t = -0.315 f_b = -0.148	f_t = 0.061 f_b = 0.029	f_t = -0.104 f_b = -0.049	f_t = 0.203 f_b = 0.095	f_t = -0.333 f_b = -0.157	f_t = 0.061 f_b = 0.029	f_t = -0.104 f_b = -0.049
(Deck Bar Cutoff) 54.581	f_t = 0.013 f_b = 0.006	f_t = -0.017 f_b = -0.008	f_t = 0.193 f_b = 0.091	f_t = -0.304 f_b = -0.143	f_t = 0.062 f_b = 0.029	f_t = -0.100 f_b = -0.047	f_t = 0.205 f_b = 0.097	f_t = -0.321 f_b = -0.151	f_t = 0.062 f_b = 0.029	f_t = -0.100 f_b = -0.047
(SZB) 57.234	f_t = 0.013 f_b = 0.006	f_t = -0.014 f_b = -0.007	f_t = 0.202 f_b = 0.095	f_t = -0.262 f_b = -0.124	f_t = 0.065 f_b = 0.031	f_t = -0.086 f_b = -0.041	f_t = 0.215 f_b = 0.101	f_t = -0.276 f_b = -0.130	f_t = 0.065 f_b = 0.031	f_t = -0.086 f_b = -0.041
($0.8L_s$) 61.498	f_t = 0.014 f_b = 0.007	f_t = -0.009 f_b = -0.004	f_t = 0.217 f_b = 0.102	f_t = -0.186 f_b = -0.088	f_t = 0.070 f_b = 0.033	f_t = -0.060 f_b = -0.028	f_t = 0.231 f_b = 0.109	f_t = -0.195 f_b = -0.092	f_t = 0.070 f_b = 0.033	f_t = -0.060 f_b = -0.028
(SZB) 65.484	f_t = 0.017 f_b = 0.008	f_t = -0.004 f_b = -0.002	f_t = 0.237 f_b = 0.111	f_t = -0.120 f_b = -0.056	f_t = 0.075 f_b = 0.035	f_t = -0.033 f_b = -0.016	f_t = 0.253 f_b = 0.119	f_t = -0.124 f_b = -0.058	f_t = 0.075 f_b = 0.035	f_t = -0.033 f_b = -0.016
($0.9L_s$) 69.185	f_t = 0.021 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.297 f_b = 0.140	f_t = -0.071 f_b = -0.033	f_t = 0.079 f_b = 0.037	f_t = -0.005 f_b = -0.002	f_t = 0.318 f_b = 0.150	f_t = -0.072 f_b = -0.034	f_t = 0.079 f_b = 0.037	f_t = -0.005 f_b = -0.002
(1.5H) 70.404	f_t = 0.023 f_b = 0.011	f_t = -0.001 f_b = -0.001	f_t = 0.325 f_b = 0.153	f_t = -0.055 f_b = -0.026	f_t = 0.080 f_b = 0.038	f_t = 0.000 f_b = 0.000	f_t = 0.348 f_b = 0.164	f_t = -0.057 f_b = -0.027	f_t = 0.080 f_b = 0.038	f_t = 0.000 f_b = 0.000
(SZB) 70.984	f_t = 0.024 f_b = 0.011	f_t = -0.001 f_b = -0.000	f_t = 0.338 f_b = 0.159	f_t = -0.048 f_b = -0.023	f_t = 0.081 f_b = 0.038	f_t = 0.000 f_b = 0.000	f_t = 0.362 f_b = 0.170	f_t = -0.049 f_b = -0.023	f_t = 0.081 f_b = 0.038	f_t = 0.000 f_b = 0.000
(H) 72.154	f_t = 0.026 f_b = 0.012	f_t = -0.001 f_b = -0.000	f_t = 0.364 f_b = 0.171	f_t = -0.034 f_b = -0.016	f_t = 0.082 f_b = 0.039	f_t = 0.000 f_b = 0.000	f_t = 0.390 f_b = 0.183	f_t = -0.035 f_b = -0.016	f_t = 0.082 f_b = 0.039	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.222	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.389 f_b = 0.183	f_t = -0.025 f_b = -0.012	f_t = 0.084 f_b = 0.039	f_t = 0.000 f_b = 0.000	f_t = 0.417 f_b = 0.196	f_t = -0.026 f_b = -0.012	f_t = 0.084 f_b = 0.039	f_t = 0.000 f_b = 0.000
(PSXFR) 73.404	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.393 f_b = 0.185	f_t = -0.024 f_b = -0.011	f_t = 0.084 f_b = 0.039	f_t = 0.000 f_b = 0.000	f_t = 0.421 f_b = 0.198	f_t = -0.024 f_b = -0.011	f_t = 0.084 f_b = 0.039	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.282	f_t = 0.030 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.414 f_b = 0.195	f_t = -0.018 f_b = -0.008	f_t = 0.085 f_b = 0.040	f_t = 0.000 f_b = 0.000	f_t = 0.444 f_b = 0.209	f_t = -0.018 f_b = -0.008	f_t = 0.085 f_b = 0.040	f_t = 0.000 f_b = 0.000
(SZB) 74.650	f_t = 0.031 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.423 f_b = 0.199	f_t = -0.015 f_b = -0.007	f_t = 0.085 f_b = 0.040	f_t = 0.000 f_b = 0.000	f_t = 0.453 f_b = 0.214	f_t = -0.015 f_b = -0.007	f_t = 0.085 f_b = 0.040	f_t = 0.000 f_b = 0.000
(FoS) 75.654	f_t = 0.033 f_b = 0.015	f_t = -0.000 f_b = -0.000	f_t = 0.447 f_b = 0.211	f_t = -0.008 f_b = -0.004	f_t = 0.086 f_b = 0.041	f_t = 0.000 f_b = 0.000	f_t = 0.480 f_b = 0.226	f_t = -0.008 f_b = -0.004	f_t = 0.086 f_b = 0.041	f_t = 0.000 f_b = 0.000
75.987	f_t = 0.034 f_b = 0.016	f_t = -0.000 f_b = 0.000	f_t = 0.455 f_b = 0.214	f_t = -0.006 f_b = -0.003	f_t = 0.087 f_b = 0.041	f_t = 0.000 f_b = 0.000	f_t = 0.489 f_b = 0.230	f_t = -0.006 f_b = -0.003	f_t = 0.087 f_b = 0.041	f_t = 0.000 f_b = 0.000
(STLF) 76.404	f_t = 0.035 f_b = 0.016	f_t = 0.000 f_b = 0.000	f_t = 0.466 f_b = 0.219	f_t = -0.003 f_b = -0.001	f_t = 0.087 f_b = 0.041	f_t = 0.000 f_b = 0.000	f_t = 0.500 f_b = 0.236	f_t = -0.003 f_b = -0.001	f_t = 0.087 f_b = 0.041	f_t = 0.000 f_b = 0.000
($1.0L_s$) 76.872	f_t = 0.029 f_b = 0.014	f_t = 0.000 f_b = 0.000	f_t = 0.395 f_b = 0.186	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = 0.034	f_t = 0.000 f_b = 0.000	f_t = 0.424 f_b = 0.200	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = 0.034	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Deck Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.002 f_b = -0.001	f_t = -0.014 f_b = -0.006	f_t = -0.002 f_b = -0.001	f_t = -0.012 f_b = -0.005	f_t = -0.001 f_b = -0.000	f_t = -0.007 f_b = -0.003
(SZB) 1.337	f_t = -0.006 f_b = -0.003	f_t = -0.054 f_b = -0.025	f_t = -0.007 f_b = -0.003	f_t = -0.045 f_b = -0.021	f_t = -0.003 f_b = -0.002	f_t = -0.026 f_b = -0.012
(Bar Develop.) 1.705	f_t = -0.008 f_b = -0.004	f_t = -0.068 f_b = -0.032	f_t = -0.009 f_b = -0.004	f_t = -0.057 f_b = -0.027	f_t = -0.004 f_b = -0.002	f_t = -0.033 f_b = -0.016
(PSXFR) 2.583	f_t = -0.012 f_b = -0.005	f_t = -0.102 f_b = -0.048	f_t = -0.014 f_b = -0.006	f_t = -0.086 f_b = -0.040	f_t = -0.006 f_b = -0.003	f_t = -0.050 f_b = -0.023
(Bar Develop.) 2.765	f_t = -0.012 f_b = -0.006	f_t = -0.108 f_b = -0.051	f_t = -0.014 f_b = -0.007	f_t = -0.091 f_b = -0.043	f_t = -0.007 f_b = -0.003	f_t = -0.053 f_b = -0.025
(H) 3.833	f_t = -0.017 f_b = -0.008	f_t = -0.147 f_b = -0.069	f_t = -0.019 f_b = -0.009	f_t = -0.124 f_b = -0.058	f_t = -0.009 f_b = -0.004	f_t = -0.072 f_b = -0.034
(SZB) 5.003	f_t = -0.021 f_b = -0.010	f_t = -0.188 f_b = -0.089	f_t = -0.024 f_b = -0.012	f_t = -0.158 f_b = -0.075	f_t = -0.011 f_b = -0.005	f_t = -0.091 f_b = -0.043
(1.5H) 5.583	f_t = -0.023 f_b = -0.011	f_t = -0.208 f_b = -0.098	f_t = -0.027 f_b = -0.013	f_t = -0.175 f_b = -0.082	f_t = -0.012 f_b = -0.006	f_t = -0.101 f_b = -0.047
($0.1L_s$) 7.687	f_t = -0.029 f_b = -0.014	f_t = -0.274 f_b = -0.129	f_t = -0.034 f_b = -0.016	f_t = -0.231 f_b = -0.109	f_t = -0.016 f_b = -0.007	f_t = -0.132 f_b = -0.062
(SZB) 10.503	f_t = -0.035	f_t = -0.353	f_t = -0.043	f_t = -0.298	f_t = -0.019	f_t = -0.169

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = -0.016	f_b = -0.166	f_b = -0.020	f_b = -0.140	f_b = -0.009	f_b = -0.079
(0.2L_s) 15.374	f_t = -0.040 f_b = -0.019	f_t = -0.464 f_b = -0.219	f_t = -0.051 f_b = -0.024	f_t = -0.391 f_b = -0.184	f_t = -0.022 f_b = -0.011	f_t = -0.217 f_b = -0.102
(SZB) 18.753	f_t = -0.039 f_b = -0.018	f_t = -0.522 f_b = -0.246	f_t = -0.053 f_b = -0.025	f_t = -0.439 f_b = -0.207	f_t = -0.023 f_b = -0.011	f_t = -0.244 f_b = -0.115
(0.3L_s) 23.062	f_t = -0.033 f_b = -0.015	f_t = -0.573 f_b = -0.270	f_t = -0.050 f_b = -0.024	f_t = -0.482 f_b = -0.227	f_t = -0.020 f_b = -0.010	f_t = -0.269 f_b = -0.127
(SZB) 29.753	f_t = -0.012 f_b = -0.006	f_t = -0.615 f_b = -0.290	f_t = -0.035 f_b = -0.016	f_t = -0.517 f_b = -0.243	f_t = -0.011 f_b = -0.005	f_t = -0.283 f_b = -0.133
(HP) 30.311	f_t = -0.010 f_b = -0.005	f_t = -0.616 f_b = -0.290	f_t = -0.033 f_b = -0.016	f_t = -0.518 f_b = -0.244	f_t = -0.010 f_b = -0.005	f_t = -0.283 f_b = -0.133
(0.4L_s) 30.749	f_t = -0.008 f_b = -0.004	f_t = -0.616 f_b = -0.290	f_t = -0.031 f_b = -0.015	f_t = -0.518 f_b = -0.244	f_t = -0.009 f_b = -0.004	f_t = -0.282 f_b = -0.133
(0.5L_s) 38.436	f_t = 0.034 f_b = 0.016	f_t = -0.593 f_b = -0.279	f_t = 0.005 f_b = 0.002	f_t = -0.497 f_b = -0.234	f_t = 0.010 f_b = 0.005	f_t = -0.264 f_b = -0.124
(HP) 45.675	f_t = 0.090 f_b = 0.042	f_t = -0.518 f_b = -0.244	f_t = 0.056 f_b = 0.026	f_t = -0.431 f_b = -0.203	f_t = 0.037 f_b = 0.018	f_t = -0.239 f_b = -0.113
(0.6L_s) 46.123	f_t = 0.094 f_b = 0.044	f_t = -0.512 f_b = -0.241	f_t = 0.059 f_b = 0.028	f_t = -0.425 f_b = -0.200	f_t = 0.039 f_b = 0.018	f_t = -0.237 f_b = -0.112
(SZB) 46.234	f_t = 0.095 f_b = 0.045	f_t = -0.510 f_b = -0.240	f_t = 0.060 f_b = 0.028	f_t = -0.424 f_b = -0.200	f_t = 0.040 f_b = 0.019	f_t = -0.236 f_b = -0.111
(0.7L_s) 53.811	f_t = 0.172 f_b = 0.081	f_t = -0.363 f_b = -0.171	f_t = 0.131 f_b = 0.062	f_t = -0.297 f_b = -0.140	f_t = 0.077 f_b = 0.036	f_t = -0.171 f_b = -0.081
(Deck Bar Cutoff) 54.581	f_t = 0.181 f_b = 0.085	f_t = -0.346 f_b = -0.163	f_t = 0.140 f_b = 0.066	f_t = -0.282 f_b = -0.133	f_t = 0.081 f_b = 0.038	f_t = -0.163 f_b = -0.077
(SZB) 57.234	f_t = 0.212 f_b = 0.100	f_t = -0.279 f_b = -0.132	f_t = 0.169 f_b = 0.080	f_t = -0.224 f_b = -0.106	f_t = 0.096 f_b = 0.045	f_t = -0.131 f_b = -0.062
(0.8L_s) 61.498	f_t = 0.267 f_b = 0.126	f_t = -0.159 f_b = -0.075	f_t = 0.221 f_b = 0.104	f_t = -0.120 f_b = -0.056	f_t = 0.123 f_b = 0.058	f_t = -0.072 f_b = -0.034
(SZB) 65.484	f_t = 0.331 f_b = 0.156	f_t = -0.047 f_b = -0.022	f_t = 0.280 f_b = 0.132	f_t = -0.022 f_b = -0.010	f_t = 0.151 f_b = 0.071	f_t = -0.011 f_b = -0.005
(0.9L_s) 69.185	f_t = 0.438 f_b = 0.206	f_t = 0.048 f_b = 0.023	f_t = 0.375 f_b = 0.176	f_t = 0.062 f_b = 0.029	f_t = 0.179 f_b = 0.084	f_t = 0.053 f_b = 0.025
(1.5H) 70.404	f_t = 0.484 f_b = 0.228	f_t = 0.079 f_b = 0.037	f_t = 0.414 f_b = 0.195	f_t = 0.090 f_b = 0.042	f_t = 0.188 f_b = 0.089	f_t = 0.068 f_b = 0.032
(SZB) 70.984	f_t = 0.504 f_b = 0.238	f_t = 0.093 f_b = 0.044	f_t = 0.432 f_b = 0.203	f_t = 0.103 f_b = 0.049	f_t = 0.193 f_b = 0.091	f_t = 0.071 f_b = 0.034
(H) 72.154	f_t = 0.547 f_b = 0.258	f_t = 0.123 f_b = 0.058	f_t = 0.469 f_b = 0.221	f_t = 0.130 f_b = 0.061	f_t = 0.202 f_b = 0.095	f_t = 0.079 f_b = 0.037
(Bar Develop.) 73.222	f_t = 0.588 f_b = 0.277	f_t = 0.146 f_b = 0.069	f_t = 0.505 f_b = 0.238	f_t = 0.151 f_b = 0.071	f_t = 0.211 f_b = 0.099	f_t = 0.086 f_b = 0.040
(PSXFR) 73.404	f_t = 0.595 f_b = 0.280	f_t = 0.150 f_b = 0.071	f_t = 0.511 f_b = 0.241	f_t = 0.155 f_b = 0.073	f_t = 0.213 f_b = 0.100	f_t = 0.087 f_b = 0.041
(Bar Develop.) 74.282	f_t = 0.630 f_b = 0.297	f_t = 0.168 f_b = 0.079	f_t = 0.541 f_b = 0.255	f_t = 0.172 f_b = 0.081	f_t = 0.220 f_b = 0.104	f_t = 0.093 f_b = 0.044
(SZB) 74.650	f_t = 0.644 f_b = 0.304	f_t = 0.176 f_b = 0.083	f_t = 0.554 f_b = 0.261	f_t = 0.179 f_b = 0.084	f_t = 0.223 f_b = 0.105	f_t = 0.095 f_b = 0.045
(FoS) 75.654	f_t = 0.685 f_b = 0.323	f_t = 0.197 f_b = 0.093	f_t = 0.589 f_b = 0.277	f_t = 0.199 f_b = 0.093	f_t = 0.232 f_b = 0.109	f_t = 0.102 f_b = 0.048
75.987	f_t = 0.699 f_b = 0.329	f_t = 0.204 f_b = 0.096	f_t = 0.601 f_b = 0.283	f_t = 0.205 f_b = 0.097	f_t = 0.235 f_b = 0.111	f_t = 0.105 f_b = 0.049
(STLF) 76.404	f_t = 0.716 f_b = 0.337	f_t = 0.213 f_b = 0.100	f_t = 0.616 f_b = 0.290	f_t = 0.213 f_b = 0.100	f_t = 0.239 f_b = 0.112	f_t = 0.108 f_b = 0.051
(1.0L_s) 76.872	f_t = 0.608 f_b = 0.286	f_t = 0.184 f_b = 0.087	f_t = 0.523 f_b = 0.246	f_t = 0.184 f_b = 0.087	f_t = 0.201 f_b = 0.095	f_t = 0.092 f_b = 0.043

* Live Load values are per girder and include impact.

Stress due to Prestress

Span 1 Girder B

Girder Stresses

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STRF, 0.0L_r) 0.000	(STRF) -0.417	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				f_t = 0.000 KSI f_b = 0.000 KSI
0.417	0.000	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI
0.417	($0.0L_e$) 0.000	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI
(PSXFR) 3.000	(PSXFR) 2.583	P_e (permanent) = 1147.51 kip e_p = 7.983 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.08 kip e_p = 7.983 in f_t = -0.433 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 982.17 kip e_p = 7.983 in f_t = -0.434 KSI f_b = -2.585 KSI Service III P_e (permanent) = 982.17 kip e_p = 7.983 in f_t = -0.434 KSI f_b = -2.585 KSI (Fatigue I) P_e (permanent) = 982.17 kip e_p = 7.983 in f_t = -0.434 KSI f_b = -2.585 KSI
($0.1L_r$) 7.682	7.265	P_e (permanent) = 1143.84 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 981.55 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.790 KSI	Service I P_e (permanent) = 984.57 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.799 KSI Service III P_e (permanent) = 984.57 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.799 KSI (Fatigue I) P_e (permanent) = 984.57 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.799 KSI
8.015	($0.1L_e$) 7.599	P_e (permanent) = 1143.55 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 981.59 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.805 KSI	Service I P_e (permanent) = 984.73 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.814 KSI Service III P_e (permanent) = 984.73 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.814 KSI (Fatigue I) P_e (permanent) = 984.73 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.814 KSI
	14.947			Service I

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
($0.2L_r$) 15.364		P_e (permanent) = 1136.21 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 981.90 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.130 KSI	P_e (permanent) = 987.74 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.149 KSI Service III P_e (permanent) = 987.74 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.149 KSI (Fatigue I) P_e (permanent) = 987.74 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.149 KSI
15.614	($0.2L_e$) 15.197	P_e (permanent) = 1135.93 kip e_p = 12.088 in f_t = 0.134 KSI f_b = -3.634 KSI	P_e (permanent) = 981.88 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.141 KSI	Service I P_e (permanent) = 987.81 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.160 KSI Service III P_e (permanent) = 987.81 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.160 KSI (Fatigue I) P_e (permanent) = 987.81 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.160 KSI
($0.3L_r$) 23.046	22.629	P_e (permanent) = 1125.97 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 980.08 kip e_p = 14.507 in f_t = 0.438 KSI f_b = -3.463 KSI	Service I P_e (permanent) = 988.07 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.491 KSI Service III P_e (permanent) = 988.07 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.491 KSI (Fatigue I) P_e (permanent) = 988.07 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.491 KSI
23.213	($0.3L_e$) 22.796	P_e (permanent) = 1125.71 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 980.00 kip e_p = 14.561 in f_t = 0.445 KSI f_b = -3.470 KSI	Service I P_e (permanent) = 988.02 kip e_p = 14.561 in f_t = 0.449 KSI f_b = -3.499 KSI Service III P_e (permanent) = 988.02 kip e_p = 14.561 in f_t = 0.449 KSI f_b = -3.499 KSI (Fatigue I) P_e (permanent) = 988.02 kip e_p = 14.561 in f_t = 0.449 KSI f_b = -3.499 KSI
(HP, $0.4L_r$) 30.728	(HP) 30.311	P_e (permanent) = 1112.44 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 974.30 kip e_p = 17.007 in f_t = 0.767 KSI f_b = -3.779 KSI	Service I P_e (permanent) = 983.41 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.815 KSI Service III P_e (permanent) = 983.41 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.815 KSI (Fatigue I) P_e (permanent) = 983.41 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.815 KSI
30.811	($0.4L_e$) 30.395	P_e (permanent) = 1112.46 kip e_p = 17.007 in f_t = 0.876 KSI	P_e (permanent) = 974.35 kip e_p = 17.007 in f_t = 0.767 KSI	Service I P_e (permanent) = 983.45 kip e_p = 17.007 in f_t = 0.774 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
		f_b = -4.315 KSI	f_b = -3.779 KSI	f_b = -3.815 KSI Service III P_e (permanent) = 983.45 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.815 KSI (Fatigue I) P_e (permanent) = 983.45 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.815 KSI
($0.5L_t$) 38.410	($0.5L_e$) 37.993	P_e (permanent) = 1113.42 kip e_p = 17.007 in f_t = 0.877 KSI f_b = -4.319 KSI	P_e (permanent) = 976.57 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.788 KSI	Service I P_e (permanent) = 984.77 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.820 KSI Service III P_e (permanent) = 984.77 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.820 KSI (Fatigue I) P_e (permanent) = 984.77 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.820 KSI
46.009	($0.6L_e$) 45.592	P_e (permanent) = 1112.46 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 974.35 kip e_p = 17.007 in f_t = 0.767 KSI f_b = -3.779 KSI	Service I P_e (permanent) = 980.38 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI Service III P_e (permanent) = 980.38 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI (Fatigue I) P_e (permanent) = 980.38 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI
(HP, $0.6L_t$) 46.092	(HP) 45.675	P_e (permanent) = 1112.44 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.315 KSI	P_e (permanent) = 974.30 kip e_p = 17.007 in f_t = 0.767 KSI f_b = -3.779 KSI	Service I P_e (permanent) = 980.30 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI Service III P_e (permanent) = 980.30 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI (Fatigue I) P_e (permanent) = 980.30 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.803 KSI
53.607	($0.7L_e$) 53.191	P_e (permanent) = 1125.71 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 980.00 kip e_p = 14.561 in f_t = 0.445 KSI f_b = -3.470 KSI	Service I P_e (permanent) = 982.38 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI Service III P_e (permanent) = 982.38 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI (Fatigue I) P_e (permanent) = 982.38 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI
($0.7L_t$) 53.774	53.357	P_e (permanent) = 1125.97 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 980.08 kip e_p = 14.507 in f_t = 0.438 KSI f_b = -3.463 KSI	Service I P_e (permanent) = 982.37 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.471 KSI Service III

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				P_e (permanent) = 982.37 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.471 KSI (Fatigue I) P_e (permanent) = 982.37 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.471 KSI
61.206	($0.8L_e$) 60.790	P_e (permanent) = 1135.93 kip e_p = 12.088 in f_t = 0.134 KSI f_b = -3.634 KSI	P_e (permanent) = 981.88 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.141 KSI	Service I P_e (permanent) = 980.11 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.136 KSI Service III P_e (permanent) = 980.11 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.136 KSI (Fatigue I) P_e (permanent) = 980.11 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.136 KSI
($0.8L_r$) 61.456	61.040	P_e (permanent) = 1136.21 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 981.90 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.130 KSI	Service I P_e (permanent) = 979.98 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.124 KSI Service III P_e (permanent) = 979.98 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.124 KSI (Fatigue I) P_e (permanent) = 979.98 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.124 KSI
68.805	($0.9L_e$) 68.388	P_e (permanent) = 1143.55 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 981.59 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.805 KSI	Service I P_e (permanent) = 975.48 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.788 KSI Service III P_e (permanent) = 975.48 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.788 KSI (Fatigue I) P_e (permanent) = 975.48 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.788 KSI
($0.9L_r$) 69.138	68.722	P_e (permanent) = 1143.84 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 981.55 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.790 KSI	Service I P_e (permanent) = 975.26 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.772 KSI Service III P_e (permanent) = 975.26 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.772 KSI (Fatigue I) P_e (permanent) = 975.26 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.772 KSI
(PSXFR) 73.820	(PSXFR) 73.404	P_e (permanent) = 1147.51 kip e_p = 7.983 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.08 kip e_p = 7.983 in f_t = -0.433 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 972.18 kip e_p = 7.983 in f_t = -0.429 KSI f_b = -2.559 KSI Service III P_e (permanent) = 972.18 kip e_p = 7.983 in f_t = -0.429 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				f_b = -2.559 KSI (Fatigue I) P_e (permanent) = 972.18 kip e_p = 7.983 in f_t = -0.429 KSI f_b = -2.559 KSI
76.404	(1.0L_e) 75.987	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.81 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.81 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.81 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI
76.404	75.987	P_e (permanent) = 159.63 kip e_p = 7.143 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.143 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.81 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.81 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.81 kip e_p = 7.143 in f_t = -0.075 KSI f_b = -0.339 KSI
(STLF, 1.0L_r) 76.820	(STLF) 76.404	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI

Prestressing Force and Strand Stresses

Straight strands: N_s = 18, P_{jack} = 790.97 kip, A_{ps} = 3.906 in^2

Harped strands: N_h = 10, P_{jack} = 439.43 kip, A_{ps} = 2.170 in^2

A_{ps} = 6.076 in^2

P_{jack} = 1230.39 kip

Prestress Transfer Length = 36.000 in

Effective Prestress at Mid-Span

Loss Stage	Permanent Strand			
	Effective Force (kip)	Time-Dependent Effects (KSI)	Instantaneous Effects (KSI)	f_{pe} (KSI)
At Jacking	1230.39	0.000	0.000	202.500
Before Prestress Transfer	1230.39	0.000	0.000	202.500
After Prestress Transfer	1113.42	0.000	19.251	183.249
At Lifting	1113.42	0.000	19.251	183.249
At Shipping	1066.63	7.700	19.251	175.549
After Erection	1066.63	7.700	19.251	175.549
After Deck Placement	976.57	27.711	14.064	160.725
After Superimposed Dead Loads	984.77	27.711	12.713	162.076
Final (permanent loads only)	984.77	27.711	12.713	162.076
Final with Live Load (Service I)	984.77	27.711	12.713	162.076
Final with Live Load (Service III)	984.77	27.711	12.713	162.076
Final with Live Load (Fatigue I)	984.77	27.711	12.713	162.076

Time-Dependent Effects = change in strand stress due to creep, shrinkage, and relaxation
Instantaneous Effects = change in strand stress due to elastic shortening and externally applied loads
$f_{pe} = f_{pj}$ - Time-Dependent Effects - Instantaneous Effects

Specification Check Summary

The Specification Check was Successful

Specification Checks

Specification: CDOT

Stress Limitations on Prestressing Tendons [5.9.2.2]

Strand Stresses

Loss Stage	Stress Limit (KSI)	Straight		Harped	
		Strand Stress (KSI)	Status (C/D)	Strand Stress (KSI)	Status (C/D)
At Jacking (f_{pj})	202.500	202.500	Pass (1.00)	202.500	Pass (1.00)
After All Losses and Elastic Gains including Live Load (f_{pe})	194.400	162.076	Pass (1.20)	162.076	Pass (1.20)

Required Concrete Strengths

Required f'_{ci} = 5.301 KSI ⇒ 5.400 KSI

Actual f'_{ci} = 6.000 KSI

Required f'_c = 6.219 KSI ⇒ 6.300 KSI

Actual f'_c = 8.000 KSI

Continuity [5.12.3.3.5]

	f_b (KSI)	Boundary Condition	Is Compressive?
Abut 1	0.000	Hinged	No
Pier 2	-1.056	Continuous	Yes
Abut 3	0.000	Hinged	No

f_b is the calcuated stress at the bottom of the continuity diaphragm for the combination of superimposed permanent loads and 50% live load

Continuous connections are fully effective.

Continuity is accounted for in Service and Strength Limit States.

Interval 2: Prestress Release : Service I Compression

Service I

For Temporary Stresses before Losses [5.9.2.3.1]

Compression Stresses [5.9.2.3.1a]

f'_{ci} = 6.000 KSI

Compression stress limit = -0.65f'_{ci} = -3.900 KSI

Concrete strength required to satisfy this requirement = 5.301 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
(STRF) -0.417	(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)
(PSXFR) 2.583	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
7.265	(0.1L_t) 7.682	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	No	Yes	Pass (1.33)
14.947	(0.2L_t) 15.364	0.121	-3.622	-0.571	0.579	-0.450	-3.043	No	Yes	Pass (1.28)
22.629	(0.3L_t) 23.046	0.503	-3.979	-0.750	0.761	-0.246	-3.218	No	Yes	Pass (1.21)
(HP) 30.311	(HP, 0.4L_t) 30.728	0.876	-4.315	-0.857	0.869	0.019	-3.446	No	Yes	Pass (1.13)
37.993	(0.5L_t) 38.410	0.877	-4.319	-0.893	0.905	-0.016	-3.413	No	Yes	Pass (1.14)
(HP) 45.675	(HP, 0.6L_t) 46.092	0.876	-4.315	-0.857	0.869	0.019	-3.446	No	Yes	Pass (1.13)
53.357	(0.7L_t) 53.774	0.503	-3.979	-0.750	0.761	-0.246	-3.218	No	Yes	Pass (1.21)
61.040	(0.8L_t) 61.456	0.121	-3.622	-0.571	0.579	-0.450	-3.043	No	Yes	Pass (1.28)
68.722	(0.9L_t) 69.138	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	No	Yes	Pass (1.33)
(PSXFR) 73.404	(PSXFR) 73.820	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
(STLF) 76.404	(STLF, 1.0L_t) 76.820	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)

Interval 2: Prestress Release : Service I Tension

Service I

For Temporary Stresses before Losses [5.9.2.3.1]

Tension Stresses [5.9.2.3.1b]

f'_{ci} = 6.000 KSI

Tension stress limit in areas other than the precompressed tensile zone = 0.0948λ√f'_{ci} but not more than 0.200 KSI = 0.200 KSI

Tension stress limit in areas with sufficient bonded reinforcement = 0.2400λ√f'_{ci} = 0.588 KSI

Concrete strength required to satisfy this requirement = 5.301 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
(STRF) -0.417	(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)
(PSXFR) 2.583	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
7.265	(0.1L_t) 7.682	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	0.200	-	No	Yes	Pass (-)
14.947	(0.2L_t) 15.364	0.121	-3.622	-0.571	0.579	-0.450	-3.043	0.200	-	No	Yes	Pass (-)
22.629	(0.3L_t) 23.046	0.503	-3.979	-0.750	0.761	-0.246	-3.218	0.200	-	No	Yes	Pass (-)
(HP) 30.311	(HP, 0.4L_t) 30.728	0.876	-4.315	-0.857	0.869	0.019	-3.446	0.200	-	No	Yes	Pass (10+)
37.993	(0.5L_t) 38.410	0.877	-4.319	-0.893	0.905	-0.016	-3.413	0.200	-	No	Yes	Pass (-)
(HP) 45.675		0.876	-4.315	-0.857	0.869	0.019	-3.446	0.200	-	No	Yes	Pass

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
	(HP, 0.6L_t) 46.092											(10+)
53.357	(0.7L_t) 53.774	0.503	-3.979	-0.750	0.761	-0.246	-3.218	0.200	-	No	Yes	Pass (-)
61.040	(0.8L_t) 61.456	0.121	-3.622	-0.571	0.579	-0.450	-3.043	0.200	-	No	Yes	Pass (-)
68.722	(0.9L_t) 69.138	-0.268	-3.252	-0.321	0.326	-0.589	-2.926	0.200	-	No	Yes	Pass (-)
(PSXFR) 73.404	(PSXFR) 73.820	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
(STLF) 76.404	(STLF, 1.0L_t) 76.820	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = -0.45f'_c = -3.600 KSI

Concrete strength required to satisfy this requirement = 5.149 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(0.0L_s) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.433	-2.582	-0.261	0.265	-0.695	-2.317	No	Yes	Pass (1.55)
(0.1L_s) 7.687	-0.211	-2.809	-0.724	0.734	-0.935	-2.075	No	Yes	Pass (1.74)
(0.2L_s) 15.374	0.123	-3.149	-1.285	1.304	-1.162	-1.845	No	Yes	Pass (1.95)
(0.3L_s) 23.062	0.457	-3.481	-1.684	1.708	-1.227	-1.774	No	Yes	Pass (2.03)
(HP) 30.311	0.767	-3.779	-1.910	1.937	-1.143	-1.842	No	Yes	Pass (1.95)
(0.4L_s) 30.749	0.767	-3.780	-1.919	1.947	-1.151	-1.834	No	Yes	Pass (1.96)
(0.5L_s) 38.436	0.769	-3.788	-1.991	2.020	-1.222	-1.768	No	Yes	Pass (2.04)
(HP) 45.675	0.767	-3.779	-1.910	1.937	-1.143	-1.842	No	Yes	Pass (1.95)
(0.6L_s) 46.123	0.748	-3.761	-1.900	1.927	-1.152	-1.834	No	Yes	Pass (1.96)
(0.7L_s) 53.811	0.418	-3.444	-1.646	1.670	-1.228	-1.774	No	Yes	Pass (2.03)
(0.8L_s) 61.498	0.085	-3.110	-1.229	1.246	-1.144	-1.864	No	Yes	Pass (1.93)
(0.9L_s) 69.185	-0.250	-2.770	-0.649	0.658	-0.899	-2.111	No	Yes	Pass (1.70)
(PSXFR) 73.404	-0.433	-2.582	-0.261	0.265	-0.695	-2.317	No	Yes	Pass (1.55)
75.987	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Tension

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = 0.1900$\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Concrete strength required to satisfy this requirement = 5.149 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(0.0L_s) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(PSXFR) 2.583	-0.433	-2.582	-0.261	0.265	-0.695	-2.317	-	0.537	No	Yes	Pass (-)
(0.1L_s) 7.687	-0.211	-2.809	-0.724	0.734	-0.935	-2.075	-	0.537	No	Yes	Pass (-)
(0.2L_s) 15.374	0.123	-3.149	-1.285	1.304	-1.162	-1.845	-	0.537	No	Yes	Pass (-)
(0.3L_s) 23.062	0.457	-3.481	-1.684	1.708	-1.227	-1.774	-	0.537	No	Yes	Pass (-)
(HP) 30.311	0.767	-3.779	-1.910	1.937	-1.143	-1.842	-	0.537	No	Yes	Pass (-)
(0.4L_s) 30.749	0.767	-3.780	-1.919	1.947	-1.151	-1.834	-	0.537	No	Yes	Pass (-)
(0.5L_s) 38.436	0.769	-3.788	-1.991	2.020	-1.222	-1.768	-	0.537	No	Yes	Pass (-)
(HP) 45.675	0.767	-3.779	-1.910	1.937	-1.143	-1.842	-	0.537	No	Yes	Pass (-)
(0.6L_s) 46.123	0.748	-3.761	-1.900	1.927	-1.152	-1.834	-	0.537	No	Yes	Pass (-)
(0.7L_s) 53.811	0.418	-3.444	-1.646	1.670	-1.228	-1.774	-	0.537	No	Yes	Pass (-)
(0.8L_s) 61.498	0.085	-3.110	-1.229	1.246	-1.144	-1.864	-	0.537	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
											(-)
($0.9L_s$) 69.185	-0.250	-2.770	-0.649	0.658	-0.899	-2.111	-	0.537	No	Yes	Pass (-)
(PSXFR) 73.404	-0.433	-2.582	-0.261	0.265	-0.695	-2.317	-	0.537	No	Yes	Pass (-)
75.987	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service I Compression without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = -0.45f'_c = -3.600 KSI
Concrete strength required to satisfy this requirement = 6.219 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.585	-0.276	0.315	-0.710	-2.270	No	Yes	Pass (1.59)
($0.1L_s$) 7.687	-0.212	-2.818	-0.763	0.869	-0.975	-1.949	No	Yes	Pass (1.85)
($0.2L_s$) 15.374	0.124	-3.168	-1.352	1.531	-1.228	-1.638	No	Yes	Pass (2.20)
($0.3L_s$) 23.062	0.461	-3.510	-1.766	1.984	-1.305	-1.526	No	Yes	Pass (2.36)
(HP) 30.311	0.774	-3.815	-1.996	2.221	-1.222	-1.594	No	Yes	Pass (2.26)
($0.4L_s$) 30.749	0.775	-3.815	-2.005	2.229	-1.230	-1.586	No	Yes	Pass (2.27)
($0.5L_s$) 38.436	0.775	-3.819	-2.069	2.266	-1.294	-1.554	No	Yes	Pass (2.32)
(HP) 45.675	0.772	-3.803	-1.970	2.110	-1.198	-1.693	No	Yes	Pass (2.13)
($0.6L_s$) 46.123	0.753	-3.784	-1.959	2.094	-1.206	-1.690	No	Yes	Pass (2.13)
($0.7L_s$) 53.811	0.419	-3.451	-1.673	1.714	-1.254	-1.737	No	Yes	Pass (2.07)
($0.8L_s$) 61.498	0.084	-3.103	-1.213	1.125	-1.129	-1.978	No	Yes	Pass (1.82)
($0.9L_s$) 69.185	-0.248	-2.751	-0.581	0.317	-0.830	-2.434	No	Yes	Pass (1.48)
(PSXFR) 73.404	-0.429	-2.559	-0.162	-0.223	-0.592	-2.782	No	Yes	Pass (1.29)
75.987	-0.075	-0.339	0.119	-0.588	0.044	-0.927	No	Yes	Pass (3.88)

Interval 17: Open to Traffic : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = -0.6f'_c = -4.800 KSI
Concrete strength required to satisfy this requirement = 6.219 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.585	-0.319	0.293	-0.753	-2.292	No	Yes	Pass (2.09)
($0.1L_s$) 7.687	-0.212	-2.818	-0.880	0.804	-1.092	-2.014	No	Yes	Pass (2.38)
($0.2L_s$) 15.374	0.124	-3.168	-1.549	1.399	-1.426	-1.769	No	Yes	Pass (2.71)
($0.3L_s$) 23.062	0.461	-3.510	-2.010	1.787	-1.549	-1.723	No	Yes	Pass (2.79)
(HP) 30.311	0.774	-3.815	-2.261	1.962	-1.486	-1.853	No	Yes	Pass (2.59)
($0.4L_s$) 30.749	0.775	-3.815	-2.270	1.967	-1.495	-1.849	No	Yes	Pass (2.60)
($0.5L_s$) 38.436	0.775	-3.819	-2.329	1.938	-1.554	-1.882	No	Yes	Pass (2.55)
(HP) 45.675	0.772	-3.803	-2.205	1.720	-1.433	-2.083	No	Yes	Pass (2.30)
($0.6L_s$) 46.123	0.753	-3.784	-2.191	1.700	-1.439	-2.083	No	Yes	Pass (2.30)
($0.7L_s$) 53.811	0.419	-3.451	-1.853	1.255	-1.434	-2.196	No	Yes	Pass (2.19)
($0.8L_s$) 61.498	0.084	-3.103	-1.319	0.601	-1.235	-2.503	No	Yes	Pass (1.92)
($0.9L_s$) 69.185	-0.248	-2.751	-0.622	-0.400	-0.870	-3.152	No	Yes	Pass (1.52)
(PSXFR) 73.404	-0.429	-2.559	-0.176	-1.173	-0.605	-3.732	No	Yes	Pass (1.29)

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
75.987	-0.075	-0.339	0.116	-1.688	0.041	-2.027	No	Yes	Pass (2.37)

Interval 17: Open to Traffic : Service I Tension without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.0000\lambda\sqrt{f'_c}$ = 0.000 KSI

Concrete strength required to satisfy this requirement = 6.219 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(PSXFR) 2.583	-0.434	-2.585	-0.273	0.326	-0.707	-2.259	No	Yes	Pass (-)
($0.1L_s$) 7.687	-0.212	-2.818	-0.756	0.900	-0.968	-1.918	No	Yes	Pass (-)
($0.2L_s$) 15.374	0.124	-3.168	-1.339	1.586	-1.215	-1.583	No	Yes	Pass (-)
($0.3L_s$) 23.062	0.461	-3.510	-1.749	2.056	-1.288	-1.454	No	Yes	Pass (-)
(HP) 30.311	0.774	-3.815	-1.977	2.303	-1.202	-1.512	No	Yes	Pass (-)
($0.4L_s$) 30.749	0.775	-3.815	-1.986	2.312	-1.211	-1.504	No	Yes	Pass (-)
($0.5L_s$) 38.436	0.775	-3.819	-2.049	2.352	-1.274	-1.468	No	Yes	Pass (-)
(HP) 45.675	0.772	-3.803	-1.951	2.193	-1.179	-1.610	No	Yes	Pass (-)
($0.6L_s$) 46.123	0.753	-3.784	-1.939	2.177	-1.187	-1.607	No	Yes	Pass (-)
($0.7L_s$) 53.811	0.419	-3.451	-1.656	1.786	-1.237	-1.665	No	Yes	Pass (-)
($0.8L_s$) 61.498	0.084	-3.103	-1.200	1.181	-1.116	-1.923	No	Yes	Pass (-)
($0.9L_s$) 69.185	-0.248	-2.751	-0.568	0.372	-0.817	-2.379	No	Yes	Pass (-)
(PSXFR) 73.404	-0.429	-2.559	-0.146	-0.155	-0.576	-2.713	No	Yes	Pass (-)
75.987	-0.075	-0.339	0.139	-0.506	0.064	-0.846	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service III Tension

Service III
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Location from Left Support (ft)	Pre-tension		Service III		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(PSXFR) 2.583	-0.434	-2.585	-0.269	0.472	-0.703	-2.113	No	Yes	Pass (-)
($0.1L_s$) 7.687	-0.212	-2.818	-0.744	1.292	-0.956	-1.526	No	Yes	Pass (-)
($0.2L_s$) 15.374	0.124	-3.168	-1.314	2.247	-1.190	-0.921	No	Yes	Pass (-)
($0.3L_s$) 23.062	0.461	-3.510	-1.712	2.873	-1.252	-0.637	No	Yes	Pass (-)
(HP) 30.311	0.774	-3.815	-1.929	3.188	-1.154	-0.627	No	Yes	Pass (-)
($0.4L_s$) 30.749	0.775	-3.815	-1.937	3.197	-1.162	-0.618	No	Yes	Pass (-)
($0.5L_s$) 38.436	0.775	-3.819	-1.988	3.220	-1.213	-0.599	No	Yes	Pass (-)
(HP) 45.675	0.772	-3.803	-1.878	2.978	-1.106	-0.824	No	Yes	Pass (-)
($0.6L_s$) 46.123	0.753	-3.784	-1.866	2.954	-1.114	-0.829	No	Yes	Pass (-)
($0.7L_s$) 53.811	0.419	-3.451	-1.571	2.387	-1.152	-1.064	No	Yes	Pass (-)
($0.8L_s$) 61.498	0.084	-3.103	-1.103	1.536	-1.019	-1.567	No	Yes	Pass (-)
($0.9L_s$) 69.185	-0.248	-2.751	-0.435	0.508	-0.684	-2.243	No	Yes	Pass (-)
(PSXFR) 73.404	-0.429	-2.559	0.030	-0.108	-0.400	-2.667	No	Yes	Pass (-)
75.987	-0.075	-0.339	0.342	-0.495	0.267	-0.834	No	Yes	Pass (-)

Interval 17: Open to Traffic : Fatigue I Compression

Fatigue I
Stresses at Service Limit State after Losses [5.9.2.3.2]

Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = -0.4f'_c = -3.200 KSI
Concrete strength required to satisfy this requirement = 4.152 KSI

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)
(0.0L_s) 0.000	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.585	-0.159	0.148	-0.376	-1.145	No	Yes	Pass (2.79)
(0.1L_s) 7.687	-0.212	-2.818	-0.437	0.405	-0.543	-1.004	No	Yes	Pass (3.19)
(0.2L_s) 15.374	0.124	-3.168	-0.766	0.706	-0.704	-0.878	No	Yes	Pass (3.64)
(0.3L_s) 23.062	0.461	-3.510	-0.995	0.903	-0.765	-0.852	No	Yes	Pass (3.76)
(HP) 30.311	0.774	-3.815	-1.116	0.993	-0.729	-0.914	No	Yes	Pass (3.50)
(0.4L_s) 30.749	0.775	-3.815	-1.120	0.996	-0.733	-0.912	No	Yes	Pass (3.51)
(0.5L_s) 38.436	0.775	-3.819	-1.146	0.985	-0.758	-0.925	No	Yes	Pass (3.46)
(HP) 45.675	0.772	-3.803	-1.091	0.879	-0.705	-1.023	No	Yes	Pass (3.13)
(0.6L_s) 46.123	0.753	-3.784	-1.085	0.869	-0.709	-1.023	No	Yes	Pass (3.13)
(0.7L_s) 53.811	0.419	-3.451	-0.920	0.649	-0.711	-1.076	No	Yes	Pass (2.97)
(0.8L_s) 61.498	0.084	-3.103	-0.656	0.325	-0.613	-1.226	No	Yes	Pass (2.61)
(0.9L_s) 69.185	-0.248	-2.751	-0.294	-0.102	-0.419	-1.478	No	Yes	Pass (2.17)
(PSXFR) 73.404	-0.429	-2.559	-0.081	-0.381	-0.296	-1.661	No	Yes	Pass (1.93)
75.987	-0.075	-0.339	0.060	-0.568	0.022	-0.737	No	Yes	Pass (4.34)

Principal Tensile Stresses in Webs
LRFD 5.9.2.3.3 - Principal Tensile Stresses in Webs limitations are not applicable.

Ultimate Moment Capacity

Positive Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	2142.48	0.00	Pass (∞)	Pass (∞)
(0.1L_s) 7.687	1560.28	4489.70	2075.17	Pass (2.16)	Pass (2.88)
(0.2L_s) 15.374	2686.42	5417.46	3572.94	Pass (1.52)	Pass (2.02)
(0.3L_s) 23.062	3391.61	5774.34	3985.24	Pass (1.45)	Pass (1.70)
(0.4L_s) 30.749	3734.94	6105.90	4217.83	Pass (1.45)	Pass (1.63)
(0.5L_s) 38.436	3713.82	6105.90	4199.21	Pass (1.45)	Pass (1.64)
(0.6L_s) 46.123	3355.69	6085.67	4191.99	Pass (1.45)	Pass (1.81)
(0.7L_s) 53.811	2633.04	5733.12	3501.94	Pass (1.64)	Pass (2.18)
(0.8L_s) 61.498	1611.16	5376.64	2142.84	Pass (2.51)	Pass (3.34)
(0.9L_s) 69.185	508.30	4351.45	676.04	Pass (6.44)	Pass (8.56)
(1.0L_s) 76.872	-391.56	1891.00	-520.77	Pass (-)	Pass (-)

Positive Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	2142.48	0.00	Pass (∞)	Pass (∞)
(0.1L_s) 7.687	1471.38	4489.70	2075.17	Pass (2.16)	Pass (3.05)
(0.2L_s) 15.374	2517.61	5417.46	3572.94	Pass (1.52)	Pass (2.15)
(0.3L_s) 23.062	3182.13	5774.34	3985.24	Pass (1.45)	Pass (1.81)
(0.4L_s) 30.749	3500.80	6105.90	4217.83	Pass (1.45)	Pass (1.74)
(0.5L_s) 38.436	3509.26	6105.90	4199.21	Pass (1.45)	Pass (1.74)
(0.6L_s) 46.123	3142.02	6085.67	4191.99	Pass (1.45)	Pass (1.94)
(0.7L_s) 53.811	2451.85	5733.12	3501.94	Pass (1.64)	Pass (2.34)
(0.8L_s) 61.498	1472.95	5376.64	2142.84	Pass	Pass

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
				(2.51)	(3.65)
(0.9L_s) 69.185	229.04	4351.45	676.04	Pass (6.44)	Pass (10+)
(1.0L_s) 76.872	-391.56	1891.00	-520.77	Pass (-)	Pass (-)

Negative Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)
(FoS) 0.333	0.21	-3486.30	1.00	Pass (-)	Pass (-)
(0.1L_s) 7.687	-10.07	-3437.77	-13.39	Pass (10+)	Pass (10+)
(0.2L_s) 15.374	-51.40	-3397.30	-68.36	Pass (10+)	Pass (10+)
(0.3L_s) 23.062	-124.00	-3366.84	-164.92	Pass (10+)	Pass (10+)
(0.4L_s) 30.749	-227.87	-3347.50	-303.06	Pass (10+)	Pass (10+)
(0.5L_s) 38.436	-363.00	-3341.03	-482.79	Pass (6.92)	Pass (9.20)
(0.6L_s) 46.123	-529.39	-3347.58	-704.09	Pass (4.75)	Pass (6.32)
(0.7L_s) 53.811	-727.05	-3367.27	-966.98	Pass (3.48)	Pass (4.63)
(Deck Bar Cutoff) 54.581	-748.59	-3595.33	-995.62	Pass (3.61)	Pass (4.80)
(0.8L_s) 61.498	-982.81	-6404.71	-1196.74	Pass (5.35)	Pass (6.52)
(0.9L_s) 69.185	-1528.80	-6489.46	-1196.74	Pass (5.42)	Pass (4.24)
(FoS) 75.654	-2461.24	-6579.42	-1196.74	Pass (5.50)	Pass (2.67)
(1.0L_s) 76.872	-2639.68	-3960.79	-1196.74	Pass (3.31)	Pass (1.50)

Negative Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)
(FoS) 0.333	0.76	-3486.30	1.00	Pass (-)	Pass (-)
(0.1L_s) 7.687	2.47	-3437.77	-13.39	Pass (10+)	Pass (-)
(0.2L_s) 15.374	-26.33	-3397.30	-68.36	Pass (10+)	Pass (10+)
(0.3L_s) 23.062	-86.39	-3366.84	-164.92	Pass (10+)	Pass (10+)
(0.4L_s) 30.749	-177.71	-3347.50	-303.06	Pass (10+)	Pass (10+)
(0.5L_s) 38.436	-300.31	-3341.03	-482.79	Pass (6.92)	Pass (10+)
(0.6L_s) 46.123	-454.17	-3347.58	-704.09	Pass (4.75)	Pass (7.37)
(0.7L_s) 53.811	-639.29	-3367.27	-966.98	Pass (3.48)	Pass (5.27)
(Deck Bar Cutoff) 54.581	-659.57	-3595.33	-995.62	Pass (3.61)	Pass (5.45)
(0.8L_s) 61.498	-882.52	-6404.71	-1196.74	Pass (5.35)	Pass (7.26)
(0.9L_s) 69.185	-1272.05	-6489.46	-1196.74	Pass (5.42)	Pass (5.10)
(FoS) 75.654	-2036.13	-6579.42	-1196.74	Pass (5.50)	Pass (3.23)
(1.0L_s) 76.872	-2176.30	-3960.79	-1196.74	Pass (3.31)	Pass (1.82)

Ultimate Shear Capacity

Ultimate Shears for Strength I Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(CS) 3.924	Yes	Yes	240.24	569.38	Pass (2.37)
(SZB) 5.003	Yes	Yes	233.20	418.02	Pass (1.79)
(1.5H) 5.583	Yes	Yes	229.44	421.41	Pass (1.84)
(0.1L_s) 7.687	Yes	Yes	215.87	406.25	Pass (1.88)
(SZB) 10.503	Yes	Yes	197.95	308.32	Pass (1.56)
(0.2L_s) 15.374	Yes	Yes	167.67	315.81	Pass (1.88)
(SZB) 18.753	Yes	Yes	147.21	274.96	Pass

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
					(1.87)
($0.3L_s$) 23.062	Yes	Yes	121.72	280.87	Pass (2.31)
(SZB) 29.753	Yes	Yes	83.86	245.24	Pass (2.92)
(HP) 30.311	Yes	Yes	80.88	246.32	Pass (3.05)
($0.4L_s$) 30.749	Yes	Yes	78.56	220.94	Pass (2.81)
($0.5L_s$) 38.436	Yes	Yes	88.77	220.69	Pass (2.49)
(HP) 45.675	Yes	Yes	129.53	248.63	Pass (1.92)
($0.6L_s$) 46.123	Yes	Yes	132.04	248.07	Pass (1.88)
(SZB) 46.234	Yes	Yes	132.67	247.94	Pass (1.87)
($0.7L_s$) 53.811	Yes	Yes	175.17	288.14	Pass (1.64)
(Deck Bar Cutoff) 54.581	Yes	Yes	179.46	287.64	Pass (1.60)
(SZB) 57.234	Yes	Yes	194.25	286.60	Pass (1.48)
($0.8L_s$) 61.498	Yes	Yes	217.86	331.10	Pass (1.52)
(SZB) 65.484	Yes	Yes	239.75	324.72	Pass (1.35)
($0.9L_s$) 69.185	Yes	Yes	259.81	411.65	Pass (1.58)
(1.5H) 70.404	Yes	Yes	266.37	405.38	Pass (1.52)
(SZB) 70.984	Yes	Yes	269.49	409.97	Pass (1.52)
(CS) 71.860	Yes	Yes	274.19	546.84	Pass (1.99)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Ultimate Shears for Strength II Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(SZB) 5.003	Yes	Yes	222.95	419.91	Pass (1.88)
(1.5H) 5.583	Yes	Yes	219.38	423.47	Pass (1.93)
($0.1L_s$) 7.687	Yes	Yes	206.47	408.73	Pass (1.98)
(SZB) 10.503	Yes	Yes	189.31	311.08	Pass (1.64)
($0.2L_s$) 15.374	Yes	Yes	160.18	319.34	Pass (1.99)
(SZB) 18.753	Yes	Yes	140.33	278.42	Pass (1.98)
($0.3L_s$) 23.062	Yes	Yes	115.53	284.60	Pass (2.46)
(SZB) 29.753	Yes	Yes	78.41	249.24	Pass (3.18)
(HP) 30.311	No	Yes	75.48	250.25	Pass (3.32)
($0.4L_s$) 30.749	Yes	Yes	73.20	224.73	Pass (3.07)
($0.5L_s$) 38.436	Yes	Yes	76.89	224.39	Pass (2.92)
(HP) 45.675	Yes	Yes	122.00	252.43	Pass (2.07)
($0.6L_s$) 46.123	Yes	Yes	124.72	251.85	Pass (2.02)
(SZB) 46.234	Yes	Yes	125.40	251.70	Pass (2.01)
($0.7L_s$) 53.811	Yes	Yes	170.19	291.69	Pass (1.71)
(Deck Bar Cutoff) 54.581	Yes	Yes	174.60	291.19	Pass (1.67)
(SZB) 57.234	Yes	Yes	189.65	290.00	Pass (1.53)
($0.8L_s$) 61.498	Yes	Yes	213.14	334.49	Pass (1.57)
(SZB) 65.484	Yes	Yes	234.40	329.25	Pass (1.40)
($0.9L_s$) 69.185	Yes	Yes	253.42	419.63	Pass (1.66)
(1.5H) 70.404	Yes	Yes	259.56	413.83	Pass (1.59)
(SZB) 70.984	Yes	Yes	262.47	418.98	Pass (1.60)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Longitudinal Reinforcement for Shear Check - Strength I [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 0.333	422.72	196.18	5.7.3.5-2	Pass (2.15)
(SZB) 1.337	584.26	196.18	5.7.3.5-2	Pass (2.98)
(Bar Develop.) 1.705	643.32	196.18	5.7.3.5-2	Pass (3.28)
(Bar Develop.) 2.765	777.74	196.18	5.7.3.5-2	Pass (3.96)
(H) 3.833	809.52	196.18	5.7.3.5-2	Pass (4.13)
(CS) 3.924	812.21	432.13	5.7.3.5-1	Pass (1.88)
(SZB) 5.003	844.36	495.54	5.7.3.5-1	Pass (1.70)
(1.5H) 5.583	954.73	524.56	5.7.3.5-1	Pass (1.82)
(0.1L_s) 7.687	1124.46	637.28	5.7.3.5-1	Pass (1.76)
(SZB) 10.503	1336.66	800.71	5.7.3.5-1	Pass (1.67)
(0.2L_s) 15.374	1653.21	929.48	5.7.3.5-1	Pass (1.78)
(SZB) 18.753	1656.75	1006.00	5.7.3.5-1	Pass (1.65)
(0.3L_s) 23.062	1660.95	1035.76	5.7.3.5-1	Pass (1.60)
(SZB) 29.753	1664.32	1038.04	5.7.3.5-1	Pass (1.60)
(HP) 30.311	1664.43	1034.45	5.7.3.5-1	Pass (1.61)
(0.4L_s) 30.749	1664.43	1082.55	5.7.3.5-1	Pass (1.54)
(0.5L_s) 38.436	1664.43	1087.13	5.7.3.5-1	Pass (1.53)
(HP) 45.675	1664.43	1024.93	5.7.3.5-1	Pass (1.62)
(0.6L_s) 46.123	1664.33	1024.97	5.7.3.5-1	Pass (1.62)
(SZB) 46.234	1664.31	1024.92	5.7.3.5-1	Pass (1.62)
(0.7L_s) 53.811	1660.16	918.27	5.7.3.5-1	Pass (1.81)
(Deck Bar Cutoff) 54.581	1659.44	906.63	5.7.3.5-1	Pass (1.83)
(SZB) 57.234	1656.68	856.45	5.7.3.5-1	Pass (1.93)
(0.8L_s) 61.498	1652.18	706.18	5.7.3.5-1	Pass (2.34)
(SZB) 65.484	1336.58	583.10	5.7.3.5-1	Pass (2.29)
(0.9L_s) 69.185	2020.80	550.42	5.7.3.5-1	Pass (3.67)
(1.5H) 70.404	2020.80	616.71	5.7.3.5-1	Pass (3.28)
(SZB) 70.984	2020.80	649.66	5.7.3.5-1	Pass (3.11)
(CS) 71.860	2020.80	696.67	5.7.3.5-1	Pass (2.90)
(H) 72.154	2020.80	711.62	5.7.3.5-1	Pass (2.84)
(Bar Develop.) 73.222	2020.80	773.37	5.7.3.5-1	Pass (2.61)
(Bar Develop.) 74.282	2003.20	838.67	5.7.3.5-1	Pass (2.39)
(SZB) 74.650	1988.77	861.63	5.7.3.5-1	Pass (2.31)
(FoS) 75.654	1949.42	924.99	5.7.3.5-1	Pass (2.11)

Longitudinal Reinforcement for Shear Check - Strength II [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 0.333	422.72	185.67	5.7.3.5-2	Pass (2.28)
(SZB) 1.337	584.26	185.67	5.7.3.5-2	Pass (3.15)
(Bar Develop.) 1.705	643.32	185.67	5.7.3.5-2	Pass (3.46)
(Bar Develop.) 2.765	777.74	185.67	5.7.3.5-2	Pass (4.19)
(H) 3.833	809.52	185.67	5.7.3.5-2	Pass (4.36)
(SZB) 5.003	844.36	469.14	5.7.3.5-1	Pass (1.80)

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(1.5H) 5.583	954.73	496.35	5.7.3.5-1	Pass (1.92)
(0.1L_s) 7.687	1124.46	601.57	5.7.3.5-1	Pass (1.87)
(SZB) 10.503	1336.66	745.04	5.7.3.5-1	Pass (1.79)
(0.2L_s) 15.374	1653.21	871.58	5.7.3.5-1	Pass (1.90)
(SZB) 18.753	1656.75	937.55	5.7.3.5-1	Pass (1.77)
(0.3L_s) 23.062	1660.95	970.45	5.7.3.5-1	Pass (1.71)
(SZB) 29.753	1664.32	967.05	5.7.3.5-1	Pass (1.72)
(HP) 30.311	1664.43	965.17	5.7.3.5-1	Pass (1.72)
(0.4L_s) 30.749	1664.43	1014.62	5.7.3.5-1	Pass (1.64)
(0.5L_s) 38.436	1664.43	1020.59	5.7.3.5-1	Pass (1.63)
(HP) 45.675	1664.43	951.95	5.7.3.5-1	Pass (1.75)
(0.6L_s) 46.123	1664.33	952.58	5.7.3.5-1	Pass (1.75)
(SZB) 46.234	1664.31	952.69	5.7.3.5-1	Pass (1.75)
(0.7L_s) 53.811	1660.16	856.46	5.7.3.5-1	Pass (1.94)
(Deck Bar Cutoff) 54.581	1659.44	845.33	5.7.3.5-1	Pass (1.96)
(SZB) 57.234	1656.68	799.42	5.7.3.5-1	Pass (2.07)
(0.8L_s) 61.498	1652.18	654.63	5.7.3.5-1	Pass (2.52)
(SZB) 65.484	1336.58	514.54	5.7.3.5-1	Pass (2.60)
(0.9L_s) 69.185	2020.80	470.74	5.7.3.5-1	Pass (4.29)
(1.5H) 70.404	2020.80	527.80	5.7.3.5-1	Pass (3.83)
(SZB) 70.984	2020.80	557.38	5.7.3.5-1	Pass (3.63)
(H) 72.154	2020.80	612.09	5.7.3.5-1	Pass (3.30)
(Bar Develop.) 73.222	2020.80	665.66	5.7.3.5-1	Pass (3.04)
(Bar Develop.) 74.282	2003.20	722.39	5.7.3.5-1	Pass (2.77)
(SZB) 74.650	1988.77	742.28	5.7.3.5-1	Pass (2.68)
(FoS) 75.654	1949.42	797.02	5.7.3.5-1	Pass (2.45)

Horizontal Interface Shears/Length for Strength I Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.000	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(0.0L_s) 0.000	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(FoS) 0.333	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(SZB) 1.337	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(Bar Develop.) 1.705	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(Bar Develop.) 2.765	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(H) 3.833	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(CS) 3.924	12.000	48.000	Pass	0.220	0.000	Pass	65.054	142.547	Pass (2.19)
(SZB) 5.003	12.000	48.000	Pass	0.220	0.000	Pass	63.150	142.547	Pass (2.26)
(1.5H) 5.583	12.000	48.000	Pass	0.220	0.000	Pass	62.130	142.547	Pass (2.29)
(0.1L_s) 7.687	12.000	48.000	Pass	0.220	0.000	Pass	58.457	142.547	Pass (2.44)
(SZB) 10.503	9.000	48.000	Pass	0.293	0.000	Pass	53.605	146.507	Pass (2.73)
(0.2L_s) 15.374	9.000	48.000	Pass	0.293	0.000	Pass	45.404	146.507	Pass (3.23)
(SZB) 18.753	12.000	48.000	Pass	0.220	0.000	Pass	39.863	142.547	Pass (3.58)
(0.3L_s) 23.062	12.000	48.000	Pass	0.220	0.000	Pass	32.962	142.547	Pass (4.32)
(SZB) 29.753	18.000	48.000	Pass	0.147	0.000	Pass	22.709	138.587	Pass (6.10)
(HP) 30.311	18.000	48.000	Pass	0.147	0.000	Pass	21.902	138.587	Pass (6.33)
(0.4L_s) 30.749	18.000	48.000	Pass	0.147	0.000	Pass	21.273	138.587	Pass (6.51)
(0.5L_s) 38.436	18.000	48.000	Pass	0.147	0.000	Pass	24.037	138.587	Pass (5.77)

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
(HP) 45.675	18.000	48.000	Pass	0.147	0.000	Pass	35.076	138.587	Pass (3.95)
(0.6L_s) 46.123	18.000	48.000	Pass	0.147	0.000	Pass	35.757	138.587	Pass (3.88)
(SZB) 46.234	18.000	48.000	Pass	0.147	0.000	Pass	35.925	138.587	Pass (3.86)
(0.7L_s) 53.811	12.000	48.000	Pass	0.220	0.000	Pass	47.434	142.547	Pass (3.01)
(Deck Bar Cutoff) 54.581	12.000	48.000	Pass	0.220	0.000	Pass	48.597	142.547	Pass (2.93)
(SZB) 57.234	12.000	48.000	Pass	0.220	0.000	Pass	52.603	142.547	Pass (2.71)
(0.8L_s) 61.498	9.000	48.000	Pass	0.293	0.000	Pass	58.994	146.507	Pass (2.48)
(SZB) 65.484	9.000	48.000	Pass	0.293	0.000	Pass	64.922	146.507	Pass (2.26)
(0.9L_s) 69.185	12.000	48.000	Pass	0.220	0.000	Pass	70.356	142.547	Pass (2.03)
(1.5H) 70.404	12.000	48.000	Pass	0.220	0.000	Pass	72.132	142.547	Pass (1.98)
(SZB) 70.984	12.000	48.000	Pass	0.220	0.000	Pass	72.977	142.547	Pass (1.95)
(CS) 71.860	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)
(H) 72.154	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)
(Bar Develop.) 73.222	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)
(Bar Develop.) 74.282	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)
(SZB) 74.650	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)
(FoS) 75.654	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)
75.987	12.000	48.000	Pass	0.220	0.000	Pass	74.248	142.547	Pass (1.92)

Horizontal Interface Shears/Length for Strength II Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.000	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(0.0L_s) 0.000	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(FoS) 0.333	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(SZB) 1.337	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(Bar Develop.) 1.705	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(Bar Develop.) 2.765	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(H) 3.833	12.000	48.000	Pass	0.220	0.000	Pass	62.179	142.547	Pass (2.29)
(SZB) 5.003	12.000	48.000	Pass	0.220	0.000	Pass	60.374	142.547	Pass (2.36)
(1.5H) 5.583	12.000	48.000	Pass	0.220	0.000	Pass	59.406	142.547	Pass (2.40)
(0.1L_s) 7.687	12.000	48.000	Pass	0.220	0.000	Pass	55.910	142.547	Pass (2.55)
(SZB) 10.503	9.000	48.000	Pass	0.293	0.000	Pass	51.265	146.507	Pass (2.86)
(0.2L_s) 15.374	9.000	48.000	Pass	0.293	0.000	Pass	43.377	146.507	Pass (3.38)
(SZB) 18.753	12.000	48.000	Pass	0.220	0.000	Pass	38.000	142.547	Pass (3.75)
(0.3L_s) 23.062	12.000	48.000	Pass	0.220	0.000	Pass	31.284	142.547	Pass (4.56)
(SZB) 29.753	18.000	48.000	Pass	0.147	0.000	Pass	21.233	138.587	Pass (6.53)
(HP) 30.311	18.000	48.000	Pass	0.147	0.000	Pass	20.441	138.587	Pass (6.78)
(0.4L_s) 30.749	18.000	48.000	Pass	0.147	0.000	Pass	19.822	138.587	Pass (6.99)
(0.5L_s) 38.436	18.000	48.000	Pass	0.147	0.000	Pass	20.822	138.587	Pass (6.66)
(HP) 45.675	18.000	48.000	Pass	0.147	0.000	Pass	33.037	138.587	Pass (4.19)
(0.6L_s) 46.123	18.000	48.000	Pass	0.147	0.000	Pass	33.774	138.587	Pass (4.10)
(SZB) 46.234	18.000	48.000	Pass	0.147	0.000	Pass	33.956	138.587	Pass (4.08)
(0.7L_s) 53.811	12.000	48.000	Pass	0.220	0.000	Pass	46.085	142.547	Pass (3.09)
(Deck Bar Cutoff) 54.581	12.000	48.000	Pass	0.220	0.000	Pass	47.282	142.547	Pass (3.01)
(SZB) 57.234	12.000	48.000	Pass	0.220	0.000	Pass	51.356	142.547	Pass (2.78)
(0.8L_s) 61.498	9.000	48.000	Pass	0.293	0.000	Pass	57.717	146.507	Pass (2.54)
(SZB) 65.484	9.000	48.000	Pass	0.293	0.000	Pass	63.474	146.507	Pass (2.31)
(0.9L_s) 69.185	12.000	48.000	Pass	0.220	0.000	Pass	68.624	142.547	Pass

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
									(2.08)
(1.5H) 70.404	12.000	48.000	Pass	0.220	0.000	Pass	70.288	142.547	Pass (2.03)
(SZB) 70.984	12.000	48.000	Pass	0.220	0.000	Pass	71.076	142.547	Pass (2.01)
(H) 72.154	12.000	48.000	Pass	0.220	0.000	Pass	72.257	142.547	Pass (1.97)
(Bar Develop.) 73.222	12.000	48.000	Pass	0.220	0.000	Pass	72.257	142.547	Pass (1.97)
(Bar Develop.) 74.282	12.000	48.000	Pass	0.220	0.000	Pass	72.257	142.547	Pass (1.97)
(SZB) 74.650	12.000	48.000	Pass	0.220	0.000	Pass	72.257	142.547	Pass (1.97)
(FoS) 75.654	12.000	48.000	Pass	0.220	0.000	Pass	72.257	142.547	Pass (1.97)
75.987	12.000	48.000	Pass	0.220	0.000	Pass	72.257	142.547	Pass (1.97)

Live Load Deflection Check [2.5.2.6.2]
Allowable deflection span ratio = L/800
Allowable maximum deflection = ± 1.153 in
Minimum live load deflection along girder = -0.221 in
Maximum live load deflection along girder = 0.093 in
Status = Pass

Constructability Checks

Girder Dimensions Detailing Check [5.12.3.2.2]

Dimension	Minimum (in)	Actual (in)	Status
Top Flange Thickness	2.000	3.500	Pass
Web Thickness	5.000	7.000	Pass
Bottom Flange Thickness	5.000	6.500	Pass

Stirrup Detailing Check: Strength I [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.000	#4	3.000	18.000	1.500	1.600	0.000	Pass
(0.0L_s) 0.000	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 0.333	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 1.337	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 1.705	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.765	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 3.833	#4	4.000	18.000	1.500	1.200	0.125	Pass
(CS) 3.924	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.003	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 5.583	#4	6.000	18.000	1.500	0.800	0.125	Pass
(0.1L_s) 7.687	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 10.503	#4	9.000	18.000	1.500	0.533	0.125	Pass
(0.2L_s) 15.374	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 18.753	#4	12.000	18.000	1.500	0.400	0.125	Pass
(0.3L_s) 23.062	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 29.753	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 30.311	#4	18.000	18.000	1.500	0.267	0.125	Pass
(0.4L_s) 30.749	#4	18.000	18.000	1.500	0.267	0.125	Pass
(0.5L_s) 38.436	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 45.675	#4	18.000	18.000	1.500	0.267	0.125	Pass
(0.6L_s) 46.123	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 46.234	#4	18.000	18.000	1.500	0.267	0.125	Pass
(0.7L_s) 53.811	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 54.581	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 57.234	#4	12.000	18.000	1.500	0.400	0.125	Pass
(0.8L_s) 61.498	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 65.484	#4	9.000	18.000	1.500	0.533	0.125	Pass
(0.9L_s) 69.185	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 70.404	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 70.984	#4	6.000	18.000	1.500	0.800	0.125	Pass
(CS) 71.860	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 72.154	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 73.222	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.282	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 74.650	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 75.654	#4	3.000	18.000	1.500	1.600	0.125	Pass
75.987	#4	3.000	18.000	1.500	1.600	0.125	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Stirrup Detailing Check: Strength II [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.000	#4	3.000	18.000	1.500	1.600	0.000	Pass
(0.0L_s) 0.000	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 0.333	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 1.337	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 1.705	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.765	#4	4.000	18.000	1.500	1.200	0.125	Pass

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
(H) 3.833	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.003	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 5.583	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.687	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 10.503	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.374	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 18.753	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.062	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 29.753	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 30.311	#4	18.000	18.000	1.500	0.267	0.000	Pass
($0.4L_s$) 30.749	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.436	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 45.675	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.123	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 46.234	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.811	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 54.581	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 57.234	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.498	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 65.484	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.185	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 70.404	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 70.984	#4	6.000	18.000	1.500	0.800	0.125	Pass
(H) 72.154	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 73.222	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.282	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 74.650	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 75.654	#4	3.000	18.000	1.500	1.600	0.125	Pass
75.987	#4	3.000	18.000	1.500	1.600	0.125	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Hold Down Force

Hold Down Force (kip/strand)	Hold Down Force Limit (kip/strand)	Status
3.33	4.00	Pass

Haunch Geometry Checks

Note: Specification Checks for Haunch Geometry are Disabled in the Project Criteria. All Status values will be reported as N/A.

Slab Offset ("A" Dimension)

This table compares the input slab offset to the rounded computed slab offset required to have the least haunch depth be equal to the Fillet dimension. A failed status indicates that the top of the girder will encroach into the deck slab and the Slab Offset dimension should be refined.

Span	Girder	Provided (in)	Required (in)	Status	Notes
1	B	11.000	11.500	N/A	

Minimum Fillet Depth

This table compares the provided Fillet dimension to the minimum Fillet dimension specified in the girder library. A failed status indicates that the Fillet dimension is too small.

Span	Girder	Provided (in)	Required (in)	Status
1	B	1.000	1.000	N/A

Camber

	Camber (in)
Screed Camber, C at mid-span	1.038
Lower Bound Camber at 60 days, 50% of D_{60}	1.653
Average Camber at 60 days, 75% of D_{60}	2.479
Upper Bound Camber at 60 days, D_{60}	3.306

Bridge Description Details

Span 1 Girder B

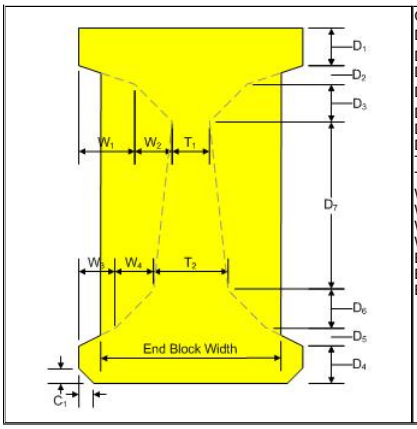
Deck and Roadway Widths

Location from Left Support (ft)	Station	Deck Width (ft)	Exterior Curb-Curb Width (ft)	Interior Curb-Curb Width (ft)	Overlay Toe-Toe Width (ft)
0.000	94+01.38	94.000	91.000	74.000	74.000
($0.0L_s$) 0.000	94+01.38	94.000	91.000	74.000	74.000
($0.1L_s$) 7.687	94+08.73	94.000	91.000	74.000	74.000
($0.2L_s$) 15.374	94+16.07	94.000	91.000	74.000	74.000
($0.3L_s$) 23.062	94+23.43	94.000	91.000	74.000	74.000
($0.4L_s$) 30.749	94+30.78	94.000	91.000	74.000	74.000
($0.5L_s$) 38.436	94+38.13	94.000	91.000	74.000	74.000
($0.6L_s$) 46.123	94+45.49	94.000	91.000	74.000	74.000
($0.7L_s$) 53.811	94+52.84	94.000	91.000	74.000	74.000
($0.8L_s$) 61.498	94+60.19	94.000	91.000	74.000	74.000
($0.9L_s$) 69.185	94+67.53	94.000	91.000	74.000	74.000
75.987	94+74.02	94.000	91.000	74.000	74.000
($1.0L_s$) 76.872	94+74.87	94.000	91.000	74.000	74.000

Intermediate Diaphragms

No intermediate diaphragms defined

BT-42 CDOT Dimensions



C1 = 0.000 in (0")
D1 = 3.500 in (3 1/2")
D2 = 2.000 in (2")
D3 = 2.000 in (2")
D4 = 6.500 in (6 1/2")
D5 = 6.000 in (6")
D6 = 0.000 in (0")
D7 = 22.000 in (1'-10")
T1 = 7.000 in (7")
T2 = 7.000 in (7")
W1 = 16.000 in (1'-4")
W2 = 2.000 in (2")
W3 = 10.000 in (10")
W4 = 0.000 in (0")
EndBlockWidth = 0.000 in (0")
EndBlockLength = 0.000 ft (0")
EndBlockTransition = 0.000 ft (0")

Strand Locations

X = 0 is at CL Girder, Y = 0 is at Top of Girder

Straight Strands

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
1	-3.000	-40.000	-3.000	-40.000	•	•
2	3.000	-40.000	3.000	-40.000	•	•
3	-5.000	-40.000	-5.000	-40.000	•	•
4	5.000	-40.000	5.000	-40.000	•	•
5	-7.000	-40.000	-7.000	-40.000	•	•
6	7.000	-40.000	7.000	-40.000	•	•
7	-9.000	-40.000	-9.000	-40.000	•	•
8	9.000	-40.000	9.000	-40.000	•	•
9	-3.000	-38.000	-3.000	-38.000		
10	3.000	-38.000	3.000	-38.000		
11	-5.000	-38.000	-5.000	-38.000		
12	5.000	-38.000	5.000	-38.000		
13	-7.000	-38.000	-7.000	-38.000		
14	7.000	-38.000	7.000	-38.000		
15	-9.000	-38.000	-9.000	-38.000		
16	9.000	-38.000	9.000	-38.000		
17	-11.000	-38.000	-11.000	-38.000		
18	11.000	-38.000	11.000	-38.000		

No Temporary Strands in Girder

Harped Strand Locations at Ends of Girder

Strand	X (in)	Y (in)
1	-1.000	-12.000
2	1.000	-12.000
3	-1.000	-10.000
4	1.000	-10.000
5	-1.000	-8.000
6	1.000	-8.000
7	-1.000	-6.000
8	1.000	-6.000
9	-1.000	-4.000
10	1.000	-4.000

Harped Strand Locations at Harping Points

Strand	X (in)	Y (in)
1	-1.000	-40.000
2	1.000	-40.000
3	-1.000	-38.000
4	1.000	-38.000
5	-1.000	-36.000
6	1.000	-36.000
7	-1.000	-34.000
8	1.000	-34.000
9	-1.000	-32.000
10	1.000	-32.000

Strand Eccentricity

Strand Eccentricity: Interval 2 Prestress Release

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	18.069	-12.820	7.037	13.1692	13.1692
0.417	0.000	18.070	-12.439	7.174	13.1692	13.1692
0.417	(0.0L_e) 0.000	18.070	-12.439	7.174	13.1692	13.1692
(FoS) 0.750	(FoS) 0.333	18.071	-12.134	7.283	13.1692	13.1692
(SZB) 1.753	(SZB) 1.337	18.074	-11.217	7.613	13.1692	13.1692
(Bar Develop.) 2.121	(Bar Develop.) 1.705	18.075	-10.881	7.734	13.1692	13.1692
(PSXFR) 3.000	(PSXFR) 2.583	18.078	-10.077	8.023	13.1692	13.1692
(Bar Develop.) 3.182	(Bar Develop.) 2.765	18.079	-9.911	8.082	13.1692	13.1692
(H) 4.250	(H) 3.833	18.082	-8.934	8.433	13.1692	13.1692
(CS) 4.341	(CS) 3.924	18.082	-8.852	8.463	13.1692	13.1692
(SZB) 5.419	(SZB) 5.003	18.085	-7.865	8.817	13.1692	13.1692
(1.5H) 6.000	(1.5H) 5.583	18.087	-7.334	9.008	13.1692	13.1692
(0.1L_t) 7.682	7.265	18.092	-5.797	9.561	13.1692	13.1692
8.015	(0.1L_e) 7.599	18.093	-5.492	9.670	13.1692	13.1692
(SZB) 10.919	(SZB) 10.503	18.102	-2.837	10.624	13.1692	13.1692
(0.2L_t) 15.364	14.947	18.116	1.227	12.084	13.1692	13.1692
15.614		18.117	1.456	12.166	13.1692	13.1692

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
	($0.2L_e$) 15.197					
(SZB) 19.169	(SZB) 18.753	18.128	4.706	13.334	13.1692	13.1692
($0.3L_t$) 23.046	22.629	18.139	8.250	14.608	13.1692	13.1692
23.213	($0.3L_e$) 22.796	18.140	8.403	14.662	13.1692	13.1692
(SZB) 30.169	(SZB) 29.753	18.161	14.763	16.948	13.1692	13.1692
(HP, $0.4L_t$) 30.728	(HP) 30.311	18.163	15.274	17.131	13.1692	13.1692
30.811	($0.4L_e$) 30.395	18.163	15.274	17.131	∞	∞
($0.5L_t$) 38.410	($0.5L_e$) 37.993	18.163	15.274	17.131	∞	∞
46.009	($0.6L_e$) 45.592	18.163	15.274	17.131	∞	∞
(HP, $0.6L_t$) 46.092	(HP) 45.675	18.163	15.274	17.131	13.1692	13.1692
(SZB) 46.651	(SZB) 46.234	18.161	14.763	16.948	13.1692	13.1692
53.607	($0.7L_e$) 53.191	18.140	8.403	14.662	13.1692	13.1692
($0.7L_t$) 53.774	53.357	18.139	8.250	14.608	13.1692	13.1692
(Deck Bar Cutoff) 54.998	(Deck Bar Cutoff) 54.581	18.136	7.132	14.206	13.1692	13.1692
(SZB) 57.651	(SZB) 57.234	18.128	4.706	13.334	13.1692	13.1692
61.206	($0.8L_e$) 60.790	18.117	1.456	12.166	13.1692	13.1692
($0.8L_t$) 61.456	61.040	18.116	1.227	12.084	13.1692	13.1692
(SZB) 65.901	(SZB) 65.484	18.102	-2.837	10.624	13.1692	13.1692
68.805	($0.9L_e$) 68.388	18.093	-5.492	9.670	13.1692	13.1692
($0.9L_t$) 69.138	68.722	18.092	-5.797	9.561	13.1692	13.1692
(1.5H) 70.820	(1.5H) 70.404	18.087	-7.334	9.008	13.1692	13.1692
(SZB) 71.401	(SZB) 70.984	18.085	-7.865	8.817	13.1692	13.1692
(CS) 72.277	(CS) 71.860	18.083	-8.666	8.530	13.1692	13.1692
(H) 72.570	(H) 72.154	18.082	-8.934	8.433	13.1692	13.1692
(Bar Develop.) 73.638	(Bar Develop.) 73.222	18.079	-9.911	8.082	13.1692	13.1692
(PSXFR) 73.820	(PSXFR) 73.404	18.078	-10.077	8.023	13.1692	13.1692
(Bar Develop.) 74.699	(Bar Develop.) 74.282	18.075	-10.881	7.734	13.1692	13.1692
(SZB) 75.067	(SZB) 74.650	18.074	-11.217	7.613	13.1692	13.1692
(FoS) 76.070	(FoS) 75.654	18.071	-12.134	7.283	13.1692	13.1692
76.404	($1.0L_e$) 75.987	18.070	-12.439	7.174	13.1692	13.1692
76.404	75.987	18.070	-12.439	7.174	13.1692	13.1692
(STLF, $1.0L_t$) 76.820	(STLF) 76.404	18.069	-12.820	7.037	13.1692	13.1692

Eccentricities are based on the gross non-composite girder section
Eccentricities measured from neutral axis of non-composite section based on material properties at time of prestress release
Positive e_y values indicate strands are below the centroid

Debonding Criteria

Maximum number of debonded strands = 25% of total number of strands
Maximum number of debonded strands per row = 40% of strands in any row
Maximum number of debonded strands per section. The greater of 4 strands or 40% of strands debonded at any section
Maximum distance between debond sections = 3.000 ft

Deflection Multipliers

The factors below are multiplied by the specified load case's deflections when computing deflections and excess camber

Load Cases	Factor
Erection (Girder, Prestress)	1.000
Creep	1.000
Diaphragm, Construction, Shear key	1.000
Deck Panels	1.000
Slab, User Defined Loads at Cast Deck, Apply User Defined Loads	1.000
Haunch	1.000
Railing System (Traffic Barrier, Sidewalks), Overlay, User Defined Loads at Apply User Defined Loads, Install Railing System and Overlay	1.000

Transverse Reinforcement Stirrup Zones

Primary Bars

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Vertical Legs	# Legs Extended into Deck*	Confinement Bar Size
1	0.000	1.750	#4	3.000	2	0	(None)
2	1.750	5.416	#4	4.000	2	0	(None)
3	5.416	10.916	#4	6.000	2	0	(None)
4	10.916	19.166	#4	9.000	2	0	(None)
5	19.166	30.166	#4	12.000	2	0	(None)
6	30.166	46.654	#4	18.000	2	0	(None)
7	46.654	57.654	#4	12.000	2	0	(None)
8	57.654	65.904	#4	9.000	2	0	(None)
9	65.904	71.404	#4	6.000	2	0	(None)
10	71.404	75.070	#4	4.000	2	0	(None)
11	75.070	76.820	#4	3.000	2	0	(None)

* Bars add to horizontal interface shear capacity

Additional Bars for Horizontal Interface Shear Capacity

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Legs
1	0.000	10.917	#3	12.000	2
2	10.917	19.167	#3	9.000	2
3	19.167	30.167	#3	12.000	2
4	30.167	46.654	#3	18.000	2
5	46.654	57.654	#3	12.000	2
6	57.654	65.904	#3	9.000	2
7	65.904	76.820	#3	12.000	2

Additional Splitting Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)	# of Legs
0.500	#6	4.000	2

Additional Bottom Flange Confinement Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)
6.500	#3	4.000

Longitudinal Rebar Locations

Bar start and end locations measured from left end of girder

Row	Bar Start (ft)	Bar End (ft)	Girder Face	Cover (in)	Bar Size	# of Bars	Spacing (in)
1	0.000	76.820	Top	2.375	#4	4	6.000
2	0.000	76.820	Bottom	2.500	#4	2	24.000
3	0.000	76.820	Top	2.375	#6	2	36.000

Materials

Permanent Strands

Name	Grade 270 Low Relaxation 0.6"
Type	Low Relaxation
f_{pu}	270.000 KSI
f_{py}	243.000 KSI
E_{ps}	28500.000 KSI
A_{ps}	0.217 in^2

Deck Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI
f_u	90.000 KSI

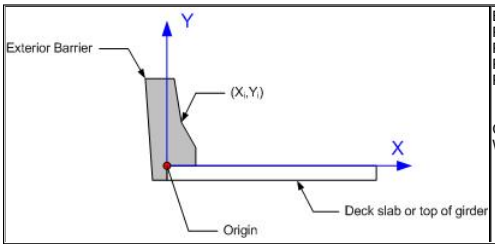
Transverse Reinforcing Material (Stirrups, Confinement, and Horizontal Interface Shear Bars)

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI
f_u	90.000 KSI

Longitudinal Girder Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI
f_u	90.000 KSI

Parker Rail Dimensions



Barrier Points
Point 1= (0.000 in, 0.000 in)
Point 2= (0.000 in, 30.000 in)
Point 3= (18.000 in, 30.000 in)
Point 4= (18.000 in, 0.000 in)

Curb Offset = 0.000 in
Weight = 0.700 kip/ft/barrier

Project Criteria

Name: CDOT
Description: AASHTO LRFD Bridge Design Spec, 8th Ed. 2017, US Units, CDOT stress requirements
Based on: AASHTO LRFD Bridge Design Specification, Eighth Edition 2017 - US Units
Section Properties: Gross
Effective Flange Width computed in accordance with LRFD 4.6.2.6

Load Modifiers

Ductility - η_D	1
Importance - η_I	1
Redundancy - η_R	1

Environmental

Exposure Condition	Normal
Relative Humidity	55%

Structural Analysis

Simple Spans Made Continuous

Casting Yard Criteria

Max. Strand slope is not checked
Permissible hold down force per strand = 4.00 kip
The hold down force includes 0.00 % friction
Max. girder weight in casting yard is not checked
Girder was cured using Normal method
1 day of steam or radiant heat curing is equal to 7 days of normal curing

Concrete Stress Limits - Service I (5.9.2.3.1)
- Compressive Stress = -3.900 KSI
- Tensile Stress (w/o mild rebar) = 0.200 KSI
- Tensile Stress (w/ mild rebar) = 0.588 KSI
Splitting checks (5.9.4.4.1) are disabled.
Confinement checks (5.9.4.4.2) are disabled.

Temporary Strand Removal Criteria

Compression Stress Limits
- Service I = -5.200 KSI
Tension Stress Limits
- Service I (w/o mild rebar) = 0.537 KSI
- Service I (w/ mild rebar) = 0.679 KSI

Deck and Diaphragm Placement Stage Criteria

Compression Stress Limits
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.537 KSI

Final without Live Load Criteria

Railing system weight is distributed to 6 nearest girders
Compression Stress Limits (5.9.2.3.2a)
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.000 KSI

Effective Flange Width computed in accordance with LRFD 4.6.2.6

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1

Final with Live Load Stage Criteria
Compression Stress Limits (5.9.2.3.2a)
- Service I (permanent + live load) = -4.800 KSI
Tension Stress Limits (5.9.2.3.2b)
- Service III = 0.000 KSI
Allowable Compressive Concrete Stresses (5.5.3.1)
- Fatigue I = -3.200 KSI
LL Distribution factors are calculated in accordance with LRFD 4.6.2.2
Haunch Geometry check is disabled.

Moment Capacity Criteria
Modulus of rupture = 0.679 KSI

Shear Capacity Criteria
Shear capacity computed in accordance with LRFD 5.7.3.4.2 (General method)
Modulus of rupture = 0.566 KSI
Maximum Spacing of Transverse Reinforcement (LRFD 5.7.2.6)
Eqn 5.7.2.6-1: If $v_u < 0.125f'_c$ then $S_{max} = 0.8d_v \leq 18.000$ in
Eqn 5.7.2.6-2: If $v_u \geq 0.125f'_c$ then $S_{max} = 0.4d_v \leq 12.000$ in
Longitudinal reinforcement requirements computed in accordance with LRFD 5.7.3.5
Shear stress at girder/deck interface computed using the classical shear flow formula: $V_{ui} = (V_u Q)/(Ib)$
Maximum spacing of interface shear connectors (LRFD 5.7.4.5): 48.000 in, or the depth of the member.
Interface shear compressive force normal to shear plane, Pc, for use in LRFD Eq 5.7.4.3-3 is computed from the deck weight.

Haunch And Assumed Excess Camber Criteria
Haunch dead load is computed assuming that the top of the girder is flat (Zero assumed excess camber)
Composite section properties and capacities are computed assuming a Constant Haunch Depth equal to the Fillet value

Creep Criteria
Creep is calculated in accordance with LRFD (5.4.2.3.2)
# of hours from stressing to prestress transfer : 24
# of days from prestress transfer until removal of temporary strands / diaphram casting : 1 Min, 1 Max
# of days from prestress transfer until slab-girder continuity is achieved : 60 Min, 60 Max

Variability between upper and lower bound camber : 50

Losses Criteria
Losses calculated per Approximate Lump Sum Method in accordance with AASHTO LRFD 5.9.3.3
Assumed time at shipping = 10 day
Contribution to Elastic Gains
Slab = 100%
Haunch = 100%
Diaphragms = 100%
User DC (Before Deck Placement) = 100%
User DW (Before Deck Placement) = 100%
Railing System = 100%
Overlay = 100%
User DC (After Deck Placement) = 100%
User DW (After Deck Placement) = 100%

Stress Limits for Prestressing Tendons

Stress Limit at Jacking
- Stress Relieved Strand = $0.7f_{pu}$
- Low Relaxation Strand = $0.75f_{pu}$

Stress Limit at service limit state after all losses
- Stress Relieved Strand = $0.8f_{py}$
- Low Relaxation Strand = $0.8f_{py}$

Deflection Criteria
Live Load Deflection Limit: $L_{span}/800$

Loading Details

Uniform Loads Applied Along the Entire Girder

Load Type	w (kip/ft)
Girder	0.740
Sidewalk	0.279
Traffic Barrier	0.117
Pedestrian Live Load	0.106

Slab Load Applied Along Girder
Tributary width used to compute slab load is measured from top CL girder
Slab load is approximated with linear load segments applied along the length of the girder. Segments located outside of bearings are applied as point loads/moments at bearings.
Unit weight of Slab material is 0.150 kip/ft^3
Haunch weight includes effects of roadway geometry, and is measured along the centerline of the girder, but does not include a reduction for camber.

Location From Left Bearing (ft)	Casting Region	Main Slab Weight (kip/ft)	Assumed Haunch Depth (in)	Haunch Weight (kip/ft)	Total Slab Weight (kip/ft)
-0.417	1	0.783	2.995	0.134	0.918
0.000	1	0.783	3.000	0.134	0.918
7.599	1	0.783	3.077	0.138	0.921
15.197	1	0.783	3.138	0.141	0.924
22.796	1	0.783	3.181	0.142	0.926
30.395	1	0.783	3.206	0.144	0.927
37.993	1	0.783	3.215	0.144	0.927
45.592	1	0.783	3.206	0.144	0.927
53.191	1	0.783	3.181	0.142	0.926
60.790	1	0.783	3.138	0.141	0.924
68.388	1	0.783	3.077	0.138	0.921
75.987	1	0.783	3.000	0.134	0.918
75.987	1	0.783	3.000	0.134	0.918
76.404	1	0.783	2.995	0.134	0.918

Slab Cantilever Loads

Location	Main Slab		Haunch	
	Point Load (kip)	Point Moment (kip-ft)	Point Load (kip)	Point Moment (kip-ft)
Back Bearing	0.33	0.00	0.06	0.00
Ahead Bearing	0.33	0.00	0.06	0.00

Slab Haunch Load Details

Location From Left Bearing (ft)	Station	Offset (ft)	Casting Region	Top Slab Elevation (ft)	Girder Chord Elevation (ft)	Top Girder Elevation (ft)	Slab Thickness (in)	Assumed Haunch Depth (in)	Haunch Load (kip/ft)
-0.417	94+00.99	35.623 L	1	-0.712	-1.629	-1.629	8.000	2.995	0.134
0.000	94+01.38	35.605 L	1	-0.712	-1.629	-1.629	8.000	3.000	0.134
7.599	94+08.64	35.319 L	1	-0.706	-1.630	-1.630	8.000	3.077	0.138
15.197	94+15.91	35.105 L	1	-0.702	-1.630	-1.630	8.000	3.138	0.141
22.796	94+23.17	34.963 L	1	-0.699	-1.631	-1.631	8.000	3.181	0.142
30.395	94+30.44	34.892 L	1	-0.698	-1.632	-1.632	8.000	3.206	0.144
37.993	94+37.71	34.893 L	1	-0.698	-1.632	-1.632	8.000	3.215	0.144
45.592	94+44.98	34.965 L	1	-0.699	-1.633	-1.633	8.000	3.206	0.144
53.191	94+52.25	35.110 L	1	-0.702	-1.634	-1.634	8.000	3.181	0.142
60.790	94+59.51	35.326 L	1	-0.707	-1.635	-1.635	8.000	3.138	0.141
68.388	94+66.77	35.614 L	1	-0.712	-1.635	-1.635	8.000	3.077	0.138
75.987	94+74.02	35.973 L	1	-0.719	-1.636	-1.636	8.000	3.000	0.134
75.987	94+74.02	35.973 L	1	-0.719	-1.636	-1.636	8.000	3.000	0.134
76.404	94+74.42	35.995 L	1	-0.720	-1.636	-1.636	8.000	2.995	0.134

Overlay

Overlay load is uniform along entire girder length.

Load Type	W_{cc} (ft)	w (kip/ft)
Overlay Weight	74.000	0.227

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1
W_{cc} is the curb to curb width

Distribution of Uniform Barrier, Sidewalk, and Pedestrian Loads to Girder

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Left Ext. Barrier	0.700	0.167	0.117
Left Sidewalk	1.672	0.167	0.279
Left Pedestrian Live	0.637	0.167	0.106
Right Sidewalk	1.672	0.000	0.000
Right Ext. Barrier	0.700	0.000	0.000
Right Pedestrian Live	0.637	0.000	0.000

Span 1

Pier Diaphragm Loads

Pier	Location	P (kip)	Moment Arm (ft)	M (kip-ft)
1	Ahead Bearing	3.05	0.000	0.00
2	Back Bearing	2.43	0.000	0.00
	Ahead Bearing	2.39	0.000	0.00

User Defined Loads

Point loads were not defined for this girder

Distributed Loads

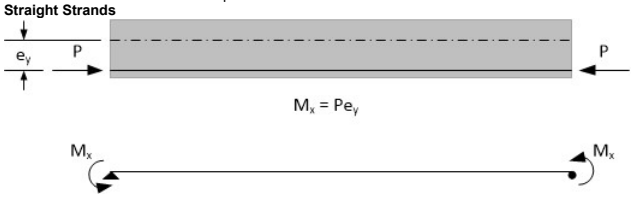
Interval	Load Case	Start Location (ft)	End Location (ft)	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Interval 11: Cast Deck, Apply User Defined Loads	DC	0.000	76.872	0.022	0.022	SIP Forms
Interval 15: Apply User Defined Loads, Install Railing System and Overlay	DW	0.000	76.872	0.040	0.040	Utility Load

Moment loads were not defined for this girder

Equivalent Pretension Loading

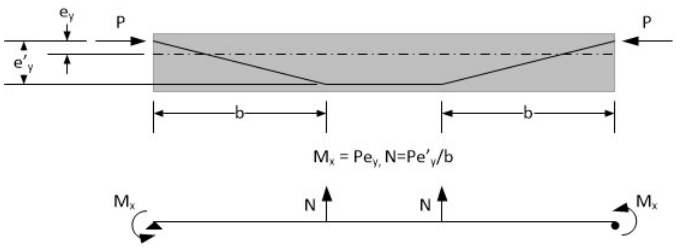
These loads are used to determine girder deflections due to pretension forces
Loads and eccentricities shown in positive directions

Straight Strands



M_x = (715.77 kip)(18.039 in) = 1075.97 kip-ft at 0.000 ft
M_x = (-715.77 kip)(18.039 in) = -1075.97 kip-ft at 76.820 ft

Harped Strands



M_x = (397.65 kip)(-12.850 in) = -425.82 kip-ft at 0.000 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.65 kip)(28.000 in)/(30.728 ft) = 30.20 kip at 30.728 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.65 kip)(28.000 in)/(30.728 ft) = 30.20 kip at 46.092 ft
M_x = (-397.65 kip)(-12.850 in) = 425.82 kip-ft at 76.820 ft

Live Loads

The following live loads were applied to the design (Service and Strength I) limit states:

HL-93

The following live loads were applied to the fatigue (Fatigue I) limit states:
Fatigue

The following live loads were applied to the permit (Strength II) limit states:
CDOT Permit

Limit State Load Factors

Limit State	γ_{DC}	γ_{DW}	γ_{LL}
Service I	1.00	1.00	1.00
Service III	1.00	1.00	0.80
Fatigue I	0.50	0.50	1.50
Strength I	1.25/ 0.90	1.50/ 0.65	1.75
Strength II	1.25/ 0.90	1.50/ 0.65	1.35

Live Load Details

Live Loads used for Design
The following live loads were applied to the design (Service and Strength I) limit states:
AASHTO LRFD 3.6.1.2: HL-93 Design Vehicular Live Load
Pedestrian live load was applied concurrently with vehicular live loads.

Live Loads Used for Fatigue Limit States
The following live loads were applied to the Fatigue I limit state:
AASHTO LRFD 3.6.1.4: Fatigue Vehicular Live Load
Pedestrian live load was not applied.

Live Loads Used for Design Permit Limit State
The following live loads were applied to the design permit (Strength II) limit state:
User-defined vehicular live load: CDOT Permit
Configuration: Truck applied only (no lane)
Usage: Use for all actions at all locations

Axle	Weight (kip)	Spacing (ft)
1	27.00	
2	25.00	14.000
3	25.00	4.000
4	25.00	12.000
5	25.00	4.000
6	21.70	35.000
7	21.70	4.000
8	21.70	4.000

Pedestrian live load was not applied.

Transfer and Development Length Details

Transfer Length [5.9.4.3.1]
$l_t = 60 d_b$
$d_b = 0.600$ in
$l_t = 36.000$ in

Development Length [5.9.4.3.2]
$$l_d \geq \kappa \left(f_{ps} - \frac{2}{3} f_{pe} \right) d_b$$

$$\frac{f_{px}}{f_{ps}} = \begin{cases} \frac{f_{pe} l_{px}}{f_{ps} l_t} \; for \; l_{px} < l_t \\ \frac{f_{pe} + \frac{(l_{px} - l_t)}{(l_d - l_t)} (f_{ps} - f_{pe})}{f_{ps}} \; for \; l_t < l_{px} \leq l_d \\ 1.0 \; for \; l_d < l_{px} \end{cases}$$

f_{px}/f_{ps} = Development Length Reduction Factor (See LRFD Eqn. 5.9.4.3.2-2 and -3)

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
0.000	93.215	22.423	0.600	75.136	5.000	0.033	93.215	22.423	0.600	93.920	5.000	0.033
($0.0L_e$) 0.000	93.215	22.423	0.600	75.136	5.000	0.033	93.215	22.423	0.600	93.920	5.000	0.033
(FoS) 0.333	106.052	40.367	0.600	75.975	9.000	0.095	106.052	40.367	0.600	94.969	9.000	0.095
(SZB) 1.337	144.502	94.413	0.600	78.298	21.039	0.382	144.502	94.413	0.600	97.872	21.039	0.382
(Bar Develop.) 1.705	158.557	114.252	0.600	79.094	25.456	0.510	158.557	114.252	0.600	98.867	25.456	0.510
(PSXFR) 2.583	191.587	161.648	0.600	80.468	36.000	0.844	191.587	161.648	0.600	100.585	36.000	0.844
(Bar Develop.) 2.765	192.971	161.663	0.600	81.788	38.184	0.845	192.971	161.663	0.600	102.234	38.184	0.843
(H) 3.833	201.105	161.752	0.600	89.540	51.000	0.859	201.105	161.752	0.600	111.924	51.000	0.843
(CS) 3.924	201.796	161.760	0.600	90.197	52.087	0.860	201.796	161.760	0.600	112.747	52.087	0.843
(SZB) 5.003	210.026	161.851	0.600	98.040	65.031	0.878	210.026	161.851	0.600	122.551	65.031	0.848
(1.5H) 5.583	214.453	161.901	0.600	102.259	72.000	0.888	214.453	161.901	0.600	127.823	72.000	0.851
($0.1L_e$) 7.599	229.835	162.070	0.600	116.917	96.184	0.924	229.835	162.070	0.600	146.147	96.184	0.866
(SZB) 10.503	252.046	162.296	0.600	138.095	131.031	0.975	252.046	162.296	0.600	172.618	131.031	0.892
($0.2L_e$) 15.197	268.107	162.576	0.600	153.334	187.369	1.000	268.107	162.576	0.600	191.668	187.369	0.989
(SZB) 18.753	268.722	162.672	0.600	153.863	230.031	1.000	268.722	162.672	0.600	192.329	230.031	1.000
($0.3L_e$) 22.796	269.376	162.611	0.600	154.529	278.553	1.000	269.376	162.611	0.600	193.162	278.553	1.000
(SZB) 29.753	269.966	161.942	0.600	155.525	362.031	1.000	269.966	161.942	0.600	194.406	362.031	1.000
(HP) 30.311	269.986	161.851	0.600	155.601	368.737	1.000	269.986	161.851	0.600	194.502	368.737	1.000
($0.4L_e$) 30.395	269.986	161.859	0.600	155.597	369.737	1.000	269.986	161.859	0.600	194.496	369.737	1.000
($0.5L_e$) 37.993	269.986	162.076	0.600	155.458	460.921	1.000	269.986	162.076	0.600	194.322	460.921	1.000
($0.6L_e$) 45.592	269.984	161.353	0.600	155.919	369.737	1.000	269.984	161.353	0.600	194.899	369.737	1.000
(HP) 45.675	269.984	161.340	0.600	155.928	368.737	1.000	269.984	161.340	0.600	194.909	368.737	1.000
(SZB) 46.234	269.965	161.397	0.600	155.873	362.031	1.000	269.965	161.397	0.600	194.841	362.031	1.000
($0.7L_e$) 53.191	269.367	161.682	0.600	155.116	278.553	1.000	269.367	161.682	0.600	193.895	278.553	1.000
(Deck Bar Cutoff) 54.581	269.163	161.658	0.600	154.935	261.871	1.000	269.163	161.658	0.600	193.669	261.871	1.000
(SZB) 57.234	268.709	161.552	0.600	154.568	230.031	1.000	268.709	161.552	0.600	193.209	230.031	1.000
($0.8L_e$) 60.790	268.093	161.308	0.600	154.132	187.369	1.000	268.093	161.308	0.600	192.665	187.369	0.987
(SZB) 65.484	252.031	160.861	0.600	138.998	131.031	0.972	252.031	160.861	0.600	173.748	131.031	0.888

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
($0.9L_e$) 68.388	229.821	160.547	0.600	117.878	96.184	0.920	229.821	160.547	0.600	147.348	96.184	0.861
(1.5H) 70.404	214.440	160.325	0.600	103.255	72.000	0.883	214.440	160.325	0.600	129.069	72.000	0.845
(SZB) 70.984	210.014	160.261	0.600	99.046	65.031	0.872	210.014	160.261	0.600	123.807	65.031	0.841
(CS) 71.860	203.332	160.166	0.600	92.692	54.523	0.857	203.332	160.166	0.600	115.865	54.523	0.837
(H) 72.154	201.093	160.135	0.600	90.563	51.000	0.852	201.093	160.135	0.600	113.204	51.000	0.836
(Bar Develop.) 73.222	192.960	160.022	0.600	82.827	38.184	0.837	192.960	160.022	0.600	103.533	38.184	0.835
(PSXFR) 73.404	191.575	160.004	0.600	81.510	36.000	0.835	191.575	160.004	0.600	101.887	36.000	0.835
(Bar Develop.) 74.282	158.553	113.077	0.600	79.842	25.456	0.504	158.553	113.077	0.600	99.802	25.456	0.504
(SZB) 74.650	144.500	93.437	0.600	78.920	21.039	0.378	144.500	93.437	0.600	98.650	21.039	0.378
(FoS) 75.654	106.052	39.946	0.600	76.245	9.000	0.094	106.052	39.946	0.600	95.306	9.000	0.094
($1.0L_e$) 75.987	93.215	22.188	0.600	75.287	5.000	0.033	93.215	22.188	0.600	94.108	5.000	0.033
75.987	93.215	22.188	0.600	75.287	5.000	0.033	93.215	22.188	0.600	94.108	5.000	0.033

Development Length of Longitudinal Rebar [5.10.8.2.1]

$$\ell_d = \ell_{db}\left(\frac{\lambda_{rl} \times \lambda_{cf} \times \lambda_{rc} \times \lambda_{er}}{\lambda}\right)$$

$$where\ \ell_{db} = 2.4 d_b \frac{f_y}{\sqrt{f'_c}}$$

$$and\ \lambda_{cf} = \lambda_{rc} = \lambda_{er} = 1.0$$

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#4	0.200	0.500	60.000	8.000	1.000	1.000	1.000	25.456
#6	0.440	0.750	60.000	8.000	1.000	1.000	1.000	38.184

Development Length of Longitudinal Rebar [5.10.8.2.1] in Deck Slab

Full-length deck bars are considered to be developed along entire length of girder.
Partial-length longitudinal rebar specified using A_s are considered to be developed along entire specified bar length.

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#9	1.000	1.128	60.000	4.500	1.000	1.000	1.000	76.571

Prestress Loss Details

Approximate Estimate of Time-Dependent Losses [5.9.3.3]

Elastic Shortening - LRFD 5.9.3.2.3a

$$f_{cgp}(Permanent\ Strands) = \frac{P}{A_g} + \frac{P e_{ps} e_p}{I_g} - \frac{M_g e_p}{I_g}$$

$$f_{cgp}(Temporary\ Strands) = \frac{P}{A_g} + \frac{P e_{ps} e_t}{I_g} - \frac{M_g e_t}{I_g}$$

$$\Delta f_{pES} = \frac{E_p}{E_{ci}} f_{cgp}$$

A_g = 654.000 in^2
I_g = 153070.0 in^4
E_p = 28500.000 KSI
E_{ci} = 4557.295 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(STRF, $0.0L_t$) 0.000	(STRF) -0.417	1149.59	7.007	0.00	7.007	2.127	13.299
0.417 0.417	0.000($0.0L_e$) 0.000	1149.31	7.143	11.78	7.143	2.134	13.344
(FoS) 0.750	(FoS) 0.333	1149.09	7.251	21.12	7.251	2.140	13.381
(SZB) 1.753	(SZB) 1.337	1148.40	7.578	48.72	7.578	2.158	13.494
(Bar Develop.) 2.121	(Bar Develop.) 1.705	1148.14	7.697	58.65	7.697	2.165	13.537
(PSXFR) 3.000	(PSXFR) 2.583	1147.51	7.983	81.97	7.983	2.181	13.640
(Bar Develop.) 3.182	(Bar Develop.) 2.765	1147.38	8.043	86.73	8.043	2.185	13.662
(H) 4.250	(H) 3.833	1146.59	8.390	114.16	8.390	2.205	13.792
(CS) 4.341	(CS) 3.924	1146.52	8.420	116.45	8.420	2.207	13.803
(SZB) 5.419	(SZB) 5.003	1145.69	8.771	143.22	8.771	2.229	13.940
(1.5H) 6.000	(1.5H) 5.583	1145.23	8.960	157.28	8.960	2.241	14.016
($0.1L_t$) 7.682	7.265	1143.84	9.507	196.59	9.507	2.278	14.245
8.015	($0.1L_e$) 7.599	1143.55	9.615	204.13	9.615	2.285	14.292
8.104	7.687	1143.47	9.644	206.12	9.644	2.287	14.305
(SZB) 10.919	(SZB) 10.503	1140.90	10.561	266.35	10.561	2.355	14.729
($0.2L_t$) 15.364	14.947	1136.21	12.007	349.50	12.007	2.478	15.500
15.614	($0.2L_e$) 15.197	1135.93	12.088	353.74	12.088	2.486	15.547
15.791	15.374	1135.72	12.146	356.72	12.146	2.491	15.581
(SZB) 19.169	(SZB) 18.753	1131.51	13.245	409.06	13.245	2.602	16.274
($0.3L_t$) 23.046	22.629	1125.97	14.507	458.72	14.507	2.748	17.186
23.213	($0.3L_e$) 22.796	1125.71	14.561	460.60	14.561	2.755	17.228
23.478	23.062	1125.30	14.648	463.56	14.648	2.766	17.295
(SZB) 30.169	(SZB) 29.753	1113.55	16.825	520.95	16.825	3.075	19.230
(HP, $0.4L_t$) 30.728	(HP) 30.311	1112.44	17.007	524.25	17.007	3.104	19.412
30.811	($0.4L_e$) 30.395	1112.46	17.007	524.72	17.007	3.104	19.408
31.166	30.749	1112.55	17.007	526.66	17.007	3.101	19.394
($0.5L_t$) 38.410	($0.5L_e$) 37.993	1113.42	17.007	546.09	17.007	3.078	19.251
38.853	38.436	1113.42	17.007	546.02	17.007	3.078	19.251
46.009	($0.6L_e$) 45.592	1112.46	17.007	524.72	17.007	3.104	19.408
(HP, $0.6L_t$) 46.092	(HP) 45.675	1112.44	17.007	524.25	17.007	3.104	19.412
46.540	46.123	1113.33	16.861	521.62	16.861	3.081	19.266

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(SZB) 46.651	(SZB) 46.234	1113.55	16.825	520.95	16.825	3.075	19.230
53.607	($0.7L_e$) 53.191	1125.71	14.561	460.60	14.561	2.755	17.228
($0.7L_t$) 53.774	53.357	1125.97	14.507	458.72	14.507	2.748	17.186
54.227	53.811	1126.66	14.360	453.49	14.360	2.730	17.072
(Deck Bar Cutoff) 54.998	(Deck Bar Cutoff) 54.581	1127.81	14.109	444.25	14.109	2.700	16.884
(SZB) 57.651	(SZB) 57.234	1131.51	13.245	409.06	13.245	2.602	16.274
61.206	($0.8L_e$) 60.790	1135.93	12.088	353.74	12.088	2.486	15.547
($0.8L_t$) 61.456	61.040	1136.21	12.007	349.50	12.007	2.478	15.500
61.914	61.498	1136.73	11.858	341.60	11.858	2.465	15.414
(SZB) 65.901	(SZB) 65.484	1140.90	10.561	266.35	10.561	2.355	14.729
68.805	($0.9L_e$) 68.388	1143.55	9.615	204.13	9.615	2.285	14.292
($0.9L_t$) 69.138	68.722	1143.84	9.507	196.59	9.507	2.278	14.245
69.602	69.185	1144.23	9.356	185.97	9.356	2.268	14.181
(1.5H) 70.820	(1.5H) 70.404	1145.23	8.960	157.28	8.960	2.241	14.016
(SZB) 71.401	(SZB) 70.984	1145.69	8.771	143.22	8.771	2.229	13.940
(CS) 72.277	(CS) 71.860	1146.37	8.486	121.55	8.486	2.211	13.829
(H) 72.570	(H) 72.154	1146.59	8.390	114.16	8.390	2.205	13.792
(Bar Develop.) 73.638	(Bar Develop.) 73.222	1147.38	8.043	86.73	8.043	2.185	13.662
(PSXFR) 73.820	(PSXFR) 73.404	1147.51	7.983	81.97	7.983	2.181	13.640
(Bar Develop.) 74.699	(Bar Develop.) 74.282	1148.14	7.697	58.65	7.697	2.165	13.537
(SZB) 75.067	(SZB) 74.650	1148.40	7.578	48.72	7.578	2.158	13.494
(FoS) 76.070	(FoS) 75.654	1149.09	7.251	21.12	7.251	2.140	13.381
76.404 76.404	($1.0L_e$) 75.987 75.987	1149.31	7.143	11.78	7.143	2.134	13.344
(STLF, $1.0L_t$) 76.820	(STLF) 76.404	1149.59	7.007	0.00	7.007	2.127	13.299

P is the prestressing force after transfer : $P = A_{ps}(f_{pj} - \Delta f_{pES})$

A_{ps} = area of prestressing strands
e_p = eccentricty of permanent prestressing strands
e_{ps} = eccentricty of all prestressing strands

Approximate Lump Sum Estimate of Time Dependent Losses at Hauling

$$\gamma_h = 1.7 - 0.01H$$

$$\gamma_{st} = \frac{5}{1 + f'_{ci}}$$

$$\Delta f_{pLT} = 3\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 3\gamma_h\gamma_{st} + \frac{\Delta f_{pR}}{4}$$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLTH} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	7.700

Losses at Hauling

$\Delta f_{pH} = \Delta f_{pES} + \Delta f_{pLTH}$

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
(STRF, $0.0L_t$) 0.000	(STRF) -0.417	13.299	7.700	20.999
0.417 0.417	0.000($0.0L_e$) 0.000	13.344	7.700	21.045
(FoS) 0.750	(FoS) 0.333	13.381	7.700	21.082
(SZB) 1.753	(SZB) 1.337	13.494	7.700	21.195
(Bar Develop.) 2.121	(Bar Develop.) 1.705	13.537	7.700	21.237
(PSXFR) 3.000	(PSXFR) 2.583	13.640	7.700	21.340
(Bar Develop.) 3.182	(Bar Develop.) 2.765	13.662	7.700	21.362
(H) 4.250	(H) 3.833	13.792	7.700	21.492
(CS) 4.341	(CS) 3.924	13.803	7.700	21.504
(SZB) 5.419	(SZB) 5.003	13.940	7.700	21.641
(1.5H) 6.000	(1.5H) 5.583	14.016	7.700	21.716
($0.1L_t$) 7.682	7.265	14.245	7.700	21.946
8.015	($0.1L_e$) 7.599	14.292	7.700	21.993
8.104	7.687	14.305	7.700	22.005
(SZB) 10.919	(SZB) 10.503	14.729	7.700	22.429
($0.2L_t$) 15.364	14.947	15.500	7.700	23.200
15.614	($0.2L_e$) 15.197	15.547	7.700	23.248
15.791	15.374	15.581	7.700	23.281
(SZB) 19.169	(SZB) 18.753	16.274	7.700	23.974
($0.3L_t$) 23.046	22.629	17.186	7.700	24.886
23.213	($0.3L_e$) 22.796	17.228	7.700	24.928
23.478	23.062	17.295	7.700	24.996
(SZB) 30.169	(SZB) 29.753	19.230	7.700	26.930
(HP, $0.4L_t$) 30.728	(HP) 30.311	19.412	7.700	27.112
30.811	($0.4L_e$) 30.395	19.408	7.700	27.109
31.166	30.749	19.394	7.700	27.095
($0.5L_t$) 38.410	($0.5L_e$) 37.993	19.251	7.700	26.951
38.853	38.436	19.251	7.700	26.952
46.009	($0.6L_e$) 45.592	19.408	7.700	27.109
(HP, $0.6L_t$) 46.092	(HP) 45.675	19.412	7.700	27.112
46.540	46.123	19.266	7.700	26.966
(SZB) 46.651	(SZB) 46.234	19.230	7.700	26.930
53.607	($0.7L_e$) 53.191	17.228	7.700	24.928

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
($0.7L_t$) 53.774	53.357	17.186	7.700	24.886
54.227	53.811	17.072	7.700	24.773
(Deck Bar Cutoff) 54.998	(Deck Bar Cutoff) 54.581	16.884	7.700	24.584
(SZB) 57.651	(SZB) 57.234	16.274	7.700	23.974
61.206	($0.8L_e$) 60.790	15.547	7.700	23.248
($0.8L_t$) 61.456	61.040	15.500	7.700	23.200
61.914	61.498	15.414	7.700	23.114
(SZB) 65.901	(SZB) 65.484	14.729	7.700	22.429
68.805	($0.9L_e$) 68.388	14.292	7.700	21.993
($0.9L_t$) 69.138	68.722	14.245	7.700	21.946
69.602	69.185	14.181	7.700	21.881
(1.5H) 70.820	(1.5H) 70.404	14.016	7.700	21.716
(SZB) 71.401	(SZB) 70.984	13.940	7.700	21.641
(CS) 72.277	(CS) 71.860	13.829	7.700	21.529
(H) 72.570	(H) 72.154	13.792	7.700	21.492
(Bar Develop.) 73.638	(Bar Develop.) 73.222	13.662	7.700	21.362
(PSXFR) 73.820	(PSXFR) 73.404	13.640	7.700	21.340
(Bar Develop.) 74.699	(Bar Develop.) 74.282	13.537	7.700	21.237
(SZB) 75.067	(SZB) 74.650	13.494	7.700	21.195
(FoS) 76.070	(FoS) 75.654	13.381	7.700	21.082
76.404 76.404	($1.0L_e$) 75.987 75.987	13.344	7.700	21.045
(STLF, $1.0L_t$) 76.820	(STLF) 76.404	13.299	7.700	20.999

Approximate Lump Sum Estimate of Time Dependent Losses

$$\gamma_h = 1.7 - 0.01H$$

$$\gamma_{st} = \frac{5}{1 + f'_{ci}}$$

$$\Delta f_{pLT} = 10\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 12\gamma_h\gamma_{st} + \Delta f_{pR}$$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	27.711

Elastic Gain Due to Additional Dead Load

Change in strand stress due to loads applied to the non-composite girder

$$M_{adl} = K_s M_{slab} + K_h M_{haunch} + K_d M_{diaphragm} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$M_{Diaphragm}$ includes shear key dead load if applicable

$$\Delta f'_{cd} = \frac{M_{adl} e_p}{I_g}$$

$$\Delta f_{pED} = \frac{E_p}{E_c}\Delta f'_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

I_g = 153070.0 in^4

Slab: K_s = 1.00

Haunch: K_h = 1.00

Diaphragms: K_d = 1.00

User DC: K_{dc} = 1.00

User DW: K_{dw} = 1.00

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000
0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	0.000	0.000
(FoS) 0.333	9.88	1.77	0.00	0.28	0.00	11.93	7.251	0.007	0.039
(SZB) 1.337	39.08	7.03	0.00	1.10	0.00	47.21	7.578	0.028	0.159
(Bar Develop.) 1.705	49.60	8.92	0.00	1.39	0.00	59.91	7.697	0.036	0.206
(PSXFR) 2.583	74.28	13.36	0.00	2.09	0.00	89.73	7.983	0.056	0.319
(Bar Develop.) 2.765	79.31	14.27	0.00	2.23	0.00	95.81	8.043	0.060	0.344
(H) 3.833	108.34	19.51	0.00	3.04	0.00	130.89	8.390	0.086	0.490
(CS) 3.924	110.76	19.94	0.00	3.11	0.00	133.81	8.420	0.088	0.502
(SZB) 5.003	139.10	25.06	0.00	3.91	0.00	168.06	8.771	0.116	0.657
(1.5H) 5.583	153.97	27.75	0.00	4.32	0.00	186.04	8.960	0.131	0.743
7.265	195.57	35.27	0.00	5.49	0.00	236.34	9.507	0.176	1.002
($0.1L_e$) 7.599	203.55	36.72	0.00	5.72	0.00	245.99	9.615	0.185	1.055
7.687	205.66	37.10	0.00	5.77	0.00	248.53	9.644	0.188	1.069
(SZB) 10.503	269.40	48.66	0.00	7.56	0.00	325.62	10.561	0.270	1.533
14.947	357.38	64.66	0.00	10.04	0.00	432.08	12.007	0.407	2.313
($0.2L_e$) 15.197	361.87	65.48	0.00	10.16	0.00	437.52	12.088	0.415	2.358
15.374	365.02	66.06	0.00	10.25	0.00	441.33	12.146	0.420	2.390
(SZB) 18.753	420.41	76.16	0.00	11.81	0.00	508.38	13.245	0.528	3.002
22.629	472.96	85.77	0.00	13.28	0.00	572.02	14.507	0.651	3.700
($0.3L_e$) 22.796	474.96	86.14	0.00	13.34	0.00	574.43	14.561	0.656	3.729
23.062	478.09	86.71	0.00	13.42	0.00	578.23	14.648	0.664	3.776
(SZB) 29.753	538.82	97.85	0.00	15.13	0.00	651.80	16.825	0.860	4.890
(HP) 30.311	542.31	98.49	0.00	15.23	0.00	656.02	17.007	0.875	4.974
($0.4L_e$) 30.395	542.81	98.58	0.00	15.24	0.00	656.63	17.007	0.875	4.979

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
30.749	544.87	98.96	0.00	15.30	0.00	659.12	17.007	0.879	4.998
(0.5L_e) 37.993	565.42	102.73	0.00	15.88	0.00	684.03	17.007	0.912	5.187
38.436	565.35	102.72	0.00	15.87	0.00	683.94	17.007	0.912	5.186
(0.6L_e) 45.592	542.81	98.58	0.00	15.24	0.00	656.63	17.007	0.875	4.979
(HP) 45.675	542.31	98.49	0.00	15.23	0.00	656.02	17.007	0.875	4.974
46.123	539.53	97.98	0.00	15.15	0.00	652.66	16.861	0.863	4.907
(SZB) 46.234	538.82	97.85	0.00	15.13	0.00	651.80	16.825	0.860	4.890
(0.7L_e) 53.191	474.96	86.14	0.00	13.34	0.00	574.43	14.561	0.656	3.729
53.357	472.96	85.77	0.00	13.28	0.00	572.01	14.507	0.651	3.700
53.811	467.43	84.76	0.00	13.12	0.00	565.31	14.360	0.636	3.619
(Deck Bar Cutoff) 54.581	457.65	82.97	0.00	12.85	0.00	553.47	14.109	0.612	3.482
(SZB) 57.234	420.41	76.16	0.00	11.80	0.00	508.38	13.245	0.528	3.002
(0.8L_e) 60.790	361.87	65.48	0.00	10.16	0.00	437.51	12.088	0.415	2.358
61.040	357.38	64.66	0.00	10.03	0.00	432.08	12.007	0.407	2.313
61.498	349.03	63.14	0.00	9.80	0.00	421.97	11.858	0.392	2.231
(SZB) 65.484	269.40	48.66	0.00	7.56	0.00	325.62	10.561	0.270	1.533
(0.9L_e) 68.388	203.55	36.72	0.00	5.71	0.00	245.98	9.615	0.185	1.055
68.722	195.57	35.27	0.00	5.49	0.00	236.33	9.507	0.176	1.002
69.185	184.33	33.24	0.00	5.17	0.00	222.74	9.356	0.163	0.929
(1.5H) 70.404	153.97	27.75	0.00	4.32	0.00	186.04	8.960	0.131	0.743
(SZB) 70.984	139.10	25.06	0.00	3.90	0.00	168.06	8.771	0.116	0.657
(CS) 71.860	116.16	20.92	0.00	3.26	0.00	140.34	8.486	0.093	0.531
(H) 72.154	108.34	19.50	0.00	3.04	0.00	130.88	8.390	0.086	0.490
(Bar Develop.) 73.222	79.31	14.27	0.00	2.22	0.00	95.81	8.043	0.060	0.344
(PSXFR) 73.404	74.28	13.36	0.00	2.08	0.00	89.72	7.983	0.056	0.319
(Bar Develop.) 74.282	49.60	8.92	0.00	1.39	0.00	59.91	7.697	0.036	0.206
(SZB) 74.650	39.08	7.03	0.00	1.09	0.00	47.20	7.578	0.028	0.159
(FoS) 75.654	9.88	1.77	0.00	0.27	0.00	11.93	7.251	0.007	0.039
(1.0L_e) 75.987	0.00	0.00	0.00	-0.00	0.00	-0.00	7.143	0.000	-0.000
75.987	0.00	0.00	0.00	-0.00	0.00	-0.00	7.143	0.000	-0.000
(STLF) 76.404	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000

Elastic Gain Due to Superimposed Dead Load

Change in strand stress due to loads applied to the composite girder

$$M_{sidl} = K_r M_{railing\ system} + K_r M_{sidewalk} + K_o M_{overlay} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$$\Delta f''_{cd} = \frac{M_{sidl}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pSIDL} = \frac{E_p}{E_c} \Delta f''_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

Railing System: K_r = 1.00

Overlay: K_o = 1.00

User DC: K_{dc} = 1.00

User DW: K_{dw} = 1.00

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	372072.4	33.988	21.150	0.000	0.000
0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	372072.4	33.988	21.150	0.000	0.000
(0.0L_e) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.143	372072.4	33.988	21.150	0.000	0.000
(FoS) 0.333	2.66	1.11	2.16	0.00	0.38	6.32	7.251	372072.4	33.988	21.150	0.004	0.023
(SZB) 1.337	10.48	4.39	8.52	0.00	1.50	24.90	7.578	372072.4	33.988	21.150	0.016	0.093
(Bar Develop.) 1.705	13.28	5.56	10.80	0.00	1.91	31.54	7.697	372072.4	33.988	21.150	0.021	0.119
(PSXFR) 2.583	19.81	8.29	16.11	0.00	2.84	47.05	7.983	372072.4	33.988	21.150	0.032	0.180
(Bar Develop.) 2.765	21.13	8.85	17.19	0.00	3.03	50.20	8.043	372072.4	33.988	21.150	0.034	0.192
(H) 3.833	28.72	12.03	23.36	0.00	4.12	68.23	8.390	372072.4	33.988	21.150	0.047	0.266
(CS) 3.924	29.35	12.29	23.87	0.00	4.21	69.73	8.420	372072.4	33.988	21.150	0.048	0.272
(SZB) 5.003	36.67	15.35	29.82	0.00	5.26	87.11	8.771	372072.4	33.988	21.150	0.061	0.345
(1.5H) 5.583	40.48	16.95	32.92	0.00	5.81	96.15	8.960	372072.4	33.988	21.150	0.068	0.384
7.265	50.97	21.34	41.45	0.00	7.32	121.07	9.507	372072.4	33.988	21.150	0.087	0.496
(0.1L_e) 7.599	52.95	22.17	43.07	0.00	7.60	125.79	9.615	372072.4	33.988	21.150	0.091	0.518
7.687	53.47	22.39	43.49	0.00	7.68	127.03	9.644	372072.4	33.988	21.150	0.092	0.524
(SZB) 10.503	68.94	28.86	56.07	0.00	9.90	163.77	10.561	372072.4	33.988	21.150	0.124	0.703
14.947	88.86	37.20	72.27	0.00	12.76	211.09	12.007	372072.4	33.988	21.150	0.169	0.962
(0.2L_e) 15.197	89.81	37.60	73.05	0.00	12.89	213.36	12.088	372072.4	33.988	21.150	0.172	0.976
15.374	90.48	37.88	73.59	0.00	12.99	214.94	12.146	372072.4	33.988	21.150	0.173	0.985
(SZB) 18.753	101.54	42.51	82.58	0.00	14.58	241.21	13.245	372072.4	33.988	21.150	0.203	1.154
22.629	110.31	46.18	89.71	0.00	15.83	262.04	14.507	372072.4	33.988	21.150	0.231	1.314
(0.3L_e) 22.796	110.59	46.30	89.94	0.00	15.88	262.71	14.561	372072.4	33.988	21.150	0.232	1.320
23.062	111.02	46.48	90.30	0.00	15.94	263.74	14.648	372072.4	33.988	21.150	0.234	1.330
(SZB) 29.753	115.50	48.36	93.94	0.00	16.58	274.37	16.825	372072.4	33.988	21.150	0.262	1.493
(HP) 30.311	115.31	48.28	93.78	0.00	16.55	273.92	17.007	372072.4	33.988	21.150	0.264	1.500
(0.4L_e) 30.395	115.27	48.26	93.75	0.00	16.55	273.84	17.007	372072.4	33.988	21.150	0.264	1.499
30.749	115.10	48.19	93.61	0.00	16.52	273.42	17.007	372072.4	33.988	21.150	0.263	1.497
(0.5L_e) 37.993	103.87	43.49	84.48	0.00	14.91	246.74	17.007	372072.4	33.988	21.150	0.238	1.351
38.436	102.71	43.00	83.53	0.00	14.74	243.99	17.007	372072.4	33.988	21.150	0.235	1.336
(0.6L_e) 45.592	76.38	31.98	62.12	0.00	10.96	181.43	17.007	372072.4	33.988	21.150	0.175	0.993
(HP) 45.675	75.98	31.81	61.80	0.00	10.91	180.50	17.007	372072.4	33.988	21.150	0.174	0.988

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
46.123	73.85	30.92	60.06	0.00	10.60	175.44	16.861	372072.4	33.988	21.150	0.168	0.956
(SZB) 46.234	73.31	30.70	59.63	0.00	10.52	174.16	16.825	372072.4	33.988	21.150	0.167	0.948
(0.7L_e) 53.191	32.79	13.73	26.67	0.00	4.71	77.90	14.561	372072.4	33.988	21.150	0.069	0.392
53.357	31.66	13.25	25.75	0.00	4.54	75.20	14.507	372072.4	33.988	21.150	0.066	0.377
53.811	28.53	11.94	23.20	0.00	4.10	67.77	14.360	372072.4	33.988	21.150	0.059	0.338
(Deck Bar Cutoff) 54.581	23.08	9.66	18.77	0.00	3.31	54.82	14.109	372072.4	33.988	21.150	0.048	0.271
(SZB) 57.234	3.04	1.27	2.47	0.00	0.44	7.23	13.245	372072.4	33.988	21.150	0.006	0.035
(0.8L_e) 60.790	-26.88	-11.25	-21.86	0.00	-3.86	-63.85	12.088	372072.4	33.988	21.150	-0.051	-0.292
61.040	-29.11	-12.19	-23.68	0.00	-4.18	-69.17	12.007	372072.4	33.988	21.150	-0.055	-0.315
61.498	-33.26	-13.93	-27.05	0.00	-4.77	-79.01	11.858	372072.4	33.988	21.150	-0.063	-0.358
(SZB) 65.484	-71.79	-30.06	-58.39	0.00	-10.31	-170.53	10.561	372072.4	33.988	21.150	-0.129	-0.732
(0.9L_e) 68.388	-102.64	-42.97	-83.48	0.00	-14.73	-243.83	9.615	372072.4	33.988	21.150	-0.177	-1.004
68.722	-106.33	-44.52	-86.48	0.00	-15.26	-252.60	9.507	372072.4	33.988	21.150	-0.182	-1.035
69.185	-111.52	-46.69	-90.70	0.00	-16.01	-264.91	9.356	372072.4	33.988	21.150	-0.190	-1.078
(1.5H) 70.404	-125.43	-52.52	-102.02	0.00	-18.01	-297.97	8.960	372072.4	33.988	21.150	-0.209	-1.191
(SZB) 70.984	-132.21	-55.35	-107.53	0.00	-18.98	-314.07	8.771	372072.4	33.988	21.150	-0.219	-1.245
(CS) 71.860	-142.61	-59.71	-115.99	0.00	-20.47	-338.77	8.486	372072.4	33.988	21.150	-0.233	-1.325
(H) 72.154	-146.14	-61.19	-118.86	0.00	-20.98	-347.17	8.390	372072.4	33.988	21.150	-0.238	-1.352
(Bar Develop.) 73.222	-159.20	-66.66	-129.48	0.00	-22.85	-378.19	8.043	372072.4	33.988	21.150	-0.255	-1.449
(PSXFR) 73.404	-161.46	-67.60	-131.32	0.00	-23.18	-383.55	7.983	372072.4	33.988	21.150	-0.258	-1.465
(Bar Develop.) 74.282	-172.48	-72.22	-140.28	0.00	-24.76	-409.74	7.697	372072.4	33.988	21.150	-0.271	-1.543
(SZB) 74.650	-177.17	-74.18	-144.09	0.00	-25.43	-420.87	7.578	372072.4	33.988	21.150	-0.277	-1.576
(FoS) 75.654	-190.12	-79.60	-154.63	0.00	-27.29	-451.65	7.251	372072.4	33.988	21.150	-0.293	-1.664
(1.0L_e) 75.987	-194.49	-81.43	-158.18	0.00	-27.92	-462.02	7.143	372072.4	33.988	21.150	-0.298	-1.693
75.987	-194.49	-81.43	-158.18	0.00	-27.92	-462.02	7.143	372072.4	33.988	21.150	-0.298	-1.693
(STLF) 76.404	-199.99	-83.73	-162.64	0.00	-28.71	-475.07	7.007	372072.4	33.988	21.150	-0.304	-1.729

Elastic Gain Due to Live Load

Change in strand stress due to live load applied to the composite girder

$$\Delta f''''_{cd} = \frac{K_{llim} M_{llim} (Y_{bc} - Y_{bg} + e_p)}{I_c}$$

$$\Delta f_{pLL} = \frac{E_p}{E_c} \Delta f''''_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

K_{llim} = 0.00

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(STRF) -0.417	0.00	0.00	7.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
0.000	0.00	0.00	7.143	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.00	0.00	7.143	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(FoS) 0.333	0.00	0.00	7.251	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 1.337	0.00	0.00	7.578	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 1.705	0.00	0.00	7.697	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(PSXFR) 2.583	0.00	0.00	7.983	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 2.765	0.00	0.00	8.043	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(H) 3.833	0.00	0.00	8.390	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(CS) 3.924	0.00	0.00	8.420	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 5.003	0.00	0.00	8.771	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(1.5H) 5.583	0.00	0.00	8.960	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
7.265	0.00	0.00	9.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	0.00	0.00	9.615	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
7.687	0.00	0.00	9.644	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 10.503	0.00	0.00	10.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
14.947	0.00	0.00	12.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.2L_e) 15.197	0.00	0.00	12.088	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
15.374	0.00	0.00	12.146	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 18.753	0.00	0.00	13.245	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
22.629	0.00	0.00	14.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.3L_e) 22.796	0.00	0.00	14.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
23.062	0.00	0.00	14.648	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 29.753	0.00	0.00	16.825	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 30.311	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.4L_e) 30.395	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
30.749	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.5L_e) 37.993	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
38.436	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.6L_e) 45.592	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 45.675	0.00	0.00	17.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
46.123	0.00	0.00	16.861	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 46.234	0.00	0.00	16.825	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.7L_e) 53.191	0.00	0.00	14.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
53.357	0.00	0.00	14.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
53.811	0.00	0.00	14.360	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(Deck Bar Cutoff) 54.581	0.00	0.00	14.109	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 57.234	0.00	0.00	13.245	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(0.8L_e) 60.790	0.00	0.00	12.088	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
61.040	0.00	0.00	12.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
61.498	0.00	0.00	11.858	372072.4	33.988	21.150	0.000	0.000	0.000	0.000

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(SZB) 65.484	0.00	0.00	10.561	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($0.9L_e$) 68.388	0.00	0.00	9.615	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
68.722	0.00	0.00	9.507	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
69.185	0.00	0.00	9.356	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(1.5H) 70.404	0.00	0.00	8.960	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 70.984	0.00	0.00	8.771	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(CS) 71.860	0.00	0.00	8.486	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(H) 72.154	0.00	0.00	8.390	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 73.222	0.00	0.00	8.043	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(PSXFR) 73.404	0.00	0.00	7.983	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 74.282	0.00	0.00	7.697	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 74.650	0.00	0.00	7.578	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(FoS) 75.654	0.00	0.00	7.251	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
($1.0L_e$) 75.987	0.00	0.00	7.143	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
75.987	0.00	0.00	7.143	372072.4	33.988	21.150	0.000	0.000	0.000	0.000
(STLF) 76.404	0.00	0.00	7.007	372072.4	33.988	21.150	0.000	0.000	0.000	0.000

Effective Prestress

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL}$

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL} + \Delta f_{pLL}$

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(STRF) -0.417	202.500	13.299	27.711	0.000	0.000	41.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
($0.0L_e$) 0.000	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
(FoS) 0.333	202.500	13.381	27.711	0.039	0.023	41.030	0.250	40.367	0.000	0.000	40.367	40.367	40.367
(SZB) 1.337	202.500	13.494	27.711	0.159	0.093	40.953	0.584	94.413	0.000	0.000	94.413	94.413	94.413
(Bar Develop.) 1.705	202.500	13.537	27.711	0.206	0.119	40.923	0.707	114.252	0.000	0.000	114.252	114.252	114.252
(PSXFR) 2.583	202.500	13.640	27.711	0.319	0.180	40.852	1.000	161.648	0.000	0.000	161.648	161.648	161.648
(Bar Develop.) 2.765	202.500	13.662	27.711	0.344	0.192	40.837	1.000	161.663	0.000	0.000	161.663	161.663	161.663
(H) 3.833	202.500	13.792	27.711	0.490	0.266	40.748	1.000	161.752	0.000	0.000	161.752	161.752	161.752
(CS) 3.924	202.500	13.803	27.711	0.502	0.272	40.740	1.000	161.760	0.000	0.000	161.760	161.760	161.760
(SZB) 5.003	202.500	13.940	27.711	0.657	0.345	40.649	1.000	161.851	0.000	0.000	161.851	161.851	161.851
(1.5H) 5.583	202.500	14.016	27.711	0.743	0.384	40.599	1.000	161.901	0.000	0.000	161.901	161.901	161.901
7.265	202.500	14.245	27.711	1.002	0.496	40.458	1.000	162.042	0.000	0.000	162.042	162.042	162.042
($0.1L_e$) 7.599	202.500	14.292	27.711	1.055	0.518	40.430	1.000	162.070	0.000	0.000	162.070	162.070	162.070
7.687	202.500	14.305	27.711	1.069	0.524	40.423	1.000	162.077	0.000	0.000	162.077	162.077	162.077
(SZB) 10.503	202.500	14.729	27.711	1.533	0.703	40.204	1.000	162.296	0.000	0.000	162.296	162.296	162.296
14.947	202.500	15.500	27.711	2.313	0.962	39.936	1.000	162.564	0.000	0.000	162.564	162.564	162.564
($0.2L_e$) 15.197	202.500	15.547	27.711	2.358	0.976	39.924	1.000	162.576	0.000	0.000	162.576	162.576	162.576
15.374	202.500	15.581	27.711	2.390	0.985	39.917	1.000	162.583	0.000	0.000	162.583	162.583	162.583
(SZB) 18.753	202.500	16.274	27.711	3.002	1.154	39.828	1.000	162.672	0.000	0.000	162.672	162.672	162.672
22.629	202.500	17.186	27.711	3.700	1.314	39.882	1.000	162.618	0.000	0.000	162.618	162.618	162.618
($0.3L_e$) 22.796	202.500	17.228	27.711	3.729	1.320	39.889	1.000	162.611	0.000	0.000	162.611	162.611	162.611
23.062	202.500	17.295	27.711	3.776	1.330	39.900	1.000	162.600	0.000	0.000	162.600	162.600	162.600
(SZB) 29.753	202.500	19.230	27.711	4.890	1.493	40.558	1.000	161.942	0.000	0.000	161.942	161.942	161.942
(HP) 30.311	202.500	19.412	27.711	4.974	1.500	40.649	1.000	161.851	0.000	0.000	161.851	161.851	161.851
($0.4L_e$) 30.395	202.500	19.408	27.711	4.979	1.499	40.641	1.000	161.859	0.000	0.000	161.859	161.859	161.859
30.749	202.500	19.394	27.711	4.998	1.497	40.610	1.000	161.890	0.000	0.000	161.890	161.890	161.890
($0.5L_e$) 37.993	202.500	19.251	27.711	5.187	1.351	40.424	1.000	162.076	0.000	0.000	162.076	162.076	162.076
38.436	202.500	19.251	27.711	5.186	1.336	40.440	1.000	162.060	0.000	0.000	162.060	162.060	162.060
($0.6L_e$) 45.592	202.500	19.408	27.711	4.979	0.993	41.147	1.000	161.353	0.000	0.000	161.353	161.353	161.353
(HP) 45.675	202.500	19.412	27.711	4.974	0.988	41.160	1.000	161.340	0.000	0.000	161.340	161.340	161.340
46.123	202.500	19.266	27.711	4.907	0.956	41.114	1.000	161.386	0.000	0.000	161.386	161.386	161.386
(SZB) 46.234	202.500	19.230	27.711	4.890	0.948	41.103	1.000	161.397	0.000	0.000	161.397	161.397	161.397
($0.7L_e$) 53.191	202.500	17.228	27.711	3.729	0.392	40.818	1.000	161.682	0.000	0.000	161.682	161.682	161.682
53.357	202.500	17.186	27.711	3.700	0.377	40.819	1.000	161.681	0.000	0.000	161.681	161.681	161.681
53.811	202.500	17.072	27.711	3.619	0.338	40.826	1.000	161.674	0.000	0.000	161.674	161.674	161.674
(Deck Bar Cutoff) 54.581	202.500	16.884	27.711	3.482	0.271	40.842	1.000	161.658	0.000	0.000	161.658	161.658	161.658
(SZB) 57.234	202.500	16.274	27.711	3.002	0.035	40.948	1.000	161.552	0.000	0.000	161.552	161.552	161.552
($0.8L_e$) 60.790	202.500	15.547	27.711	2.358	-0.292	41.192	1.000	161.308	0.000	0.000	161.308	161.308	161.308
61.040	202.500	15.500	27.711	2.313	-0.315	41.213	1.000	161.287	0.000	0.000	161.287	161.287	161.287
61.498	202.500	15.414	27.711	2.231	-0.358	41.252	1.000	161.248	0.000	0.000	161.248	161.248	161.248
(SZB) 65.484	202.500	14.729	27.711	1.533	-0.732	41.639	1.000	160.861	0.000	0.000	160.861	160.861	160.861
($0.9L_e$) 68.388	202.500	14.292	27.711	1.055	-1.004	41.953	1.000	160.547	0.000	0.000	160.547	160.547	160.547
68.722	202.500	14.245	27.711	1.002	-1.035	41.990	1.000	160.510	0.000	0.000	160.510	160.510	160.510
69.185	202.500	14.181	27.711	0.929	-1.078	42.041	1.000	160.459	0.000	0.000	160.459	160.459	160.459
(1.5H) 70.404	202.500	14.016	27.711	0.743	-1.191	42.175	1.000	160.325	0.000	0.000	160.325	160.325	160.325
(SZB) 70.984	202.500	13.940	27.711	0.657	-1.245	42.239	1.000	160.261	0.000	0.000	160.261	160.261	160.261
(CS) 71.860	202.500	13.829	27.711	0.531	-1.325	42.334	1.000	160.166	0.000	0.000	160.166	160.166	160.166
(H) 72.154	202.500	13.792	27.711	0.490	-1.352	42.365	1.000	160.135	0.000	0.000	160.135	160.135	160.135
(Bar Develop.) 73.222	202.500	13.662	27.711	0.344	-1.449	42.478	1.000	160.022	0.000	0.000	160.022	160.022	160.022
(PSXFR) 73.404	202.500	13.640	27.711	0.319	-1.465	42.496	1.000	160.004	0.000	0.000	160.004	160.004	160.004
(Bar Develop.) 74.282	202.500	13.537	27.711	0.206	-1.543	42.585	0.707	113.077	0.000	0.000	113.077	113.077	113.077
(SZB) 74.650	202.500	13.494	27.711	0.159	-1.576	42.622	0.584	93.437	0.000	0.000	93.437	93.437	93.437
(FoS) 75.654	202.500	13.381	27.711	0.039	-1.664	42.718	0.250	39.946	0.000	0.000	39.946	39.946	39.946
($1.0L_e$) 75.987	202.500	13.344	27.711	-0.000	-1.693	42.748	0.139	22.188	0.000	0.000	22.188	22.188	22.188
75.987	202.500	13.344	27.711	-0.000	-1.693	42.748	0.139	22.188	0.000	0.000	22.188	22.188	22.188
(STLF) 76.404	202.500	13.299	27.711	0.000	-1.729	42.739	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Prestress Loss

% Loss Initial = $(\Delta f_{pES})/f_{pj}$

% Loss Final (Time dependent losses only) = $(\Delta f_{pLT})/f_{pj}$

% Loss Total (Time dependent losses and instantaneous effects) = $(f_{pj} - f_{pe})/f_{pj}$

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(STRF) -0.417	13.299	100.0	27.711	100.0	41.010	0.000	100.0
0.000	13.344	87.0	27.711	88.0	41.055	22.423	88.9
($0.0L_e$) 0.000	13.344	87.0	27.711	88.0	41.055	22.423	88.9
(FoS) 0.333	13.381	76.7	27.711	78.4	41.030	40.367	80.1
(SZB) 1.337	13.494	45.5	27.711	49.6	40.953	94.413	53.4
(Bar Develop.) 1.705	13.537	34.0	27.711	39.0	40.923	114.252	43.6
(PSXFR) 2.583	13.640	6.7	27.711	13.7	40.852	161.648	20.2
(Bar Develop.) 2.765	13.662	6.7	27.711	13.7	40.837	161.663	20.2
(H) 3.833	13.792	6.8	27.711	13.7	40.748	161.752	20.1
(CS) 3.924	13.803	6.8	27.711	13.7	40.740	161.760	20.1
(SZB) 5.003	13.940	6.9	27.711	13.7	40.649	161.851	20.1
(1.5H) 5.583	14.016	6.9	27.711	13.7	40.599	161.901	20.0
7.265	14.245	7.0	27.711	13.7	40.458	162.042	20.0
($0.1L_e$) 7.599	14.292	7.1	27.711	13.7	40.430	162.070	20.0
7.687	14.305	7.1	27.711	13.7	40.423	162.077	20.0
(SZB) 10.503	14.729	7.3	27.711	13.7	40.204	162.296	19.9
14.947	15.500	7.7	27.711	13.7	39.936	162.564	19.7
($0.2L_e$) 15.197	15.547	7.7	27.711	13.7	39.924	162.576	19.7
15.374	15.581	7.7	27.711	13.7	39.917	162.583	19.7
(SZB) 18.753	16.274	8.0	27.711	13.7	39.828	162.672	19.7
22.629	17.186	8.5	27.711	13.7	39.882	162.618	19.7
($0.3L_e$) 22.796	17.228	8.5	27.711	13.7	39.889	162.611	19.7
23.062	17.295	8.5	27.711	13.7	39.900	162.600	19.7
(SZB) 29.753	19.230	9.5	27.711	13.7	40.558	161.942	20.0
(HP) 30.311	19.412	9.6	27.711	13.7	40.649	161.851	20.1
($0.4L_e$) 30.395	19.408	9.6	27.711	13.7	40.641	161.859	20.1
30.749	19.394	9.6	27.711	13.7	40.610	161.890	20.1
($0.5L_e$) 37.993	19.251	9.5	27.711	13.7	40.424	162.076	20.0
38.436	19.251	9.5	27.711	13.7	40.440	162.060	20.0
($0.6L_e$) 45.592	19.408	9.6	27.711	13.7	41.147	161.353	20.3
(HP) 45.675	19.412	9.6	27.711	13.7	41.160	161.340	20.3
46.123	19.266	9.5	27.711	13.7	41.114	161.386	20.3
(SZB) 46.234	19.230	9.5	27.711	13.7	41.103	161.397	20.3
($0.7L_e$) 53.191	17.228	8.5	27.711	13.7	40.818	161.682	20.2
53.357	17.186	8.5	27.711	13.7	40.819	161.681	20.2
53.811	17.072	8.4	27.711	13.7	40.826	161.674	20.2
(Deck Bar Cutoff) 54.581	16.884	8.3	27.711	13.7	40.842	161.658	20.2
(SZB) 57.234	16.274	8.0	27.711	13.7	40.948	161.552	20.2
($0.8L_e$) 60.790	15.547	7.7	27.711	13.7	41.192	161.308	20.3
61.040	15.500	7.7	27.711	13.7	41.213	161.287	20.4
61.498	15.414	7.6	27.711	13.7	41.252	161.248	20.4
(SZB) 65.484	14.729	7.3	27.711	13.7	41.639	160.861	20.6
($0.9L_e$) 68.388	14.292	7.1	27.711	13.7	41.953	160.547	20.7
68.722	14.245	7.0	27.711	13.7	41.990	160.510	20.7
69.185	14.181	7.0	27.711	13.7	42.041	160.459	20.8
(1.5H) 70.404	14.016	6.9	27.711	13.7	42.175	160.325	20.8
(SZB) 70.984	13.940	6.9	27.711	13.7	42.239	160.261	20.9
(CS) 71.860	13.829	6.8	27.711	13.7	42.334	160.166	20.9
(H) 72.154	13.792	6.8	27.711	13.7	42.365	160.135	20.9
(Bar Develop.) 73.222	13.662	6.7	27.711	13.7	42.478	160.022	21.0
(PSXFR) 73.404	13.640	6.7	27.711	13.7	42.496	160.004	21.0
(Bar Develop.) 74.282	13.537	34.0	27.711	39.0	42.585	113.077	44.2
(SZB) 74.650	13.494	45.5	27.711	49.6	42.622	93.437	53.9
(FoS) 75.654	13.381	76.7	27.711	78.4	42.718	39.946	80.3
($1.0L_e$) 75.987	13.344	87.0	27.711	88.0	42.748	22.188	89.0
75.987	13.344	87.0	27.711	88.0	42.748	22.188	89.0
(STLF) 76.404	13.299	100.0	27.711	100.0	42.739	0.000	100.0

Reinforcement Requirements for Tension Limits

Minimum amount of bonded reinforcement sufficent to resist the tensile force in the concrete [5.9.2.3][C5.9.2.3.1b]

Reinforcement required for tension stress limit, Interval 2 - Prestress Release, [C5.9.2.3.1b]

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
(STRF, $0.0L_T$) 0.000	0.000	0.000	0.000	0.000	0.00	0.000	-
(PSXFR) 3.000	11.994	-0.641	-2.884	0.000	0.00	0.000	-
($0.1L_T$) 7.682	10.589	-0.589	-2.926	0.000	0.00	0.000	-
($0.2L_T$) 15.364	7.295	-0.450	-3.043	0.000	0.00	0.000	-
($0.3L_T$) 23.046	3.484	-0.246	-3.218	0.000	0.00	0.000	-
(HP, $0.4L_T$) 30.728	-0.232	0.019	-3.446	9.989	0.10	0.000	0.003
($0.5L_T$) 38.410	0.195	-0.016	-3.413	0.000	0.00	0.000	-
(HP, $0.6L_T$) 46.092	-0.232	0.019	-3.446	9.989	0.10	0.000	0.003
($0.7L_T$) 53.774	3.484	-0.246	-3.218	0.000	0.00	0.000	-
	7.295	-0.450	-3.043	0.000	0.00	0.000	-

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
($0.8L_r$) 61.456							
($0.9L_r$) 69.138	10.589	-0.589	-2.926	0.000	0.00	0.000	-
(PSXFR) 73.820	11.994	-0.641	-2.884	0.000	0.00	0.000	-
(STLF, $1.0L_r$) 76.820	0.000	0.000	0.000	0.000	0.00	0.000	-

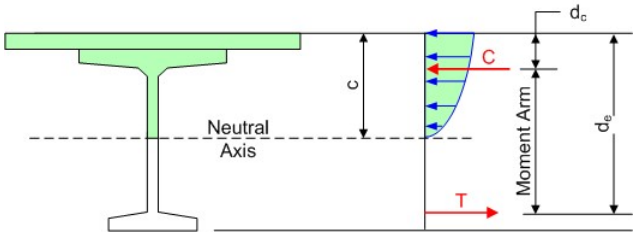
Y_{na}, the location of the neutral axis, is measured from the top of the non-composite girder

* to be considered sufficient, reinforcement must be fully developed and lie within the tension area of the section

** minimum area of sufficiently bonded reinforcement needed to use the alternative tensile stress limit

Moment Capacity Details

Positive Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(STRF) -0.417	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
0.000	1.419	0.710	46.103	48.811	48.000	0.098	22.423	0.787	93.215	1.000	45.393	566.38	566.38	2142.48
($0.0L_s$) 0.000	1.419	0.710	46.103	48.811	48.000	0.098	22.423	0.787	93.215	1.000	45.393	566.38	566.38	2142.48
(FoS) 0.333	1.615	0.807	44.465	48.684	48.000	0.086	40.367	1.416	106.052	1.000	43.658	644.37	644.37	2324.32
1.333	2.198	1.099	41.490	48.391	48.000	0.063	94.236	3.307	144.377	1.000	40.391	877.23	877.23	2952.70
(SZB) 1.337	2.200	1.100	41.483	48.390	48.000	0.062	94.413	3.313	144.502	1.000	40.383	878.00	878.00	2954.70
(Bar Develop.) 1.705	2.414	1.207	40.814	48.307	48.000	0.057	114.252	4.009	158.557	1.000	39.607	963.39	963.39	3179.78
(PSXFR) 2.583	3.309	1.403	39.764	48.143	48.000	0.041	161.648	5.672	191.587	1.000	38.361	1164.08	1164.08	3721.26
2.625	3.318	1.405	39.765	48.141	48.000	0.040	161.652	5.672	191.903	1.000	38.359	1166.01	1166.01	3727.27
(Bar Develop.) 2.765	3.346	1.414	39.769	48.137	48.000	0.040	161.663	5.672	192.971	1.000	38.355	1172.49	1172.49	3747.54
(H) 3.833	3.547	1.484	39.819	48.103	48.000	0.038	161.752	5.676	201.105	1.000	38.335	1221.92	1221.92	3903.47
(CS) 3.924	3.564	1.490	39.825	48.100	48.000	0.037	161.760	5.676	201.796	1.000	38.334	1226.11	1226.11	3916.84
4.583	3.681	1.536	39.873	46.207	48.000	0.036	161.816	5.678	206.826	1.000	38.337	1256.67	1256.67	4014.81
(SZB) 5.003	3.754	1.565	39.910	46.206	48.000	0.035	161.851	5.679	210.026	1.000	38.345	1276.12	1276.12	4077.73
(1.5H) 5.583	3.859	1.611	39.969	46.207	48.000	0.034	161.901	5.681	214.453	1.000	38.359	1303.02	1303.02	4165.18
7.265	4.152	1.746	40.184	44.579	48.000	0.032	162.042	5.686	227.289	1.000	38.438	1381.01	1381.01	4423.60
7.599	4.208	1.773	40.233	44.598	48.000	0.031	162.070	5.687	229.835	1.000	38.461	1396.48	1396.48	4475.79
($0.1L_s$) 7.687	4.222	1.780	40.247	44.603	48.000	0.031	162.077	5.687	230.512	1.000	38.467	1400.59	1400.59	4489.70
8.665	4.381	1.859	40.406	44.667	48.000	0.030	162.156	5.690	237.989	1.000	38.547	1446.02	1446.02	4644.97
(SZB) 10.503	4.667	2.006	40.749	43.395	48.000	0.028	162.296	5.695	252.046	1.000	38.742	1531.43	1531.43	4944.27
11.265	4.781	2.067	40.906	42.178	48.000	0.027	162.350	5.697	257.886	1.000	38.839	1566.92	1566.92	5071.49
14.947	4.977	2.172	41.941	41.941	48.000	0.026	162.564	5.704	268.063	1.000	39.769	1628.75	1628.75	5397.85
15.197	4.978	2.173	42.020	42.020	48.000	0.026	162.576	5.704	268.107	1.000	39.847	1629.02	1629.02	5409.33
($0.2L_s$) 15.374	4.978	2.173	42.076	42.076	48.000	0.026	162.583	5.705	268.138	1.000	39.903	1629.21	1629.21	5417.46
15.997	4.980	2.174	42.272	42.272	48.000	0.026	162.607	5.706	268.246	1.000	40.097	1629.86	1629.86	5446.12
17.947	4.987	2.178	42.887	42.887	48.000	0.026	162.661	5.707	268.583	1.000	40.710	1631.91	1631.91	5536.21
(SZB) 18.753	4.989	2.179	43.142	43.142	48.000	0.026	162.672	5.708	268.722	1.000	40.963	1632.75	1632.75	5573.58
22.629	5.001	2.185	44.378	44.378	48.000	0.026	162.618	5.706	269.353	1.000	42.192	1636.59	1636.59	5754.27
22.796	5.002	2.186	44.431	44.431	48.000	0.026	162.611	5.706	269.376	1.000	42.245	1636.73	1636.73	5762.01
($0.3L_s$) 23.062	5.002	2.186	44.516	44.516	48.000	0.026	162.600	5.705	269.412	1.000	42.330	1636.95	1636.95	5774.34
23.329	5.003	2.186	44.602	44.602	48.000	0.026	162.587	5.705	269.448	1.000	42.416	1637.17	1637.17	5786.78
24.629	5.006	2.188	45.020	45.020	48.000	0.026	162.511	5.702	269.604	1.000	42.832	1638.12	1638.12	5846.93
(SZB) 29.753	5.013	2.192	46.676	46.676	48.000	0.026	161.942	5.682	269.966	1.000	44.484	1640.32	1640.32	6080.69
(HP) 30.311	5.013	2.192	46.857	46.857	48.000	0.026	161.851	5.679	269.986	1.000	44.666	1640.43	1640.43	6105.89
30.316	5.013	2.192	46.857	46.857	48.000	0.026	161.852	5.679	269.986	1.000	44.666	1640.43	1640.43	6105.89
30.395	5.013	2.192	46.857	46.857	48.000	0.026	161.859	5.679	269.986	1.000	44.666	1640.43	1640.43	6105.90
30.661	5.013	2.192	46.857	46.857	48.000	0.026	161.882	5.680	269.986	1.000	44.666	1640.43	1640.43	6105.90
($0.4L_s$) 30.749	5.013	2.192	46.857	46.857	48.000	0.026	161.890	5.680	269.986	1.000	44.666	1640.43	1640.43	6105.90
31.311	5.013	2.192	46.857	46.857	48.000	0.026	161.935	5.682	269.986	1.000	44.666	1640.43	1640.43	6105.90
37.993	5.013	2.192	46.857	46.857	48.000	0.026	162.076	5.687	269.986	1.000	44.665	1640.44	1640.44	6105.90
($0.5L_s$) 38.436	5.013	2.192	46.857	46.857	48.000	0.026	162.060	5.686	269.986	1.000	44.665	1640.43	1640.43	6105.90
44.675	5.013	2.192	46.857	46.857	48.000	0.026	161.490	5.666	269.985	1.000	44.666	1640.43	1640.43	6105.88
45.325	5.013	2.192	46.857	46.857	48.000	0.026	161.394	5.663	269.985	1.000	44.666	1640.43	1640.43	6105.88
45.592	5.013	2.192	46.857	46.857	48.000	0.026	161.353	5.662	269.984	1.000	44.666	1640.43	1640.43	6105.87
45.671	5.013	2.192	46.857	46.857	48.000	0.026	161.341	5.661	269.984	1.000	44.666	1640.43	1640.43	6105.87
(HP) 45.675	5.013	2.192	46.857	46.857	48.000	0.026	161.340	5.661	269.984	1.000	44.666	1640.43	1640.43	6105.87
($0.6L_s$) 46.123	5.013	2.192	46.712	46.712	48.000	0.026	161.386	5.663	269.969	1.000	44.520	1640.33	1640.33	6085.67
(SZB) 46.234	5.013	2.192	46.676	46.676	48.000	0.026	161.397	5.663	269.965	1.000	44.484	1640.31	1640.31	6080.67
51.357	5.006	2.188	45.020	45.020	48.000	0.026	161.676	5.673	269.599	1.000	42.832	1638.08	1638.08	5846.84
52.657	5.003	2.186	44.602	44.602	48.000	0.026	161.685	5.673	269.440	1.000	42.416	1637.12	1637.12	5786.65
53.191	5.002	2.186	44.431	44.431	48.000	0.026	161.682	5.673	269.367	1.000	42.246	1636.68	1636.68	5761.87
53.357	5.001	2.185	44.378	44.378	48.000	0.026	161.681	5.673	269.345	1.000	42.193	1636.54	1636.54	5754.14
($0.7L_s$) 53.811	5.000	2.185	44.233	44.233	48.000	0.026	161.674	5.673	269.283	1.000	42.048	1636.16	1636.16	5733.12
54.576	4.998	2.184	43.988	43.988	48.000	0.026	161.658	5.672	269.164	1.000	41.805	1635.44	1635.44	5697.43
(Deck Bar Cutoff) 54.581	4.998	2.184	43.987	43.987	48.000	0.026	161.658	5.672	269.163	1.000	41.803	1635.44	1635.44	5697.20

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(SZB) 57.234	4.989	2.179	43.143	43.143	48.000	0.026	161.552	5.668	268.709	1.000	40.964	1632.68	1632.68	5573.39
58.040	4.986	2.177	42.888	42.888	48.000	0.026	161.506	5.667	268.571	1.000	40.710	1631.84	1631.84	5536.03
59.990	4.980	2.174	42.272	42.272	48.000	0.026	161.372	5.662	268.233	1.000	40.098	1629.78	1629.78	5445.94
60.790	4.977	2.173	42.021	42.021	48.000	0.026	161.308	5.660	268.093	1.000	39.848	1628.93	1628.93	5409.14
61.040	4.977	2.172	41.942	41.942	48.000	0.026	161.287	5.659	268.049	1.000	39.770	1628.67	1628.67	5397.66
($0.8L_s$) 61.498	4.975	2.171	41.798	41.798	48.000	0.026	161.248	5.658	267.968	1.000	39.627	1628.18	1628.18	5376.64
64.722	4.781	2.067	40.907	42.178	48.000	0.027	160.941	5.647	257.871	1.000	38.840	1566.83	1566.83	5071.31
(SZB) 65.484	4.666	2.006	40.750	43.396	48.000	0.028	160.861	5.644	252.031	1.000	38.743	1531.34	1531.34	4944.10
67.322	4.381	1.859	40.407	44.667	48.000	0.030	160.664	5.637	237.974	1.000	38.548	1445.93	1445.93	4644.82
68.388	4.207	1.773	40.234	44.598	48.000	0.031	160.547	5.633	229.821	1.000	38.462	1396.40	1396.40	4475.65
68.722	4.152	1.746	40.185	44.579	48.000	0.032	160.510	5.632	227.275	1.000	38.439	1380.92	1380.92	4423.47
($0.9L_s$) 69.185	4.073	1.708	40.120	44.555	48.000	0.032	160.459	5.630	223.736	1.000	38.411	1359.42	1359.42	4351.45
(1.5H) 70.404	3.859	1.610	39.970	46.207	48.000	0.034	160.325	5.625	214.440	1.000	38.360	1302.94	1302.94	4165.06
(SZB) 70.984	3.753	1.565	39.911	46.206	48.000	0.035	160.261	5.623	210.014	1.000	38.346	1276.04	1276.04	4077.61
71.404	3.681	1.536	39.874	46.207	48.000	0.036	160.216	5.622	206.814	1.000	38.339	1256.60	1256.60	4014.70
(CS) 71.860	3.600	1.504	39.839	48.094	48.000	0.037	160.166	5.620	203.332	1.000	38.335	1235.45	1235.45	3946.77
(H) 72.154	3.547	1.484	39.820	48.103	48.000	0.038	160.135	5.619	201.093	1.000	38.336	1221.84	1221.84	3903.37
(Bar Develop.) 73.222	3.345	1.414	39.770	48.137	48.000	0.040	160.022	5.615	192.960	1.000	38.356	1172.42	1172.42	3747.44
73.362	3.317	1.405	39.766	48.141	48.000	0.040	160.008	5.614	191.892	1.000	38.361	1165.94	1165.94	3727.18
(PSXFR) 73.404	3.309	1.403	39.765	48.143	48.000	0.041	160.004	5.614	191.575	1.000	38.362	1164.01	1164.01	3721.17
(Bar Develop.) 74.282	2.414	1.207	40.815	48.307	48.000	0.057	113.077	3.968	158.553	1.000	39.608	963.37	963.37	3179.74
(SZB) 74.650	2.200	1.100	41.484	48.390	48.000	0.062	93.437	3.278	144.500	1.000	40.384	877.98	877.98	2954.68
74.654	2.198	1.099	41.491	48.391	48.000	0.063	93.262	3.272	144.374	1.000	40.391	877.22	877.22	2952.68
(FoS) 75.654	1.615	0.807	44.465	48.684	48.000	0.086	39.946	1.402	106.052	1.000	43.658	644.37	644.37	2344.32
75.987	1.419	0.710	46.103	48.811	48.000	0.098	22.188	0.779	93.215	1.000	45.393	566.38	566.38	2142.48
75.987	1.419	0.710	46.103	48.811	48.000	0.098	22.188	0.779	93.215	1.000	45.393	566.38	566.38	2142.48
(STLF) 76.404	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
($1.0L_s$) 76.872	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00

* Used to compute d_v for shear. Depth to resultant tension force for strands in tension. See PCI Bridge Design Manual, 3rd Edition, MNL-133-11, §8.4.1.2

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.25(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 1.0$$

Positive Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STRF) -0.417	0.679	0.000	7237.4	10947.1	0.00	990.82
0.000	0.679	0.343	7237.4	10947.1	0.00	1334.79
($0.0L_s$) 0.000	0.679	0.343	7237.4	10947.1	0.00	1334.79
(FoS) 0.333	0.679	0.621	7237.4	10947.1	21.26	1602.86
1.333	0.679	1.475	7237.4	10947.1	83.94	2427.84
(SZB) 1.337	0.679	1.478	7237.4	10947.1	84.14	2430.60
(Bar Develop.) 1.705	0.679	1.800	7237.4	10947.1	106.78	2742.13
(PSXFR) 2.583	0.679	2.585	7237.4	10947.1	159.92	3503.06
2.625	0.679	2.587	7237.4	10947.1	162.40	3503.69
(Bar Develop.) 2.765	0.679	2.593	7237.4	10947.1	170.76	3505.81
(H) 3.833	0.679	2.642	7237.4	10947.1	233.27	3522.57
(CS) 3.924	0.679	2.646	7237.4	10947.1	238.48	3524.04
4.583	0.679	2.676	7237.4	10947.1	276.02	3534.97
(SZB) 5.003	0.679	2.695	7237.4	10947.1	299.50	3542.12
(1.5H) 5.583	0.679	2.722	7237.4	10947.1	331.54	3552.30
7.265	0.679	2.799	7237.4	10947.1	421.14	3583.48
7.599	0.679	2.814	7237.4	10947.1	438.34	3589.96
($0.1L_s$) 7.687	0.679	2.818	7237.4	10947.1	442.87	3591.70
8.665	0.679	2.863	7237.4	10947.1	492.09	3611.33
(SZB) 10.503	0.679	2.947	7237.4	10947.1	580.19	3650.41
11.265	0.679	2.982	7237.4	10947.1	615.09	3667.46
14.947	0.679	3.149	7237.4	10947.1	769.80	3756.21
15.197	0.679	3.160	7237.4	10947.1	779.47	3762.61
($0.2L_s$) 15.374	0.679	3.168	7237.4	10947.1	786.26	3767.17
15.997	0.679	3.196	7237.4	10947.1	809.72	3783.39
17.947	0.679	3.284	7237.4	10947.1	878.94	3835.92
(SZB) 18.753	0.679	3.320	7237.4	10947.1	905.66	3858.36
22.629	0.679	3.491	7237.4	10947.1	1018.95	3972.03
22.796	0.679	3.499	7237.4	10947.1	1023.25	3977.11
($0.3L_s$) 23.062	0.679	3.510	7237.4	10947.1	1030.01	3985.24
23.329	0.679	3.522	7237.4	10947.1	1036.70	3993.47
24.629	0.679	3.578	7237.4	10947.1	1067.48	4033.97
(SZB) 29.753	0.679	3.792	7237.4	10947.1	1160.97	4200.94
(HP) 30.311	0.679	3.815	7237.4	10947.1	1168.49	4219.75
30.316	0.679	3.815	7237.4	10947.1	1168.55	4219.72
30.395	0.679	3.815	7237.4	10947.1	1169.56	4219.37
30.661	0.679	3.815	7237.4	10947.1	1172.93	4218.21
($0.4L_s$) 30.749	0.679	3.815	7237.4	10947.1	1174.00	4217.83
31.311	0.679	3.817	7237.4	10947.1	1180.62	4215.51
37.993	0.679	3.820	7237.4	10947.1	1218.34	4199.51
($0.5L_s$) 38.436	0.679	3.819	7237.4	10947.1	1218.17	4199.21
44.675	0.679	3.806	7237.4	10947.1	1180.62	4204.99
45.325	0.679	3.804	7237.4	10947.1	1172.92	4206.66

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
45.592	0.679	3.803	7237.4	10947.1	1169.56	4207.41
45.671	0.679	3.803	7237.4	10947.1	1168.55	4207.64
(HP) 45.675	0.679	3.803	7237.4	10947.1	1168.49	4207.65
($0.6L_s$) 46.123	0.679	3.784	7237.4	10947.1	1162.50	4191.99
(SZB) 46.234	0.679	3.779	7237.4	10947.1	1160.97	4188.12
51.357	0.679	3.559	7237.4	10947.1	1067.47	4015.53
52.657	0.679	3.502	7237.4	10947.1	1036.70	3973.87
53.191	0.679	3.479	7237.4	10947.1	1023.25	3957.06
53.357	0.679	3.471	7237.4	10947.1	1018.95	3951.84
($0.7L_s$) 53.811	0.679	3.451	7237.4	10947.1	1007.02	3937.74
54.576	0.679	3.417	7237.4	10947.1	986.07	3914.21
(Deck Bar Cutoff) 54.581	0.679	3.417	7237.4	10947.1	985.93	3914.06
(SZB) 57.234	0.679	3.297	7237.4	10947.1	905.65	3835.44
58.040	0.679	3.261	7237.4	10947.1	878.94	3812.53
59.990	0.679	3.172	7237.4	10947.1	809.72	3759.01
60.790	0.679	3.136	7237.4	10947.1	779.47	3737.89
61.040	0.679	3.124	7237.4	10947.1	769.79	3731.39
($0.8L_s$) 61.498	0.679	3.103	7237.4	10947.1	751.78	3719.60
64.722	0.679	2.956	7237.4	10947.1	615.09	3641.48
(SZB) 65.484	0.679	2.921	7237.4	10947.1	580.19	3624.27
67.322	0.679	2.836	7237.4	10947.1	492.09	3584.91
68.388	0.679	2.788	7237.4	10947.1	438.33	3563.44
68.722	0.679	2.772	7237.4	10947.1	421.14	3556.94
($0.9L_s$) 69.185	0.679	2.751	7237.4	10947.1	396.93	3548.07
(1.5H) 70.404	0.679	2.695	7237.4	10947.1	331.54	3525.72
(SZB) 70.984	0.679	2.669	7237.4	10947.1	299.50	3515.55
71.404	0.679	2.650	7237.4	10947.1	276.01	3508.41
(CS) 71.860	0.679	2.629	7237.4	10947.1	250.11	3500.83
(H) 72.154	0.679	2.616	7237.4	10947.1	233.26	3496.06
(Bar Develop.) 73.222	0.679	2.567	7237.4	10947.1	170.75	3479.40
73.362	0.679	2.561	7237.4	10947.1	162.40	3477.29
(PSXFR) 73.404	0.679	2.559	7237.4	10947.1	159.91	3476.67
(Bar Develop.) 74.282	0.679	1.781	7237.4	10947.1	106.78	2723.56
(SZB) 74.650	0.679	1.462	7237.4	10947.1	84.14	2415.28
74.654	0.679	1.460	7237.4	10947.1	83.93	2412.55
(FoS) 75.654	0.679	0.614	7237.4	10947.1	21.26	1596.35
75.987	0.679	0.339	7237.4	10947.1	-0.00	1331.19
75.987	0.679	0.339	7237.4	10947.1	-0.00	1331.19
(STLF) 76.404	0.679	0.000	7237.4	10947.1	0.00	990.82
($1.0L_s$) 76.872	0.509	0.000	13236.1	13236.1	0.00	898.50

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement,γ_3 = 1

$$M_{cr} = \gamma_3\left[\left(\gamma_1 f_r + \gamma_2 f_{cpe}\right)S_c - M_{dnc}\left(\frac{S_c}{S_{nc}} - 1\right)\right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

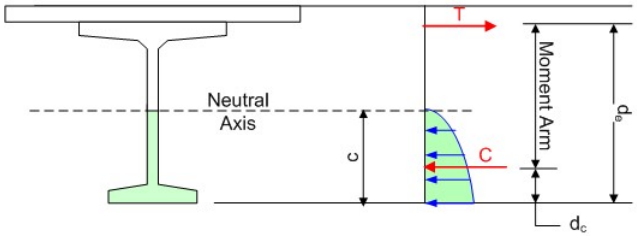
Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(STRF) -0.417	990.82	Strength II	0.00	0.00	0.00
0.000	1334.79	Strength II	0.00	0.00	0.00
($0.0L_s$) 0.000	1334.79	Strength II	0.00	0.00	0.00
(FoS) 0.333	1602.86	Strength I	76.77	102.10	102.10
1.333	2427.84	Strength I	302.10	401.79	401.79
(SZB) 1.337	2430.60	Strength I	302.83	402.76	402.76
(Bar Develop.) 1.705	2742.13	Strength I	383.87	510.54	510.54
(PSXFR) 2.583	3503.06	Strength I	573.28	762.46	762.46
2.625	3503.69	Strength I	582.12	774.21	774.21
(Bar Develop.) 2.765	3505.81	Strength I	611.79	813.68	813.68
(H) 3.833	3522.57	Strength I	832.83	1107.67	1107.67
(CS) 3.924	3524.04	Strength I	851.19	1132.08	1132.08
4.583	3534.97	Strength I	983.01	1307.40	1307.40
(SZB) 5.003	3542.12	Strength I	1065.15	1416.65	1416.65
(1.5H) 5.583	3552.30	Strength I	1176.78	1565.12	1565.12
7.265	3583.48	Strength I	1486.01	1976.39	1976.39
7.599	3589.96	Strength I	1544.80	2054.58	2054.58
($0.1L_s$) 7.687	3591.70	Strength I	1560.28	2075.17	2075.17
8.665	3611.33	Strength I	1727.41	2297.46	2297.46
(SZB) 10.503	3650.41	Strength I	2022.46	2689.87	2689.87
11.265	3667.46	Strength I	2137.84	2843.32	2843.32
14.947	3756.21	Strength I	2635.14	3504.73	3504.73
15.197	3762.61	Strength I	2665.32	3544.87	3544.87
($0.2L_s$) 15.374	3767.17	Strength I	2686.42	3572.94	3572.94
15.997	3783.39	Strength I	2758.90	3669.34	3669.34

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
17.947	3835.92	Strength I	2968.37	3947.93	3835.92
(SZB) 18.753	3858.36	Strength I	3047.21	4052.79	3858.36
22.629	3972.03	Strength I	3362.28	4471.83	3972.03
22.796	3977.11	Strength I	3373.43	4486.67	3977.11
($0.3L_s$) 23.062	3985.24	Strength I	3391.61	4510.84	3985.24
23.329	3993.47	Strength I	3410.33	4535.74	3993.47
24.629	4033.97	Strength I	3494.38	4647.53	4033.97
(SZB) 29.753	4200.94	Strength I	3713.53	4938.99	4200.94
(HP) 30.311	4219.75	Strength I	3726.36	4956.05	4219.75
30.316	4219.72	Strength I	3726.46	4956.19	4219.72
30.395	4219.37	Strength I	3728.08	4958.35	4219.37
30.661	4218.21	Strength I	3733.29	4965.27	4218.21
($0.4L_s$) 30.749	4217.83	Strength I	3734.94	4967.47	4217.83
31.311	4215.51	Strength I	3744.38	4980.03	4215.51
37.993	4199.51	Strength I	3722.82	4951.36	4199.51
($0.5L_s$) 38.436	4199.21	Strength I	3713.82	4939.39	4199.21
44.675	4204.99	Strength I	3451.44	4590.42	4204.99
45.325	4206.66	Strength I	3409.83	4535.08	4206.66
45.592	4207.41	Strength I	3392.19	4511.62	4207.41
45.671	4207.64	Strength I	3386.92	4504.60	4207.64
(HP) 45.675	4207.65	Strength I	3386.58	4504.16	4207.65
($0.6L_s$) 46.123	4191.99	Strength I	3355.69	4463.07	4191.99
(SZB) 46.234	4188.12	Strength I	3347.85	4452.64	4188.12
51.357	4015.53	Strength I	2900.76	3858.01	3858.01
52.657	3973.87	Strength I	2762.32	3673.89	3673.89
53.191	3957.06	Strength I	2703.29	3595.37	3595.37
53.357	3951.84	Strength I	2684.49	3570.37	3570.37
($0.7L_s$) 53.811	3937.74	Strength I	2633.04	3501.94	3501.94
54.576	3914.21	Strength I	2544.14	3383.71	3383.71
(Deck Bar Cutoff) 54.581	3914.06	Strength I	2543.56	3382.94	3382.94
(SZB) 57.234	3835.44	Strength I	2207.04	2935.36	2935.36
58.040	3812.53	Strength I	2099.14	2791.85	2791.85
59.990	3759.01	Strength I	1830.65	2434.77	2434.77
60.790	3737.89	Strength I	1715.69	2281.87	2281.87
61.040	3731.39	Strength I	1679.12	2233.23	2233.23
($0.8L_s$) 61.498	3719.60	Strength I	1611.16	2142.84	2142.84
64.722	3641.48	Strength I	1137.00	1512.21	1512.21
(SZB) 65.484	3624.27	Strength I	1031.16	1371.44	1371.44
67.322	3584.91	Strength I	774.30	1029.82	1029.82
68.388	3563.44	Strength I	622.54	827.98	827.98
68.722	3556.94	Strength I	574.68	764.32	764.32
($0.9L_s$) 69.185	3548.07	Strength I	508.30	676.04	676.04
(1.5H) 70.404	3525.72	Strength I	332.54	442.27	442.27
(SZB) 70.984	3515.55	Strength I	247.85	329.64	329.64
71.404	3508.41	Strength I	186.35	247.85	247.85
(CS) 71.860	3500.83	Strength I	119.35	158.74	158.74
(H) 72.154	3496.06	Strength I	76.02	101.11	101.11
(Bar Develop.) 73.222	3479.40	Strength II	-148.61	-197.65	-197.65
73.362	3477.29	Strength II	-159.43	-212.04	-212.04
(PSXFR) 73.404	3476.67	Strength II	-162.65	-216.33	-216.33
(Bar Develop.) 74.282	2723.56	Strength II	-231.41	-307.77	-307.77
(SZB) 74.650	2415.28	Strength II	-260.68	-346.70	-346.70
74.654	2412.55	Strength II	-260.94	-347.05	-347.05
(FoS) 75.654	1596.35	Strength II	-341.87	-454.68	-454.68
75.987	1331.19	Strength II	-369.30	-491.16	-491.16
75.987	1331.19	Strength II	-369.30	-491.16	-491.16
(STLF) 76.404	990.82	Strength II	-379.73	-505.04	-505.04
($1.0L_s$) 76.872	898.50	Strength II	-391.56	-520.77	-520.77

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Negative Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(STRF) -0.417	6.339	2.545	51.043	51.043	0.021	0.900	48.498	960.00	960.00	-3879.82
0.000	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
($0.0L_s$) 0.000	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
(FoS) 0.333	6.341	2.545	50.966	50.966	0.021	0.900	48.421	960.00	960.00	-3873.66
1.333	6.342	2.545	50.866	50.866	0.021	0.900	48.321	960.00	960.00	-3865.65

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(SZB) 1.337	6.343	2.545	50.865	50.865	0.021	0.900	48.320	960.00	960.00	-3865.62
(Bar Develop.) 1.705	6.343	2.545	50.829	50.829	0.021	0.900	48.284	960.00	960.00	-3862.73
(PSXFR) 2.583	6.345	2.545	50.744	50.744	0.021	0.900	48.199	960.00	960.00	-3855.94
2.625	6.345	2.545	50.740	50.740	0.021	0.900	48.195	960.00	960.00	-3855.63
(Bar Develop.) 2.765	6.345	2.545	50.727	50.727	0.021	0.900	48.182	960.00	960.00	-3854.56
(H) 3.833	6.347	2.545	50.627	50.627	0.021	0.900	48.082	960.00	960.00	-3846.58
(CS) 3.924	6.347	2.545	50.619	50.619	0.021	0.900	48.074	960.00	960.00	-3845.92
4.583	6.348	2.545	50.559	50.559	0.021	0.900	48.014	960.00	960.00	-3841.12
(SZB) 5.003	6.349	2.545	50.521	50.521	0.021	0.900	47.977	960.00	960.00	-3838.12
(1.5H) 5.583	6.350	2.545	50.470	50.470	0.021	0.900	47.925	960.00	960.00	-3834.02
7.265	6.353	2.545	50.326	50.326	0.021	0.900	47.782	960.00	960.00	-3822.54
7.599	6.354	2.544	50.299	50.299	0.021	0.900	47.754	960.00	960.00	-3820.33
($0.1L_s$) 7.687	6.354	2.544	50.291	50.291	0.021	0.900	47.747	960.00	960.00	-3819.75
8.665	6.355	2.544	50.212	50.212	0.021	0.900	47.668	960.00	960.00	-3813.41
(SZB) 10.503	6.358	2.544	50.069	50.069	0.021	0.900	47.525	960.00	960.00	-3801.99
11.265	6.359	2.544	50.012	50.012	0.021	0.900	47.468	960.00	960.00	-3797.44
14.947	6.364	2.544	49.757	49.757	0.020	0.900	47.212	960.00	960.00	-3776.99
15.197	6.364	2.544	49.740	49.740	0.020	0.900	47.196	960.00	960.00	-3775.69
($0.2L_s$) 15.374	6.364	2.544	49.729	49.729	0.020	0.900	47.185	960.00	960.00	-3774.78
15.997	6.365	2.544	49.689	49.689	0.020	0.900	47.145	960.00	960.00	-3771.62
17.947	6.367	2.544	49.572	49.572	0.020	0.900	47.027	960.00	960.00	-3762.19
(SZB) 18.753	6.368	2.544	49.525	49.525	0.020	0.900	46.981	960.00	960.00	-3758.51
22.629	6.372	2.544	49.326	49.326	0.020	0.900	46.782	960.00	960.00	-3742.53
22.796	6.372	2.544	49.318	49.318	0.020	0.900	46.774	960.00	960.00	-3741.91
($0.3L_s$) 23.062	6.373	2.544	49.306	49.306	0.020	0.900	46.762	960.00	960.00	-3740.94
23.329	6.373	2.544	49.294	49.294	0.020	0.900	46.750	960.00	960.00	-3739.97
24.629	6.374	2.544	49.238	49.238	0.020	0.900	46.694	960.00	960.00	-3735.48
(SZB) 29.753	6.377	2.544	49.062	49.062	0.020	0.900	46.518	960.00	960.00	-3721.45
(HP) 30.311	6.377	2.544	49.048	49.048	0.020	0.900	46.504	960.00	960.00	-3720.29
30.316	6.377	2.544	49.048	49.048	0.020	0.900	46.504	960.00	960.00	-3720.28
30.395	6.377	2.544	49.046	49.046	0.020	0.900	46.502	960.00	960.00	-3720.13
30.661	6.378	2.544	49.039	49.039	0.020	0.900	46.495	960.00	960.00	-3719.61
($0.4L_s$) 30.749	6.378	2.544	49.037	49.037	0.020	0.900	46.493	960.00	960.00	-3719.45
31.311	6.378	2.544	49.024	49.024	0.020	0.900	46.480	960.00	960.00	-3718.43
37.993	6.379	2.544	48.948	48.948	0.020	0.900	46.403	960.00	960.00	-3712.28
($0.5L_s$) 38.436	6.379	2.544	48.947	48.947	0.020	0.900	46.403	960.00	960.00	-3712.25
44.675	6.378	2.544	49.007	49.007	0.020	0.900	46.463	960.00	960.00	-3717.02
45.325	6.378	2.544	49.020	49.020	0.020	0.900	46.476	960.00	960.00	-3718.08
45.592	6.378	2.544	49.026	49.026	0.020	0.900	46.482	960.00	960.00	-3718.55
45.671	6.378	2.544	49.028	49.028	0.020	0.900	46.484	960.00	960.00	-3718.69
(HP) 45.675	6.378	2.544	49.028	49.028	0.020	0.900	46.484	960.00	960.00	-3718.70
($0.6L_s$) 46.123	6.378	2.544	49.038	49.038	0.020	0.900	46.494	960.00	960.00	-3719.53
(SZB) 46.234	6.378	2.544	49.041	49.041	0.020	0.900	46.497	960.00	960.00	-3719.74
51.357	6.374	2.544	49.206	49.206	0.020	0.900	46.662	960.00	960.00	-3732.94
52.657	6.373	2.544	49.260	49.260	0.020	0.900	46.716	960.00	960.00	-3737.26
53.191	6.373	2.544	49.283	49.283	0.020	0.900	46.739	960.00	960.00	-3739.15
53.357	6.373	2.544	49.291	49.291	0.020	0.900	46.747	960.00	960.00	-3739.75
($0.7L_s$) 53.811	6.372	2.544	49.312	49.312	0.020	0.900	46.768	960.00	960.00	-3741.41
54.576	6.887	2.727	49.348	49.348	0.018	0.900	46.621	1027.58	1027.58	-3992.23
(Deck Bar Cutoff) 54.581	6.892	2.729	49.348	49.348	0.018	0.900	46.619	1028.28	1028.28	-3994.81
(SZB) 57.234	9.913	3.838	49.487	49.487	0.012	0.900	45.649	1406.48	1406.48	-5350.35
58.040	10.959	4.138	49.532	49.532	0.011	0.900	45.394	1521.16	1521.16	-5754.30
59.990	14.168	4.915	49.650	49.650	0.008	0.900	44.735	1798.69	1798.69	-6705.33
60.790	15.930	5.247	49.701	49.701	0.006	0.900	44.454	1912.47	1912.47	-7084.79
61.040	16.057	5.270	49.717	49.717	0.006	0.900	44.447	1920.00	1920.00	-7111.51
($0.8L_s$) 61.498	16.057	5.270	49.747	49.747	0.006	0.900	44.477	1920.00	1920.00	-7116.34
64.722	16.058	5.271	49.976	49.976	0.006	0.900	44.705	1920.00	1920.00	-7152.78
(SZB) 65.484	16.058	5.271	50.034	50.034	0.006	0.900	44.763	1920.00	1920.00	-7162.03
67.322	16.058	5.272	50.180	50.180	0.006	0.900	44.908	1920.00	1920.00	-7185.35
68.388	16.058	5.272	50.269	50.269	0.006	0.900	44.997	1920.00	1920.00	-7199.56
68.722	16.058	5.272	50.298	50.298	0.006	0.900	45.026	1920.00	1920.00	-7204.11
($0.9L_s$) 69.185	16.058	5.272	50.338	50.338	0.006	0.900	45.066	1920.00	1920.00	-7210.51
(1.5H) 70.404	16.058	5.272	50.446	50.446	0.006	0.900	45.174	1920.00	1920.00	-7227.80
(SZB) 70.984	16.058	5.272	50.499	50.499	0.006	0.900	45.227	1920.00	1920.00	-7236.29
71.404	16.058	5.273	50.538	50.538	0.006	0.900	45.266	1920.00	1920.00	-7242.51
(CS) 71.860	16.059	5.273	50.581	50.581	0.006	0.900	45.309	1920.00	1920.00	-7249.38
(H) 72.154	16.059	5.273	50.609	50.609	0.006	0.900	45.337	1920.00	1920.00	-7253.85
(Bar Develop.) 73.222	16.059	5.273	50.714	50.714	0.006	0.900	45.440	1920.00	1920.00	-7270.48
73.362	16.059	5.273	50.728	50.728	0.006	0.900	45.454	1920.00	1920.00	-7272.70
(PSXFR) 73.404	16.059	5.273	50.732	50.732	0.006	0.900	45.459	1920.00	1920.00	-7273.36
(Bar Develop.) 74.282	16.059	5.273	50.821	50.821	0.006	0.900	45.547	1920.00	1920.00	-7287.54
(SZB) 74.650	16.059	5.274	50.859	50.859	0.007	0.900	45.585	1920.00	1920.00	-7293.60
74.654	16.059	5.274	50.859	50.859	0.007	0.900	45.585	1920.00	1920.00	-7293.65
(FoS) 75.654	16.059	5.274	50.964	50.964	0.007	0.900	45.690	1920.00	1920.00	-7310.46
75.987	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.18
75.987	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.18
(STLF) 76.404	16.059	5.274	51.046	51.046	0.007	0.900	45.771	1920.00	1920.00	-7323.42
($1.0L_s$) 76.872	32.938	9.455	50.990	50.990	0.002	0.750	41.535	1525.77	1525.77	-5281.05

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.15(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 0.9$$

Negative Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STRF) -0.417	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
0.000	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.0L_s$) 0.000	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(FoS) 0.333	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
1.333	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 1.337	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(Bar Develop.) 1.705	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(PSXFR) 2.583	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
2.625	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(Bar Develop.) 2.765	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(H) 3.833	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(CS) 3.924	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
4.583	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 5.003	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(1.5H) 5.583	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
7.265	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
7.599	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.1L_s$) 7.687	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
8.665	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 10.503	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
11.265	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
14.947	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
15.197	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.2L_s$) 15.374	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
15.997	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
17.947	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 18.753	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
22.629	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
22.796	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.3L_s$) 23.062	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
23.329	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
24.629	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 29.753	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(HP) 30.311	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
30.316	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
30.395	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
30.661	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.4L_s$) 30.749	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
31.311	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
37.993	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.5L_s$) 38.436	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
44.675	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
45.325	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
45.592	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
45.671	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(HP) 45.675	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.6L_s$) 46.123	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 46.234	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
51.357	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
52.657	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
53.191	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
53.357	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.7L_s$) 53.811	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
54.576	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(Deck Bar Cutoff) 54.581	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 57.234	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
58.040	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
59.990	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
60.790	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
61.040	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.8L_s$) 61.498	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
64.722	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 65.484	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
67.322	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
68.388	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
68.722	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($0.9L_s$) 69.185	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(1.5H) 70.404	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 70.984	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
71.404	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(CS) 71.860	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(H) 72.154	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(Bar Develop.) 73.222	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
73.362	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(PSXFR) 73.404	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(Bar Develop.) 74.282	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(SZB) 74.650	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
74.654	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(FoS) 75.654	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
75.987	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
75.987	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
(STLF) 76.404	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74
($1.0L_s$) 76.872	0.509	0.000	-26444.5	-26444.5	0.00	-1196.74

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, γ_3 = 0.67

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

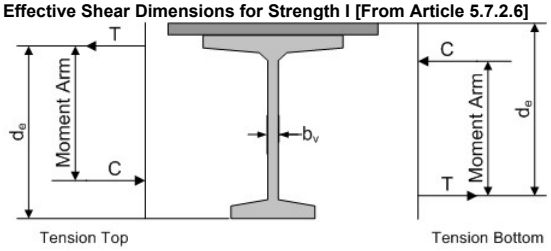
Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(STRF) -0.417	-1196.74	Strength II	0.00	0.00	0.00
0.000	-1196.74	Strength II	0.00	0.00	0.00
($0.0L_s$) 0.000	-1196.74	Strength II	0.00	0.00	0.00
(FoS) 0.333	-1196.74	Strength II	0.76	1.00	1.00
1.333	-1196.74	Strength II	2.67	3.55	3.55
(SZB) 1.337	-1196.74	Strength II	2.67	3.56	3.56
(Bar Develop.) 1.705	-1196.74	Strength II	3.25	4.32	4.32
(PSXFR) 2.583	-1196.74	Strength II	4.32	5.74	5.74
2.625	-1196.74	Strength II	4.36	5.80	5.80
(Bar Develop.) 2.765	-1196.74	Strength II	4.49	5.97	5.97
(H) 3.833	-1196.74	Strength II	5.14	6.84	6.84
(CS) 3.924	-1196.74	Strength II	5.17	6.87	6.87
4.583	-1196.74	Strength II	5.24	6.96	6.96
(SZB) 5.003	-1196.74	Strength II	5.16	6.86	6.86
(1.5H) 5.583	-1196.74	Strength II	4.90	6.52	6.52
7.265	-1196.74	Strength I	-8.70	-11.58	-11.58
7.599	-1196.74	Strength I	-9.77	-13.00	-13.00
($0.1L_s$) 7.687	-1196.74	Strength I	-10.07	-13.39	-13.39
8.665	-1196.74	Strength I	-13.59	-18.08	-18.08
(SZB) 10.503	-1196.74	Strength I	-21.58	-28.70	-28.70
11.265	-1196.74	Strength I	-25.42	-33.81	-33.81
14.947	-1196.74	Strength I	-48.29	-64.22	-64.22
15.197	-1196.74	Strength I	-50.10	-66.63	-66.63
($0.2L_s$) 15.374	-1196.74	Strength I	-51.40	-68.36	-68.36
15.997	-1196.74	Strength I	-56.12	-74.64	-74.64
17.947	-1196.74	Strength I	-72.22	-96.05	-96.05
(SZB) 18.753	-1196.74	Strength I	-79.46	-105.68	-105.68
22.629	-1196.74	Strength I	-119.09	-158.39	-158.39
22.796	-1196.74	Strength I	-120.97	-160.89	-160.89
($0.3L_s$) 23.062	-1196.74	Strength I	-124.00	-164.92	-164.92
23.329	-1196.74	Strength I	-127.09	-169.03	-169.03
24.629	-1196.74	Strength I	-142.65	-189.72	-189.72
(SZB) 29.753	-1196.74	Strength I	-212.64	-282.81	-282.81
(HP) 30.311	-1196.74	Strength I	-221.12	-294.08	-294.08
30.316	-1196.74	Strength I	-221.19	-294.19	-294.19
30.395	-1196.74	Strength I	-222.39	-295.78	-295.78
30.661	-1196.74	Strength I	-226.51	-301.26	-301.26
($0.4L_s$) 30.749	-1196.74	Strength I	-227.87	-303.06	-303.06
31.311	-1196.74	Strength I	-236.69	-314.80	-314.80
37.993	-1196.74	Strength I	-354.37	-471.31	-471.31
($0.5L_s$) 38.436	-1196.74	Strength I	-363.00	-482.79	-482.79
44.675	-1196.74	Strength I	-495.66	-659.23	-659.23
45.325	-1196.74	Strength I	-510.67	-679.19	-679.19
45.592	-1196.74	Strength I	-516.89	-687.46	-687.46
45.671	-1196.74	Strength I	-518.73	-689.90	-689.90
(HP) 45.675	-1196.74	Strength I	-518.84	-690.06	-690.06
($0.6L_s$) 46.123	-1196.74	Strength I	-529.39	-704.09	-704.09
(SZB) 46.234	-1196.74	Strength I	-532.02	-707.59	-707.59
51.357	-1196.74	Strength I	-660.58	-878.57	-878.57
52.657	-1196.74	Strength I	-695.41	-924.90	-924.90
53.191	-1196.74	Strength I	-709.96	-944.25	-944.25
53.357	-1196.74	Strength I	-714.54	-950.34	-950.34
($0.7L_s$) 53.811	-1196.74	Strength I	-727.05	-966.98	-966.98
54.576	-1196.74	Strength I	-748.45	-995.44	-995.44
(Deck Bar Cutoff) 54.581	-1196.74	Strength I	-748.59	-995.62	-995.62
(SZB) 57.234	-1196.74	Strength I	-824.95	-1097.18	-1097.18
58.040	-1196.74	Strength I	-851.70	-1132.77	-1132.77
59.990	-1196.74	Strength I	-924.52	-1229.61	-1196.74
60.790	-1196.74	Strength I	-955.23	-1270.45	-1196.74
61.040	-1196.74	Strength I	-964.92	-1283.34	-1196.74

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
($0.8L_s$) 61.498	-1196.74	Strength I	-982.81	-1307.14	-1196.74
64.722	-1196.74	Strength I	-1130.68	-1503.81	-1196.74
(SZB) 65.484	-1196.74	Strength I	-1171.69	-1558.35	-1196.74
67.322	-1196.74	Strength I	-1319.43	-1754.84	-1196.74
68.388	-1196.74	Strength I	-1434.05	-1907.29	-1196.74
68.722	-1196.74	Strength I	-1473.45	-1959.68	-1196.74
($0.9L_s$) 69.185	-1196.74	Strength I	-1528.80	-2033.31	-1196.74
(1.5H) 70.404	-1196.74	Strength I	-1683.40	-2238.92	-1196.74
(SZB) 70.984	-1196.74	Strength I	-1753.85	-2332.63	-1196.74
71.404	-1196.74	Strength I	-1805.33	-2401.09	-1196.74
(CS) 71.860	-1196.74	Strength I	-1861.95	-2476.40	-1196.74
(H) 72.154	-1196.74	Strength I	-1898.77	-2525.36	-1196.74
(Bar Develop.) 73.222	-1196.74	Strength I	-2117.14	-2815.80	-1196.74
73.362	-1196.74	Strength I	-2136.54	-2841.60	-1196.74
(PSXFR) 73.404	-1196.74	Strength I	-2142.32	-2849.28	-1196.74
(Bar Develop.) 74.282	-1196.74	Strength I	-2265.19	-3012.70	-1196.74
(SZB) 74.650	-1196.74	Strength I	-2317.30	-3082.01	-1196.74
74.654	-1196.74	Strength I	-2317.77	-3082.63	-1196.74
(FoS) 75.654	-1196.74	Strength I	-2461.24	-3273.45	-1196.74
75.987	-1196.74	Strength I	-2509.67	-3337.86	-1196.74
75.987	-1196.74	Strength I	-2509.67	-3337.86	-1196.74
(STLF) 76.404	-1196.74	Strength I	-2570.59	-3418.88	-1196.74
($1.0L_s$) 76.872	-1196.74	Strength I	-2639.68	-3510.78	-1196.74

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Shear Capacity Details

Effective Shear Dimensions for Strength I [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 3.924	7.000	48.100	51.000	43.290	36.720	38.334	43.290	Bottom
4.583	7.000	46.207	51.000	41.586	36.720	38.337	41.586	Bottom
(SZB) 5.003	7.000	46.206	51.000	41.585	36.720	38.345	41.585	Bottom
(1.5H) 5.583	7.000	46.207	51.000	41.586	36.720	38.359	41.586	Bottom
7.265	7.000	44.579	51.000	40.121	36.720	38.438	40.121	Bottom
7.599	7.000	44.598	51.000	40.138	36.720	38.461	40.138	Bottom
($0.1L_s$) 7.687	7.000	44.603	51.000	40.143	36.720	38.467	40.143	Bottom
8.665	7.000	44.667	51.000	40.200	36.720	38.547	40.200	Bottom
(SZB) 10.503	7.000	43.395	51.000	39.056	36.720	38.742	39.056	Bottom
11.265	7.000	42.178	51.000	37.960	36.720	38.839	38.839	Bottom
14.947	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
15.197	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
($0.2L_s$) 15.374	7.000	42.076	51.000	37.868	36.720	39.903	39.903	Bottom
15.997	7.000	42.272	51.000	38.044	36.720	40.097	40.097	Bottom
17.947	7.000	42.887	51.000	38.598	36.720	40.710	40.710	Bottom
(SZB) 18.753	7.000	43.142	51.000	38.828	36.720	40.963	40.963	Bottom
22.629	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
22.796	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
($0.3L_s$) 23.062	7.000	44.516	51.000	40.065	36.720	42.330	42.330	Bottom
23.329	7.000	44.602	51.000	40.142	36.720	42.416	42.416	Bottom
24.629	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
(SZB) 29.753	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
(HP) 30.311	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
30.316	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
30.395	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
30.661	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
($0.4L_s$) 30.749	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
31.311	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
37.993	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.436	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
44.675	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.325	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.592	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.671	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
(HP) 45.675	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
($0.6L_s$) 46.123	7.000	46.712	51.000	42.041	36.720	44.520	44.520	Bottom
(SZB) 46.234	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
51.357	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
52.657	7.000	44.602	51.000	40.142	36.720	42.416	42.416	Bottom
53.191	7.000	44.431	51.000	39.988	36.720	42.246	42.246	Bottom
53.357	7.000	44.378	51.000	39.940	36.720	42.193	42.193	Bottom
($0.7L_s$) 53.811	7.000	44.233	51.000	39.810	36.720	42.048	42.048	Bottom
54.576	7.000	43.988	51.000	39.589	36.720	41.805	41.805	Bottom
(Deck Bar Cutoff) 54.581	7.000	43.987	51.000	39.588	36.720	41.803	41.803	Bottom
(SZB) 57.234	7.000	43.143	51.000	38.828	36.720	40.964	40.964	Bottom
58.040	7.000	42.888	51.000	38.599	36.720	40.710	40.710	Bottom
59.990	7.000	42.272	51.000	38.045	36.720	40.098	40.098	Bottom
60.790	7.000	42.021	51.000	37.818	36.720	39.848	39.848	Bottom
61.040	7.000	41.942	51.000	37.748	36.720	39.770	39.770	Bottom
($0.8L_s$) 61.498	7.000	41.798	51.000	37.618	36.720	39.627	39.627	Bottom
64.722	7.000	42.178	51.000	37.961	36.720	38.840	38.840	Bottom
(SZB) 65.484	7.000	43.396	51.000	39.056	36.720	38.743	39.056	Bottom
67.322	7.000	50.180	51.000	45.162	36.720	44.908	45.162	Top
68.388	7.000	50.269	51.000	45.242	36.720	44.997	45.242	Top
68.722	7.000	50.298	51.000	45.268	36.720	45.026	45.268	Top
($0.9L_s$) 69.185	7.000	50.338	51.000	45.304	36.720	45.066	45.304	Top
(1.5H) 70.404	7.000	50.446	51.000	45.401	36.720	45.174	45.401	Top
(SZB) 70.984	7.000	50.499	51.000	45.449	36.720	45.227	45.449	Top
71.404	7.000	50.538	51.000	45.484	36.720	45.266	45.484	Top
(CS) 71.860	7.000	50.581	51.000	45.523	36.720	45.309	45.523	Top

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength I

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 3.924	0.9	240.24	26.58	43.290	7.000	0.793
4.583	0.9	235.93	26.59	41.586	7.000	0.809
(SZB) 5.003	0.9	233.20	26.59	41.585	7.000	0.799
(1.5H) 5.583	0.9	229.44	26.60	41.586	7.000	0.784
7.265	0.9	218.58	26.62	40.121	7.000	0.770
7.599	0.9	216.44	26.63	40.138	7.000	0.761
($0.1L_s$) 7.687	0.9	215.87	26.63	40.143	7.000	0.759
8.665	0.9	209.61	26.64	40.200	7.000	0.733
(SZB) 10.503	0.9	197.95	26.67	39.056	7.000	0.707
11.265	0.9	193.16	26.68	38.839	7.000	0.691
14.947	0.9	170.30	26.71	39.769	7.000	0.584
15.197	0.9	168.76	26.71	39.847	7.000	0.576
($0.2L_s$) 15.374	0.9	167.67	26.71	39.903	7.000	0.571
15.997	0.9	163.85	26.72	40.097	7.000	0.553
17.947	0.9	152.03	26.73	40.710	7.000	0.499
(SZB) 18.753	0.9	147.21	26.73	40.963	7.000	0.477
22.629	0.9	124.25	26.72	42.192	7.000	0.377
22.796	0.9	123.28	26.72	42.245	7.000	0.373
($0.3L_s$) 23.062	0.9	121.72	26.72	42.330	7.000	0.366
23.329	0.9	120.16	26.71	42.416	7.000	0.360
24.629	0.9	112.62	26.70	42.832	7.000	0.328
(SZB) 29.753	0.9	83.86	26.61	44.484	7.000	0.214
(HP) 30.311	0.9	80.88	26.59	44.666	7.000	0.202
30.316	0.9	80.86	0.00	44.666	7.000	0.287
30.395	0.9	80.44	0.00	44.666	7.000	0.286
30.661	0.9	79.02	0.00	44.666	7.000	0.281
($0.4L_s$) 30.749	0.9	78.56	0.00	44.666	7.000	0.279
31.311	0.9	75.59	0.00	44.666	7.000	0.269
37.993	0.9	86.28	0.00	44.665	7.000	0.307
($0.5L_s$) 38.436	0.9	88.77	0.00	44.665	7.000	0.315
44.675	0.9	123.91	0.00	44.666	7.000	0.440
45.325	0.9	127.57	0.00	44.666	7.000	0.453
45.592	0.9	129.06	0.00	44.666	7.000	0.459
45.671	0.9	129.50	0.00	44.666	7.000	0.460
(HP) 45.675	0.9	129.53	26.51	44.666	7.000	0.376
($0.6L_s$) 46.123	0.9	132.04	26.52	44.520	7.000	0.386
(SZB) 46.234	0.9	132.67	26.52	44.484	7.000	0.388
51.357	0.9	161.45	26.56	42.832	7.000	0.510
52.657	0.9	168.74	26.57	42.416	7.000	0.542
53.191	0.9	171.71	26.57	42.246	7.000	0.555
53.357	0.9	172.64	26.57	42.193	7.000	0.560
($0.7L_s$) 53.811	0.9	175.17	26.56	42.048	7.000	0.571
54.576	0.9	179.43	26.56	41.805	7.000	0.591
(Deck Bar Cutoff) 54.581	0.9	179.46	26.56	41.803	7.000	0.591
(SZB) 57.234	0.9	194.25	26.54	40.964	7.000	0.660
58.040	0.9	198.74	26.54	40.710	7.000	0.682
59.990	0.9	209.56	26.51	40.098	7.000	0.735
60.790	0.9	213.96	26.50	39.848	7.000	0.757
61.040	0.9	215.34	26.50	39.770	7.000	0.764

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(0.8L_s) 61.498	0.9	217.86	26.49	39.627	7.000	0.777
64.722	0.9	235.57	26.44	38.840	7.000	0.865
(SZB) 65.484	0.9	239.75	26.43	39.056	7.000	0.878
67.322	0.9	249.74	26.40	45.162	7.000	0.794
68.388	0.9	255.52	26.38	45.242	7.000	0.813
68.722	0.9	257.32	26.37	45.268	7.000	0.819
(0.9L_s) 69.185	0.9	259.81	26.36	45.304	7.000	0.827
(1.5H) 70.404	0.9	266.37	26.34	45.401	7.000	0.848
(SZB) 70.984	0.9	269.49	26.33	45.449	7.000	0.858
71.404	0.9	271.74	26.32	45.484	7.000	0.866
(CS) 71.860	0.9	274.19	26.32	45.523	7.000	0.873

f_{po} - Strength I

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength I

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 3.924	851.19	240.24	26.58	213.66	43.290	0.400	29000.000	3.603	28500.000	365.000	5011.145	-0.119
4.583	983.01	235.93	26.59	209.34	41.586	0.400	29000.000	3.626	28500.000	365.000	5011.145	-0.0989
(SZB) 5.003	1065.15	233.20	26.59	206.61	41.585	0.400	29000.000	3.641	28500.000	365.000	5011.145	-0.0896
(1.5H) 5.583	1176.78	229.44	26.60	202.84	41.586	0.400	29000.000	4.049	28500.000	365.000	5011.145	-0.114
7.265	1486.01	218.58	26.62	191.96	40.121	0.400	29000.000	4.526	28500.000	365.000	5011.145	-0.111
7.599	1544.80	216.44	26.63	189.81	40.138	0.400	29000.000	4.544	28500.000	365.000	5011.145	-0.105
(0.1L_s) 7.687	1560.28	215.87	26.63	189.24	40.143	0.400	29000.000	4.549	28500.000	365.000	5011.145	-0.104
8.665	1727.41	209.61	26.64	182.97	40.200	0.400	29000.000	4.603	28500.000	365.000	5011.145	-0.0869
(SZB) 10.503	2022.46	197.95	26.67	171.29	39.056	0.400	29000.000	5.122	28500.000	365.000	5011.145	-0.0883
11.265	2137.84	193.16	26.68	166.49	38.839	0.400	29000.000	5.166	28500.000	365.000	5011.145	-0.0752
14.947	2635.14	170.30	26.71	143.59	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.104
15.197	2665.32	168.76	26.71	142.05	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.101
(0.2L_s) 15.374	2686.42	167.67	26.71	140.96	39.903	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0991
15.997	2758.90	163.85	26.72	137.13	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0921
17.947	2968.37	152.03	26.73	125.31	40.710	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0735
(SZB) 18.753	3047.21	147.21	26.73	120.48	40.963	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0671
22.629	3362.28	124.25	26.72	97.54	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.047
22.796	3373.43	123.28	26.72	96.56	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0465
(0.3L_s) 23.062	3391.61	121.72	26.72	95.01	42.330	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0456
23.329	3410.33	120.16	26.71	93.44	42.416	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0447
24.629	3494.38	112.62	26.70	85.92	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0414
(SZB) 29.753	3713.53	83.86	26.61	57.25	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0444
(HP) 30.311	3726.36	80.88	26.59	54.29	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0462
30.316	3726.46	80.86	0.00	80.86	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0329
30.395	3728.08	80.44	0.00	80.44	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0329
30.661	3733.29	79.02	0.00	79.02	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0329
(0.4L_s) 30.749	3734.94	78.56	0.00	78.56	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.033
31.311	3744.38	75.59	0.00	75.59	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0332
37.993	3722.82	86.28	0.00	86.28	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0307
(0.5L_s) 38.436	3713.82	88.77	0.00	88.77	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0307
44.675	3451.44	123.91	0.00	123.91	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0483
45.325	3409.83	127.57	0.00	127.57	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.052
45.592	3392.19	129.06	0.00	129.06	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0536
45.671	3386.92	129.50	0.00	129.50	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0541
(HP) 45.675	3386.58	129.53	26.51	103.02	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0673
(0.6L_s) 46.123	3355.69	132.04	26.52	105.53	44.520	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0687
(SZB) 46.234	3347.85	132.67	26.52	106.15	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0691
51.357	2900.76	161.45	26.56	134.89	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0997
52.657	2762.32	168.74	26.57	142.18	42.416	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.112
53.191	2703.29	171.71	26.57	145.15	42.246	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.117
53.357	2684.49	172.64	26.57	146.08	42.193	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.119
(0.7L_s) 53.811	2633.04	175.17	26.56	148.60	42.048	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.123
54.576	2544.14	179.43	26.56	152.87	41.805	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.132
(Deck Bar Cutoff) 54.581	2543.56	179.46	26.56	152.90	41.803	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.132
(SZB) 57.234	2207.04	194.25	26.54	167.71	40.964	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.166
58.040	2099.14	198.74	26.54	172.21	40.710	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.177
59.990	1830.65	209.56	26.51	183.04	40.098	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.207
60.790	1715.69	213.96	26.50	187.46	39.848	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.221
61.040	1679.12	215.34	26.50	188.84	39.770	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.225
(0.8L_s) 61.498	1611.16	217.86	26.49	191.36	39.627	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.233
64.722	1137.00	235.57	26.44	209.12	38.840	0.400	29000.000	5.155	28500.000	365.000	5011.145	-0.208
(SZB) 65.484	1031.16	239.75	26.43	213.32	39.056	0.400	29000.000	5.111	28500.000	365.000	5011.145	-0.219
67.322	876.55	249.74	26.40	223.35	45.162	33.680	29000.000	1.223	28500.000	946.576	5011.145	0.222

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
68.388	1039.55	255.52	26.38	229.14	45.242	33.680	29000.000	1.198	28500.000	946.576	5011.145	0.275
68.722	1094.42	257.32	26.37	230.94	45.268	33.680	29000.000	1.190	28500.000	946.576	5011.145	0.293
(0.9L_s) 69.185	1171.57	259.81	26.36	233.45	45.304	33.680	29000.000	1.572	28500.000	946.576	5011.145	0.242
(1.5H) 70.404	1385.01	266.37	26.34	240.03	45.401	33.680	29000.000	1.532	28500.000	946.576	5011.145	0.31
(SZB) 70.984	1484.31	269.49	26.33	243.16	45.449	33.680	29000.000	1.893	28500.000	946.576	5011.145	0.269
71.404	1556.92	271.74	26.32	245.42	45.484	33.680	29000.000	1.877	28500.000	946.576	5011.145	0.293
(CS) 71.860	1636.85	274.19	26.32	247.87	45.523	33.680	29000.000	1.860	28500.000	946.576	5011.145	0.318

Shear Parameter Summary - Strength I [5.7.3.4.2]

$$\beta = \frac{4.8}{(1 + 750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1 + 750\varepsilon_s)} \frac{51}{(39 + s_{xe})}$$

$$s_{xe} = s_x \frac{1.38}{a_g + 0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 3.924	Yes	1	---	---	0.0991	-0.119	5.27	28.58
4.583	Yes	1	---	---	0.101	-0.0989	5.18	28.65
(SZB) 5.003	Yes	1	---	---	0.0998	-0.0896	5.15	28.69
(1.5H) 5.583	Yes	1	---	---	0.098	-0.114	5.25	28.60
7.265	Yes	1	---	---	0.0962	-0.111	5.24	28.61
7.599	Yes	1	---	---	0.0951	-0.105	5.21	28.63
(0.1L_s) 7.687	Yes	1	---	---	0.0949	-0.104	5.2	28.64
8.665	Yes	1	---	---	0.0916	-0.0869	5.13	28.70
(SZB) 10.503	Yes	1	---	---	0.0884	-0.0883	5.14	28.69
11.265	Yes	1	---	---	0.0864	-0.0752	5.09	28.74
14.947	Yes	1	---	---	0.073	-0.104	5.21	28.64
15.197	Yes	1	---	---	0.0721	-0.101	5.19	28.65
(0.2L_s) 15.374	Yes	1	---	---	0.0714	-0.0991	5.19	28.65
15.997	Yes	1	---	---	0.0692	-0.0921	5.16	28.68
17.947	Yes	1	---	---	0.0624	-0.0735	5.08	28.74
(SZB) 18.753	Yes	1	---	---	0.0597	-0.0671	5.05	28.76
22.629	Yes	1	---	---	0.0471	-0.047	4.98	28.84
22.796	Yes	1	---	---	0.0466	-0.0465	4.97	28.84
(0.3L_s) 23.062	Yes	1	---	---	0.0458	-0.0456	4.97	28.84
23.329	Yes	1	---	---	0.045	-0.0447	4.97	28.84
24.629	Yes	1	---	---	0.041	-0.0414	4.95	28.85
(SZB) 29.753	Yes	1	---	---	0.0267	-0.0444	4.97	28.84
(HP) 30.311	Yes	1	---	---	0.0253	-0.0462	4.97	28.84
30.316	Yes	1	---	---	0.0359	-0.0329	4.92	28.88
30.395	Yes	1	---	---	0.0357	-0.0329	4.92	28.88
30.661	Yes	1	---	---	0.0351	-0.0329	4.92	28.88
(0.4L_s) 30.749	Yes	1	---	---	0.0349	-0.033	4.92	28.88
31.311	Yes	1	---	---	0.0336	-0.0332	4.92	28.88
37.993	Yes	1	---	---	0.0383	-0.0307	4.91	28.89
(0.5L_s) 38.436	Yes	1	---	---	0.0394	-0.0307	4.91	28.89
44.675	Yes	1	---	---	0.055	-0.0483	4.98	28.83
45.325	Yes	1	---	---	0.0567	-0.052	4.99	28.82
45.592	Yes	1	---	---	0.0573	-0.0536	5	28.81
45.671	Yes	1	---	---	0.0575	-0.0541	5	28.81
(HP) 45.675	Yes	1	---	---	0.0469	-0.0673	5.06	28.76
(0.6L_s) 46.123	Yes	1	---	---	0.0482	-0.0687	5.06	28.76
(SZB) 46.234	Yes	1	---	---	0.0485	-0.0691	5.06	28.76
51.357	Yes	1	---	---	0.0637	-0.0997	5.19	28.65
52.657	Yes	1	---	---	0.0677	-0.112	5.24	28.61
53.191	Yes	1	---	---	0.0694	-0.117	5.26	28.59
53.357	Yes	1	---	---	0.0699	-0.119	5.27	28.58
(0.7L_s) 53.811	Yes	1	---	---	0.0714	-0.123	5.29	28.57
54.576	Yes	1	---	---	0.0738	-0.132	5.33	28.54
(Deck Bar Cutoff) 54.581	Yes	1	---	---	0.0738	-0.132	5.33	28.54
(SZB) 57.234	Yes	1	---	---	0.0825	-0.166	5.48	28.42
58.040	Yes	1	---	---	0.0852	-0.177	5.54	28.38
59.990	Yes	1	---	---	0.0919	-0.207	5.68	28.27
60.790	Yes	1	---	---	0.0947	-0.221	5.75	28.23
61.040	Yes	1	---	---	0.0955	-0.225	5.77	28.21
(0.8L_s) 61.498	Yes	1	---	---	0.0971	-0.233	5.82	28.18
64.722	Yes	1	---	---	0.108	-0.208	5.69	28.27
(SZB) 65.484	Yes	1	---	---	0.11	-0.219	5.75	28.23
67.322	Yes	1	---	---	0.0993	0.222	4.11	29.78
68.388	Yes	1	---	---	0.102	0.275	3.98	29.96
68.722	Yes	1	---	---	0.102	0.293	3.94	30.03
(0.9L_s) 69.185	Yes	1	---	---	0.103	0.242	4.06	29.85
(1.5H) 70.404	Yes	1	---	---	0.106	0.31	3.89	30.09
(SZB) 70.984	Yes	1	---	---	0.107	0.269	3.99	29.94
71.404	Yes	1	---	---	0.108	0.293	3.94	30.02
(CS) 71.860	Yes	1	---	---	0.109	0.318	3.87	30.11

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength I

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 3.924	5.27	8.000	-	7.000	43.290	142.75
4.583	5.18	8.000	-	7.000	41.586	134.90
(SZB) 5.003	5.15	8.000	-	7.000	41.585	133.88
(1.5H) 5.583	5.25	8.000	-	7.000	41.586	136.55
7.265	5.24	8.000	-	7.000	40.121	131.45
7.599	5.21	8.000	-	7.000	40.138	130.86
($0.1L_s$) 7.687	5.2	8.000	-	7.000	40.143	130.71
8.665	5.13	8.000	-	7.000	40.200	129.14
(SZB) 10.503	5.14	8.000	-	7.000	39.056	125.61
11.265	5.09	8.000	-	7.000	38.839	123.61
14.947	5.21	8.000	-	7.000	39.769	129.55
15.197	5.19	8.000	-	7.000	39.847	129.49
($0.2L_s$) 15.374	5.19	8.000	-	7.000	39.903	129.45
15.997	5.16	8.000	-	7.000	40.097	129.36
17.947	5.08	8.000	-	7.000	40.710	129.39
(SZB) 18.753	5.05	8.000	-	7.000	40.963	129.54
22.629	4.98	8.000	-	7.000	42.192	131.33
22.796	4.97	8.000	-	7.000	42.245	131.45
($0.3L_s$) 23.062	4.97	8.000	-	7.000	42.330	131.63
23.329	4.97	8.000	-	7.000	42.416	131.80
24.629	4.95	8.000	-	7.000	42.832	132.75
(SZB) 29.753	4.97	8.000	-	7.000	44.484	138.19
(HP) 30.311	4.97	8.000	-	7.000	44.666	138.94
30.316	4.92	8.000	-	7.000	44.666	137.53
30.395	4.92	8.000	-	7.000	44.666	137.53
30.661	4.92	8.000	-	7.000	44.666	137.53
($0.4L_s$) 30.749	4.92	8.000	-	7.000	44.666	137.53
31.311	4.92	8.000	-	7.000	44.666	137.56
37.993	4.91	8.000	-	7.000	44.665	137.30
($0.5L_s$) 38.436	4.91	8.000	-	7.000	44.665	137.30
44.675	4.98	8.000	-	7.000	44.666	139.17
45.325	4.99	8.000	-	7.000	44.666	139.58
45.592	5	8.000	-	7.000	44.666	139.75
45.671	5	8.000	-	7.000	44.666	139.81
(HP) 45.675	5.06	8.000	-	7.000	44.666	141.26
($0.6L_s$) 46.123	5.06	8.000	-	7.000	44.520	140.96
(SZB) 46.234	5.06	8.000	-	7.000	44.484	140.89
51.357	5.19	8.000	-	7.000	42.832	139.02
52.657	5.24	8.000	-	7.000	42.416	139.01
53.191	5.26	8.000	-	7.000	42.246	139.06
53.357	5.27	8.000	-	7.000	42.193	139.08
($0.7L_s$) 53.811	5.29	8.000	-	7.000	42.048	139.14
54.576	5.33	8.000	-	7.000	41.805	139.30
(Deck Bar Cutoff) 54.581	5.33	8.000	-	7.000	41.803	139.30
(SZB) 57.234	5.48	8.000	-	7.000	40.964	140.50
58.040	5.54	8.000	-	7.000	40.710	141.03
59.990	5.68	8.000	-	7.000	40.098	142.59
60.790	5.75	8.000	-	7.000	39.848	143.39
61.040	5.77	8.000	-	7.000	39.770	143.66
($0.8L_s$) 61.498	5.82	8.000	-	7.000	39.627	144.20
64.722	5.69	8.000	-	7.000	38.840	138.23
(SZB) 65.484	5.75	8.000	-	7.000	39.056	140.39
67.322	4.11	8.000	-	7.000	45.162	116.23
68.388	3.98	8.000	-	7.000	45.242	112.60
68.722	3.94	8.000	-	7.000	45.268	111.45
($0.9L_s$) 69.185	4.06	8.000	-	7.000	45.304	115.19
(1.5H) 70.404	3.89	8.000	-	7.000	45.401	110.62
(SZB) 70.984	3.99	8.000	-	7.000	45.449	113.57
71.404	3.94	8.000	-	7.000	45.484	112.01
(CS) 71.860	3.87	8.000	-	7.000	45.523	110.36

Shear Resistance Provided By Shear Reinforcement - Strength I

$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 3.924	60.000	0.400	4.000	1.200	43.290	28.58	90.00	476.73
4.583	60.000	0.400	4.000	1.200	41.586	28.65	90.00	456.63
(SZB) 5.003	60.000	0.400	6.000	0.800	41.585	28.69	90.00	304.00
(1.5H) 5.583	60.000	0.400	6.000	0.800	41.586	28.60	90.00	305.08
7.265	60.000	0.400	6.000	0.800	40.121	28.61	90.00	294.21
7.599	60.000	0.400	6.000	0.800	40.138	28.63	90.00	294.08
($0.1L_s$) 7.687	60.000	0.400	6.000	0.800	40.143	28.64	90.00	294.05
8.665	60.000	0.400	6.000	0.800	40.200	28.70	90.00	293.76
(SZB) 10.503	60.000	0.400	9.000	0.533	39.056	28.69	90.00	190.30

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
11.265	60.000	0.400	9.000	0.533	38.839	28.74	90.00	188.89
14.947	60.000	0.400	9.000	0.533	39.769	28.64	90.00	194.22
15.197	60.000	0.400	9.000	0.533	39.847	28.65	90.00	194.52
($0.2L_s$) 15.374	60.000	0.400	9.000	0.533	39.903	28.65	90.00	194.73
15.997	60.000	0.400	9.000	0.533	40.097	28.68	90.00	195.49
17.947	60.000	0.400	9.000	0.533	40.710	28.74	90.00	197.94
(SZB) 18.753	60.000	0.400	12.000	0.400	40.963	28.76	90.00	149.24
22.629	60.000	0.400	12.000	0.400	42.192	28.84	90.00	153.27
22.796	60.000	0.400	12.000	0.400	42.245	28.84	90.00	153.45
($0.3L_s$) 23.062	60.000	0.400	12.000	0.400	42.330	28.84	90.00	153.74
23.329	60.000	0.400	12.000	0.400	42.416	28.84	90.00	154.03
24.629	60.000	0.400	12.000	0.400	42.832	28.85	90.00	155.47
(SZB) 29.753	60.000	0.400	18.000	0.267	44.484	28.84	90.00	107.69
(HP) 30.311	60.000	0.400	18.000	0.267	44.666	28.84	90.00	108.16
30.316	60.000	0.400	18.000	0.267	44.666	28.88	90.00	107.95
30.395	60.000	0.400	18.000	0.267	44.666	28.88	90.00	107.95
30.661	60.000	0.400	18.000	0.267	44.666	28.88	90.00	107.95
($0.4L_s$) 30.749	60.000	0.400	18.000	0.267	44.666	28.88	90.00	107.95
31.311	60.000	0.400	18.000	0.267	44.666	28.88	90.00	107.95
37.993	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.92
($0.5L_s$) 38.436	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.92
44.675	60.000	0.400	18.000	0.267	44.666	28.83	90.00	108.19
45.325	60.000	0.400	18.000	0.267	44.666	28.82	90.00	108.25
45.592	60.000	0.400	18.000	0.267	44.666	28.81	90.00	108.27
45.671	60.000	0.400	18.000	0.267	44.666	28.81	90.00	108.28
(HP) 45.675	60.000	0.400	18.000	0.267	44.666	28.76	90.00	108.49
($0.6L_s$) 46.123	60.000	0.400	18.000	0.267	44.520	28.76	90.00	108.16
(SZB) 46.234	60.000	0.400	18.000	0.267	44.484	28.76	90.00	108.08
51.357	60.000	0.400	12.000	0.400	42.832	28.65	90.00	156.79
52.657	60.000	0.400	12.000	0.400	42.416	28.61	90.00	155.53
53.191	60.000	0.400	12.000	0.400	42.246	28.59	90.00	155.03
53.357	60.000	0.400	12.000	0.400	42.193	28.58	90.00	154.87
($0.7L_s$) 53.811	60.000	0.400	12.000	0.400	42.048	28.57	90.00	154.45
54.576	60.000	0.400	12.000	0.400	41.805	28.54	90.00	153.74
(Deck Bar Cutoff) 54.581	60.000	0.400	12.000	0.400	41.803	28.54	90.00	153.73
(SZB) 57.234	60.000	0.400	12.000	0.400	40.964	28.42	90.00	151.40
58.040	60.000	0.400	9.000	0.533	40.710	28.38	90.00	200.96
59.990	60.000	0.400	9.000	0.533	40.098	28.27	90.00	198.80
60.790	60.000	0.400	9.000	0.533	39.848	28.23	90.00	197.94
61.040	60.000	0.400	9.000	0.533	39.770	28.21	90.00	197.68
($0.8L_s$) 61.498	60.000	0.400	9.000	0.533	39.627	28.18	90.00	197.20
64.722	60.000	0.400	9.000	0.533	38.840	28.27	90.00	192.59
(SZB) 65.484	60.000	0.400	9.000	0.533	39.056	28.23	90.00	193.98
67.322	60.000	0.400	6.000	0.800	45.162	29.78	90.00	315.70
68.388	60.000	0.400	6.000	0.800	45.242	29.96	90.00	313.90
68.722	60.000	0.400	6.000	0.800	45.268	30.03	90.00	313.30
($0.9L_s$) 69.185	60.000	0.400	6.000	0.800	45.304	29.85	90.00	315.84
(1.5H) 70.404	60.000	0.400	6.000	0.800	45.401	30.09	90.00	313.47
(SZB) 70.984	60.000	0.400	6.000	0.800	45.449	29.94	90.00	315.62
71.404	60.000	0.400	4.000	1.200	45.484	30.02	90.00	472.23
(CS) 71.860	60.000	0.400	4.000	1.200	45.523	30.11	90.00	470.92

Nominal Shear Resistance - Strength I

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 3.924	8.000	7.000	43.290	26.58	142.75	476.73	646.06	632.64	632.64	0.9	569.38
4.583	8.000	7.000	41.586	26.59	134.90	456.63	618.11	608.79	608.79	0.9	547.91
(SZB) 5.003	8.000	7.000	41.585	26.59	133.88	304.00	464.47	608.78	464.47	0.9	418.02
(1.5H) 5.583	8.000	7.000	41.586	26.60	136.55	305.08	468.23	608.81	468.23	0.9	421.41
7.265	8.000	7.000	40.121	26.62	131.45	294.21	452.29	588.32	452.29	0.9	407.06
7.599	8.000	7.000	40.138	26.63	130.86	294.08	451.57	588.56	451.57	0.9	406.42
($0.1L_s$) 7.687	8.000	7.000	40.143	26.63	130.71	294.05	451.39	588.63	451.39	0.9	406.25
8.665	8.000	7.000	40.200	26.64	129.14	293.76	449.54	589.44	449.54	0.9	404.58
(SZB) 10.503	8.000	7.000	39.056	26.67	125.61	190.30	342.58	573.45	342.58	0.9	308.32
11.265	8.000	7.000	38.839	26.68	123.61	188.89	339.17	570.42	339.17	0.9	305.25
14.947	8.000	7.000	39.769	26.71	129.55	194.22	350.48	583.48	350.48	0.9	315.43
15.197	8.000	7.000	39.847	26.71	129.49	194.52	350.72	584.57	350.72	0.9	315.65
($0.2L_s$) 15.374	8.000	7.000	39.903	26.71	129.45	194.73	350.90	585.35	350.90	0.9	315.81
15.997	8.000	7.000	40.097	26.72	129.36	195.49	351.56	588.08	351.56	0.9	316.41
17.947	8.000	7.000	40.710	26.73	129.39	197.94	354.05	596.66	354.05	0.9	318.65
(SZB) 18.753	8.000	7.000	40.963	26.73	129.54	149.24	305.51	600.21	305.51	0.9	274.96
22.629	8.000	7.000	42.192	26.72	131.33	153.27	311.32	617.41	311.32	0.9	280.19
22.796	8.000	7.000	42.245	26.72	131.45	153.45	311.62	618.15	311.62	0.9	280.45
($0.3L_s$) 23.062	8.000	7.000	42.330	26.72	131.63	153.74	312.08	619.34	312.08	0.9	280.87
23.329	8.000	7.000	42.416	26.71	131.80	154.03	312.55	620.53	312.55	0.9	281.29
24.629	8.000	7.000	42.832	26.70	132.75	155.47	314.92	626.34	314.92	0.9	283.43
(SZB) 29.753	8.000	7.000	44.484	26.61	138.19	107.69	272.49	649.39	272.49	0.9	245.24
(HP) 30.311	8.000	7.000	44.666	26.59	138.94	108.16	273.69	651.91	273.69	0.9	246.32
30.316	8.000	7.000	44.666	0.00	137.53	107.95	245.48	625.32	245.48	0.9	220.94
30.395	8.000	7.000	44.666	0.00	137.53	107.95	245.48	625.32	245.48	0.9	220.93

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
30.661	8.000	7.000	44.666	0.00	137.53	107.95	245.48	625.32	245.48	0.9	220.94
(0.4L_s) 30.749	8.000	7.000	44.666	0.00	137.53	107.95	245.48	625.32	245.48	0.9	220.94
31.311	8.000	7.000	44.666	0.00	137.56	107.95	245.51	625.32	245.51	0.9	220.96
37.993	8.000	7.000	44.665	0.00	137.30	107.92	245.22	625.32	245.22	0.9	220.69
(0.5L_s) 38.436	8.000	7.000	44.665	0.00	137.30	107.92	245.21	625.32	245.21	0.9	220.69
44.675	8.000	7.000	44.666	0.00	139.17	108.19	247.36	625.32	247.36	0.9	222.63
45.325	8.000	7.000	44.666	0.00	139.58	108.25	247.83	625.32	247.83	0.9	223.04
45.592	8.000	7.000	44.666	0.00	139.75	108.27	248.03	625.32	248.03	0.9	223.22
45.671	8.000	7.000	44.666	0.00	139.81	108.28	248.09	625.32	248.09	0.9	223.28
(HP) 45.675	8.000	7.000	44.666	26.51	141.26	108.49	276.26	651.83	276.26	0.9	248.63
(0.6L_s) 46.123	8.000	7.000	44.520	26.52	140.96	108.16	275.64	649.80	275.64	0.9	248.07
(SZB) 46.234	8.000	7.000	44.484	26.52	140.89	108.08	275.48	649.30	275.48	0.9	247.94
51.357	8.000	7.000	42.832	26.56	139.02	156.79	322.37	626.21	322.37	0.9	290.14
52.657	8.000	7.000	42.416	26.57	139.01	155.53	321.11	620.39	321.11	0.9	289.00
53.191	8.000	7.000	42.246	26.57	139.06	155.03	320.65	618.00	320.65	0.9	288.58
53.357	8.000	7.000	42.193	26.57	139.08	154.87	320.51	617.26	320.51	0.9	288.46
(0.7L_s) 53.811	8.000	7.000	42.048	26.56	139.14	154.45	320.15	615.24	320.15	0.9	288.14
54.576	8.000	7.000	41.805	26.56	139.30	153.74	319.60	611.83	319.60	0.9	287.64
(Deck Bar Cutoff) 54.581	8.000	7.000	41.803	26.56	139.30	153.73	319.60	611.81	319.60	0.9	287.64
(SZB) 57.234	8.000	7.000	40.964	26.54	140.50	151.40	318.45	600.04	318.45	0.9	286.60
58.040	8.000	7.000	40.710	26.54	141.03	200.96	368.52	596.48	368.52	0.9	331.67
59.990	8.000	7.000	40.098	26.51	142.59	198.80	367.90	587.89	367.90	0.9	331.11
60.790	8.000	7.000	39.848	26.50	143.39	197.94	367.84	584.38	367.84	0.9	331.06
61.040	8.000	7.000	39.770	26.50	143.66	197.68	367.85	583.28	367.85	0.9	331.06
(0.8L_s) 61.498	8.000	7.000	39.627	26.49	144.20	197.20	367.89	581.27	367.89	0.9	331.10
64.722	8.000	7.000	38.840	26.44	138.23	192.59	357.27	570.21	357.27	0.9	321.54
(SZB) 65.484	8.000	7.000	39.056	26.43	140.39	193.98	360.80	573.22	360.80	0.9	324.72
67.322	8.000	7.000	45.162	26.40	116.23	315.70	458.34	658.67	458.34	0.9	412.50
68.388	8.000	7.000	45.242	26.38	112.60	313.90	452.88	659.77	452.88	0.9	407.60
68.722	8.000	7.000	45.268	26.37	111.45	313.30	451.12	660.12	451.12	0.9	406.01
(0.9L_s) 69.185	8.000	7.000	45.304	26.36	115.19	315.84	457.39	660.62	457.39	0.9	411.65
(1.5H) 70.404	8.000	7.000	45.401	26.34	110.62	313.47	450.43	661.96	450.43	0.9	405.38
(SZB) 70.984	8.000	7.000	45.449	26.33	113.57	315.62	455.52	662.62	455.52	0.9	409.97
71.404	8.000	7.000	45.484	26.32	112.01	472.23	610.56	663.11	610.56	0.9	549.50
(CS) 71.860	8.000	7.000	45.523	26.32	110.36	470.92	607.60	663.64	607.60	0.9	546.84

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength I

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 3.924	266.93	142.75	26.58	97.60	60.000	43.290	28.58	0.246
4.583	262.15	134.90	26.59	100.66	60.000	41.586	28.65	0.265
(SZB) 5.003	259.12	133.88	26.59	98.64	60.000	41.585	28.69	0.260
(1.5H) 5.583	254.93	136.55	26.60	91.78	60.000	41.586	28.60	0.241
7.265	242.87	131.45	26.62	84.80	60.000	40.121	28.61	0.231
7.599	240.49	130.86	26.63	83.00	60.000	40.138	28.63	0.226
(0.1L_s) 7.687	239.86	130.71	26.63	82.52	60.000	40.143	28.64	0.225
8.665	232.90	129.14	26.64	77.12	60.000	40.200	28.70	0.210
(SZB) 10.503	219.95	125.61	26.67	67.67	60.000	39.056	28.69	0.190
11.265	214.63	123.61	26.68	64.34	60.000	38.839	28.74	0.182
14.947	189.22	129.55	26.71	32.96	60.000	39.769	28.64	0.091
15.197	187.51	129.49	26.71	31.31	60.000	39.847	28.65	0.086
(0.2L_s) 15.374	186.30	129.45	26.71	30.13	60.000	39.903	28.65	0.083
15.997	182.06	129.36	26.72	25.98	60.000	40.097	28.68	0.071
17.947	168.93	129.39	26.73	12.81	60.000	40.710	28.74	0.035
(SZB) 18.753	163.56	129.54	26.73	7.29	60.000	40.963	28.76	0.020
22.629	138.06	131.33	26.72	0.00	60.000	42.192	28.84	0.000
22.796	136.98	131.45	26.72	0.00	60.000	42.245	28.84	0.000
(0.3L_s) 23.062	135.25	131.63	26.72	0.00	60.000	42.330	28.84	0.000
23.329	133.51	131.80	26.71	0.00	60.000	42.416	28.84	0.000
24.629	125.14	132.75	26.70	0.00	60.000	42.832	28.85	0.000
(SZB) 29.753	93.18	138.19	26.61	0.00	60.000	44.484	28.84	0.000
(HP) 30.311	89.87	138.94	26.59	0.00	60.000	44.666	28.84	0.000
30.316	89.84	137.53	0.00	0.00	60.000	44.666	28.88	0.000
30.395	89.38	137.53	0.00	0.00	60.000	44.666	28.88	0.000
30.661	87.80	137.53	0.00	0.00	60.000	44.666	28.88	0.000
(0.4L_s) 30.749	87.29	137.53	0.00	0.00	60.000	44.666	28.88	0.000
31.311	83.99	137.56	0.00	0.00	60.000	44.666	28.88	0.000
37.993	95.86	137.30	0.00	0.00	60.000	44.665	28.89	0.000
(0.5L_s) 38.436	98.63	137.30	0.00	0.00	60.000	44.665	28.89	0.000
44.675	137.68	139.17	0.00	0.00	60.000	44.666	28.83	0.000
45.325	141.74	139.58	0.00	2.16	60.000	44.666	28.82	0.005
45.592	143.40	139.75	0.00	3.65	60.000	44.666	28.81	0.009
45.671	143.89	139.81	0.00	4.09	60.000	44.666	28.81	0.010
(HP) 45.675	143.92	141.26	26.51	0.00	60.000	44.666	28.76	0.000

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
($0.6L_s$) 46.123	146.72	140.96	26.52	0.00	60.000	44.520	28.76	0.000
(SZB) 46.234	147.41	140.89	26.52	0.00	60.000	44.484	28.76	0.000
51.357	179.39	139.02	26.56	13.80	60.000	42.832	28.65	0.035
52.657	187.49	139.01	26.57	21.91	60.000	42.416	28.61	0.056
53.191	190.79	139.06	26.57	25.17	60.000	42.246	28.59	0.065
53.357	191.82	139.08	26.57	26.18	60.000	42.193	28.58	0.068
($0.7L_s$) 53.811	194.63	139.14	26.56	28.92	60.000	42.048	28.57	0.075
54.576	199.37	139.30	26.56	33.51	60.000	41.805	28.54	0.087
(Deck Bar Cutoff) 54.581	199.40	139.30	26.56	33.53	60.000	41.803	28.54	0.087
(SZB) 57.234	215.84	140.50	26.54	48.79	60.000	40.964	28.42	0.129
58.040	220.82	141.03	26.54	53.26	60.000	40.710	28.38	0.141
59.990	232.84	142.59	26.51	63.74	60.000	40.098	28.27	0.171
60.790	237.74	143.39	26.50	67.84	60.000	39.848	28.23	0.183
61.040	239.26	143.66	26.50	69.10	60.000	39.770	28.21	0.186
($0.8L_s$) 61.498	242.06	144.20	26.49	71.37	60.000	39.627	28.18	0.193
64.722	261.74	138.23	26.44	97.06	60.000	38.840	28.27	0.269
(SZB) 65.484	266.39	140.39	26.43	99.56	60.000	39.056	28.23	0.274
67.322	277.49	116.23	26.40	134.86	60.000	45.162	29.78	0.342
68.388	283.91	112.60	26.38	144.93	60.000	45.242	29.96	0.369
68.722	285.91	111.45	26.37	148.09	60.000	45.268	30.03	0.378
($0.9L_s$) 69.185	288.68	115.19	26.36	147.13	60.000	45.304	29.85	0.373
(1.5H) 70.404	295.97	110.62	26.34	159.01	60.000	45.401	30.09	0.406
(SZB) 70.984	299.44	113.57	26.33	159.54	60.000	45.449	29.94	0.404
71.404	301.94	112.01	26.32	163.60	60.000	45.484	30.02	0.416
(CS) 71.860	304.65	110.36	26.32	167.98	60.000	45.523	30.11	0.428

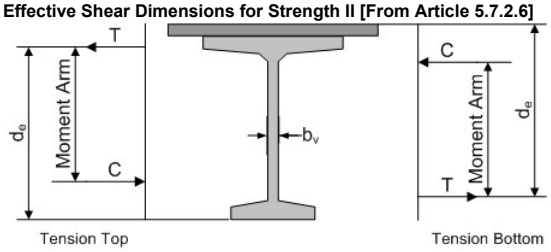
* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength I

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 3.924	1.200	0.246	10.746	19.539	30.285
4.583	1.200	0.265	9.979	18.144	28.124
(SZB) 5.003	0.800	0.260	10.170	18.491	28.661
(1.5H) 5.583	0.800	0.241	10.970	19.945	30.914
7.265	0.800	0.231	11.450	20.818	32.268
7.599	0.800	0.226	11.693	21.259	32.952
($0.1L_s$) 7.687	0.800	0.225	11.759	21.381	33.140
8.665	0.800	0.210	12.570	22.854	35.424
(SZB) 10.503	0.533	0.190	13.920	25.309	39.228
11.265	0.533	0.182	14.531	26.420	40.952
14.947	0.533	0.091	29.168	53.033	82.201
15.197	0.533	0.086	30.754	55.917	86.671
($0.2L_s$) 15.374	0.533	0.083	31.987	58.158	90.145
15.997	0.533	0.071	37.242	67.713	104.955
17.947	0.533	0.035	76.496	139.084	215.581
(SZB) 18.753	0.400	0.020	135.030	245.509	380.539
22.629	0.400	0.000	N/A	N/A	N/A
22.796	0.400	0.000	N/A	N/A	N/A
($0.3L_s$) 23.062	0.400	0.000	N/A	N/A	N/A
23.329	0.400	0.000	N/A	N/A	N/A
24.629	0.400	0.000	N/A	N/A	N/A
(SZB) 29.753	0.267	0.000	N/A	N/A	N/A
(HP) 30.311	0.267	0.000	N/A	N/A	N/A
30.316	0.267	0.000	N/A	N/A	N/A
30.395	0.267	0.000	N/A	N/A	N/A
30.661	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.749	0.267	0.000	N/A	N/A	N/A
31.311	0.267	0.000	N/A	N/A	N/A
37.993	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.436	0.267	0.000	N/A	N/A	N/A
44.675	0.267	0.000	N/A	N/A	N/A
45.325	0.267	0.005	495.329	900.597	1395.926
45.592	0.267	0.009	293.689	533.980	827.669
45.671	0.267	0.010	262.385	477.063	739.448
(HP) 45.675	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.123	0.267	0.000	N/A	N/A	N/A
(SZB) 46.234	0.267	0.000	N/A	N/A	N/A
51.357	0.400	0.035	74.977	136.322	211.300
52.657	0.400	0.056	46.845	85.173	132.018
53.191	0.400	0.065	40.649	73.908	114.557
53.357	0.400	0.068	39.040	70.981	110.021
($0.7L_s$) 53.811	0.400	0.075	35.245	64.081	99.325
54.576	0.400	0.087	30.284	55.061	85.345
(Deck Bar Cutoff) 54.581	0.400	0.087	30.256	55.012	85.268
(SZB) 57.234	0.400	0.129	20.480	37.237	57.717
58.040	0.533	0.141	18.677	33.959	52.636
59.990	0.533	0.171	15.439	28.071	43.509
60.790	0.533	0.183	14.443	26.260	40.702
61.040	0.533	0.186	14.161	25.747	39.909
($0.8L_s$) 61.498	0.533	0.193	13.677	24.867	38.544

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
64.722	0.533	0.269	9.822	17.858	27.680
(SZB) 65.484	0.533	0.274	9.644	17.535	27.178
67.322	0.800	0.342	7.725	14.046	21.771
68.388	0.800	0.369	7.148	12.996	20.143
68.722	0.800	0.378	6.982	12.694	19.676
($0.9L_s$) 69.185	0.800	0.373	7.084	12.880	19.964
(1.5H) 70.404	0.800	0.406	6.506	11.828	18.334
(SZB) 70.984	0.800	0.404	6.529	11.870	18.399
71.404	1.200	0.416	6.350	11.546	17.896
(CS) 71.860	1.200	0.428	6.168	11.214	17.382

Effective Shear Dimensions for Strength II [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 3.924	7.000	48.100	51.000	43.290	36.720	38.334	43.290	Bottom
4.583	7.000	46.207	51.000	41.586	36.720	38.337	41.586	Bottom
(SZB) 5.003	7.000	46.206	51.000	41.585	36.720	38.345	41.585	Bottom
(1.5H) 5.583	7.000	46.207	51.000	41.586	36.720	38.359	41.586	Bottom
7.265	7.000	44.579	51.000	40.121	36.720	38.438	40.121	Bottom
7.599	7.000	44.598	51.000	40.138	36.720	38.461	40.138	Bottom
($0.1L_s$) 7.687	7.000	44.603	51.000	40.143	36.720	38.467	40.143	Bottom
8.665	7.000	44.667	51.000	40.200	36.720	38.547	40.200	Bottom
(SZB) 10.503	7.000	43.395	51.000	39.056	36.720	38.742	39.056	Bottom
11.265	7.000	42.178	51.000	37.960	36.720	38.839	38.839	Bottom
14.947	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
15.197	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
($0.2L_s$) 15.374	7.000	42.076	51.000	37.868	36.720	39.903	39.903	Bottom
15.997	7.000	42.272	51.000	38.044	36.720	40.097	40.097	Bottom
17.947	7.000	42.887	51.000	38.598	36.720	40.710	40.710	Bottom
(SZB) 18.753	7.000	43.142	51.000	38.828	36.720	40.963	40.963	Bottom
22.629	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
22.796	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
($0.3L_s$) 23.062	7.000	44.516	51.000	40.065	36.720	42.330	42.330	Bottom
23.329	7.000	44.602	51.000	40.142	36.720	42.416	42.416	Bottom
24.629	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
(SZB) 29.753	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
(HP) 30.311	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
30.316	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
30.395	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
30.661	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
($0.4L_s$) 30.749	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
31.311	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
37.993	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.436	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
44.675	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.325	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.592	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
45.671	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
(HP) 45.675	7.000	46.857	51.000	42.172	36.720	44.666	44.666	Bottom
($0.6L_s$) 46.123	7.000	46.712	51.000	42.041	36.720	44.520	44.520	Bottom
(SZB) 46.234	7.000	46.676	51.000	42.008	36.720	44.484	44.484	Bottom
51.357	7.000	45.020	51.000	40.518	36.720	42.832	42.832	Bottom
52.657	7.000	44.602	51.000	40.142	36.720	42.416	42.416	Bottom
53.191	7.000	44.431	51.000	39.988	36.720	42.246	42.246	Bottom
53.357	7.000	44.378	51.000	39.940	36.720	42.193	42.193	Bottom
($0.7L_s$) 53.811	7.000	44.233	51.000	39.810	36.720	42.048	42.048	Bottom
54.576	7.000	43.988	51.000	39.589	36.720	41.805	41.805	Bottom
(Deck Bar Cutoff) 54.581	7.000	43.987	51.000	39.588	36.720	41.803	41.803	Bottom
(SZB) 57.234	7.000	43.143	51.000	38.828	36.720	40.964	40.964	Bottom
58.040	7.000	42.888	51.000	38.599	36.720	40.710	40.710	Bottom
59.990	7.000	42.272	51.000	38.045	36.720	40.098	40.098	Bottom
60.790	7.000	42.021	51.000	37.818	36.720	39.848	39.848	Bottom
61.040	7.000	41.942	51.000	37.748	36.720	39.770	39.770	Bottom
($0.8L_s$) 61.498	7.000	41.798	51.000	37.618	36.720	39.627	39.627	Bottom
64.722	7.000	42.178	51.000	37.961	36.720	38.840	38.840	Bottom
(SZB) 65.484	7.000	43.396	51.000	39.056	36.720	38.743	39.056	Bottom

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
67.322	7.000	50.180	51.000	45.162	36.720	44.908	45.162	Top
68.388	7.000	50.269	51.000	45.242	36.720	44.997	45.242	Top
68.722	7.000	50.298	51.000	45.268	36.720	45.026	45.268	Top
($0.9L_s$) 69.185	7.000	50.338	51.000	45.304	36.720	45.066	45.304	Top
(1.5H) 70.404	7.000	50.446	51.000	45.401	36.720	45.174	45.401	Top
(SZB) 70.984	7.000	50.499	51.000	45.449	36.720	45.227	45.449	Top
71.404	7.000	50.538	51.000	45.484	36.720	45.266	45.484	Top
(CS) 71.860	7.000	50.581	51.000	45.523	36.720	45.309	45.523	Top

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength II

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 3.924	0.9	229.62	26.58	43.290	7.000	0.754
4.583	0.9	225.53	26.59	41.586	7.000	0.770
(SZB) 5.003	0.9	222.95	26.59	41.585	7.000	0.760
(1.5H) 5.583	0.9	219.38	26.60	41.586	7.000	0.746
7.265	0.9	209.05	26.62	40.121	7.000	0.732
7.599	0.9	207.01	26.63	40.138	7.000	0.724
($0.1L_s$) 7.687	0.9	206.47	26.63	40.143	7.000	0.722
8.665	0.9	200.49	26.64	40.200	7.000	0.697
(SZB) 10.503	0.9	189.31	26.67	39.056	7.000	0.672
11.265	0.9	184.70	26.68	38.839	7.000	0.657
14.947	0.9	162.71	26.71	39.769	7.000	0.553
15.197	0.9	161.23	26.71	39.847	7.000	0.546
($0.2L_s$) 15.374	0.9	160.18	26.71	39.903	7.000	0.542
15.997	0.9	156.50	26.72	40.097	7.000	0.524
17.947	0.9	145.02	26.73	40.710	7.000	0.472
(SZB) 18.753	0.9	140.33	26.73	40.963	7.000	0.451
22.629	0.9	117.99	26.72	42.192	7.000	0.353
22.796	0.9	117.04	26.72	42.245	7.000	0.349
($0.3L_s$) 23.062	0.9	115.53	26.72	42.330	7.000	0.343
23.329	0.9	114.00	26.71	42.416	7.000	0.337
24.629	0.9	106.64	26.70	42.832	7.000	0.306
(SZB) 29.753	0.9	78.41	26.61	44.484	7.000	0.194
(HP) 30.311	0.9	75.48	26.59	44.666	7.000	0.183
30.316	0.9	75.46	0.00	44.666	7.000	0.268
30.395	0.9	75.05	0.00	44.666	7.000	0.267
30.661	0.9	73.66	0.00	44.666	7.000	0.262
($0.4L_s$) 30.749	0.9	73.20	0.00	44.666	7.000	0.260
31.311	0.9	70.28	0.00	44.666	7.000	0.250
37.993	0.9	74.07	0.00	44.665	7.000	0.263
($0.5L_s$) 38.436	0.9	76.89	0.00	44.665	7.000	0.273
44.675	0.9	115.89	0.00	44.666	7.000	0.412
45.325	0.9	119.87	0.00	44.666	7.000	0.426
45.592	0.9	121.49	0.00	44.666	7.000	0.432
45.671	0.9	121.97	0.00	44.666	7.000	0.433
(HP) 45.675	0.9	122.00	26.51	44.666	7.000	0.349
($0.6L_s$) 46.123	0.9	124.72	26.52	44.520	7.000	0.360
(SZB) 46.234	0.9	125.40	26.52	44.484	7.000	0.362
51.357	0.9	155.94	26.56	42.832	7.000	0.489
52.657	0.9	163.51	26.57	42.416	7.000	0.522
53.191	0.9	166.61	26.57	42.246	7.000	0.536
53.357	0.9	167.57	26.57	42.193	7.000	0.540
($0.7L_s$) 53.811	0.9	170.19	26.56	42.048	7.000	0.552
54.576	0.9	174.58	26.56	41.805	7.000	0.572
(Deck Bar Cutoff) 54.581	0.9	174.60	26.56	41.803	7.000	0.572
(SZB) 57.234	0.9	189.65	26.54	40.964	7.000	0.642
58.040	0.9	194.16	26.54	40.710	7.000	0.664
59.990	0.9	204.92	26.51	40.098	7.000	0.717
60.790	0.9	209.29	26.50	39.848	7.000	0.739
61.040	0.9	210.65	26.50	39.770	7.000	0.746
($0.8L_s$) 61.498	0.9	213.14	26.49	39.627	7.000	0.758
64.722	0.9	230.39	26.44	38.840	7.000	0.844
(SZB) 65.484	0.9	234.40	26.43	39.056	7.000	0.856
67.322	0.9	243.91	26.40	45.162	7.000	0.774
68.388	0.9	249.37	26.38	45.242	7.000	0.792
68.722	0.9	251.07	26.37	45.268	7.000	0.797
($0.9L_s$) 69.185	0.9	253.42	26.36	45.304	7.000	0.805
(1.5H) 70.404	0.9	259.56	26.34	45.401	7.000	0.825
(SZB) 70.984	0.9	262.47	26.33	45.449	7.000	0.834
71.404	0.9	264.57	26.32	45.484	7.000	0.841
(CS) 71.860	0.9	266.84	26.32	45.523	7.000	0.848

***f_{po}* - Strength II**

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x- Strength II

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 3.924	807.20	229.62	26.58	203.04	43.290	0.400	29000.000	3.603	28500.000	365.000	5011.145	-0.131
4.583	931.31	225.53	26.59	198.95	41.586	0.400	29000.000	3.626	28500.000	365.000	5011.145	-0.112
(SZB) 5.003	1008.53	222.95	26.59	196.36	41.585	0.400	29000.000	3.641	28500.000	365.000	5011.145	-0.103
(1.5H) 5.583	1113.28	219.38	26.60	192.78	41.586	0.400	29000.000	4.049	28500.000	365.000	5011.145	-0.128
7.265	1402.25	209.05	26.62	182.43	40.121	0.400	29000.000	4.526	28500.000	365.000	5011.145	-0.129
7.599	1456.99	207.01	26.63	180.38	40.138	0.400	29000.000	4.544	28500.000	365.000	5011.145	-0.123
($0.1L_s$) 7.687	1471.38	206.47	26.63	179.84	40.143	0.400	29000.000	4.549	28500.000	365.000	5011.145	-0.122
8.665	1626.50	200.49	26.64	173.85	40.200	0.400	29000.000	4.603	28500.000	365.000	5011.145	-0.107
(SZB) 10.503	1898.50	189.31	26.67	162.65	39.056	0.400	29000.000	5.122	28500.000	365.000	5011.145	-0.112
11.265	2004.12	184.70	26.68	158.03	38.839	0.400	29000.000	5.166	28500.000	365.000	5011.145	-0.1
14.947	2468.28	162.71	26.71	136.00	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.133
15.197	2497.31	161.23	26.71	134.52	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.13
($0.2L_s$) 15.374	2517.61	160.18	26.71	133.47	39.903	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.128
15.997	2587.26	156.50	26.72	129.79	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.121
17.947	2787.16	145.02	26.73	118.30	40.710	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.104
(SZB) 18.753	2861.64	140.33	26.73	113.60	40.963	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0976
22.629	3155.68	117.99	26.72	91.27	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0792
22.796	3166.03	117.04	26.72	90.32	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0788
($0.3L_s$) 23.062	3182.13	115.53	26.72	88.81	42.330	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0782
23.329	3197.86	114.00	26.71	87.29	42.416	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0776
24.629	3267.09	106.64	26.70	79.94	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.076
(SZB) 29.753	3470.18	78.41	26.61	51.80	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0797
(HP) 30.311	3488.24	75.48	26.59	48.89	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0806
30.316	3488.39	75.46	0.00	75.46	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0674
30.395	3490.74	75.05	0.00	75.05	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0673
30.661	3498.40	73.66	0.00	73.66	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0669
($0.4L_s$) 30.749	3500.80	73.20	0.00	73.20	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0669
31.311	3515.00	70.28	0.00	70.28	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0664
37.993	3519.46	74.07	0.00	74.07	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0639
($0.5L_s$) 38.436	3509.26	76.89	0.00	76.89	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0639
44.675	3236.38	115.89	0.00	115.89	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0809
45.325	3194.33	119.87	0.00	119.87	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0846
45.592	3177.05	121.49	0.00	121.49	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0861
45.671	3171.97	121.97	0.00	121.97	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0865
(HP) 45.675	3171.65	122.00	26.51	95.49	44.666	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0997
($0.6L_s$) 46.123	3142.02	124.72	26.52	98.21	44.520	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.101
(SZB) 46.234	3134.50	125.40	26.52	98.88	44.484	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.101
51.357	2708.33	155.94	26.56	129.38	42.832	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.129
52.657	2577.06	163.51	26.57	136.95	42.416	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.14
53.191	2520.08	166.61	26.57	140.04	42.246	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.145
53.357	2501.92	167.57	26.57	141.01	42.193	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.147
($0.7L_s$) 53.811	2451.85	170.19	26.56	143.62	42.048	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.151
54.576	2364.82	174.58	26.56	148.01	41.805	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.16
(Deck Bar Cutoff) 54.581	2364.25	174.60	26.56	148.04	41.803	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.16
(SZB) 57.234	2043.84	189.65	26.54	163.11	40.964	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.192
58.040	1941.15	194.16	26.54	167.62	40.710	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.203
59.990	1686.00	204.92	26.51	178.40	40.098	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.231
60.790	1574.57	209.29	26.50	182.79	39.848	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.244
61.040	1539.07	210.65	26.50	184.15	39.770	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.248
($0.8L_s$) 61.498	1472.95	213.14	26.49	186.65	39.627	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.256
64.722	971.47	230.39	26.44	203.95	38.840	0.400	29000.000	5.155	28500.000	365.000	5011.145	-0.237
(SZB) 65.484	842.94	234.40	26.43	207.97	39.056	0.400	29000.000	5.111	28500.000	365.000	5011.145	-0.251
67.322	818.61 $	243.91	26.40	217.51	45.162	33.680	29000.000	1.223	28500.000	946.576	5011.145	0.201
68.388	840.72 $	249.37	26.38	222.99	45.242	33.680	29000.000	1.198	28500.000	946.576	5011.145	0.217
68.722	847.63 $	251.07	26.37	224.70	45.268	33.680	29000.000	1.190	28500.000	946.576	5011.145	0.222
($0.9L_s$) 69.185	914.81	253.42	26.36	227.06	45.304	33.680	29000.000	1.572	28500.000	946.576	5011.145	0.169
(1.5H) 70.404	1096.49	259.56	26.34	233.22	45.401	33.680	29000.000	1.532	28500.000	946.576	5011.145	0.229
(SZB) 70.984	1184.40	262.47	26.33	236.14	45.449	33.680	29000.000	1.893	28500.000	946.576	5011.145	0.185
71.404	1248.37	264.57	26.32	238.24	45.484	33.680	29000.000	1.877	28500.000	946.576	5011.145	0.207
(CS) 71.860	1318.45	266.84	26.32	240.52	45.523	33.680	29000.000	1.860	28500.000	946.576	5011.145	0.23

$N_u = 0$

$ - Taken as $|V_u - V_p|d_v$ per definitions given in 5.7.3.4.2

Shear Parameter Summary - Strength II [5.7.3.4.2]

$$\beta = \frac{4.8}{(1 + 750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1 + 750\varepsilon_s)} \frac{51}{(39 + s_{xe})}$$

$$s_{xe} = s_x \frac{1.38}{a_g + 0.63}$$

$\theta = 29 + 3500\varepsilon_s$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 3.924	Yes	1	---	---	0.0943	-0.131	5.32	28.54
4.583	Yes	1	---	---	0.0962	-0.112	5.24	28.61
(SZB) 5.003	Yes	1	---	---	0.095	-0.103	5.2	28.64
(1.5H) 5.583	Yes	1	---	---	0.0932	-0.128	5.31	28.55
7.265	Yes	1	---	---	0.0915	-0.129	5.31	28.55
7.599	Yes	1	---	---	0.0905	-0.123	5.29	28.57
($0.1L_s$) 7.687	Yes	1	---	---	0.0902	-0.122	5.28	28.57
8.665	Yes	1	---	---	0.0871	-0.107	5.22	28.63
(SZB) 10.503	Yes	1	---	---	0.084	-0.112	5.24	28.61
11.265	Yes	1	---	---	0.0821	-0.1	5.19	28.65
14.947	Yes	1	---	---	0.0692	-0.133	5.33	28.53
15.197	Yes	1	---	---	0.0683	-0.13	5.32	28.55
($0.2L_s$) 15.374	Yes	1	---	---	0.0677	-0.128	5.31	28.55
15.997	Yes	1	---	---	0.0655	-0.121	5.28	28.58
17.947	Yes	1	---	---	0.059	-0.104	5.2	28.64
(SZB) 18.753	Yes	1	---	---	0.0563	-0.0976	5.18	28.66
22.629	Yes	1	---	---	0.0442	-0.0792	5.1	28.72
22.796	Yes	1	---	---	0.0437	-0.0788	5.1	28.72
($0.3L_s$) 23.062	Yes	1	---	---	0.0429	-0.0782	5.1	28.73
23.329	Yes	1	---	---	0.0421	-0.0776	5.1	28.73
24.629	Yes	1	---	---	0.0383	-0.076	5.09	28.73
(SZB) 29.753	Yes	1	---	---	0.0243	-0.0797	5.11	28.72
(HP) 30.311	Yes	1	---	---	0.0229	-0.0806	5.11	28.72
30.316	Yes	1	---	---	0.0335	-0.0674	5.06	28.76
30.395	Yes	1	---	---	0.0333	-0.0673	5.06	28.76
30.661	Yes	1	---	---	0.0327	-0.0669	5.05	28.77
($0.4L_s$) 30.749	Yes	1	---	---	0.0325	-0.0669	5.05	28.77
31.311	Yes	1	---	---	0.0312	-0.0664	5.05	28.77
37.993	Yes	1	---	---	0.0329	-0.0639	5.04	28.78
($0.5L_s$) 38.436	Yes	1	---	---	0.0342	-0.0639	5.04	28.78
44.675	Yes	1	---	---	0.0515	-0.0809	5.11	28.72
45.325	Yes	1	---	---	0.0532	-0.0846	5.13	28.70
45.592	Yes	1	---	---	0.054	-0.0861	5.13	28.70
45.671	Yes	1	---	---	0.0542	-0.0865	5.13	28.70
(HP) 45.675	Yes	1	---	---	0.0436	-0.0997	5.19	28.65
($0.6L_s$) 46.123	Yes	1	---	---	0.0449	-0.101	5.19	28.65
(SZB) 46.234	Yes	1	---	---	0.0453	-0.101	5.19	28.65
51.357	Yes	1	---	---	0.0612	-0.129	5.32	28.55
52.657	Yes	1	---	---	0.0653	-0.14	5.36	28.51
53.191	Yes	1	---	---	0.067	-0.145	5.39	28.49
53.357	Yes	1	---	---	0.0676	-0.147	5.39	28.49
($0.7L_s$) 53.811	Yes	1	---	---	0.069	-0.151	5.42	28.47
54.576	Yes	1	---	---	0.0715	-0.16	5.45	28.44
(Deck Bar Cutoff) 54.581	Yes	1	---	---	0.0715	-0.16	5.45	28.44
(SZB) 57.234	Yes	1	---	---	0.0803	-0.192	5.61	28.33
58.040	Yes	1	---	---	0.083	-0.203	5.66	28.29
59.990	Yes	1	---	---	0.0896	-0.231	5.81	28.19
60.790	Yes	1	---	---	0.0923	-0.244	5.88	28.15
61.040	Yes	1	---	---	0.0932	-0.248	5.9	28.13
($0.8L_s$) 61.498	Yes	1	---	---	0.0948	-0.256	5.94	28.10
64.722	Yes	1	---	---	0.106	-0.237	5.84	28.17
(SZB) 65.484	Yes	1	---	---	0.107	-0.251	5.91	28.12
67.322	Yes	1	---	---	0.0967	0.201	4.17	29.71
68.388	Yes	1	---	---	0.099	0.217	4.13	29.76
68.722	Yes	1	---	---	0.0996	0.222	4.11	29.78
($0.9L_s$) 69.185	Yes	1	---	---	0.101	0.169	4.26	29.59
(1.5H) 70.404	Yes	1	---	---	0.103	0.229	4.1	29.80
(SZB) 70.984	Yes	1	---	---	0.104	0.185	4.21	29.65
71.404	Yes	1	---	---	0.105	0.207	4.16	29.72
(CS) 71.860	Yes	1	---	---	0.106	0.23	4.09	29.80

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength II

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 3.924	5.32	8.000	-	7.000	43.290	144.15
4.583	5.24	8.000	-	7.000	41.586	136.33
(SZB) 5.003	5.2	8.000	-	7.000	41.585	135.37
(1.5H) 5.583	5.31	8.000	-	7.000	41.586	138.20
7.265	5.31	8.000	-	7.000	40.121	133.37
7.599	5.29	8.000	-	7.000	40.138	132.82
($0.1L_s$) 7.687	5.28	8.000	-	7.000	40.143	132.68
8.665	5.22	8.000	-	7.000	40.200	131.23
(SZB) 10.503	5.24	8.000	-	7.000	39.056	128.03
11.265	5.19	8.000	-	7.000	38.839	126.12
14.947	5.33	8.000	-	7.000	39.769	132.65

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
15.197	5.32	8.000	-	7.000	39.847	132.59
($0.2L_s$) 15.374	5.31	8.000	-	7.000	39.903	132.56
15.997	5.28	8.000	-	7.000	40.097	132.47
17.947	5.2	8.000	-	7.000	40.710	132.55
(SZB) 18.753	5.18	8.000	-	7.000	40.963	132.73
22.629	5.1	8.000	-	7.000	42.192	134.71
22.796	5.1	8.000	-	7.000	42.245	134.84
($0.3L_s$) 23.062	5.1	8.000	-	7.000	42.330	135.04
23.329	5.1	8.000	-	7.000	42.416	135.25
24.629	5.09	8.000	-	7.000	42.832	136.41
(SZB) 29.753	5.11	8.000	-	7.000	44.484	142.08
(HP) 30.311	5.11	8.000	-	7.000	44.666	142.77
30.316	5.06	8.000	-	7.000	44.666	141.28
30.395	5.06	8.000	-	7.000	44.666	141.26
30.661	5.05	8.000	-	7.000	44.666	141.23
($0.4L_s$) 30.749	5.05	8.000	-	7.000	44.666	141.22
31.311	5.05	8.000	-	7.000	44.666	141.17
37.993	5.04	8.000	-	7.000	44.665	140.89
($0.5L_s$) 38.436	5.04	8.000	-	7.000	44.665	140.89
44.675	5.11	8.000	-	7.000	44.666	142.80
45.325	5.13	8.000	-	7.000	44.666	143.22
45.592	5.13	8.000	-	7.000	44.666	143.39
45.671	5.13	8.000	-	7.000	44.666	143.44
(HP) 45.675	5.19	8.000	-	7.000	44.666	144.98
($0.6L_s$) 46.123	5.19	8.000	-	7.000	44.520	144.65
(SZB) 46.234	5.19	8.000	-	7.000	44.484	144.57
51.357	5.32	8.000	-	7.000	42.832	142.43
52.657	5.36	8.000	-	7.000	42.416	142.35
53.191	5.39	8.000	-	7.000	42.246	142.38
53.357	5.39	8.000	-	7.000	42.193	142.39
($0.7L_s$) 53.811	5.42	8.000	-	7.000	42.048	142.46
54.576	5.45	8.000	-	7.000	41.805	142.62
(Deck Bar Cutoff) 54.581	5.45	8.000	-	7.000	41.803	142.62
(SZB) 57.234	5.61	8.000	-	7.000	40.964	143.71
58.040	5.66	8.000	-	7.000	40.710	144.20
59.990	5.81	8.000	-	7.000	40.098	145.67
60.790	5.88	8.000	-	7.000	39.848	146.47
61.040	5.9	8.000	-	7.000	39.770	146.75
($0.8L_s$) 61.498	5.94	8.000	-	7.000	39.627	147.29
64.722	5.84	8.000	-	7.000	38.840	141.81
(SZB) 65.484	5.91	8.000	-	7.000	39.056	144.52
67.322	4.17	8.000	-	7.000	45.162	117.82
68.388	4.13	8.000	-	7.000	45.242	116.84
68.722	4.11	8.000	-	7.000	45.268	116.53
($0.9L_s$) 69.185	4.26	8.000	-	7.000	45.304	120.77
(1.5H) 70.404	4.1	8.000	-	7.000	45.401	116.38
(SZB) 70.984	4.21	8.000	-	7.000	45.449	119.82
71.404	4.16	8.000	-	7.000	45.484	118.26
(CS) 71.860	4.09	8.000	-	7.000	45.523	116.62

Shear Resistance Provided By Shear Reinforcement - Strength II

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 3.924	60.000	0.400	4.000	1.200	43.290	28.54	90.00	477.55
4.583	60.000	0.400	4.000	1.200	41.586	28.61	90.00	457.49
(SZB) 5.003	60.000	0.400	6.000	0.800	41.585	28.64	90.00	304.60
(1.5H) 5.583	60.000	0.400	6.000	0.800	41.586	28.55	90.00	305.72
7.265	60.000	0.400	6.000	0.800	40.121	28.55	90.00	294.97
7.599	60.000	0.400	6.000	0.800	40.138	28.57	90.00	294.86
($0.1L_s$) 7.687	60.000	0.400	6.000	0.800	40.143	28.57	90.00	294.83
8.665	60.000	0.400	6.000	0.800	40.200	28.63	90.00	294.61
(SZB) 10.503	60.000	0.400	9.000	0.533	39.056	28.61	90.00	190.95
11.265	60.000	0.400	9.000	0.533	38.839	28.65	90.00	189.58
14.947	60.000	0.400	9.000	0.533	39.769	28.53	90.00	195.04
15.197	60.000	0.400	9.000	0.533	39.847	28.55	90.00	195.34
($0.2L_s$) 15.374	60.000	0.400	9.000	0.533	39.903	28.55	90.00	195.55
15.997	60.000	0.400	9.000	0.533	40.097	28.58	90.00	196.32
17.947	60.000	0.400	9.000	0.533	40.710	28.64	90.00	198.80
(SZB) 18.753	60.000	0.400	12.000	0.400	40.963	28.66	90.00	149.90
22.629	60.000	0.400	12.000	0.400	42.192	28.72	90.00	153.99
22.796	60.000	0.400	12.000	0.400	42.245	28.72	90.00	154.17
($0.3L_s$) 23.062	60.000	0.400	12.000	0.400	42.330	28.73	90.00	154.47
23.329	60.000	0.400	12.000	0.400	42.416	28.73	90.00	154.77
24.629	60.000	0.400	12.000	0.400	42.832	28.73	90.00	156.25
(SZB) 29.753	60.000	0.400	18.000	0.267	44.484	28.72	90.00	108.24
(HP) 30.311	60.000	0.400	18.000	0.267	44.666	28.72	90.00	108.70
30.316	60.000	0.400	18.000	0.267	44.666	28.76	90.00	108.49
30.395	60.000	0.400	18.000	0.267	44.666	28.76	90.00	108.49

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
30.661	60.000	0.400	18.000	0.267	44.666	28.77	90.00	108.48
($0.4L_s$) 30.749	60.000	0.400	18.000	0.267	44.666	28.77	90.00	108.48
31.311	60.000	0.400	18.000	0.267	44.666	28.77	90.00	108.47
37.993	60.000	0.400	18.000	0.267	44.665	28.78	90.00	108.43
($0.5L_s$) 38.436	60.000	0.400	18.000	0.267	44.665	28.78	90.00	108.43
44.675	60.000	0.400	18.000	0.267	44.666	28.72	90.00	108.70
45.325	60.000	0.400	18.000	0.267	44.666	28.70	90.00	108.76
45.592	60.000	0.400	18.000	0.267	44.666	28.70	90.00	108.78
45.671	60.000	0.400	18.000	0.267	44.666	28.70	90.00	108.79
(HP) 45.675	60.000	0.400	18.000	0.267	44.666	28.65	90.00	109.00
($0.6L_s$) 46.123	60.000	0.400	18.000	0.267	44.520	28.65	90.00	108.66
(SZB) 46.234	60.000	0.400	18.000	0.267	44.484	28.65	90.00	108.58
51.357	60.000	0.400	12.000	0.400	42.832	28.55	90.00	157.46
52.657	60.000	0.400	12.000	0.400	42.416	28.51	90.00	156.18
53.191	60.000	0.400	12.000	0.400	42.246	28.49	90.00	155.67
53.357	60.000	0.400	12.000	0.400	42.193	28.49	90.00	155.51
($0.7L_s$) 53.811	60.000	0.400	12.000	0.400	42.048	28.47	90.00	155.08
54.576	60.000	0.400	12.000	0.400	41.805	28.44	90.00	154.37
(Deck Bar Cutoff) 54.581	60.000	0.400	12.000	0.400	41.803	28.44	90.00	154.36
(SZB) 57.234	60.000	0.400	12.000	0.400	40.964	28.33	90.00	151.98
58.040	60.000	0.400	9.000	0.533	40.710	28.29	90.00	201.70
59.990	60.000	0.400	9.000	0.533	40.098	28.19	90.00	199.49
60.790	60.000	0.400	9.000	0.533	39.848	28.15	90.00	198.63
61.040	60.000	0.400	9.000	0.533	39.770	28.13	90.00	198.36
($0.8L_s$) 61.498	60.000	0.400	9.000	0.533	39.627	28.10	90.00	197.87
64.722	60.000	0.400	9.000	0.533	38.840	28.17	90.00	193.39
(SZB) 65.484	60.000	0.400	9.000	0.533	39.056	28.12	90.00	194.89
67.322	60.000	0.400	6.000	0.800	45.162	29.71	90.00	316.64
68.388	60.000	0.400	6.000	0.800	45.242	29.76	90.00	316.50
68.722	60.000	0.400	6.000	0.800	45.268	29.78	90.00	316.46
($0.9L_s$) 69.185	60.000	0.400	6.000	0.800	45.304	29.59	90.00	319.12
(1.5H) 70.404	60.000	0.400	6.000	0.800	45.401	29.80	90.00	317.09
(SZB) 70.984	60.000	0.400	6.000	0.800	45.449	29.65	90.00	319.38
71.404	60.000	0.400	4.000	1.200	45.484	29.72	90.00	478.00
(CS) 71.860	60.000	0.400	4.000	1.200	45.523	29.80	90.00	476.85

Nominal Shear Resistance - Strength II

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	$V_{n1}$$ (kip)	V_{n2}# (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 3.924	8.000	7.000	43.290	26.58	144.15	477.55	648.27	632.64	632.64	0.9	569.38
4.583	8.000	7.000	41.586	26.59	136.33	457.49	620.41	608.79	608.79	0.9	547.91
(SZB) 5.003	8.000	7.000	41.585	26.59	135.37	304.60	466.56	608.78	466.56	0.9	419.91
(1.5H) 5.583	8.000	7.000	41.586	26.60	138.20	305.72	470.52	608.81	470.52	0.9	423.47
7.265	8.000	7.000	40.121	26.62	133.37	294.97	454.96	588.32	454.96	0.9	409.46
7.599	8.000	7.000	40.138	26.63	132.82	294.86	454.31	588.56	454.31	0.9	408.88
($0.1L_s$) 7.687	8.000	7.000	40.143	26.63	132.68	294.83	454.14	588.63	454.14	0.9	408.73
8.665	8.000	7.000	40.200	26.64	131.23	294.61	452.48	589.44	452.48	0.9	407.23
(SZB) 10.503	8.000	7.000	39.056	26.67	128.03	190.95	345.65	573.45	345.65	0.9	311.08
11.265	8.000	7.000	38.839	26.68	126.12	189.58	342.37	570.42	342.37	0.9	308.13
14.947	8.000	7.000	39.769	26.71	132.65	195.04	354.40	583.48	354.40	0.9	318.96
15.197	8.000	7.000	39.847	26.71	132.59	195.34	354.64	584.57	354.64	0.9	319.18
($0.2L_s$) 15.374	8.000	7.000	39.903	26.71	132.56	195.55	354.82	585.35	354.82	0.9	319.34
15.997	8.000	7.000	40.097	26.72	132.47	196.32	355.50	588.08	355.50	0.9	319.95
17.947	8.000	7.000	40.710	26.73	132.55	198.80	358.07	596.66	358.07	0.9	322.27
(SZB) 18.753	8.000	7.000	40.963	26.73	132.73	149.90	309.36	600.21	309.36	0.9	278.42
22.629	8.000	7.000	42.192	26.72	134.71	153.99	315.42	617.41	315.42	0.9	283.88
22.796	8.000	7.000	42.245	26.72	134.84	154.17	315.73	618.15	315.73	0.9	284.15
($0.3L_s$) 23.062	8.000	7.000	42.330	26.72	135.04	154.47	316.22	619.34	316.22	0.9	284.60
23.329	8.000	7.000	42.416	26.71	135.25	154.77	316.73	620.53	316.73	0.9	285.06
24.629	8.000	7.000	42.832	26.70	136.41	156.25	319.35	626.34	319.35	0.9	287.42
(SZB) 29.753	8.000	7.000	44.484	26.61	142.08	108.24	276.93	649.39	276.93	0.9	249.24
(HP) 30.311	8.000	7.000	44.666	26.59	142.77	108.70	278.06	651.91	278.06	0.9	250.25
30.316	8.000	7.000	44.666	0.00	141.28	108.49	249.76	625.32	249.76	0.9	224.79
30.395	8.000	7.000	44.666	0.00	141.26	108.49	249.75	625.32	249.75	0.9	224.78
30.661	8.000	7.000	44.666	0.00	141.23	108.48	249.71	625.32	249.71	0.9	224.74
($0.4L_s$) 30.749	8.000	7.000	44.666	0.00	141.22	108.48	249.70	625.32	249.70	0.9	224.73
31.311	8.000	7.000	44.666	0.00	141.17	108.47	249.64	625.32	249.64	0.9	224.68
37.993	8.000	7.000	44.665	0.00	140.89	108.43	249.33	625.32	249.33	0.9	224.39
($0.5L_s$) 38.436	8.000	7.000	44.665	0.00	140.89	108.43	249.32	625.32	249.32	0.9	224.39
44.675	8.000	7.000	44.666	0.00	142.80	108.70	251.51	625.32	251.51	0.9	226.35
45.325	8.000	7.000	44.666	0.00	143.22	108.76	251.98	625.32	251.98	0.9	226.78
45.592	8.000	7.000	44.666	0.00	143.39	108.78	252.17	625.32	252.17	0.9	226.96
45.671	8.000	7.000	44.666	0.00	143.44	108.79	252.23	625.32	252.23	0.9	227.01
(HP) 45.675	8.000	7.000	44.666	26.51	144.98	109.00	280.48	651.83	280.48	0.9	252.43
($0.6L_s$) 46.123	8.000	7.000	44.520	26.52	144.65	108.66	279.83	649.80	279.83	0.9	251.85
(SZB) 46.234	8.000	7.000	44.484	26.52	144.57	108.58	279.67	649.30	279.67	0.9	251.70
51.357	8.000	7.000	42.832	26.56	142.43	157.46	326.46	626.21	326.46	0.9	293.81
52.657	8.000	7.000	42.416	26.57	142.35	156.18	325.09	620.39	325.09	0.9	292.58
53.191	8.000	7.000	42.246	26.57	142.38	155.67	324.61	618.00	324.61	0.9	292.15
53.357	8.000	7.000	42.193	26.57	142.39	155.51	324.47	617.26	324.47	0.9	292.02

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
($0.7L_s$) 53.811	8.000	7.000	42.048	26.56	142.46	155.08	324.10	615.24	324.10	0.9	291.69
54.576	8.000	7.000	41.805	26.56	142.62	154.37	323.55	611.83	323.55	0.9	291.20
(Deck Bar Cutoff) 54.581	8.000	7.000	41.803	26.56	142.62	154.36	323.55	611.81	323.55	0.9	291.19
(SZB) 57.234	8.000	7.000	40.964	26.54	143.71	151.98	322.23	600.04	322.23	0.9	290.00
58.040	8.000	7.000	40.710	26.54	144.20	201.70	372.44	596.48	372.44	0.9	335.19
59.990	8.000	7.000	40.098	26.51	145.67	199.49	371.68	587.89	371.68	0.9	334.51
60.790	8.000	7.000	39.848	26.50	146.47	198.63	371.60	584.38	371.60	0.9	334.44
61.040	8.000	7.000	39.770	26.50	146.75	198.36	371.61	583.28	371.61	0.9	334.45
($0.8L_s$) 61.498	8.000	7.000	39.627	26.49	147.29	197.87	371.66	581.27	371.66	0.9	334.49
64.722	8.000	7.000	38.840	26.44	141.81	193.39	361.64	570.21	361.64	0.9	325.48
(SZB) 65.484	8.000	7.000	39.056	26.43	144.52	194.89	365.84	573.22	365.84	0.9	329.25
67.322	8.000	7.000	45.162	26.40	117.82	316.64	460.87	658.67	460.87	0.9	414.78
68.388	8.000	7.000	45.242	26.38	116.84	316.50	459.71	659.77	459.71	0.9	413.74
68.722	8.000	7.000	45.268	26.37	116.53	316.46	459.36	660.12	459.36	0.9	413.42
($0.9L_s$) 69.185	8.000	7.000	45.304	26.36	120.77	319.12	466.26	660.62	466.26	0.9	419.63
(1.5H) 70.404	8.000	7.000	45.401	26.34	116.38	317.09	459.82	661.96	459.82	0.9	413.83
(SZB) 70.984	8.000	7.000	45.449	26.33	119.82	319.38	465.54	662.62	465.54	0.9	418.98
71.404	8.000	7.000	45.484	26.32	118.26	478.00	622.59	663.11	622.59	0.9	560.33
(CS) 71.860	8.000	7.000	45.523	26.32	116.62	476.85	619.79	663.64	619.79	0.9	557.81

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength II

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 3.924	255.13	144.15	26.58	84.41	60.000	43.290	28.54	0.212
4.583	250.59	136.33	26.59	87.67	60.000	41.586	28.61	0.230
(SZB) 5.003	247.72	135.37	26.59	85.76	60.000	41.585	28.64	0.225
(1.5H) 5.583	243.75	138.20	26.60	78.96	60.000	41.586	28.55	0.207
7.265	232.28	133.37	26.62	72.29	60.000	40.121	28.55	0.196
7.599	230.01	132.82	26.63	70.56	60.000	40.138	28.57	0.191
($0.1L_s$) 7.687	229.41	132.68	26.63	70.10	60.000	40.143	28.57	0.190
8.665	222.77	131.23	26.64	64.89	60.000	40.200	28.63	0.176
(SZB) 10.503	210.35	128.03	26.67	55.65	60.000	39.056	28.61	0.155
11.265	205.23	126.12	26.68	52.43	60.000	38.839	28.65	0.148
14.947	180.79	132.65	26.71	21.43	60.000	39.769	28.53	0.059
15.197	179.15	132.59	26.71	19.84	60.000	39.847	28.55	0.054
($0.2L_s$) 15.374	177.98	132.56	26.71	18.71	60.000	39.903	28.55	0.051
15.997	173.89	132.47	26.72	14.71	60.000	40.097	28.58	0.040
17.947	161.14	132.55	26.73	1.86	60.000	40.710	28.64	0.005
(SZB) 18.753	155.92	132.73	26.73	0.00	60.000	40.963	28.66	0.000
22.629	131.10	134.71	26.72	0.00	60.000	42.192	28.72	0.000
22.796	130.04	134.84	26.72	0.00	60.000	42.245	28.72	0.000
($0.3L_s$) 23.062	128.36	135.04	26.72	0.00	60.000	42.330	28.73	0.000
23.329	126.67	135.25	26.71	0.00	60.000	42.416	28.73	0.000
24.629	118.49	136.41	26.70	0.00	60.000	42.832	28.73	0.000
(SZB) 29.753	87.12	142.08	26.61	0.00	60.000	44.484	28.72	0.000
(HP) 30.311	83.87	142.77	26.59	0.00	60.000	44.666	28.72	0.000
30.316	83.84	141.28	0.00	0.00	60.000	44.666	28.76	0.000
30.395	83.39	141.26	0.00	0.00	60.000	44.666	28.76	0.000
30.661	81.84	141.23	0.00	0.00	60.000	44.666	28.77	0.000
($0.4L_s$) 30.749	81.33	141.22	0.00	0.00	60.000	44.666	28.77	0.000
31.311	78.09	141.17	0.00	0.00	60.000	44.666	28.77	0.000
37.993	82.30	140.89	0.00	0.00	60.000	44.665	28.78	0.000
($0.5L_s$) 38.436	85.44	140.89	0.00	0.00	60.000	44.665	28.78	0.000
44.675	128.77	142.80	0.00	0.00	60.000	44.666	28.72	0.000
45.325	133.19	143.22	0.00	0.00	60.000	44.666	28.70	0.000
45.592	134.99	143.39	0.00	0.00	60.000	44.666	28.70	0.000
45.671	135.52	143.44	0.00	0.00	60.000	44.666	28.70	0.000
(HP) 45.675	135.56	144.98	26.51	0.00	60.000	44.666	28.65	0.000
($0.6L_s$) 46.123	138.58	144.65	26.52	0.00	60.000	44.520	28.65	0.000
(SZB) 46.234	139.33	144.57	26.52	0.00	60.000	44.484	28.65	0.000
51.357	173.27	142.43	26.56	4.27	60.000	42.832	28.55	0.011
52.657	181.68	142.35	26.57	12.77	60.000	42.416	28.51	0.033
53.191	185.12	142.38	26.57	16.18	60.000	42.246	28.49	0.042
53.357	186.19	142.39	26.57	17.23	60.000	42.193	28.49	0.044
($0.7L_s$) 53.811	189.10	142.46	26.56	20.07	60.000	42.048	28.47	0.052
54.576	193.97	142.62	26.56	24.79	60.000	41.805	28.44	0.064
(Deck Bar Cutoff) 54.581	194.00	142.62	26.56	24.82	60.000	41.803	28.44	0.064
(SZB) 57.234	210.72	143.71	26.54	40.47	60.000	40.964	28.33	0.107
58.040	215.73	144.20	26.54	45.00	60.000	40.710	28.29	0.119
59.990	227.68	145.67	26.51	55.50	60.000	40.098	28.19	0.148
60.790	232.55	146.47	26.50	59.57	60.000	39.848	28.15	0.160
61.040	234.06	146.75	26.50	60.81	60.000	39.770	28.13	0.163
($0.8L_s$) 61.498	236.82	147.29	26.49	63.04	60.000	39.627	28.10	0.170
64.722	255.99	141.81	26.44	87.74	60.000	38.840	28.17	0.242

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(SZB) 65.484	260.44	144.52	26.43	89.49	60.000	39.056	28.12	0.245
67.322	271.01	117.82	26.40	126.79	60.000	45.162	29.71	0.320
68.388	277.08	116.84	26.38	133.86	60.000	45.242	29.76	0.338
68.722	278.97	116.53	26.37	136.06	60.000	45.268	29.78	0.344
($0.9L_s$) 69.185	281.58	120.77	26.36	134.44	60.000	45.304	29.59	0.337
(1.5H) 70.404	288.40	116.38	26.34	145.68	60.000	45.401	29.80	0.368
(SZB) 70.984	291.64	119.82	26.33	145.48	60.000	45.449	29.65	0.364
71.404	293.96	118.26	26.32	149.38	60.000	45.484	29.72	0.375
(CS) 71.860	296.48	116.62	26.32	153.55	60.000	45.523	29.80	0.386

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength II

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 3.924	1.200	0.212	12.447	22.631	35.078
4.583	1.200	0.230	11.480	20.872	32.352
(SZB) 5.003	0.800	0.225	11.721	21.310	33.031
(1.5H) 5.583	0.800	0.207	12.778	23.233	36.011
7.265	0.800	0.196	13.466	24.483	37.949
7.599	0.800	0.191	13.790	25.073	38.863
($0.1L_s$) 7.687	0.800	0.190	13.880	25.236	39.116
8.665	0.800	0.176	14.982	27.240	42.222
(SZB) 10.503	0.533	0.155	16.984	30.879	47.863
11.265	0.533	0.148	17.897	32.540	50.437
14.947	0.533	0.059	45.047	81.903	126.949
15.197	0.533	0.054	48.734	88.607	137.341
($0.2L_s$) 15.374	0.533	0.051	51.736	94.066	145.802
15.997	0.533	0.040	66.080	120.146	186.226
17.947	0.533	0.005	527.870	959.764	1487.635
(SZB) 18.753	0.400	0.000	N/A	N/A	N/A
22.629	0.400	0.000	N/A	N/A	N/A
22.796	0.400	0.000	N/A	N/A	N/A
($0.3L_s$) 23.062	0.400	0.000	N/A	N/A	N/A
23.329	0.400	0.000	N/A	N/A	N/A
24.629	0.400	0.000	N/A	N/A	N/A
(SZB) 29.753	0.267	0.000	N/A	N/A	N/A
(HP) 30.311	0.267	0.000	N/A	N/A	N/A
30.316	0.267	0.000	N/A	N/A	N/A
30.395	0.267	0.000	N/A	N/A	N/A
30.661	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.749	0.267	0.000	N/A	N/A	N/A
31.311	0.267	0.000	N/A	N/A	N/A
37.993	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.436	0.267	0.000	N/A	N/A	N/A
44.675	0.267	0.000	N/A	N/A	N/A
45.325	0.267	0.000	N/A	N/A	N/A
45.592	0.267	0.000	N/A	N/A	N/A
45.671	0.267	0.000	N/A	N/A	N/A
(HP) 45.675	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.123	0.267	0.000	N/A	N/A	N/A
(SZB) 46.234	0.267	0.000	N/A	N/A	N/A
51.357	0.400	0.011	243.367	442.485	685.852
52.657	0.400	0.033	80.745	146.809	227.554
53.191	0.400	0.042	63.514	115.480	178.994
53.357	0.400	0.044	59.566	108.301	167.867
($0.7L_s$) 53.811	0.400	0.052	50.989	92.707	143.695
54.576	0.400	0.064	41.099	74.725	115.824
(Deck Bar Cutoff) 54.581	0.400	0.064	41.048	74.633	115.681
(SZB) 57.234	0.400	0.107	24.783	45.061	69.844
58.040	0.533	0.119	22.189	40.344	62.533
59.990	0.533	0.148	17.792	32.349	50.141
60.790	0.533	0.160	16.505	30.010	46.515
61.040	0.533	0.163	16.147	29.358	45.505
($0.8L_s$) 61.498	0.533	0.170	15.538	28.251	43.789
64.722	0.533	0.242	10.910	19.837	30.747
(SZB) 65.484	0.533	0.245	10.779	19.599	30.378
67.322	0.800	0.320	8.241	14.984	23.226
68.388	0.800	0.338	7.802	14.186	21.988
68.722	0.800	0.344	7.675	13.955	21.630
($0.9L_s$) 69.185	0.800	0.337	7.833	14.242	22.075
(1.5H) 70.404	0.800	0.368	7.183	13.060	20.243
(SZB) 70.984	0.800	0.364	7.245	13.172	20.417
71.404	1.200	0.375	7.040	12.800	19.840
(CS) 71.860	1.200	0.386	6.832	12.422	19.254

Horizontal Interface Shear Capacity Details

Strength I

Details for Horizontal Interface Shear Capacity (Strength I) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.000	372072.4	8396.2	240.24	65.054	43.000	0.126
($0.0L_s$) 0.000	372072.4	8396.2	240.24	65.054	43.000	0.126
(FoS) 0.333	372072.4	8396.2	240.24	65.054	43.000	0.126
(SZB) 1.337	372072.4	8396.2	240.24	65.054	43.000	0.126
(Bar Develop.) 1.705	372072.4	8396.2	240.24	65.054	43.000	0.126
(Bar Develop.) 2.765	372072.4	8396.2	240.24	65.054	43.000	0.126
(H) 3.833	372072.4	8396.2	240.24	65.054	43.000	0.126
(CS) 3.924	372072.4	8396.2	240.24	65.054	43.000	0.126
(SZB) 5.003	372072.4	8396.2	233.20	63.150	43.000	0.122
(1.5H) 5.583	372072.4	8396.2	229.44	62.130	43.000	0.120
($0.1L_s$) 7.687	372072.4	8396.2	215.87	58.457	43.000	0.113
(SZB) 10.503	372072.4	8396.2	197.95	53.605	43.000	0.104
($0.2L_s$) 15.374	372072.4	8396.2	167.67	45.404	43.000	0.088
(SZB) 18.753	372072.4	8396.2	147.21	39.863	43.000	0.077
($0.3L_s$) 23.062	372072.4	8396.2	121.72	32.962	43.000	0.064
(SZB) 29.753	372072.4	8396.2	83.86	22.709	43.000	0.044
(HP) 30.311	372072.4	8396.2	80.88	21.902	43.000	0.042
($0.4L_s$) 30.749	372072.4	8396.2	78.56	21.273	43.000	0.041
($0.5L_s$) 38.436	372072.4	8396.2	88.77	24.037	43.000	0.047
(HP) 45.675	372072.4	8396.2	129.53	35.076	43.000	0.068
($0.6L_s$) 46.123	372072.4	8396.2	132.04	35.757	43.000	0.069
(SZB) 46.234	372072.4	8396.2	132.67	35.925	43.000	0.070
($0.7L_s$) 53.811	372072.4	8396.2	175.17	47.434	43.000	0.092
(Deck Bar Cutoff) 54.581	372072.4	8396.2	179.46	48.597	43.000	0.094
(SZB) 57.234	372072.4	8396.2	194.25	52.603	43.000	0.102
($0.8L_s$) 61.498	372072.4	8396.2	217.86	58.994	43.000	0.114
(SZB) 65.484	372072.4	8396.2	239.75	64.922	43.000	0.126
($0.9L_s$) 69.185	372072.4	8396.2	259.81	70.356	43.000	0.136
(1.5H) 70.404	372072.4	8396.2	266.37	72.132	43.000	0.140
(SZB) 70.984	372072.4	8396.2	269.49	72.977	43.000	0.141
(CS) 71.860	372072.4	8396.2	274.19	74.248	43.000	0.144
(H) 72.154	372072.4	8396.2	274.19	74.248	43.000	0.144
(Bar Develop.) 73.222	372072.4	8396.2	274.19	74.248	43.000	0.144
(Bar Develop.) 74.282	372072.4	8396.2	274.19	74.248	43.000	0.144
(SZB) 74.650	372072.4	8396.2	274.19	74.248	43.000	0.144
(FoS) 75.654	372072.4	8396.2	274.19	74.248	43.000	0.144
75.987	372072.4	8396.2	274.19	74.248	43.000	0.144

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.000	0.000	∞	0.220	12.000	0.220
($0.0L_s$) 0.000	0.000	∞	0.220	12.000	0.220
(FoS) 0.333	0.000	∞	0.220	12.000	0.220
(SZB) 1.337	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 1.705	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.765	0.000	∞	0.220	12.000	0.220
(H) 3.833	0.000	∞	0.220	12.000	0.220
(CS) 3.924	0.000	∞	0.220	12.000	0.220
(SZB) 5.003	0.000	∞	0.220	12.000	0.220
(1.5H) 5.583	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.687	0.000	∞	0.220	12.000	0.220
(SZB) 10.503	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.374	0.000	∞	0.220	9.000	0.293
(SZB) 18.753	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.062	0.000	∞	0.220	12.000	0.220
(SZB) 29.753	0.000	∞	0.220	18.000	0.147
(HP) 30.311	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.749	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.436	0.000	∞	0.220	18.000	0.147
(HP) 45.675	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.123	0.000	∞	0.220	18.000	0.147
(SZB) 46.234	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 53.811	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 54.581	0.000	∞	0.220	12.000	0.220
(SZB) 57.234	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.498	0.000	∞	0.220	9.000	0.293
(SZB) 65.484	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.185	0.000	∞	0.220	12.000	0.220
(1.5H) 70.404	0.000	∞	0.220	12.000	0.220
(SZB) 70.984	0.000	∞	0.220	12.000	0.220
(CS) 71.860	0.000	∞	0.220	12.000	0.220
(H) 72.154	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 73.222	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.282	0.000	∞	0.220	12.000	0.220
(SZB) 74.650	0.000	∞	0.220	12.000	0.220
(FoS) 75.654	0.000	∞	0.220	12.000	0.220
75.987	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.000	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.0L_s$) 0.000	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 0.333	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 1.337	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 1.705	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 2.765	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 3.833	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(CS) 3.924	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 5.003	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 5.583	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.1L_s$) 7.687	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 10.503	516.000	0.293	0.783	162.785	696.600	928.800	146.507
($0.2L_s$) 15.374	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 18.753	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.3L_s$) 23.062	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 29.753	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 30.311	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.4L_s$) 30.749	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.5L_s$) 38.436	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 45.675	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.6L_s$) 46.123	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(SZB) 46.234	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.7L_s$) 53.811	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Deck Bar Cutoff) 54.581	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 57.234	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.8L_s$) 61.498	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 65.484	516.000	0.293	0.783	162.785	696.600	928.800	146.507
($0.9L_s$) 69.185	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 70.404	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 70.984	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(CS) 71.860	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 72.154	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 73.222	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 74.282	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 74.650	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 75.654	516.000	0.220	0.783	158.385	696.600	928.800	142.547
75.987	516.000	0.220	0.783	158.385	696.600	928.800	142.547

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{matrix} lesser\ of, \\ but\ not < 0.0 \end{matrix} \begin{cases} \dfrac{0.05a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33v_{ui} - \varphi(ca_{cv} + \mu p_c)}{\varphi\mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.000	516.000	0.126	0.430	-0.819	0.000	No
($0.0L_s$) 0.000	516.000	0.126	0.430	-0.819	0.000	No
(FoS) 0.333	516.000	0.126	0.430	-0.819	0.000	No
(SZB) 1.337	516.000	0.126	0.430	-0.819	0.000	No
(Bar Develop.) 1.705	516.000	0.126	0.430	-0.819	0.000	No
(Bar Develop.) 2.765	516.000	0.126	0.430	-0.819	0.000	No
(H) 3.833	516.000	0.126	0.430	-0.819	0.000	No
(CS) 3.924	516.000	0.126	0.430	-0.819	0.000	No
(SZB) 5.003	516.000	0.122	0.430	-0.866	0.000	No
(1.5H) 5.583	516.000	0.120	0.430	-0.891	0.000	No
($0.1L_s$) 7.687	516.000	0.113	0.430	-0.981	0.000	No
(SZB) 10.503	516.000	0.104	0.430	-1.101	0.000	No
($0.2L_s$) 15.374	516.000	0.088	0.430	-1.303	0.000	No
(SZB) 18.753	516.000	0.077	0.430	-1.439	0.000	No
($0.3L_s$) 23.062	516.000	0.064	0.430	-1.609	0.000	No
(SZB) 29.753	516.000	0.044	0.430	-1.862	0.000	No
(HP) 30.311	516.000	0.042	0.430	-1.882	0.000	No
($0.4L_s$) 30.749	516.000	0.041	0.430	-1.897	0.000	No
($0.5L_s$) 38.436	516.000	0.047	0.430	-1.829	0.000	No
(HP) 45.675	516.000	0.068	0.430	-1.557	0.000	No
($0.6L_s$) 46.123	516.000	0.069	0.430	-1.540	0.000	No
(SZB) 46.234	516.000	0.070	0.430	-1.536	0.000	No
($0.7L_s$) 53.811	516.000	0.092	0.430	-1.253	0.000	No
(Deck Bar Cutoff) 54.581	516.000	0.094	0.430	-1.224	0.000	No
(SZB) 57.234	516.000	0.102	0.430	-1.125	0.000	No
($0.8L_s$) 61.498	516.000	0.114	0.430	-0.968	0.000	No
(SZB) 65.484	516.000	0.126	0.430	-0.822	0.000	No
($0.9L_s$) 69.185	516.000	0.136	0.430	-0.688	0.000	No
(1.5H) 70.404	516.000	0.140	0.430	-0.644	0.000	No
(SZB) 70.984	516.000	0.141	0.430	-0.624	0.000	No

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\ min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\ min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
(CS) 71.860	516.000	0.144	0.430	-0.592	0.000	No
(H) 72.154	516.000	0.144	0.430	-0.592	0.000	No
(Bar Develop.) 73.222	516.000	0.144	0.430	-0.592	0.000	No
(Bar Develop.) 74.282	516.000	0.144	0.430	-0.592	0.000	No
(SZB) 74.650	516.000	0.144	0.430	-0.592	0.000	No
(FoS) 75.654	516.000	0.144	0.430	-0.592	0.000	No
75.987	516.000	0.144	0.430	-0.592	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Strength II

Details for Horizontal Interface Shear Capacity (Strength II) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.000	372072.4	8396.2	229.62	62.179	43.000	0.121
(0.0L_s) 0.000	372072.4	8396.2	229.62	62.179	43.000	0.121
(FoS) 0.333	372072.4	8396.2	229.62	62.179	43.000	0.121
(SZB) 1.337	372072.4	8396.2	229.62	62.179	43.000	0.121
(Bar Develop.) 1.705	372072.4	8396.2	229.62	62.179	43.000	0.121
(Bar Develop.) 2.765	372072.4	8396.2	229.62	62.179	43.000	0.121
(H) 3.833	372072.4	8396.2	229.62	62.179	43.000	0.121
(SZB) 5.003	372072.4	8396.2	222.95	60.374	43.000	0.117
(1.5H) 5.583	372072.4	8396.2	219.38	59.406	43.000	0.115
(0.1L_s) 7.687	372072.4	8396.2	206.47	55.910	43.000	0.108
(SZB) 10.503	372072.4	8396.2	189.31	51.265	43.000	0.099
(0.2L_s) 15.374	372072.4	8396.2	160.18	43.377	43.000	0.084
(SZB) 18.753	372072.4	8396.2	140.33	38.000	43.000	0.074
(0.3L_s) 23.062	372072.4	8396.2	115.53	31.284	43.000	0.061
(SZB) 29.753	372072.4	8396.2	78.41	21.233	43.000	0.041
(HP) 30.311	372072.4	8396.2	75.48	20.441	43.000	0.040
(0.4L_s) 30.749	372072.4	8396.2	73.20	19.822	43.000	0.038
(0.5L_s) 38.436	372072.4	8396.2	76.89	20.822	43.000	0.040
(HP) 45.675	372072.4	8396.2	122.00	33.037	43.000	0.064
(0.6L_s) 46.123	372072.4	8396.2	124.72	33.774	43.000	0.065
(SZB) 46.234	372072.4	8396.2	125.40	33.956	43.000	0.066
(0.7L_s) 53.811	372072.4	8396.2	170.19	46.085	43.000	0.089
(Deck Bar Cutoff) 54.581	372072.4	8396.2	174.60	47.282	43.000	0.092
(SZB) 57.234	372072.4	8396.2	189.65	51.356	43.000	0.100
(0.8L_s) 61.498	372072.4	8396.2	213.14	57.717	43.000	0.112
(SZB) 65.484	372072.4	8396.2	234.40	63.474	43.000	0.123
(0.9L_s) 69.185	372072.4	8396.2	253.42	68.624	43.000	0.133
(1.5H) 70.404	372072.4	8396.2	259.56	70.288	43.000	0.136
(SZB) 70.984	372072.4	8396.2	262.47	71.076	43.000	0.138
(H) 72.154	372072.4	8396.2	266.84	72.257	43.000	0.140
(Bar Develop.) 73.222	372072.4	8396.2	266.84	72.257	43.000	0.140
(Bar Develop.) 74.282	372072.4	8396.2	266.84	72.257	43.000	0.140
(SZB) 74.650	372072.4	8396.2	266.84	72.257	43.000	0.140
(FoS) 75.654	372072.4	8396.2	266.84	72.257	43.000	0.140
75.987	372072.4	8396.2	266.84	72.257	43.000	0.140

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.000	0.000	∞	0.220	12.000	0.220
(0.0L_s) 0.000	0.000	∞	0.220	12.000	0.220
(FoS) 0.333	0.000	∞	0.220	12.000	0.220
(SZB) 1.337	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 1.705	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.765	0.000	∞	0.220	12.000	0.220
(H) 3.833	0.000	∞	0.220	12.000	0.220
(SZB) 5.003	0.000	∞	0.220	12.000	0.220
(1.5H) 5.583	0.000	∞	0.220	12.000	0.220
(0.1L_s) 7.687	0.000	∞	0.220	12.000	0.220
(SZB) 10.503	0.000	∞	0.220	9.000	0.293
(0.2L_s) 15.374	0.000	∞	0.220	9.000	0.293
(SZB) 18.753	0.000	∞	0.220	12.000	0.220
(0.3L_s) 23.062	0.000	∞	0.220	12.000	0.220
(SZB) 29.753	0.000	∞	0.220	18.000	0.147
(HP) 30.311	0.000	∞	0.220	18.000	0.147
(0.4L_s) 30.749	0.000	∞	0.220	18.000	0.147
(0.5L_s) 38.436	0.000	∞	0.220	18.000	0.147
(HP) 45.675	0.000	∞	0.220	18.000	0.147
(0.6L_s) 46.123	0.000	∞	0.220	18.000	0.147
(SZB) 46.234	0.000	∞	0.220	18.000	0.147
(0.7L_s) 53.811	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 54.581	0.000	∞	0.220	12.000	0.220
(SZB) 57.234	0.000	∞	0.220	12.000	0.220
(0.8L_s) 61.498	0.000	∞	0.220	9.000	0.293
(SZB) 65.484	0.000	∞	0.220	9.000	0.293

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
(0.9L_s) 69.185	0.000	∞	0.220	12.000	0.220
(1.5H) 70.404	0.000	∞	0.220	12.000	0.220
(SZB) 70.984	0.000	∞	0.220	12.000	0.220
(H) 72.154	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 73.222	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.282	0.000	∞	0.220	12.000	0.220
(SZB) 74.650	0.000	∞	0.220	12.000	0.220
(FoS) 75.654	0.000	∞	0.220	12.000	0.220
75.987	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

v_{ni} = min($ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c]$, $K_1 f'_c a_{cv}$, $K_2 a_{cv}$)

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
0.000	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(0.0L_s) 0.000	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 0.333	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 1.337	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 1.705	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 2.765	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 3.833	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 5.003	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 5.583	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(0.1L_s) 7.687	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 10.503	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(0.2L_s) 15.374	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 18.753	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(0.3L_s) 23.062	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 29.753	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 30.311	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(0.4L_s) 30.749	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(0.5L_s) 38.436	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 45.675	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(0.6L_s) 46.123	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(SZB) 46.234	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(0.7L_s) 53.811	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Deck Bar Cutoff) 54.581	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 57.234	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(0.8L_s) 61.498	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 65.484	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(0.9L_s) 69.185	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 70.404	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 70.984	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 72.154	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 73.222	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 74.282	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 74.650	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 75.654	516.000	0.220	0.783	158.385	696.600	928.800	142.547
75.987	516.000	0.220	0.783	158.385	696.600	928.800	142.547

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{array}{l} lesser\ of, \\ but\ not < 0.0 \end{array} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ rearranged \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.000	516.000	0.121	0.430	-0.890	0.000	No
(0.0L_s) 0.000	516.000	0.121	0.430	-0.890	0.000	No
(FoS) 0.333	516.000	0.121	0.430	-0.890	0.000	No
(SZB) 1.337	516.000	0.121	0.430	-0.890	0.000	No
(Bar Develop.) 1.705	516.000	0.121	0.430	-0.890	0.000	No
(Bar Develop.) 2.765	516.000	0.121	0.430	-0.890	0.000	No
(H) 3.833	516.000	0.121	0.430	-0.890	0.000	No
(SZB) 5.003	516.000	0.117	0.430	-0.934	0.000	No
(1.5H) 5.583	516.000	0.115	0.430	-0.958	0.000	No
(0.1L_s) 7.687	516.000	0.108	0.430	-1.044	0.000	No
(SZB) 10.503	516.000	0.099	0.430	-1.158	0.000	No
(0.2L_s) 15.374	516.000	0.084	0.430	-1.353	0.000	No
(SZB) 18.753	516.000	0.074	0.430	-1.485	0.000	No
(0.3L_s) 23.062	516.000	0.061	0.430	-1.651	0.000	No
(SZB) 29.753	516.000	0.041	0.430	-1.898	0.000	No
(HP) 30.311	516.000	0.040	0.430	-1.918	0.000	No
(0.4L_s) 30.749	516.000	0.038	0.430	-1.933	0.000	No
(0.5L_s) 38.436	516.000	0.040	0.430	-1.908	0.000	No
(HP) 45.675	516.000	0.064	0.430	-1.607	0.000	No
(0.6L_s) 46.123	516.000	0.065	0.430	-1.589	0.000	No

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\ min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\ min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
(SZB) 46.234	516.000	0.066	0.430	-1.585	0.000	No
(0.7L_s) 53.811	516.000	0.089	0.430	-1.286	0.000	No
(Deck Bar Cutoff) 54.581	516.000	0.092	0.430	-1.257	0.000	No
(SZB) 57.234	516.000	0.100	0.430	-1.156	0.000	No
(0.8L_s) 61.498	516.000	0.112	0.430	-1.000	0.000	No
(SZB) 65.484	516.000	0.123	0.430	-0.858	0.000	No
(0.9L_s) 69.185	516.000	0.133	0.430	-0.731	0.000	No
(1.5H) 70.404	516.000	0.136	0.430	-0.690	0.000	No
(SZB) 70.984	516.000	0.138	0.430	-0.670	0.000	No
(H) 72.154	516.000	0.140	0.430	-0.641	0.000	No
(Bar Develop.) 73.222	516.000	0.140	0.430	-0.641	0.000	No
(Bar Develop.) 74.282	516.000	0.140	0.430	-0.641	0.000	No
(SZB) 74.650	516.000	0.140	0.430	-0.641	0.000	No
(FoS) 75.654	516.000	0.140	0.430	-0.641	0.000	No
75.987	516.000	0.140	0.430	-0.641	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Stirrup Detailing Check Details

$$\frac{A_v}{S} min = \frac{0.0316\lambda\sqrt{f_c'}\,b_v}{f_y}$$

f'_c = 8.000 KSI

f_y = 60.000 KSI

Details for Minimum Transverse Reinforcement Check - 5.7.2.5-1

Location from Left Support (ft)	b_v (in)	A_v/S_{min} (in^2/ft)
0.000	7.000	N/A
(0.0L_e) 0.000	7.000	0.125
(FoS) 0.333	7.000	0.125
(SZB) 1.337	7.000	0.125
(Bar Develop.) 1.705	7.000	0.125
(Bar Develop.) 2.765	7.000	0.125
(H) 3.833	7.000	0.125
(CS) 3.924	7.000	0.125
(SZB) 5.003	7.000	0.125
(1.5H) 5.583	7.000	0.125
7.687	7.000	0.125
(SZB) 10.503	7.000	0.125
15.374	7.000	0.125
(SZB) 18.753	7.000	0.125
23.062	7.000	0.125
(SZB) 29.753	7.000	0.125
(HP) 30.311	7.000	0.125
30.749	7.000	0.125
38.436	7.000	0.125
(HP) 45.675	7.000	0.125
46.123	7.000	0.125
(SZB) 46.234	7.000	0.125
53.811	7.000	0.125
(Deck Bar Cutoff) 54.581	7.000	0.125
(SZB) 57.234	7.000	0.125
61.498	7.000	0.125
(SZB) 65.484	7.000	0.125
69.185	7.000	0.125
(1.5H) 70.404	7.000	0.125
(SZB) 70.984	7.000	0.125
(CS) 71.860	7.000	0.125
(H) 72.154	7.000	0.125
(Bar Develop.) 73.222	7.000	0.125
(Bar Develop.) 74.282	7.000	0.125
(SZB) 74.650	7.000	0.125
(FoS) 75.654	7.000	0.125
75.987	7.000	0.125

Strength I - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	0.125f'_c (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.828	1.000	7.000	45.393	N/A
(0.0L_e) 0.000	0.828	1.000	7.000	45.393	18.000
(FoS) 0.333	0.849	1.000	7.000	43.816	18.000
(SZB) 1.337	0.825	1.000	7.000	43.551	18.000
(Bar Develop.) 1.705	0.815	1.000	7.000	43.476	18.000
(Bar Develop.) 2.765	0.793	1.000	7.000	43.323	18.000
(H) 3.833	0.793	1.000	7.000	43.293	18.000
(CS) 3.924	0.793	1.000	7.000	43.290	18.000
(SZB) 5.003	0.799	1.000	7.000	41.585	18.000
(1.5H) 5.583	0.784	1.000	7.000	41.586	18.000
7.687	0.759	1.000	7.000	40.143	18.000

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
(SZB) 10.503	0.707	1.000	7.000	39.056	18.000
15.374	0.571	1.000	7.000	39.903	18.000
(SZB) 18.753	0.477	1.000	7.000	40.963	18.000
23.062	0.366	1.000	7.000	42.330	18.000
(SZB) 29.753	0.214	1.000	7.000	44.484	18.000
(HP) 30.311	0.202	1.000	7.000	44.666	18.000
30.749	0.279	1.000	7.000	44.666	18.000
38.436	0.315	1.000	7.000	44.665	18.000
(HP) 45.675	0.376	1.000	7.000	44.666	18.000
46.123	0.386	1.000	7.000	44.520	18.000
(SZB) 46.234	0.388	1.000	7.000	44.484	18.000
53.811	0.571	1.000	7.000	42.048	18.000
(Deck Bar Cutoff) 54.581	0.591	1.000	7.000	41.803	18.000
(SZB) 57.234	0.660	1.000	7.000	40.964	18.000
61.498	0.777	1.000	7.000	39.627	18.000
(SZB) 65.484	0.878	1.000	7.000	39.056	18.000
69.185	0.827	1.000	7.000	45.304	18.000
(1.5H) 70.404	0.848	1.000	7.000	45.401	18.000
(SZB) 70.984	0.858	1.000	7.000	45.449	18.000
(CS) 71.860	0.873	1.000	7.000	45.523	18.000
(H) 72.154	0.873	1.000	7.000	45.548	18.000
(Bar Develop.) 73.222	0.871	1.000	7.000	45.642	18.000
(Bar Develop.) 74.282	0.894	1.000	7.000	45.739	18.000
(SZB) 74.650	0.903	1.000	7.000	45.773	18.000
(FoS) 75.654	0.928	1.000	7.000	45.868	18.000
75.987	0.937	1.000	7.000	45.900	18.000

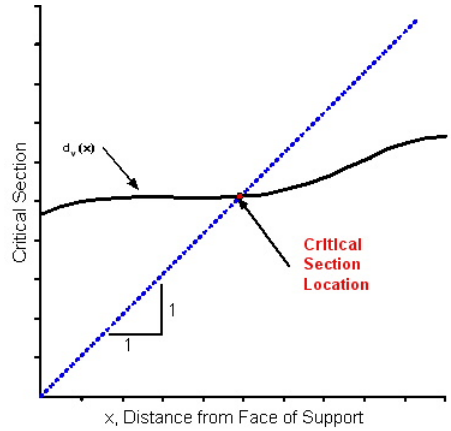
Strength II - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.828	1.000	7.000	45.393	N/A
(0.0L_e) 0.000	0.828	1.000	7.000	45.393	18.000
(FoS) 0.333	0.849	1.000	7.000	43.816	18.000
(SZB) 1.337	0.825	1.000	7.000	43.551	18.000
(Bar Develop.) 1.705	0.815	1.000	7.000	43.476	18.000
(Bar Develop.) 2.765	0.793	1.000	7.000	43.323	18.000
(H) 3.833	0.793	1.000	7.000	43.293	18.000
(CS) 3.924	0.793	1.000	7.000	43.290	18.000
(SZB) 5.003	0.799	1.000	7.000	41.585	18.000
(1.5H) 5.583	0.784	1.000	7.000	41.586	18.000
7.687	0.759	1.000	7.000	40.143	18.000
(SZB) 10.503	0.707	1.000	7.000	39.056	18.000
15.374	0.571	1.000	7.000	39.903	18.000
(SZB) 18.753	0.477	1.000	7.000	40.963	18.000
23.062	0.366	1.000	7.000	42.330	18.000
(SZB) 29.753	0.214	1.000	7.000	44.484	18.000
(HP) 30.311	0.202	1.000	7.000	44.666	18.000
30.749	0.279	1.000	7.000	44.666	18.000
38.436	0.315	1.000	7.000	44.665	18.000
(HP) 45.675	0.376	1.000	7.000	44.666	18.000
46.123	0.386	1.000	7.000	44.520	18.000
(SZB) 46.234	0.388	1.000	7.000	44.484	18.000
53.811	0.571	1.000	7.000	42.048	18.000
(Deck Bar Cutoff) 54.581	0.591	1.000	7.000	41.803	18.000
(SZB) 57.234	0.660	1.000	7.000	40.964	18.000
61.498	0.777	1.000	7.000	39.627	18.000
(SZB) 65.484	0.878	1.000	7.000	39.056	18.000
69.185	0.827	1.000	7.000	45.304	18.000
(1.5H) 70.404	0.848	1.000	7.000	45.401	18.000
(SZB) 70.984	0.858	1.000	7.000	45.449	18.000
(CS) 71.860	0.873	1.000	7.000	45.523	18.000
(H) 72.154	0.873	1.000	7.000	45.548	18.000
(Bar Develop.) 73.222	0.871	1.000	7.000	45.642	18.000
(Bar Develop.) 74.282	0.894	1.000	7.000	45.739	18.000
(SZB) 74.650	0.903	1.000	7.000	45.773	18.000
(FoS) 75.654	0.928	1.000	7.000	45.868	18.000
75.987	0.937	1.000	7.000	45.900	18.000

Critical Section for Shear Details

Limit State: Strength I



LRFD 5.8.3.2
Critical Section = d_v measured at d_v from the face of support

Critical Section Calculation for Ahead side of Pier 1

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(FoS) 0.333	0.000	43.816	No
1.333	12.000	43.552	No
(SZB) 1.337	12.039	43.551	No
(Bar Develop.) 1.705	16.456	43.476	No
(PSXFR) 2.583	27.000	43.328	No
2.625	27.500	43.327	No
(Bar Develop.) 2.765	29.184	43.323	No
(H) 3.833	42.000	43.293	No
3.924	43.087	43.087	*Yes
4.583	51.000	41.586	No
(SZB) 5.003	56.031	41.585	No
(1.5H) 5.583	63.000	41.586	No
7.265	83.184	40.121	No
($0.1L_e$) 7.599	87.184	40.138	No
7.687	88.247	40.143	No
8.665	99.984	40.200	No

* - Intersection values are linearly interpolated
Critical Section is at 3.591 ft (43.087 in) from the face of support on the Ahead side of Pier 1

Critical Section Calculation for Back side of Pier 2

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
67.322	99.984	45.162	No
($0.9L_e$) 68.388	87.184	45.242	No
68.722	83.184	45.268	No
69.185	77.623	45.304	No
(1.5H) 70.404	63.000	45.401	No
(SZB) 70.984	56.031	45.449	No
71.404	51.000	45.484	No
71.860	45.523	45.523	*Yes
(H) 72.154	42.000	45.548	No
(Bar Develop.) 73.222	29.184	45.642	No
73.362	27.500	45.655	No
(PSXFR) 73.404	27.000	45.659	No
(Bar Develop.) 74.282	16.456	45.739	No
(SZB) 74.650	12.039	45.773	No
74.654	12.000	45.773	No
(FoS) 75.654	0.000	45.868	No

* - Intersection values are linearly interpolated
Critical Section is at 3.794 ft (45.523 in) from the face of support on the Back side of Pier 2

Longitudinal Reinforcement for Shear

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \qquad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \qquad 5.7.3.5\text{-}2$$

Strength I

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 0.333	0.400	21.213	3.906	106.052	76.77	43.816	1
(SZB) 1.337	0.400	49.590	3.906	144.502	302.83	43.551	1
(Bar Develop.) 1.705	0.400	60.000	3.906	158.557	383.87	43.476	1
(Bar Develop.) 2.765	0.400	60.000	3.906	192.971	611.79	43.323	1
(H) 3.833	0.400	60.000	3.906	201.105	832.83	43.293	1
(CS) 3.924	0.400	60.000	3.906	201.796	851.19	43.290	1
(SZB) 5.003	0.400	60.000	3.906	210.026	1065.15	41.585	1

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(1.5H) 5.583	0.400	60.000	4.340	214.453	1176.78	41.586	1
($0.1L_s$) 7.687	0.400	60.000	4.774	230.512	1560.28	40.143	1
(SZB) 10.503	0.400	60.000	5.208	252.046	2022.46	39.056	1
($0.2L_s$) 15.374	0.400	60.000	6.076	268.138	2686.42	39.903	1
(SZB) 18.753	0.400	60.000	6.076	268.722	3047.21	40.963	1
($0.3L_s$) 23.062	0.400	60.000	6.076	269.412	3391.61	42.330	1
(SZB) 29.753	0.400	60.000	6.076	269.966	3713.53	44.484	1
(HP) 30.311	0.400	60.000	6.076	269.986	3726.36	44.666	1
($0.4L_s$) 30.749	0.400	60.000	6.076	269.986	3734.94	44.666	1
($0.5L_s$) 38.436	0.400	60.000	6.076	269.986	3713.82	44.665	1
(HP) 45.675	0.400	60.000	6.076	269.984	3386.58	44.666	1
($0.6L_s$) 46.123	0.400	60.000	6.076	269.969	3355.69	44.520	1
(SZB) 46.234	0.400	60.000	6.076	269.965	3347.85	44.484	1
($0.7L_s$) 53.811	0.400	60.000	6.076	269.283	2633.04	42.048	1
(Deck Bar Cutoff) 54.581	0.400	60.000	6.076	269.163	2543.56	41.803	1
(SZB) 57.234	0.400	60.000	6.076	268.709	2207.04	40.964	1
($0.8L_s$) 61.498	0.400	60.000	6.076	267.968	1611.16	39.627	1
(SZB) 65.484	0.400	60.000	5.208	252.031	1031.16	39.056	1
($0.9L_s$) 69.185	33.680	60.000	1.736	0.000	1171.57	45.304	0.9
(1.5H) 70.404	33.680	60.000	1.736	0.000	1385.01	45.401	0.9
(SZB) 70.984	33.680	60.000	2.170	0.000	1484.31	45.449	0.9
(CS) 71.860	33.680	60.000	2.170	0.000	1636.85	45.523	0.9
(H) 72.154	33.680	60.000	2.170	0.000	1688.83	45.548	0.9
(Bar Develop.) 73.222	33.680	60.000	2.170	0.000	1903.70	45.642	0.9
(Bar Develop.) 74.282	33.680	59.477	2.170	0.000	2131.72	45.739	0.9
(SZB) 74.650	33.680	59.049	2.170	0.000	2212.13	45.773	0.9
(FoS) 75.654	33.680	57.881	2.170	0.000	2434.67	45.868	0.9

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 0.333	0.00	0.75	240.24	0.9	266.93	26.58	28.58
(SZB) 1.337	0.00	0.75	240.24	0.9	266.93	26.58	28.58
(Bar Develop.) 1.705	0.00	0.75	240.24	0.9	266.93	26.58	28.58
(Bar Develop.) 2.765	0.00	0.75	240.24	0.9	266.93	26.58	28.58
(H) 3.833	0.00	0.75	240.24	0.9	266.93	26.58	28.58
(CS) 3.924	0.00	0.75	240.24	0.9	266.93	26.58	28.58
(SZB) 5.003	0.00	0.75	233.20	0.9	259.12	26.59	28.69
(1.5H) 5.583	0.00	0.75	229.44	0.9	254.93	26.60	28.60
($0.1L_s$) 7.687	0.00	0.75	215.87	0.9	239.86	26.63	28.64
(SZB) 10.503	0.00	0.75	197.95	0.9	190.30	26.67	28.69
($0.2L_s$) 15.374	0.00	0.75	167.67	0.9	186.30	26.71	28.65
(SZB) 18.753	0.00	0.75	147.21	0.9	149.24	26.73	28.76
($0.3L_s$) 23.062	0.00	0.75	121.72	0.9	135.25	26.72	28.84
(SZB) 29.753	0.00	0.75	83.86	0.9	93.18	26.61	28.84
(HP) 30.311	0.00	0.75	80.88	0.9	89.87	26.59	28.84
($0.4L_s$) 30.749	0.00	0.75	78.56	0.9	87.29	0.00	28.88
($0.5L_s$) 38.436	0.00	0.75	88.77	0.9	98.63	0.00	28.89
(HP) 45.675	0.00	0.75	129.53	0.9	108.49	26.51	28.76
($0.6L_s$) 46.123	0.00	0.75	132.04	0.9	108.16	26.52	28.76
(SZB) 46.234	0.00	0.75	132.67	0.9	108.08	26.52	28.76
($0.7L_s$) 53.811	0.00	0.75	175.17	0.9	154.45	26.56	28.57
(Deck Bar Cutoff) 54.581	0.00	0.75	179.46	0.9	153.73	26.56	28.54
(SZB) 57.234	0.00	0.75	194.25	0.9	151.40	26.54	28.42
($0.8L_s$) 61.498	0.00	0.75	217.86	0.9	197.20	26.49	28.18
(SZB) 65.484	0.00	0.75	239.75	0.9	193.98	26.43	28.23
($0.9L_s$) 69.185	0.00	0.75	259.81	0.9	288.68	26.36	29.85
(1.5H) 70.404	0.00	0.75	266.37	0.9	295.97	26.34	30.09
(SZB) 70.984	0.00	0.75	269.49	0.9	299.44	26.33	29.94
(CS) 71.860	0.00	0.75	274.19	0.9	304.65	26.32	30.11
(H) 72.154	0.00	0.75	274.19	0.9	304.65	26.32	30.11
(Bar Develop.) 73.222	0.00	0.75	274.19	0.9	304.65	26.32	30.11
(Bar Develop.) 74.282	0.00	0.75	274.19	0.9	304.65	26.32	30.11
(SZB) 74.650	0.00	0.75	274.19	0.9	304.65	26.32	30.11
(FoS) 75.654	0.00	0.75	274.19	0.9	304.65	26.32	30.11

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 0.333	196.18	422.72	5.7.3.5-2
(SZB) 1.337	196.18	584.26	5.7.3.5-2
(Bar Develop.) 1.705	196.18	643.32	5.7.3.5-2
(Bar Develop.) 2.765	196.18	777.74	5.7.3.5-2
(H) 3.833	196.18	809.52	5.7.3.5-2
(CS) 3.924	432.13	812.21	5.7.3.5-1
(SZB) 5.003	495.54	844.36	5.7.3.5-1

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(1.5H) 5.583	524.56	954.73	5.7.3.5-1
(0.1L_s) 7.687	637.28	1124.46	5.7.3.5-1
(SZB) 10.503	800.71	1336.66	5.7.3.5-1
(0.2L_s) 15.374	929.48	1653.21	5.7.3.5-1
(SZB) 18.753	1006.00	1656.75	5.7.3.5-1
(0.3L_s) 23.062	1035.76	1660.95	5.7.3.5-1
(SZB) 29.753	1038.04	1664.32	5.7.3.5-1
(HP) 30.311	1034.45	1664.43	5.7.3.5-1
(0.4L_s) 30.749	1082.55	1664.43	5.7.3.5-1
(0.5L_s) 38.436	1087.13	1664.43	5.7.3.5-1
(HP) 45.675	1024.93	1664.43	5.7.3.5-1
(0.6L_s) 46.123	1024.97	1664.33	5.7.3.5-1
(SZB) 46.234	1024.92	1664.31	5.7.3.5-1
(0.7L_s) 53.811	918.27	1660.16	5.7.3.5-1
(Deck Bar Cutoff) 54.581	906.63	1659.44	5.7.3.5-1
(SZB) 57.234	856.45	1656.68	5.7.3.5-1
(0.8L_s) 61.498	706.18	1652.18	5.7.3.5-1
(SZB) 65.484	583.10	1336.58	5.7.3.5-1
(0.9L_s) 69.185	550.42	2020.80	5.7.3.5-1
(1.5H) 70.404	616.71	2020.80	5.7.3.5-1
(SZB) 70.984	649.66	2020.80	5.7.3.5-1
(CS) 71.860	696.67	2020.80	5.7.3.5-1
(H) 72.154	711.62	2020.80	5.7.3.5-1
(Bar Develop.) 73.222	773.37	2020.80	5.7.3.5-1
(Bar Develop.) 74.282	838.67	2003.20	5.7.3.5-1
(SZB) 74.650	861.63	1988.77	5.7.3.5-1
(FoS) 75.654	924.99	1949.42	5.7.3.5-1

Strength II

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 0.333	0.400	21.213	3.906	106.052	73.18	43.816	1
(SZB) 1.337	0.400	49.590	3.906	144.502	288.26	43.551	1
(Bar Develop.) 1.705	0.400	60.000	3.906	158.557	365.22	43.476	1
(Bar Develop.) 2.765	0.400	60.000	3.906	192.971	581.17	43.323	1
(H) 3.833	0.400	60.000	3.906	201.105	789.91	43.293	1
(SZB) 5.003	0.400	60.000	3.906	210.026	1008.53	41.585	1
(1.5H) 5.583	0.400	60.000	4.340	214.453	1113.28	41.586	1
(0.1L_s) 7.687	0.400	60.000	4.774	230.512	1471.38	40.143	1
(SZB) 10.503	0.400	60.000	5.208	252.046	1898.50	39.056	1
(0.2L_s) 15.374	0.400	60.000	6.076	268.138	2517.61	39.903	1
(SZB) 18.753	0.400	60.000	6.076	268.722	2861.64	40.963	1
(0.3L_s) 23.062	0.400	60.000	6.076	269.412	3182.13	42.330	1
(SZB) 29.753	0.400	60.000	6.076	269.966	3470.18	44.484	1
(HP) 30.311	0.400	60.000	6.076	269.986	3488.24	44.666	1
(0.4L_s) 30.749	0.400	60.000	6.076	269.986	3500.80	44.666	1
(0.5L_s) 38.436	0.400	60.000	6.076	269.986	3509.26	44.665	1
(HP) 45.675	0.400	60.000	6.076	269.984	3171.65	44.666	1
(0.6L_s) 46.123	0.400	60.000	6.076	269.969	3142.02	44.520	1
(SZB) 46.234	0.400	60.000	6.076	269.965	3134.50	44.484	1
(0.7L_s) 53.811	0.400	60.000	6.076	269.283	2451.85	42.048	1
(Deck Bar Cutoff) 54.581	0.400	60.000	6.076	269.163	2364.25	41.803	1
(SZB) 57.234	0.400	60.000	6.076	268.709	2043.84	40.964	1
(0.8L_s) 61.498	0.400	60.000	6.076	267.968	1472.95	39.627	1
(SZB) 65.484	0.400	60.000	5.208	252.031	842.94	39.056	1
(0.9L_s) 69.185	33.680	60.000	1.736	0.000	914.81	45.304	0.9
(1.5H) 70.404	33.680	60.000	1.736	0.000	1096.49	45.401	0.9
(SZB) 70.984	33.680	60.000	2.170	0.000	1184.40	45.449	0.9
(H) 72.154	33.680	60.000	2.170	0.000	1363.82	45.548	0.9
(Bar Develop.) 73.222	33.680	60.000	2.170	0.000	1550.03	45.642	0.9
(Bar Develop.) 74.282	33.680	59.477	2.170	0.000	1747.89	45.739	0.9
(SZB) 74.650	33.680	59.049	2.170	0.000	1817.47	45.773	0.9
(FoS) 75.654	33.680	57.881	2.170	0.000	2009.55	45.868	0.9

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 0.333	0.00	0.75	229.62	0.9	255.13	26.58	28.54
(SZB) 1.337	0.00	0.75	229.62	0.9	255.13	26.58	28.54
(Bar Develop.) 1.705	0.00	0.75	229.62	0.9	255.13	26.58	28.54
(Bar Develop.) 2.765	0.00	0.75	229.62	0.9	255.13	26.58	28.54
(H) 3.833	0.00	0.75	229.62	0.9	255.13	26.58	28.54
(SZB) 5.003	0.00	0.75	222.95	0.9	247.72	26.59	28.64
(1.5H) 5.583	0.00	0.75	219.38	0.9	243.75	26.60	28.55
(0.1L_s) 7.687	0.00	0.75	206.47	0.9	229.41	26.63	28.57
(SZB) 10.503	0.00	0.75	189.31	0.9	190.95	26.67	28.61
(0.2L_s) 15.374	0.00	0.75	160.18	0.9	177.98	26.71	28.55

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(SZB) 18.753	0.00	0.75	140.33	0.9	149.90	26.73	28.66
(0.3L_s) 23.062	0.00	0.75	115.53	0.9	128.36	26.72	28.73
(SZB) 29.753	0.00	0.75	78.41	0.9	87.12	26.61	28.72
(HP) 30.311	0.00	0.75	75.48	0.9	83.87	26.59	28.72
(0.4L_s) 30.749	0.00	0.75	73.20	0.9	81.33	0.00	28.77
(0.5L_s) 38.436	0.00	0.75	76.89	0.9	85.44	0.00	28.78
(HP) 45.675	0.00	0.75	122.00	0.9	109.00	26.51	28.65
(0.6L_s) 46.123	0.00	0.75	124.72	0.9	108.66	26.52	28.65
(SZB) 46.234	0.00	0.75	125.40	0.9	108.58	26.52	28.65
(0.7L_s) 53.811	0.00	0.75	170.19	0.9	155.08	26.56	28.47
(Deck Bar Cutoff) 54.581	0.00	0.75	174.60	0.9	154.36	26.56	28.44
(SZB) 57.234	0.00	0.75	189.65	0.9	151.98	26.54	28.33
(0.8L_s) 61.498	0.00	0.75	213.14	0.9	197.87	26.49	28.10
(SZB) 65.484	0.00	0.75	234.40	0.9	194.89	26.43	28.12
(0.9L_s) 69.185	0.00	0.75	253.42	0.9	281.58	26.36	29.59
(1.5H) 70.404	0.00	0.75	259.56	0.9	288.40	26.34	29.80
(SZB) 70.984	0.00	0.75	262.47	0.9	291.64	26.33	29.65
(H) 72.154	0.00	0.75	266.84	0.9	296.48	26.32	29.80
(Bar Develop.) 73.222	0.00	0.75	266.84	0.9	296.48	26.32	29.80
(Bar Develop.) 74.282	0.00	0.75	266.84	0.9	296.48	26.32	29.80
(SZB) 74.650	0.00	0.75	266.84	0.9	296.48	26.32	29.80
(FoS) 75.654	0.00	0.75	266.84	0.9	296.48	26.32	29.80

* V_s shall not be taken greater than V_u/ϕ_v

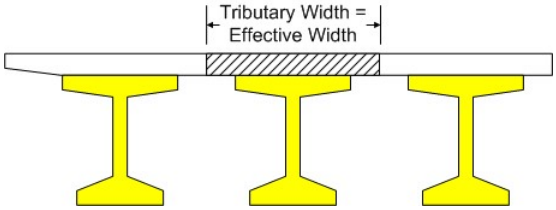
Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 0.333	185.67	422.72	5.7.3.5-2
(SZB) 1.337	185.67	584.26	5.7.3.5-2
(Bar Develop.) 1.705	185.67	643.32	5.7.3.5-2
(Bar Develop.) 2.765	185.67	777.74	5.7.3.5-2
(H) 3.833	185.67	809.52	5.7.3.5-2
(SZB) 5.003	469.14	844.36	5.7.3.5-1
(1.5H) 5.583	496.35	954.73	5.7.3.5-1
(0.1L_s) 7.687	601.57	1124.46	5.7.3.5-1
(SZB) 10.503	745.04	1336.66	5.7.3.5-1
(0.2L_s) 15.374	871.58	1653.21	5.7.3.5-1
(SZB) 18.753	937.55	1656.75	5.7.3.5-1
(0.3L_s) 23.062	970.45	1660.95	5.7.3.5-1
(SZB) 29.753	967.05	1664.32	5.7.3.5-1
(HP) 30.311	965.17	1664.43	5.7.3.5-1
(0.4L_s) 30.749	1014.62	1664.43	5.7.3.5-1
(0.5L_s) 38.436	1020.59	1664.43	5.7.3.5-1
(HP) 45.675	951.95	1664.43	5.7.3.5-1
(0.6L_s) 46.123	952.58	1664.33	5.7.3.5-1
(SZB) 46.234	952.69	1664.31	5.7.3.5-1
(0.7L_s) 53.811	856.46	1660.16	5.7.3.5-1
(Deck Bar Cutoff) 54.581	845.33	1659.44	5.7.3.5-1
(SZB) 57.234	799.42	1656.68	5.7.3.5-1
(0.8L_s) 61.498	654.63	1652.18	5.7.3.5-1
(SZB) 65.484	514.54	1336.58	5.7.3.5-1
(0.9L_s) 69.185	470.74	2020.80	5.7.3.5-1
(1.5H) 70.404	527.80	2020.80	5.7.3.5-1
(SZB) 70.984	557.38	2020.80	5.7.3.5-1
(H) 72.154	612.09	2020.80	5.7.3.5-1
(Bar Develop.) 73.222	665.66	2020.80	5.7.3.5-1
(Bar Develop.) 74.282	722.39	2003.20	5.7.3.5-1
(SZB) 74.650	742.28	1988.77	5.7.3.5-1
(FoS) 75.654	797.02	1949.42	5.7.3.5-1

Splitting Resistance Details

Check for Splitting resistance (LRFD 5.9.4.4.1) is disabled in Project Criteria library.

Effective Flange Width Details



Effective flange width is measured at top CL girder and is taken as one-half the distance to the adjacent girder on each side of the component
Left Tributary Width = 7.834 ft
Right Tributary Width = 7.834 ft
Effective Flange Width = 7.834 ft = 94.009 in

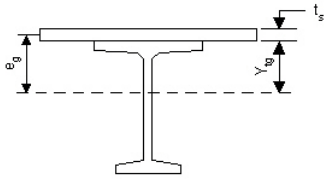
Live Load Distribution Factor Details

Moment and Shear

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
0.000	0.663	0.663	0.856	0.397	0.397	0.598
(0.0L_s) 0.000	0.663	0.663	0.856	0.397	0.397	0.598
(0.1L_s) 7.687	0.663	0.663	0.845	0.397	0.397	0.591
(0.2L_s) 15.374	0.663	0.663	0.834	0.397	0.397	0.583
(0.3L_s) 23.062	0.663	0.663	0.824	0.397	0.397	0.576
(0.4L_s) 30.749	0.663	0.663	0.813	0.397	0.397	0.569
(0.5L_s) 38.436	0.663	0.663	0.803	0.397	0.397	0.561
(0.6L_s) 46.123	0.663	0.663	0.803	0.397	0.397	0.561
(0.7L_s) 53.811	0.663	0.663	0.803	0.397	0.397	0.561
(0.8L_s) 61.498	0.663	0.663	0.803	0.397	0.397	0.561
(0.9L_s) 69.185	0.663	0.663	0.803	0.397	0.397	0.561
75.987	0.663	0.663	0.803	0.397	0.397	0.561
(1.0L_s) 76.872	0.663	0.663	0.803	0.397	0.397	0.561

Method of Computation:
Type (k) cross section. With AASHTO LRFD Method per Article 4.6.2.2

Longitudinal Stiffness Parameters
Modular ratio: n = 1.209
Moment of Inertia: I_g = 153070.0 in^4
Area: A_g = 654.000 in^2
Top centroidal distance: Y_{tg} = 20.850 in
Slab Thickness: t_s = 8.000 in



Distance between CG of slab and girder: $e_g = Y_{tg} + \frac{t_s}{2} + fillet$ e_g = 25.850 in

Stiffness Parameter: $K_g = n\left(I_g + A_g e_g^2\right)$ K_g = 713476.7 in^4

Distribution Factor Parameters
Deck Width, Girder Spacing and Deck Overhang are measured along a line that is normal to the alignment and passing through a point 38.019 ft from the left support along the centerline of girder. The measurement line passes through Station 94+38.13 (34.895 L)
Bridge Width: W = 94.000 ft
Roadway Width: w = 91.000 ft
Number of Design Lanes: N_L = 7
Lane Width: wLane = 12.000 ft
Number of Girders: N_b = 12
Girder Spacing: S_{avg} = 7.835 ft
Deck Overhang = 4.272 ft
Distance from exterior web of exterior girder to curb line: d_e = 2.771 ft
Skew Angle at start: θ = 23.37 deg
Skew Angle at end: θ = 17.50 deg

Strength and Service Limit States

Distribution Factor for Positive and Negative Moment in Span 1
Average Skew Angle: θ = 20.43 deg
Span Length: L = 76.872 ft

1 Loaded Lane: Spec Equations

$$mg_1^{MI} = 0.06 + \left(\frac{S}{14}\right)^{0.4}\left(\frac{S}{L}\right)^{0.3}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_1 = 0.476

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{MI} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{MI}_1 = 0.476
Skew Corrected Factor: mg^{MI}_{2+} = 0.663 **< Controls**

Distribution Factor for Negative Moment over Pier 2
Average Skew Angle: θ = 23.37 deg
Span Length: L = 76.949 ft

1 Loaded Lane: Spec Equations

$$mg_1^{MI} = 0.06 + \left(\frac{S}{14}\right)^{0.4}\left(\frac{S}{L}\right)^{0.3}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_1 = 0.476

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{MI} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{MI}_{1} = 0.476

Skew Corrected Factor: mg^{MI}_{2+} = 0.663 **< Controls**

Distribution Factor for Shear in Span 1

Average Skew Angle: θ = 20.43 deg
Span Length: L = 76.872 ft

1 Loaded Lane: Spec Equations

$$mg_1^{VI} = 0.36 + \left(\frac{S}{25}\right)$$

mg^{VI}_{1} = 0.673

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{VI} = 0.2 + \left(\frac{S}{12}\right) - \left(\frac{S}{35}\right)^{2.0}$$

mg^{VI}_{2+} = 0.803

Skew Correction

$$1.0 + 0.20\left(\frac{12.0Lt_s^3}{K_g}\right)^{0.3}\tan\theta$$

Skew Correction Factor: = 1.066

Skew Corrected Factor: mg^{VI}_{1} = 0.718

Skew Corrected Factor: mg^{VI}_{2+} = 0.856 **< Controls**

Fatigue Limit States

Distribution Factor for Negative Moment over Pier 1

$gMI_{Fatigue}$ = $mgMI_1$/m = 0.476/ 1.200 = 0.397

Distribution Factor for Positive and Negative Moment in Span 1

$gMI_{Fatigue}$ = $mgMI_1$/m = 0.476/ 1.200 = 0.397

Distribution Factor for Negative Moment over Pier 2

$gMI_{Fatigue}$ = $mgMI_1$/m = 0.476/ 1.200 = 0.397

Distribution Factor for Shear in Span 1

$gVI_{Fatigue}$ = $mgVI_1$/m = 0.718/ 1.200 = 0.598

Creep Coefficient Details

$$\psi(t,t_i) = 1.9K_1K_2k_sk_{hc}k_fk_{td}t_i^{-0.118}$$

for which:

$$k_s = 1.45 - 0.13(V/S) \geq 1.0$$

$$k_{hc} = 1.56 - 0.008H$$

$$k_f = \frac{5}{1 + f'_{ci}}$$

$$k_{td} = \frac{t}{12\left(\frac{100 - 4f'_{ci}}{f'_{ci} + 20}\right) + t}$$

where:

H = 55%, V/S = 3.326 in, K_1 = 1, K_2 = 1
Curing Method = Normal

Minimum Timing

Prestress release until girder erection

f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting

f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805313

Prestress release until deck casting

f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970092

Maximum Timing

Prestress release until girder erection

f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

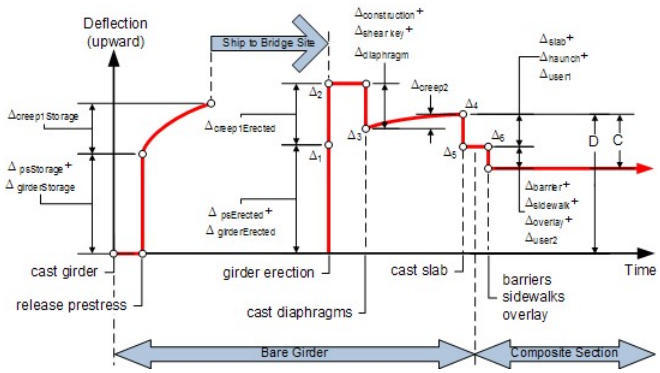
Girder erection until deck casting

f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805313

Prestress release until deck casting

f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01766, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970092

Camber Details



Minimum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.014	0.048	0.033
(0.1L_r) 7.682	-0.261	0.829	0.568
(0.2L_r) 15.364	-0.494	1.529	1.035
(0.3L_r) 23.046	-0.676	2.066	1.390
(HP, 0.4L_r) 30.728	-0.792	2.406	1.615
(0.5L_r) 38.410	-0.832	2.522	1.690
(HP, 0.6L_r) 46.092	-0.792	2.406	1.615
(0.7L_r) 53.774	-0.676	2.066	1.390
(0.8L_r) 61.456	-0.494	1.529	1.035
(0.9L_r) 69.138	-0.261	0.829	0.568
76.404	-0.014	0.048	0.033
(STLF, 1.0L_r) 76.820	0.000	0.000	0.000

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.599	-0.250	0.815	0.000	0.565
(0.2L_{st}) 15.197	-0.473	1.501	0.000	1.029
(0.3L_{st}) 22.796	-0.647	2.028	0.000	1.381
(0.4L_{st}) 30.395	-0.758	2.361	0.000	1.603
(0.5L_{st}) 37.993	-0.796	2.474	0.000	1.678
(0.6L_{st}) 45.592	-0.758	2.361	0.000	1.603
(0.7L_{st}) 53.191	-0.647	2.028	0.000	1.381
(0.8L_{st}) 60.790	-0.473	1.501	0.000	1.029
(0.9L_{st}) 68.388	-0.250	0.815	0.000	0.565
(1.0L_{st}) 75.987	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.404	0.014	-0.048	0.000	-0.034

$\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$

$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping

Rows with **bold text** are at the support locations after erection

Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.013	0.002	0.000	0.001	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	-0.250	0.815	0.000	0.000	0.000	0.548	-0.241	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(0.2L_e) 15.197	-0.473	1.501	0.000	0.000	0.000	0.998	-0.455	-0.083	-0.013	-0.033	-0.014	-0.027	0.000
(0.3L_e) 22.796	-0.647	2.028	0.000	0.000	0.000	1.339	-0.623	-0.113	-0.017	-0.044	-0.018	-0.036	0.000
(0.4L_e) 30.395	-0.758	2.361	0.000	0.000	0.000	1.555	-0.730	-0.132	-0.020	-0.049	-0.020	-0.039	0.000
(0.5L_e) 37.993	-0.796	2.474	0.000	0.000	0.000	1.628	-0.766	-0.139	-0.022	-0.047	-0.020	-0.038	0.000
(0.6L_e) 45.592	-0.758	2.361	0.000	0.000	0.000	1.555	-0.730	-0.132	-0.020	-0.040	-0.017	-0.033	0.000
(0.7L_e) 53.191	-0.647	2.028	0.000	0.000	0.000	1.339	-0.623	-0.113	-0.017	-0.029	-0.012	-0.024	0.000
(0.8L_e) 60.790	-0.473	1.501	0.000	0.000	0.000	0.998	-0.455	-0.083	-0.013	-0.017	-0.007	-0.014	0.000
(0.9L_e) 68.388	-0.250	0.815	0.000	0.000	0.000	0.548	-0.241	-0.044	-0.007	-0.006	-0.002	-0.005	0.000
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.404	0.014	-0.048	0.000	0.000	0.000	-0.033	0.013	0.002	0.000	0.000	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]

$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$

δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.066	-0.050	-0.048	-0.019
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	0.565	0.565	0.565	1.112	0.822	0.781	0.331
(0.2L_e) 15.197	1.029	1.029	1.029	2.027	1.476	1.402	0.625
(0.3L_e) 22.796	1.381	1.381	1.381	2.720	1.967	1.869	0.851
(0.4L_e) 30.395	1.603	1.603	1.603	3.158	2.276	2.168	0.991
(0.5L_e) 37.993	1.678	1.678	1.678	3.306	2.379	2.274	1.032
(0.6L_e) 45.592	1.603	1.603	1.603	3.158	2.276	2.186	0.972
(0.7L_e) 53.191	1.381	1.381	1.381	2.720	1.967	1.901	0.819
(0.8L_e) 60.790	1.029	1.029	1.029	2.027	1.476	1.439	0.588
(0.9L_e) 68.388	0.565	0.565	0.565	1.112	0.822	0.809	0.303
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STLF) 76.404	-0.034	-0.034	-0.034	-0.066	-0.050	-0.050	-0.016

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Maximum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.014	0.048	0.033
(0.1L_r) 7.682	-0.261	0.829	0.568
(0.2L_r) 15.364	-0.494	1.529	1.035
(0.3L_r) 23.046	-0.676	2.066	1.390
(HP, 0.4L_r) 30.728	-0.792	2.406	1.615
(0.5L_r) 38.410	-0.832	2.522	1.690
(HP, 0.6L_r) 46.092	-0.792	2.406	1.615
(0.7L_r) 53.774	-0.676	2.066	1.390
(0.8L_r) 61.456	-0.494	1.529	1.035
(0.9L_r) 69.138	-0.261	0.829	0.568
76.404	-0.014	0.048	0.033
(STLF, 1.0L_r) 76.820	0.000	0.000	0.000

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.599	-0.250	0.815	0.000	0.565
(0.2L_{st}) 15.197	-0.473	1.501	0.000	1.029
(0.3L_{st}) 22.796	-0.647	2.028	0.000	1.381
(0.4L_{st}) 30.395	-0.758	2.361	0.000	1.603
(0.5L_{st}) 37.993	-0.796	2.474	0.000	1.678
(0.6L_{st}) 45.592	-0.758	2.361	0.000	1.603
(0.7L_{st}) 53.191	-0.647	2.028	0.000	1.381
(0.8L_{st}) 60.790	-0.473	1.501	0.000	1.029
(0.9L_{st}) 68.388	-0.250	0.815	0.000	0.565
(1.0L_{st}) 75.987	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.404	0.014	-0.048	0.000	-0.034

$\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	$\Delta_{girder\ Erected}$ (in)	$\Delta_{ps\ Erected}$ (in)	δ_{girder} (in)	$\Delta_{creep1\ Erected}$ (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	$\Delta_{User1} = \Delta_{UserDC} + \Delta_{UserDW}$ (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	$\Delta_{User2} = \Delta_{UserDC} + \Delta_{UserDW}$ (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.013	0.002	0.000	0.001	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	-0.250	0.815	0.000	0.000	0.000	0.548	-0.241	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(0.2L_e) 15.197	-0.473	1.501	0.000	0.000	0.000	0.998	-0.455	-0.083	-0.013	-0.033	-0.014	-0.027	0.000
(0.3L_e) 22.796	-0.647	2.028	0.000	0.000	0.000	1.339	-0.623	-0.113	-0.017	-0.044	-0.018	-0.036	0.000
(0.4L_e) 30.395	-0.758	2.361	0.000	0.000	0.000	1.555	-0.730	-0.132	-0.020	-0.049	-0.020	-0.039	0.000
(0.5L_e) 37.993	-0.796	2.474	0.000	0.000	0.000	1.628	-0.766	-0.139	-0.022	-0.047	-0.020	-0.038	0.000
(0.6L_e) 45.592	-0.758	2.361	0.000	0.000	0.000	1.555	-0.730	-0.132	-0.020	-0.040	-0.017	-0.033	0.000
(0.7L_e) 53.191	-0.647	2.028	0.000	0.000	0.000	1.339	-0.623	-0.113	-0.017	-0.029	-0.012	-0.024	0.000
(0.8L_e) 60.790	-0.473	1.501	0.000	0.000	0.000	0.998	-0.455	-0.083	-0.013	-0.017	-0.007	-0.014	0.000
(0.9L_e) 68.388	-0.250	0.815	0.000	0.000	0.000	0.548	-0.241	-0.044	-0.007	-0.006	-0.002	-0.005	0.000
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.404	0.014	-0.048	0.000	0.000	0.000	-0.033	0.013	0.002	0.000	0.000	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.066	-0.050	-0.048	-0.019
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.599	0.565	0.565	0.565	1.112	0.822	0.781	0.331
(0.2L_e) 15.197	1.029	1.029	1.029	2.027	1.476	1.402	0.625
(0.3L_e) 22.796	1.381	1.381	1.381	2.720	1.967	1.869	0.851
(0.4L_e) 30.395	1.603	1.603	1.603	3.158	2.276	2.168	0.991
(0.5L_e) 37.993	1.678	1.678	1.678	3.306	2.379	2.274	1.032
(0.6L_e) 45.592	1.603	1.603	1.603	3.158	2.276	2.186	0.972
(0.7L_e) 53.191	1.381	1.381	1.381	2.720	1.967	1.901	0.819
(0.8L_e) 60.790	1.029	1.029	1.029	2.027	1.476	1.439	0.588
(0.9L_e) 68.388	0.565	0.565	0.565	1.112	0.822	0.809	0.303
(1.0L_e) 75.987	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.404	-0.034	-0.034	-0.034	-0.066	-0.050	-0.050	-0.016

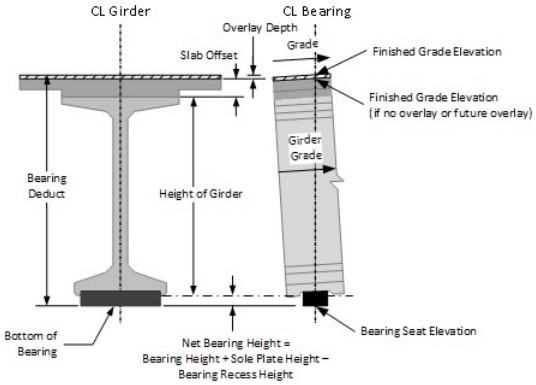
$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$

$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Haunch Details

Slab Offset check disabled in Project Criteria. No analysis performed.

Bearing Seat Elevation Details



NOTE: Vertical height dimensions listed in the tables below are adjusted for girder and roadway grade and orientation.
NOTE: Bearing Deduct is a nominal value rounded to 1/8"

Abutment 1 Ahead

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+04.36	43.319 L	-0.866	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.533	0.000	-5.533	56.000
B	1	94+01.38	35.605 L	-0.712	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	93+98.35	27.903 L	-0.558	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	93+95.26	20.214 L	-0.404	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.071	0.000	-5.071	56.000
E	1	93+92.11	12.537 L	-0.251	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.917	0.000	-4.917	56.000
F	1	93+88.90	4.874 L	-0.097	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.764	0.000	-4.764	56.000
G	1	93+85.21	3.734 R	-0.075	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.741	0.000	-4.741	56.000
H	1	93+81.83	11.432 R	-0.229	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	93+78.38	19.114 R	-0.382	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	93+74.86	26.781 R	-0.536	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.202	0.000	-5.202	56.000
K	1	93+71.27	34.433 R	-0.689	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.355	0.000	-5.355	56.000
L	1	93+67.60	42.068 R	-0.841	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.508	0.000	-5.508	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Back

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+76.29	43.946 L	-0.879	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.546	0.000	-5.546	56.000
B	1	94+74.02	35.973 L	-0.719	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	94+71.71	28.007 L	-0.560	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.227	0.000	-5.227	56.000
D	1	94+69.34	20.048 L	-0.401	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.068	0.000	-5.068	56.000
E	1	94+66.93	12.097 L	-0.242	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.909	0.000	-4.909	56.000
F	1	94+64.47	4.154 L	-0.083	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.750	0.000	-4.750	56.000
G	1	94+62.21	3.014 R	-0.060	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.727	0.000	-4.727	56.000
H	1	94+59.63	11.009 R	-0.220	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	94+56.99	18.995 R	-0.380	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.047	0.000	-5.047	56.000
J	1	94+54.30	26.971 R	-0.539	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.206	0.000	-5.206	56.000
K	1	94+51.55	34.939 R	-0.699	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.365	0.000	-5.365	56.000
L	1	94+48.74	42.897 R	-0.858	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.525	0.000	-5.525	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Ahead

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+77.78	43.375 L	-0.868	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.534	0.000	-5.534	56.000
B	1	94+75.59	35.630 L	-0.713	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	94+73.35	27.892 L	-0.558	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	94+71.08	20.161 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.070	0.000	-5.070	56.000
E	1	94+68.75	12.436 L	-0.249	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.915	0.000	-4.915	56.000
F	1	94+66.39	4.719 L	-0.094	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.761	0.000	-4.761	56.000
G	1	94+63.76	3.662 R	-0.073	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.740	0.000	-4.740	56.000
H	1	94+61.28	11.394 R	-0.228	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	94+58.75	19.119 R	-0.382	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	94+56.17	26.836 R	-0.537	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.203	0.000	-5.203	56.000
K	1	94+53.53	34.543 R	-0.691	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.358	0.000	-5.358	56.000
L	1	94+50.84	42.242 R	-0.845	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.512	0.000	-5.512	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Abutment 3 Back

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	95+49.88	43.902 L	-0.878	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.545	0.000	-5.545	56.000
B	1	95+48.39	35.975 L	-0.719	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	95+46.88	28.051 L	-0.561	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.228	0.000	-5.228	56.000
D	1	95+45.33	20.130 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.069	0.000	-5.069	56.000
E	1	95+43.75	12.213 L	-0.244	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.911	0.000	-4.911	56.000
F	1	95+42.14	4.298 L	-0.086	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.753	0.000	-4.753	56.000
G	1	95+40.61	3.069 R	-0.061	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.728	0.000	-4.728	56.000
H	1	95+38.92	11.009 R	-0.220	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	95+37.20	18.945 R	-0.379	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.046	0.000	-5.046	56.000
J	1	95+35.45	26.877 R	-0.538	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.204	0.000	-5.204	56.000
K	1	95+33.65	34.805 R	-0.696	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.363	0.000	-5.363	56.000
L	1	95+31.82	42.729 R	-0.855	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.521	0.000	-5.521	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Bearing Design Parameters

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	28.43	3.05	30.09	5.40	8.14	3.41	6.53	3.57	-0.51	102.96 (D0)	-11.74 (D0)	59.25 (F0)	-6.34 (F0)	128.46 (P0)	-14.40 (P0)
Pier 2 - Back	28.43	0.00	30.09	5.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Live Load values are per lane and include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Girder Bearing Reactions due to User Defined Loads in Interval 17: Open to Traffic

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1 - Ahead	0.84	1.15	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
Abutment 1 - Ahead	0.00	0.00	79.37	7.68	175.14

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	88.10	-10.05	35.44	-3.79	109.92	-12.32	91.67	-10.56	35.44	-3.79	109.92	-12.32

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	175.14	157.52	96.68	264.90	58.84	259.12	59.79

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.57	-0.51	70.81	-8.21	30.82	-3.30	82.64	-9.26	74.39	-8.72	30.82	-3.30	82.64	-9.26

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Without Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	157.86	143.69	89.75	234.65	62.06	222.30	63.92

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load		* Legal Routine		* Legal Special		* Legal Emergency	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 1 - Ahead	-0.00279	0.00000	-0.00269	-0.00049	-0.00020	-0.00009	-0.00017	0.00004	-0.00012	0.00048 (D0)	-0.00147 (D0)	0.00017 (F0)	-0.00050 (F0)	0.00055 (P0)	-0.00168 (P0)	0.00029 (R1)	-0.00088 (R1)	0.00037 (S0)	-0.00114 (S0)	0.00040 (E1)	-0.0012 (E1

* Live Load values are per girder and do not include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane

(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Rotations due to User Defined Loads in Interval 17: Open to Traffic

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 1 - Ahead	-0.00008	-0.00003	0.00000

Prestress and Time-Dependent Rotations

	Pre-tensioning (rad)	Creep (rad)
Abutment 1 - Ahead	0.00763	0.00642
Pier 2 - Back	-0.00763	-0.00642

Corresponding Live Load Bearing Reactions and Rotations

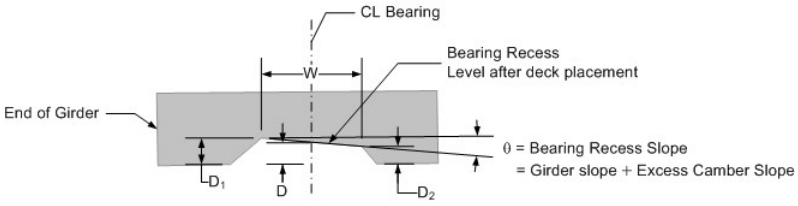
	* Reactions				* Rotations			
	R_{Max} (kip)	θ (rad)	R_{Min} (kip)	θ (rad)	θ_{Max} (rad)	R (kip)	θ_{Min} (rad)	R (kip)
Abutment 1	70.81	0.00009	-8.21	0.00028	0.00048	-5.57	-0.00147	28.35

* Live Load values are per girder and do not include impact.

Bearing Recess Geometry

	Girder Slope (ft/ft)	Excess Camber Slope (ft/ft)	Bearing Recess Slope (ft/ft)	* W Recess Length	D Recess Height	D_1	D_2
Abutment 1	-0.000	0.009	0.009	8"	0"	0"	0"

* W is maximum of input bearing length and recess length



$$D_1 = D + \frac{W\theta}{2} \qquad D_2 = D - \frac{W\theta}{2}$$

Lifting Check Details

Details for Check for Lifting In Casting Yard [5.5.4.3][5.9.2.3.1]
Lifting analysis disabled in Project Criteria. No analysis performed.

Hauling Check Details

Details for Check for Hauling to Bridge Site [5.5.4.3][5.9.2.3.1]
Hauling analysis disabled in Project Criteria. No analysis performed.

Details Report

For

Span 2 Girder B

March 15, 2021 8:10:02 am

PGSuper™ (x64)

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Version 5.0.3 - Built on Jul 9 2020

Project Properties

Bridge Name	Belford over Happy Canyon Creek
Bridge ID	
Company	FHU
Engineer	J. Lynch
Job Number	115360
Comments	Belford Ave over Happy Canyon Creek. Updated design for full width and current design codes.
File	C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

Configuration
Configuration Name: WSDOT
Configuration Source: ftp://ftp.wsdot.wa.gov/public/bridge/Software/PGSuper/Version_5.0.0/WSDOT.pgz
Configuration Date Stamp: September 25, 2020 2:10:27 pm

Library	Entry	Source
Girders	BT-42 CDOT	Project Library
Traffic Barriers	Parker Rail	Project Library
Project Criteria	CDOT based on AASHTO LRFD Bridge Design Specification, Eighth Edition 2017	Project Library
Vehicular Live Load	CDOT Permit	Project Library
Vehicular Live Load	OL1	Master Library
Vehicular Live Load	OL2	Master Library
Load Rating Criteria	WSDOT based on The Manual for Bridge Evaluation, Second Edition 2011, with 2011-2016 interim provisions	Master Library
Haul Trucks	HT40-72	Master Library

Analysis Controls
Structural Analysis Method: Simple Spans made Continuous
Section Properties: Gross
Losses: Approximate lump sum estimate per AASHTO LRFD 5.9.3.3

Notes

Symbol	Definition
L_r	Span Length of Girder at Release
L_l	Span Length of Girder during Lifting
L_{st}	Span Length of Girder during Storage
L_h	Span Length of Girder during Hauling
L_e	Span Length of Girder after Erection
L_s	Length of Span
Debond	Point where bond begins for a debonded strand
PSXFR	Point of prestress transfer
FoS	Face of Support
ST	Section Transitions
STLF	Section Transitions, Left Face
STRF	Section Transitions, Right Face
SDCR	Start of Deck Casting Region
EDCR	End of Deck Casting Region
Diaphragm	Location of a precast or cast in place diaphragm
Bar Cutoff	End of a reinforcing bar in the girder
Deck Bar Cutoff	End of a reinforcing bar in the deck
CS	Critical Section for Shear
SZB	Stirrup Zone Boundary
H	H from end of girder or face of support
1.5H	1.5H from end of girder or face of support
HP	Harp Point
Pick Point	Support point where girder is lifted from form
Bunk Point	Point where girder is supported during transportation

Status Items

Level	Description
Warning	Span 1, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)

Alignment

Alignment Details

Direction: N 49° 48' 33.38" E
Ref. Point: 0+00.00 (E (X) 0.000, N (Y) 0.000)

Horizontal Curve Data

Curve Parameters	Curve 1
Back Tangent Bearing	N 49° 48' 33.38" E
Forward Tangent Bearing	S 24° 47' 12.62" E
PC Station	81+65.50
PI Station	91+76.34
PT Station	95+82.03
Delta (Δ_{cc})	105° 24' 14.00" R
Degree Curvature (DC)	7° 26' 27.64"
Radius (R)	770.000 ft
Tangent (T)	1010.841 ft
Length (L)	1416.527 ft
Chord (C)	1225.061 ft
External (E)	500.708 ft
Mid Ordinate (MO)	303.410 ft
Curve Points (x,y)	
PC	5269.475 ft, 6237.629 ft
PI	5921.805 ft, 7009.810 ft
PT	5004.089 ft, 7433.599 ft
Center of Circular Curve (CCC)	4681.272 ft, 6734.536 ft

Profile Details

Station: 0+00.00
Elevation: 0.000 ft
Grade: 0%

Roadway Cross Sections

Each Roadway Cross Section Template contains 3 segments per section.
Ridge Point #1 is the controlling ridge point. It defines the slope sign convention and coincides with the horizontal alignment, profile grade, and superelevation pivot location.

Template	Station	Segment 1	Segment 2		Segment 3
		Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Slope (ft/ft)
1	0+00.00	-0.02	0.000	0	-0.02

Bridge Description

General Bridge Information

Number of Spans	2
Girder Type	BT-42 CDOT

Concrete Properties

Element	Type	f'_{ci} (KSI)	E_{ci} (KSI)	f'_c (KSI)	E_c (KSI)	w_w (kip/ft^3)	w_c (kip/ft^3)	D_{agg} (in)	f_{ct} (KSI)	E_c		Creep		Shrinkage		λ
										K_1	K_2	K_1	K_2	K_1	K_2	
Girder B	Normal Weight Concrete	6.000	4557.295	8.000	5011.145	0.163	0.145	0.750	N/A	1	1	1	1	1	1	1
Deck	Normal Weight Concrete	-	-	4.500	4144.550	0.150	0.145	0.750	N/A	1	1	1	1	1	1	1

$$E_c = 120{,}000 K_1 K_2 w_c^{2.0} f_c'^{0.33}$$

* = Modulus of elasticity was input

Pier Layout

	Station	Bearing	Skew Angle	Boundary Condition
Abutment 1	93+85.19	N 73° 56' 01.00" E	23° 22' 01.32" R	Hinge
Pier 2	94+64.04	N 73° 56' 01.00" E	17° 29' 59.26" R	Continuous after deck placement
Abutment 3	95+42.78	N 73° 56' 01.00" E	11° 38' 26.68" R	Hinge

Pier Diaphragms

	Diaphragm - Back				Diaphragm - Ahead			
	Height (in)	Width (in)	Loading	Location(*) (in)	Height (in)	Width (in)	Loading	Location(*) (in)
Abutment 1					Compute	Compute	Apply load at centerline bearing	N/A
Pier 2	Compute	Compute	Apply load at centerline bearing	N/A	Compute	Compute	Apply load at centerline bearing	N/A
Abutment 3	Compute	Compute	Apply load at centerline bearing	N/A				

(*) Distance from Abutment/Pier Line to Centroid of Diaphragm

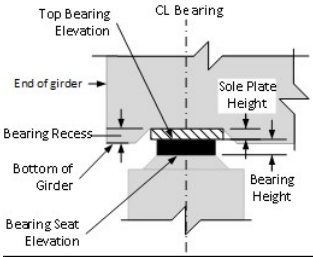
Pier Connections

	Back				Ahead			
	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure
Abutment 1					18.000	FA-NA	5.000	FCLB-AG
Pier 2	10.000	FP-NP	5.000	FCLB-AG	10.000	FP-NP	5.000	FCLB-AG
Abutment 3	18.000	FA-NA	5.000	FCLB-AG				

Bearing Offset Measure
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

End Distance Measure
FCLB-AG = Measured From CL Bearing along Girder
FCLB-NCLB = Measured From and Normal to CL Bearing
FCLB-NCLB = Measured From and Normal to CL Bearing
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

Bearing Details



Location	Shape	# of Bearings	Spacing (in)	Length or Diameter (in)	Width (in)	Height (in)	Recess Height (in)	Recess Length (in)	Sole Plate Height (in)
Abutment 3 - Back	Rectangular	1	N/A	8.000	12.000	0.000	0.000	0.000	0.000

Spans

Span	# Girders	Start of Span		End of Span	
		Girder Spacing	Datum	Girder Spacing	Datum
1	12	Between A & F : 8.323 ft Between F & G : 9.368 ft Between G & L : 8.393 ft	4	Between A & F : 8.323 ft Between F & G : 7.519 ft Between G & L : 8.393 ft	4
2	12	Between A & F : 8.080 ft Between F & G : 8.784 ft Between G & L : 8.113 ft	4	Between A & F : 8.080 ft Between F & G : 7.525 ft Between G & L : 8.113 ft	4

Girder Spacing Datum:
(1) Measured normal to the alignment at the abutment/pier line
(2) Measured normal to the alignment at the centerline of bearing
(3) Measured at and along the abutment/pier line
(4) Measured at and along the centerline of bearing

Girder spacing is measured at the work point elevation, which is at top centerline of girder.
Girder orientation is set plumb

Span 2, Girder B

Girder Type	BT-42 CDOT
Slab Offset ("A" Dimension) at Pier 2	11.000 in
Slab Offset ("A" Dimension) at Abutment 3	11.000 in
Strand Fill Type	Sequence of Straight/Harped Strands
Type of Adjustable Web Strands	Harped
Number of Straight Strands	18 8 extended at left end 8 extended at right end
Straight Strand P_{jack}	790.97 kip
Number of Harped Strands	10
Harped Strand P_{jack}	439.43 kip
Total Number of Permanent Strands	28
Distance from top of girder to top-most harped strand at ends of girder	4.000 in
Distance from bottom of girder to lowest harped strand at harp point	2.000 in
Specified Release Strength f'_{ci}	6.000 KSI
Specified 28 day Strength f'_c	8.000 KSI
Prestressing Strand (Permanent)	0.600 in Dia. Grade 270 Low Relaxation

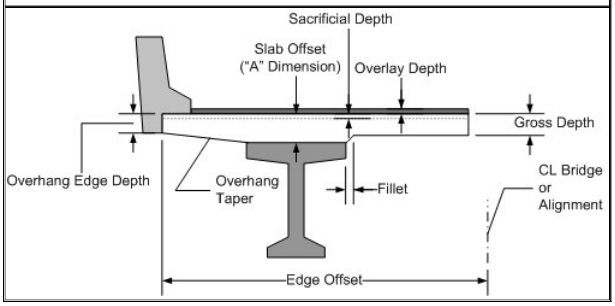
Deck Geometry

Deck Type
Composite cast-in-place deck
Cross Section
Gross Depth = 8.000 in
Left Overhang Edge Depth = 8.000 in
Left Overhang Taper = Taper overhang to bottom of girder top flange
Right Overhang Edge Depth = 8.000 in
Right Overhang Taper = Taper overhang to bottom of girder top flange
Fillet = 1.000 in
Slab Offset ("A" Dimension) = 11.000 in

Plan (Edge of Deck)

Station	Measured From	Left Offset (ft)	Right Offset (ft)
0+00.00	Bridge Line	47.000	47.000

Wearing Surface
Wearing Surface: Overlay
Overlay Weight = 0.037 KSF



Deck Reinforcement
Reinforcement: AASHTO M31 (A615) - Grade 60
Top Mat Cover: 2.000 in
Bottom Mat Cover: 1.000 in
Primary Reinforcement - Longitudinal reinforcement running the full length of the bridge

Mat	Bars		Lump Sum (in^2/ft)
Top	#9 @ 6.000	AND	0.000
Bottom	None @ 18.000	AND	0.000

Supplemental Reinforcement - Negative moment reinforcement at continuous piers

Pier	Mat	A_s (in^2/ft)	Bar	Spacing (in)	Left Cutoff (ft)	Right Cutoff (ft)
2	Top	0.000	#9	6.000	22.000	22.000

Analysis Intervals

Interval	Description	Start Event	End Event	Start (day)	Middle (day)	End (day)	Duration (day)
1	Tension strand, cast girder, strand relaxation, and concrete curing	1	1	0	0.5	1	1
2	Prestress Release	1	1	1	1	1	0
3	Lift girders	1	1	1	1	1	0
4	Place girders into storage	1	1	1	1	1	0
5	Time Step	1	2	1	14.5	28	27
6	Haul Girders	2	2	28	28	28	0
7	Erect Girders	2	2	28	28	28	0
8	Time Step	2	3	28	44.5	61	33
9	Install Intermediate Diaphragms	3	3	61	61	61	0
10	Time Step	3	4	61	61.5	62	1
11	Cast Deck, Apply User Defined Loads	4	4	62	62	62	0
12	Deck curing	4	4	62	62	62	0
13	Composite deck	4	4	62	62	62	0
14	Time Step	4	5	62	62.5	63	1
15	Apply User Defined Loads, Install Railing System and Overlay	5	5	63	63	63	0
16	Time Step	5	6	63	63.5	64	1
17	Open to Traffic	6	6	64	64	64	0

Span Lengths

C-C Pier = Abutment/Pier Line to Abutment/Pier Line length measured along the girder
C-C Bearing = Centerline bearing to centerline bearing length measured along the girder centerline
Girder Length, Plan = End to end length of the girder projected into a horizontal plane
Girder Length, Along Grade = End to end length of girder measured along grade of the girder (slope adjusted) = $L_g\sqrt{1+grade^2}$

C-C Pier (ft)	C-C Bearing (ft)	Girder Length		Grade (ft/ft)	End Distance	
		Plan (ft)	Along Grade (ft)		Start (ft)	End (ft)
78.572	76.165	76.999	76.999	-0.0001	0.417	0.417

Section Properties

Left Traffic Barrier Area = 2145.000 in^2
Left Traffic Barrier I_{yy} = 298512.8 in^4
Left Traffic Barrier Y_b = 12.798 in
Left Exterior Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Left Exterior Traffic Barrier to Left Edge of Deck = 9.000 in
Left Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Left Sidewalk to Left Edge of Deck = 69.000 in
Left Sidewalk Actual Width = 120.000 in
Left Sidewalk Face Depth = 11.000 in
Left Sidewalk Back Depth = 15.750 in
Left Sidewalk Weight = 1.672 kip/ft

Right Traffic Barrier Area = 2145.000 in^2
Right Traffic Barrier I_{yy} = 298512.8 in^4
Right Traffic Barrier Y_b = 12.798 in
Right Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Right Exterior Traffic Barrier to Right Edge of Deck = 9.000 in
Right Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Right Sidewalk to Right Edge of Deck = 69.000 in
Right Sidewalk Actual Width = 120.000 in
Right Sidewalk Face Depth = 11.000 in
Right Sidewalk Back Depth = 15.750 in
Right Sidewalk Weight = 1.672 kip/ft

Deck E_c = 4144.550 KSI

Bending Stiffness of Entire Bridge Section at center of Span 2
EI_{xx} = 2.13e+10 kip-in^2 (used to compute Live Load Deflections per LRFD 3.6.1.3.2)
EI_{yy} = 8.26e+12 kip-in^2
EI_{xy} = -2.03e+09 kip-in^2

Section Properties

	Girder	Composite
Area (in^2)	654.000	1311.526
I_x (in^4)	153070.0	372063.7
I_y (in^4)	42346.5	-
d (girder depth) (in)	42.000	51.000
Y_{tg} (in)	20.850	8.012
Y_{bg} (in)	21.150	33.988
Y_{td} (in)	-	17.012
Y_{bd} (in)	-	8.012
S_{tg} (in^3)	7341.4	46436.3
S_{bg} (in^3)	7237.4	10947.0
$S_{td} = n(I_x/Y_{td})$ (in^3)	-	26443.1

	Girder	Composite
$S_{bd} = n(I_x/Y_{bd})$ (in^3)	-	56145.8
Q_{deck} (in^3)	-	8395.9
Effective Flange Width (in)	-	94.001
k_t (in) (Top kern point)	11.066	-
k_b (in) (Bottom kern point)	11.225	-
Perimeter (in)	195.230	-
Span/Depth Ratio	22	18
Weight (kip/ft)	0.740	-
Total Weight (kip)	57.00	-

User Defined Loads

Locations are measured from left support.
Point loads were not defined for this girder

Distributed Loads

Event	Load Case	Start Location	End Location	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Event 5: Final without Live Load	DW	0.00 %	100.00 %	0.040	0.040	Utility Load
Event 4: Cast Deck	DC	0.00 %	100.00 %	0.022	0.022	SIP Forms

Moment loads were not defined for this girder

Moments, Shears, and Reactions

Load Responses - Casting Yard

At Release

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF, 0.0L_r) 0.000	0.00	28.50	0.000
(PSXFR) 3.000	82.17	26.28	-0.104
(0.1L_r) 7.700	197.51	22.80	-0.263
(0.2L_r) 15.400	351.12	17.10	-0.498
(0.3L_r) 23.100	460.85	11.40	-0.682
(HP, 0.4L_r) 30.799	526.68	5.70	-0.799
(0.5L_r) 38.499	548.63	0.00	-0.839
(HP, 0.6L_r) 46.199	526.68	-5.70	-0.799
(0.7L_r) 53.899	460.85	-11.40	-0.682
(0.8L_r) 61.599	351.12	-17.10	-0.498
(0.9L_r) 69.299	197.51	-22.80	-0.263
(PSXFR) 73.999	82.17	-26.28	-0.104
(STLF, 1.0L_r) 76.999	0.00	-28.50	0.000

During Storage

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF) -0.417	0.00	0.00	0.014
(0.0L_{st}) 0.000	-0.06	-0.31 28.19	0.000
(PSXFR) 2.583	70.30	26.28	-0.087
(0.1L_{st}) 7.617	193.19	22.55	-0.252
(0.2L_{st}) 15.233	343.50	16.92	-0.477
(0.3L_{st}) 22.850	450.86	11.28	-0.653
(HP) 30.383	514.81	5.70	-0.764
(0.4L_{st}) 30.466	515.28	5.64	-0.765
(0.5L_{st}) 38.083	536.75	0.00	-0.803
(0.6L_{st}) 45.699	515.28	-5.64	-0.765
(HP) 45.783	514.81	-5.70	-0.764
(0.7L_{st}) 53.316	450.86	-11.28	-0.653
(0.8L_{st}) 60.932	343.50	-16.92	-0.477
(0.9L_{st}) 68.549	193.19	-22.55	-0.252
(PSXFR) 73.582	70.30	-26.28	-0.087
(1.0L_{st}) 76.165	-0.06	-28.19 0.31	0.000
(STLF) 76.582	0.00	0.00	0.014

Responses from Externally Applied Loads at the Bridge Site

Moments

Location from Left Support (ft)	Girder (kip-ft)	Diaphragm (kip-ft)	Slab (kip-ft)	Haunch (kip-ft)	Sidewalk (kip-ft)	Railing System (kip-ft)	Overlay (kip-ft)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
0.000	0.00	0.00	0.00	0.00	-194.81	-81.57	-158.44	0.04	-74.16	18.61 (D0)	-1516.14 (D2)	0.00 (F0)	-479.56 (F0)	0.00 (P0)	-1620.63 (P0)
(0.0L_e) 0.000	0.00	0.00	0.00	0.00	-194.81	-81.57	-158.44	0.04	-74.16	18.61 (D0)	-1516.14 (D2)	0.00 (F0)	-479.56 (F0)	0.00 (P0)	-1620.63 (P0)
(PSXFR) 2.583	70.36	0.00	74.45	13.40	-161.72	-67.71	-131.53	0.69	-62.19	78.69 (D0)	-1308.59 (D2)	0.00 (F0)	-463.30 (F0)	0.00 (P0)	-1414.37 (P0)
(0.1L_e) 7.617	193.25	0.00	204.49	36.90	-102.59	-42.95	-83.44	4.76	-43.73	268.02 (D1)	-930.47 (D2)	59.88 (F0)	-431.61 (F0)	53.65 (P0)	-1020.73 (P0)
(0.2L_e) 15.233	343.56	0.00	363.54	65.81	-26.53	-11.11	-21.58	20.96	-30.95	661.95 (D0)	-710.67 (D0)	359.12 (F0)	-383.65 (F0)	741.78 (P0)	-871.64 (P0)
(0.3L_e) 22.850	450.93	0.00	477.15	86.57	33.36	13.97	27.13	39.91	-27.08	1077.76 (D0)	-621.84 (D0)	592.51 (F0)	-335.69 (F0)	1270.06 (P0)	-762.69 (P0)
(0.4L_e) 30.466	515.35	0.00	545.32	99.07	77.09	32.28	62.70	52.70	-23.21	1375.60 (D0)	-533.00 (D0)	736.94 (F0)	-287.74 (F0)	1645.17 (P0)	-653.73 (P0)
(0.5L_e) 38.083	536.82	0.00	568.04	103.24	104.65	43.82	85.11	59.33	-19.34	1523.11 (D0)	-444.17 (D0)	772.80 (F0)	-239.78 (F0)	1862.18 (P0)	-544.78 (P0)
(0.6L_e) 45.699	515.35	0.00	545.32	99.07	116.05	48.59	94.39	59.79	-15.47	1548.38 (D0)	-355.34 (D0)	817.87 (F0)	-191.82 (F0)	1858.21 (P0)	-435.82 (P0)
(0.7L_e) 53.316	450.93	0.00	477.15	86.57	111.29	46.59	90.51	54.09	-11.60	1421.80 (D0)	-266.50 (D0)	773.30 (F0)	-143.87 (F0)	1716.22 (P0)	-326.87 (P0)
(0.8L_e) 60.932	343.56	0.00	363.54	65.81	90.35	37.83	73.49	42.22	-7.74	1148.82 (D0)	-177.67 (D0)	621.83 (F0)	-95.91 (F0)	1383.43 (P0)	-217.91 (P0)
(0.9L_e) 68.549	193.25	0.00	204.49	36.90	53.26	22.30	43.32	24.19	-3.87	678.38 (D0)	-88.83 (D0)	379.71 (F0)	-47.96 (F0)	828.17 (P0)	-108.96 (P0)
(PSXFR) 73.582	70.36	0.00	74.45	13.40	19.88	8.32	16.17	8.90	-1.31	253.83 (D0)	-30.13 (D0)	144.82 (F0)	-16.27 (F0)	314.48 (P0)	-36.95 (P0)
(1.0L_e) 76.165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
76.165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.
(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane

(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Moment due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip-ft)	User DW (kip-ft)	User LL+IM (kip-ft)
0.000	-0.00	0.00	0.00
(0.0L_e) 0.000	-0.00	0.00	0.00
(PSXFR) 2.583	2.09	0.00	0.00
(0.1L_e) 7.617	5.74	0.00	0.00
(0.2L_e) 15.233	10.21	0.00	0.00
(0.3L_e) 22.850	13.40	0.00	0.00
(0.4L_e) 30.466	15.31	0.00	0.00
(0.5L_e) 38.083	15.95	0.00	0.00
(0.6L_e) 45.699	15.31	0.00	0.00
(0.7L_e) 53.316	13.40	0.00	0.00
(0.8L_e) 60.932	10.21	0.00	0.00
(0.9L_e) 68.549	5.74	0.00	0.00
(PSXFR) 73.582	2.09	0.00	0.00
(1.0L_e) 76.165	0.00	0.00	0.00
76.165	0.00	0.00	0.00

Shears

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
0.000	0.00	0.00	0.00	0.00	13.17	5.51	10.71	5.02	-0.00	117.56 (D0)	-0.24 (D0)	66.82 (F0)	0.00 (F0)	151.85 (P0)	0.00 (P0)
(0.0L_e) 0.000	28.50 28.19	2.39 0.00	30.16 29.83	5.42 5.36	13.17	5.51	10.71	5.02	-0.00	117.56 (D0)	-0.24 (D0)	66.82 (F0)	0.00 (F0)	151.85 (P0)	0.00 (P0)
(0.1L_e) 7.617	22.55	0.00	23.87	4.32	11.05	4.63	8.98	4.24	-0.03	105.88 (D0)	-3.33 (D1)	59.92 (F0)	0.00 (F0)	138.37 (P0)	0.00 (P0)
(0.2L_e) 15.233	16.92	0.00	17.90	3.26	8.92	3.74	7.26	3.51	-0.11	93.43 (D0)	-8.32 (D1)	52.22 (F0)	-1.64 (F0)	122.44 (P0)	0.00 (P0)
(0.3L_e) 22.850	11.28	0.00	11.93	2.19	6.80	2.85	5.53	2.84	-0.25	80.42 (D0)	-14.48 (D1)	43.85 (F0)	-5.91 (F0)	104.12 (P0)	-1.98 (P0)
(0.4L_e) 30.466	5.64	0.00	5.97	1.10	4.68	1.96	3.81	2.24	-0.46	67.04 (D0)	-22.52 (D0)	34.93 (F0)	-11.17 (F0)	83.56 (P0)	-16.20 (P0)
(0.5L_e) 38.083	0.00	0.00	0.00	0.00	2.56	1.07	2.08	1.73	-0.75	53.47 (D0)	-32.87 (D0)	26.45 (F0)	-17.39 (F0)	60.87 (P0)	-37.85 (P0)
(0.6L_e) 45.699	-5.64	0.00	-5.97	-1.10	0.44	0.18	0.35	1.30	-1.13	39.89 (D0)	-44.59 (D0)	17.91 (F0)	-24.47 (F0)	38.29 (P0)	-54.71 (P0)
(0.7L_e) 53.316	-11.28	0.00	-11.93	-2.19	-1.69	-0.71	-1.37	0.95	-1.60	27.91 (D1)	-57.60 (D0)	13.41 (F0)	-32.32 (F0)	26.14 (P0)	-71.58 (P0)
(0.8L_e) 60.932	-16.92	0.00	-17.90	-3.26	-3.81	-1.59	-3.10	0.71	-2.16	18.45 (D1)	-71.74 (D0)	9.03 (F0)	-40.82 (F0)	15.70 (P0)	-89.67 (P0)
(0.9L_e) 68.549	-22.55	0.00	-23.87	-4.32	-5.93	-2.48	-4.82	0.56	-2.82	11.96 (D0)	-86.93 (D0)	6.30 (F0)	-49.85 (F0)	14.31 (P0)	-108.73 (P0)
(1.0L_e) 76.165	-28.19 -28.50	0.00 -2.94	-29.83 -30.16	-5.36 -5.42	-8.05 -8.17	-3.37 -3.42	-6.55	0.51	-3.58	11.66 (D0)	-103.02 (D0)	6.30 (F0)	-59.29 (F0)	14.31 (P0)	-128.52 (P0)
76.165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Shears due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip)	User DW (kip)	User LL+IM (kip)
0.000	-0.01	0.00	0.00
(0.0L_e) 0.000	0.84	0.00	0.00
(0.1L_e) 7.617	0.67	0.00	0.00
(0.2L_e) 15.233	0.50	0.00	0.00
(0.3L_e) 22.850	0.34	0.00	0.00
(0.4L_e) 30.466	0.17	0.00	0.00
(0.5L_e) 38.083	0.00	0.00	0.00
(0.6L_e) 45.699	-0.17	0.00	0.00
(0.7L_e) 53.316	-0.34	0.00	0.00
(0.8L_e) 60.932	-0.50	0.00	0.00
(0.9L_e) 68.549	-0.67	0.00	0.00
(1.0L_e) 76.165	-0.84	0.00	0.00
76.165	0.00	0.00	0.00

Girder Line Pier Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2	56.94	0.00	60.25	10.82	26.80	11.22	21.61	10.22	0.00	170.57 (D2)	0.00 (D0)	77.34 (F0)	0.00 (F0)	213.56 (P0)	0.00 (P0)
Abutment 3	28.50	2.94	30.16	5.42	8.17	3.42	6.55	3.58	-0.51	103.02 (D0)	-11.66 (D0)	59.29 (F0)	-6.30 (F0)	128.52 (P0)	-14.31 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2 - Ahead	28.50	0.00	30.16	5.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Abutment 3 - Back	28.50	2.94	30.16	5.42	8.17	3.42	6.55	3.58	-0.51	103.02 (D0)	-11.66 (D0)	59.29 (F0)	-6.30 (F0)	128.52 (P0)	-14.31 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Line Pier Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Pier 2	1.70	0.00	0.00
Abutment 3	0.84	0.00	0.00

Girder Bearing Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3 - Back	0.84	0.00	0.00

Deflections

Location from Left Support (ft)	Girder (in)	Diaphragm (in)	Slab (in)	Haunch (in)	Sidewalk (in)	Railing System (in)	Overlay (in)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.022 (P0)	-0.023 (P0)
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.022 (P0)	-0.023 (P0)
(0.1L_e) 7.617	-0.252	0.000	-0.243	-0.044	-0.006	-0.002	-0.005	0.007	-0.009	0.152 (D0)	-0.203 (D0)	0.082 (F0)	-0.110 (F0)	0.187 (P0)	-0.250 (P0)
(0.2L_e) 15.233	-0.477	0.000	-0.459	-0.083	-0.017	-0.007	-0.014	0.011	-0.017	0.244 (D0)	-0.397 (D0)	0.132 (F0)	-0.213 (F0)	0.299 (P0)	-0.488 (P0)
(0.3L_e) 22.850	-0.653	0.000	-0.629	-0.114	-0.030	-0.012	-0.024	0.013	-0.024	0.297 (D0)	-0.567 (D0)	0.160 (F0)	-0.302 (F0)	0.364 (P0)	-0.697 (P0)
(0.4L_e) 30.466	-0.765	0.000	-0.736	-0.134	-0.041	-0.017	-0.033	0.014	-0.029	0.317 (D0)	-0.690 (D0)	0.171 (F0)	-0.363 (F0)	0.388 (P0)	-0.848 (P0)
(0.5L_e) 38.083	-0.803	0.000	-0.773	-0.140	-0.048	-0.020	-0.039	0.013	-0.032	0.308 (D0)	-0.747 (D0)	0.166 (F0)	-0.390 (F0)	0.377 (P0)	-0.919 (P0)
(0.6L_e) 45.699	-0.765	0.000	-0.736	-0.134	-0.049	-0.021	-0.040	0.012	-0.031	0.275 (D0)	-0.727 (D0)	0.148 (F0)	-0.381 (F0)	0.337 (P0)	-0.896 (P0)
(0.7L_e) 53.316	-0.653	0.000	-0.629	-0.114	-0.044	-0.019	-0.036	0.010	-0.027	0.223 (D0)	-0.631 (D0)	0.120 (F0)	-0.333 (F0)	0.273 (P0)	-0.779 (P0)
(0.8L_e) 60.932	-0.477	0.000	-0.459	-0.083	-0.034	-0.014	-0.027	0.007	-0.020	0.156 (D0)	-0.464 (D0)	0.084 (F0)	-0.246 (F0)	0.192 (P0)	-0.574 (P0)
(0.9L_e) 68.549	-0.252	0.000	-0.243	-0.044	-0.018	-0.008	-0.015	0.004	-0.010	0.081 (D0)	-0.245 (D0)	0.044 (F0)	-0.131 (F0)	0.099 (P0)	-0.304 (P0)
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Deflections due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000
(0.1L_e) 7.617	-0.007	0.000	0.000

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
(0.2L_e) 15.233	-0.013	0.000	0.000
(0.3L_e) 22.850	-0.018	0.000	0.000
(0.4L_e) 30.466	-0.021	0.000	0.000
(0.5L_e) 38.083	-0.022	0.000	0.000
(0.6L_e) 45.699	-0.021	0.000	0.000
(0.7L_e) 53.316	-0.018	0.000	0.000
(0.8L_e) 60.932	-0.013	0.000	0.000
(0.9L_e) 68.549	-0.007	0.000	0.000
(1.0L_e) 76.165	0.000	0.000	0.000
76.165	0.000	0.000	0.000

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 3 - Back	-0.00281	0.00000	-0.00271	-0.00049	-0.00001	0.00000	-0.00001	0.00007	-0.00008	0.00172 (D0)	-0.00184 (D0)	0.00093 (F0)	-0.00100 (F0)	0.00211 (P0)	-0.00226 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Rotations due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 3 - Back	0.00008	0.00000	0.00000

Deflections For The LRFD Optional Deflection Live Load (LRFD 3.6.1.3.2)

Location from Left Support (ft)	D1 (in)	D2 (in)	D Controlling (in)
0.000	-0.006	-0.003	-0.006
(0.0L_e) 0.000	-0.006	-0.003	-0.006
(0.1L_e) 7.617	-0.060	-0.036	-0.060
(0.2L_e) 15.233	-0.117	-0.070	-0.117
(0.3L_e) 22.850	-0.168	-0.100	-0.168
(0.4L_e) 30.466	-0.204	-0.121	-0.204
(0.5L_e) 38.083	-0.222	-0.131	-0.222
(0.6L_e) 45.699	-0.216	-0.127	-0.216
(0.7L_e) 53.316	-0.187	-0.111	-0.187
(0.8L_e) 60.932	-0.138	-0.081	-0.138
(0.9L_e) 68.549	-0.073	-0.043	-0.073
(1.0L_e) 76.165	0.000	0.000	0.000
76.165	0.000	0.000	0.000

D1 = LRFD Design truck without lane load and including impact
D2 = 0.25*(Design truck) + lane load, including impact
D(Controlling) = Max(D1, D2)
EI = Bridge EI / Number of Girders
Live Load Distribution Factor = (Multiple Presence Factor)(Number of Lanes)/(Number of Girders)

Combined Results - Interval 2: Prestress Release

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)	Service I (kip-ft)
(STRF, 0.0L_f) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.750	21.17	0.00	21.17	0.00	21.17
(SZB) 1.753	48.83	0.00	48.83	0.00	48.83
(Bar Develop.) 2.121	58.79	0.00	58.79	0.00	58.79
(PSXFR) 3.000	82.17	0.00	82.17	0.00	82.17
(Bar Develop.) 3.182	86.94	0.00	86.94	0.00	86.94
(H) 4.250	114.44	0.00	114.44	0.00	114.44
(CS) 4.544	121.86	0.00	121.86	0.00	121.86
(SZB) 5.419	143.58	0.00	143.58	0.00	143.58
(1.5H) 6.000	157.68	0.00	157.68	0.00	157.68
(0.1L_f) 7.700	197.51	0.00	197.51	0.00	197.51
(SZB) 10.919	267.07	0.00	267.07	0.00	267.07
(0.2L_f) 15.400	351.12	0.00	351.12	0.00	351.12
(SZB) 19.169	410.32	0.00	410.32	0.00	410.32
(Deck Bar Cutoff) 21.199	437.85	0.00	437.85	0.00	437.85
(0.3L_f) 23.100	460.85	0.00	460.85	0.00	460.85
(SZB) 30.169	522.95	0.00	522.95	0.00	522.95
(HP, 0.4L_f) 30.799	526.68	0.00	526.68	0.00	526.68
	548.63	0.00	548.63	0.00	548.63

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(0.5L_t) 38.499					
(HP, 0.6L_t) 46.199	526.68	0.00	526.68	0.00	526.68
(SZB) 46.829	522.95	0.00	522.95	0.00	522.95
(0.7L_t) 53.899	460.85	0.00	460.85	0.00	460.85
(SZB) 57.829	410.32	0.00	410.32	0.00	410.32
(0.8L_t) 61.599	351.12	0.00	351.12	0.00	351.12
(SZB) 66.079	267.07	0.00	267.07	0.00	267.07
(0.9L_t) 69.299	197.51	0.00	197.51	0.00	197.51
(1.5H) 70.999	157.68	0.00	157.68	0.00	157.68
(SZB) 71.579	143.58	0.00	143.58	0.00	143.58
(CS) 72.658	116.73	0.00	116.73	0.00	116.73
(H) 72.749	114.44	0.00	114.44	0.00	114.44
(Bar Develop.) 73.817	86.94	0.00	86.94	0.00	86.94
(PSXFR) 73.999	82.17	0.00	82.17	0.00	82.17
(Bar Develop.) 74.877	58.79	0.00	58.79	0.00	58.79
(SZB) 75.245	48.83	0.00	48.83	0.00	48.83
(FoS) 76.249	21.17	0.00	21.17	0.00	21.17
(STLF, 1.0L_t) 76.999	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF, 0.0L_t) 0.000	28.50	0.00	28.50	0.00	28.50
(FoS) 0.750	27.95	0.00	27.95	0.00	27.95
(SZB) 1.753	27.20	0.00	27.20	0.00	27.20
(Bar Develop.) 2.121	26.93	0.00	26.93	0.00	26.93
(PSXFR) 3.000	26.28	0.00	26.28	0.00	26.28
(Bar Develop.) 3.182	26.15	0.00	26.15	0.00	26.15
(H) 4.250	25.35	0.00	25.35	0.00	25.35
(CS) 4.544	25.14	0.00	25.14	0.00	25.14
(SZB) 5.419	24.49	0.00	24.49	0.00	24.49
(1.5H) 6.000	24.06	0.00	24.06	0.00	24.06
(0.1L_t) 7.700	22.80	0.00	22.80	0.00	22.80
(SZB) 10.919	20.42	0.00	20.42	0.00	20.42
(0.2L_t) 15.400	17.10	0.00	17.10	0.00	17.10
(SZB) 19.169	14.31	0.00	14.31	0.00	14.31
(Deck Bar Cutoff) 21.199	12.81	0.00	12.81	0.00	12.81
(0.3L_t) 23.100	11.40	0.00	11.40	0.00	11.40
(SZB) 30.169	6.17	0.00	6.17	0.00	6.17
(HP, 0.4L_t) 30.799	5.70	0.00	5.70	0.00	5.70
(0.5L_t) 38.499	0.00	0.00	0.00	0.00	0.00
(HP, 0.6L_t) 46.199	-5.70	0.00	-5.70	0.00	-5.70
(SZB) 46.829	-6.17	0.00	-6.17	0.00	-6.17
(0.7L_t) 53.899	-11.40	0.00	-11.40	0.00	-11.40
(SZB) 57.829	-14.31	0.00	-14.31	0.00	-14.31
(0.8L_t) 61.599	-17.10	0.00	-17.10	0.00	-17.10
(SZB) 66.079	-20.42	0.00	-20.42	0.00	-20.42
(0.9L_t) 69.299	-22.80	0.00	-22.80	0.00	-22.80
(1.5H) 70.999	-24.06	0.00	-24.06	0.00	-24.06
(SZB) 71.579	-24.49	0.00	-24.49	0.00	-24.49
(CS) 72.658	-25.29	0.00	-25.29	0.00	-25.29
(H) 72.749	-25.35	0.00	-25.35	0.00	-25.35
(Bar Develop.) 73.817	-26.15	0.00	-26.15	0.00	-26.15
(PSXFR) 73.999	-26.28	0.00	-26.28	0.00	-26.28
(Bar Develop.) 74.877	-26.93	0.00	-26.93	0.00	-26.93
(SZB) 75.245	-27.20	0.00	-27.20	0.00	-27.20
(FoS) 76.249	-27.95	0.00	-27.95	0.00	-27.95
(STLF, 1.0L_t) 76.999	-28.50	0.00	-28.50	0.00	-28.50

Combined Results - Interval 11: Cast Deck, Apply User Defined Loads

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	-0.00	0.00	-0.00	0.00	-0.00
(0.0L_e) 0.000	-0.00	0.00	-0.00	0.00	-0.00
(FoS) 0.333	11.95	0.00	21.31	0.00	21.31
(SZB) 1.337	47.32	0.00	84.34	0.00	84.34
(Bar Develop.) 1.705	60.05	0.00	107.03	0.00	107.03
(PSXFR) 2.583	89.94	0.00	160.30	0.00	160.30
(Bar Develop.) 2.765	96.04	0.00	171.17	0.00	171.17
(H) 3.833	131.20	0.00	233.84	0.00	233.84
(CS) 4.127	140.69	0.00	250.73	0.00	250.73
(SZB) 5.003	168.47	0.00	300.25	0.00	300.25
(1.5H) 5.583	186.50	0.00	332.37	0.00	332.37
(0.1L_e) 7.617	247.13	0.00	440.39	0.00	440.39
(SZB) 10.503	326.49	0.00	581.76	0.00	581.76
(0.2L_e) 15.233	439.56	0.00	783.12	0.00	783.12
(SZB) 18.753	509.95	0.00	908.46	0.00	908.46

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(Deck Bar Cutoff) 20.783	545.22	0.00	971.26	0.00	971.26
(0.3L_e) 22.850	577.12	0.00	1028.04	0.00	1028.04
(SZB) 29.753	654.30	0.00	1165.43	0.00	1165.43
(HP) 30.383	659.09	0.00	1173.97	0.00	1173.97
(0.4L_e) 30.466	659.70	0.00	1175.04	0.00	1175.04
(0.5L_e) 38.083	687.23	0.00	1224.05	0.00	1224.05
(0.6L_e) 45.699	659.70	0.00	1175.04	0.00	1175.04
(HP) 45.783	659.09	0.00	1173.97	0.00	1173.97
(SZB) 46.413	654.30	0.00	1165.43	0.00	1165.43
(0.7L_e) 53.316	577.12	0.00	1028.05	0.00	1028.05
(SZB) 57.413	509.95	0.00	908.46	0.00	908.46
(0.8L_e) 60.932	439.56	0.00	783.12	0.00	783.12
(SZB) 65.663	326.50	0.00	581.76	0.00	581.76
(0.9L_e) 68.549	247.13	0.00	440.39	0.00	440.39
(1.5H) 70.582	186.51	0.00	332.38	0.00	332.38
(SZB) 71.163	168.48	0.00	300.25	0.00	300.25
(CS) 72.241	134.14	0.00	239.06	0.00	239.06
(H) 72.332	131.21	0.00	233.84	0.00	233.84
(Bar Develop.) 73.400	96.04	0.00	171.17	0.00	171.17
(PSXFR) 73.582	89.94	0.00	160.30	0.00	160.30
(Bar Develop.) 74.461	60.05	0.00	107.04	0.00	107.04
(SZB) 74.829	47.32	0.00	84.34	0.00	84.34
(FoS) 75.832	11.96	0.00	21.31	0.00	21.31
(1.0L_e) 76.165	0.00	0.00	0.00	0.00	0.00
76.165	0.00	0.00	0.00	0.00	0.00
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF) -0.417	-0.00	0.00	-0.00	0.00	-0.00
0.000	-0.01	0.00	-0.01	0.00	-0.01
(0.0L_e) 0.000	38.80 36.03	0.00	67.30 64.22	0.00	67.30 64.22
(FoS) 0.333	35.72	0.00	63.66	0.00	63.66
(SZB) 1.337	34.77	0.00	61.98	0.00	61.98
(Bar Develop.) 1.705	34.43	0.00	61.36	0.00	61.36
(PSXFR) 2.583	33.60	0.00	59.88	0.00	59.88
(Bar Develop.) 2.765	33.43	0.00	59.58	0.00	59.58
(H) 3.833	32.42	0.00	57.78	0.00	57.78
(CS) 4.127	32.15	0.00	57.29	0.00	57.29
(SZB) 5.003	31.32	0.00	55.81	0.00	55.81
(1.5H) 5.583	30.78	0.00	54.84	0.00	54.84
(0.1L_e) 7.617	28.86	0.00	51.41	0.00	51.41
(SZB) 10.503	26.14	0.00	46.55	0.00	46.55
(0.2L_e) 15.233	21.67	0.00	38.58	0.00	38.58
(SZB) 18.753	18.33	0.00	32.64	0.00	32.64
(Deck Bar Cutoff) 20.783	16.41	0.00	29.22	0.00	29.22
(0.3L_e) 22.850	14.45	0.00	25.73	0.00	25.73
(SZB) 29.753	7.91	0.00	14.07	0.00	14.07
(HP) 30.383	7.31	0.00	13.01	0.00	13.01
(0.4L_e) 30.466	7.23	0.00	12.87	0.00	12.87
(0.5L_e) 38.083	0.00	0.00	0.00	0.00	0.00
(0.6L_e) 45.699	-7.23	0.00	-12.87	0.00	-12.87
(HP) 45.783	-7.31	0.00	-13.01	0.00	-13.01
(SZB) 46.413	-7.91	0.00	-14.07	0.00	-14.07
(0.7L_e) 53.316	-14.45	0.00	-25.73	0.00	-25.73
(SZB) 57.413	-18.33	0.00	-32.64	0.00	-32.64
(0.8L_e) 60.932	-21.67	0.00	-38.58	0.00	-38.58
(SZB) 65.663	-26.14	0.00	-46.55	0.00	-46.55
(0.9L_e) 68.549	-28.86	0.00	-51.41	0.00	-51.41
(1.5H) 70.582	-30.78	0.00	-54.84	0.00	-54.84
(SZB) 71.163	-31.32	0.00	-55.81	0.00	-55.81
(CS) 72.241	-32.34	0.00	-57.63	0.00	-57.63
(H) 72.332	-32.42	0.00	-57.78	0.00	-57.78
(Bar Develop.) 73.400	-33.43	0.00	-59.57	0.00	-59.57
(PSXFR) 73.582	-33.60	0.00	-59.88	0.00	-59.88
(Bar Develop.) 74.461	-34.43	0.00	-61.36	0.00	-61.36
(SZB) 74.829	-34.77	0.00	-61.98	0.00	-61.98
(FoS) 75.832	-35.72	0.00	-63.66	0.00	-63.66
(1.0L_e) 76.165	-36.03 -36.41	0.00	-64.22 -67.86	0.00	-64.22 -67.86
76.165	0.00	0.00	0.00	0.00	0.00
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2	77.59	0.00	134.52	0.00
Abutment 3	36.41	0.00	67.86	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Pier 2 - Ahead	38.81	0.00	67.31	0.00
Abutment 3 - Back	36.41	0.00	67.86	0.00

Combined Results - Interval 17: Open to Traffic

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
($0.0L_s$) 0.000	0.00	0.00	-292.59	-197.28
(STRF) 0.443	0.00	0.00	-284.20	-191.66
0.860	0.00	0.00	-276.38	-186.41
(FoS) 1.193	0.00	0.00	-248.86	-182.22
(SZB) 2.196	0.00	0.00	-167.42	-169.80
(Bar Develop.) 2.564	0.00	0.00	-138.07	-165.32
(PSXFR) 3.443	0.00	0.00	-69.14	-154.75
(Bar Develop.) 3.625	0.00	0.00	-55.06	-152.58
(H) 4.693	0.00	0.00	26.17	-140.06
(CS) 4.987	0.00	0.00	48.09	-136.67
(SZB) 5.862	0.00	0.00	112.38	-126.71
(1.5H) 6.443	0.00	0.00	154.15	-120.21
($0.1L_s$) 7.702	0.00	0.00	242.32	-106.42
(SZB) 11.362	0.00	0.00	479.80	-68.77
($0.2L_s$) 15.405	0.00	0.00	709.75	-31.32
(SZB) 19.612	0.00	0.00	912.93	3.02
(Deck Bar Cutoff) 21.642	0.00	0.00	997.79	17.90
($0.3L_s$) 23.107	0.00	0.00	1053.71	27.96
(SZB) 30.612	0.00	0.00	1269.96	70.50
($0.4L_s$) 30.810	0.00	0.00	1274.07	71.42
(HP) 31.242	0.00	0.00	1282.78	73.39
($0.5L_s$) 38.512	0.00	0.00	1370.77	99.06
($0.6L_s$) 46.215	0.00	0.00	1343.77	110.89
(HP) 46.642	0.00	0.00	1338.66	111.08
(SZB) 47.272	0.00	0.00	1330.41	111.27
($0.7L_s$) 53.917	0.00	0.00	1193.11	106.89
(SZB) 58.272	0.00	0.00	1053.22	97.63
($0.8L_s$) 61.620	0.00	0.00	918.84	87.08
(SZB) 66.522	0.00	0.00	679.96	66.23
($0.9L_s$) 69.322	0.00	0.00	521.08	51.45
(1.5H) 71.442	0.00	0.00	390.01	38.87
(SZB) 72.022	0.00	0.00	352.46	35.22
(CS) 73.101	0.00	0.00	280.85	28.19
(H) 73.192	0.00	0.00	274.73	27.58
(Bar Develop.) 74.260	0.00	0.00	201.25	20.29
(PSXFR) 74.442	0.00	0.00	188.50	19.02
(Bar Develop.) 75.320	0.00	0.00	125.94	12.75
(SZB) 75.688	0.00	0.00	99.26	10.06
(FoS) 76.692	0.00	0.00	25.10	2.55
($1.0L_s$) 77.025	0.00	0.00	0.00	0.00
77.025	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00

Moment - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
($0.0L_s$) 0.000	0.00	-78.47	0.00	-1051.83	0.00	-193.38	0.00	-1121.97	0.00	-1130.31	0.00	-193.38	0.00	-1121.97
(STRF) 0.443	0.01	-76.23	6.30	-1027.56	0.00	-191.31	0.00	-1096.53	6.31	-1103.79	0.00	-191.31	0.00	-1096.53
0.860	0.04	-74.16	12.33	-1004.87	0.00	-190.27	0.00	-1074.12	12.37	-1079.02	0.00	-190.27	0.00	-1074.12
(FoS) 1.193	0.08	-72.53	17.24	-986.81	0.00	-189.44	0.00	-1056.19	17.32	-1059.34	0.00	-189.44	0.00	-1056.19
(SZB) 2.196	0.27	-67.78	32.41	-933.00	0.00	-186.93	0.00	-1003.12	32.68	-1000.77	0.00	-186.93	0.00	-1003.12
(Bar Develop.) 2.564	0.37	-66.09	38.13	-913.47	0.00	-186.01	0.00	-983.69	38.51	-979.56	0.00	-186.01	0.00	-983.69
(PSXFR) 3.443	0.69	-62.19	52.14	-867.30	0.00	-183.81	0.00	-937.41	52.83	-929.50	0.00	-183.81	0.00	-937.41
(Bar Develop.) 3.625	0.77	-61.41	55.10	-857.83	0.00	-183.36	0.00	-927.87	55.87	-919.24	0.00	-183.36	0.00	-927.87
(H) 4.693	1.32	-56.98	74.53	-802.80	0.00	-180.69	0.00	-872.14	75.85	-859.78	0.00	-180.69	0.00	-872.14
(CS) 4.987	1.50	-55.81	82.21	-788.34	0.00	-179.96	0.00	-856.88	83.72	-844.15	0.00	-179.96	0.00	-856.88
(SZB) 5.862	2.13	-52.46	105.44	-745.97	0.00	-177.77	0.00	-811.44	107.56	-798.44	0.00	-177.77	0.00	-811.44
(1.5H) 6.443	2.61	-50.36	121.14	-718.28	0.00	-176.32	0.00	-781.32	123.75	-768.64	0.00	-176.32	0.00	-781.32
($0.1L_s$) 7.702	3.85	-46.11	155.68	-653.57	10.91	-173.17	0.00	-716.25	159.53	-699.68	10.91	-173.17	0.00	-716.25
(SZB) 11.362	9.24	-36.50	262.29	-520.18	71.80	-164.03	210.87	-622.56	271.53	-556.69	71.80	-164.03	210.87	-622.56
($0.2L_s$) 15.405	18.95	-31.29	410.29	-476.34	132.76	-153.93	454.28	-584.23	429.24	-507.63	132.76	-153.93	454.28	-584.23
(SZB) 19.612	30.48	-29.16	576.15	-443.81	189.34	-143.42	665.94	-544.34	606.63	-472.97	189.34	-143.42	665.94	-544.34
(Deck Bar Cutoff) 21.642	35.38	-28.13	647.88	-428.12	213.19	-138.35	755.34	-525.09	683.26	-456.25	213.19	-138.35	755.34	-525.09
($0.3L_s$) 23.107	38.64	-27.38	695.22	-416.79	228.95	-134.69	816.88	-511.20	733.86	-444.18	228.95	-134.69	816.88	-511.20
(SZB) 30.612	51.77	-23.57	897.22	-358.78	288.74	-115.94	1071.91	-440.05	948.99	-382.35	288.74	-115.94	1071.91	-440.05
($0.4L_s$) 30.810	52.03	-23.47	901.26	-357.25	289.78	-115.45	1077.06	-438.17	953.29	-380.72	289.78	-115.45	1077.06	-438.17
(HP) 31.242	52.60	-23.25	909.86	-353.91	291.98	-114.37	1088.02	-434.07	962.46	-377.16	291.98	-114.37	1088.02	-434.07
($0.5L_s$) 38.512	59.12	-19.56	1006.59	-297.71	307.07	-96.21	1229.38	-365.14	1065.71	-317.27	307.07	-96.21	1229.38	-365.14
($0.6L_s$) 46.215	59.90	-15.65	1026.86	-238.17	324.27	-76.97	1234.89	-292.11	1086.76	-253.81	324.27	-76.97	1234.89	-292.11
(HP) 46.642	59.76	-15.43	1025.71	-234.87	324.53	-75.90	1230.32	-288.06	1085.47	-250.30	324.53	-75.90	1230.32	-288.06
(SZB) 47.272	59.52	-15.11	1023.32	-229.99	324.70	-74.32	1222.54	-282.09	1082.84	-245.10	324.70	-74.32	1222.54	-282.09
($0.7L_s$) 53.917	54.38	-11.74	946.46	-178.63	308.15	-57.72	1141.68	-219.09	1000.85	-190.36	308.15	-57.72	1141.68	-219.09

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(SZB) 58.272	48.47	-9.52	860.60	-144.96	278.16	-46.85	1040.71	-177.80	909.08	-154.49	278.16	-46.85	1040.71	-177.80
(0.8L_s) 61.620	42.56	-7.82	766.69	-119.08	248.28	-38.48	923.61	-146.06	809.25	-126.91	248.28	-38.48	923.61	-146.06
(SZB) 66.522	31.75	-5.33	583.45	-81.19	193.32	-26.24	705.57	-99.58	615.20	-86.52	193.32	-26.24	705.57	-99.58
(0.9L_s) 69.322	24.43	-3.91	453.77	-59.54	152.03	-19.24	553.82	-73.03	478.20	-63.45	152.03	-19.24	553.82	-73.03
(1.5H) 71.442	18.34	-2.84	343.20	-43.16	115.98	-13.95	421.55	-52.94	361.53	-46.00	115.98	-13.95	421.55	-52.94
(SZB) 72.022	16.58	-2.54	311.01	-38.67	105.34	-12.50	382.65	-47.43	327.59	-41.21	105.34	-12.50	382.65	-47.43
(CS) 73.101	13.23	-1.99	249.07	-30.33	84.70	-9.80	307.39	-37.20	262.30	-32.33	84.70	-9.80	307.39	-37.20
(H) 73.192	12.95	-1.95	243.74	-29.63	82.91	-9.58	300.90	-36.34	256.69	-31.58	82.91	-9.58	300.90	-36.34
(Bar Develop.) 74.260	9.50	-1.40	179.42	-21.38	61.26	-6.91	222.18	-26.22	188.92	-22.78	61.26	-6.91	222.18	-26.22
(PSXFR) 74.442	8.90	-1.31	168.19	-19.97	57.46	-6.45	208.37	-24.49	177.08	-21.28	57.46	-6.45	208.37	-24.49
(Bar Develop.) 75.320	5.95	-0.87	112.81	-13.18	38.65	-4.26	140.11	-16.16	118.76	-14.04	38.65	-4.26	140.11	-16.16
(SZB) 75.688	4.69	-0.68	89.05	-10.33	30.55	-3.34	110.71	-12.67	93.74	-11.01	30.55	-3.34	110.71	-12.67
(FoS) 76.692	1.19	-0.17	22.62	-2.58	7.78	-0.83	28.19	-3.16	23.81	-2.75	7.78	-0.83	28.19	-3.16
(1.0L_s) 77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Moment, Mu

Location from Left Support (ft)	Design								
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II		
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
(0.0L_s) 0.000	-489.86	-489.86	-244.93	-391.56	-2639.68	-2639.68	-391.56	-2176.30	-2176.30
(STRF) 0.443	-469.55	-470.81	-237.93	-369.32	-2574.38	-2574.38	-380.36	-2123.06	-2123.06
0.860	-450.42	-452.89	-231.40	-348.26	-2513.39	-2513.38	-369.91	-2075.15	-2075.15
(FoS) 1.193	-413.77	-417.23	-215.54	-312.12	-2438.26	-2464.89	-342.42	-2010.28	-2036.91
(SZB) 2.196	-304.55	-311.08	-168.61	-203.86	-2215.34	-2320.76	-261.06	-1818.20	-1923.62
(Bar Develop.) 2.564	-264.88	-272.58	-151.69	-164.33	-2134.79	-2268.58	-231.72	-1748.54	-1882.33
(PSXFR) 3.443	-171.05	-181.62	-111.94	-70.36	-1945.16	-2145.53	-162.81	-1584.05	-1784.42
(Bar Develop.) 3.625	-151.77	-162.95	-103.82	-50.96	-1906.36	-2120.32	-148.73	-1550.32	-1764.28
(H) 4.693	-38.05	-53.22	-56.95	74.40	-1691.16	-1901.61	-58.33	-1363.93	-1574.38
(CS) 4.987	-4.87	-21.61	-44.29	117.78	-1638.99	-1864.65	-28.72	-1318.52	-1544.18
(SZB) 5.862	93.24	71.73	-7.16	246.36	-1486.18	-1756.40	58.12	-1184.35	-1454.57
(1.5H) 6.443	157.69	132.94	16.97	331.11	-1386.70	-1685.84	114.55	-1096.36	-1395.50
(0.1L_s) 7.702	295.43	263.52	84.32	512.90	-1165.99	-1526.09	233.73	-908.49	-1268.59
(SZB) 11.362	682.56	628.26	313.21	1030.23	-645.54	-1169.12	839.72	-511.79	-1035.37
(0.2L_s) 15.405	1107.67	1021.82	538.36	1618.00	-296.56	-977.14	1480.11	-196.92	-877.49
(SZB) 19.612	1522.58	1401.26	741.99	2207.30	-4.10	-821.71	2044.71	88.75	-728.87
(Deck Bar Cutoff) 21.642	1698.95	1562.30	827.62	2469.79	111.21	-762.92	2293.79	200.77	-673.36
(0.3L_s) 23.107	1815.52	1668.75	884.26	2643.32	189.20	-721.83	2461.86	276.39	-634.64
(SZB) 30.612	2289.45	2099.65	1103.33	3353.93	519.67	-529.22	3140.28	594.73	-454.16
(0.4L_s) 30.810	2298.78	2108.12	1107.41	3367.98	526.82	-524.54	3153.74	601.56	-449.81
(HP) 31.242	2318.62	2126.13	1116.05	3397.85	542.17	-514.40	3182.38	616.21	-440.36
(0.5L_s) 38.512	2535.54	2322.40	1195.52	3727.05	742.86	-358.64	3521.72	805.14	-296.37
(0.6L_s) 46.215	2541.42	2324.07	1213.74	3747.88	837.30	-224.14	3513.14	887.12	-174.31
(HP) 46.642	2535.21	2318.11	1211.67	3739.52	838.97	-217.59	3500.87	888.11	-168.46
(SZB) 47.272	2524.53	2307.96	1207.89	3724.90	840.77	-208.12	3480.36	888.88	-160.01
(0.7L_s) 53.917	2300.85	2100.68	1112.23	3403.21	810.15	-121.02	3192.99	847.51	-83.65
(SZB) 58.272	2059.93	1878.12	992.67	3053.86	741.01	-76.61	2867.93	771.34	-46.28
(0.8L_s) 61.620	1815.17	1653.32	875.39	2695.35	661.47	-49.29	2526.04	686.38	-24.38
(SZB) 66.522	1361.39	1238.35	663.08	2025.90	503.60	-19.98	1901.81	520.59	-3.00
(0.9L_s) 69.322	1050.74	955.10	514.31	1565.38	391.37	-8.95	1476.19	403.83	3.51
(1.5H) 71.442	790.42	718.11	388.42	1178.50	295.78	-3.36	1114.91	304.81	5.67
(SZB) 72.022	715.27	649.75	351.85	1066.69	267.98	-2.24	1009.97	276.07	5.85
(CS) 73.101	571.34	518.88	281.57	852.37	214.52	-0.64	808.32	220.87	5.71
(H) 73.192	559.00	507.67	275.53	833.99	209.92	-0.53	791.00	216.12	5.67
(Bar Develop.) 74.260	410.46	372.68	202.66	612.61	154.45	0.40	581.95	158.92	4.87
(PSXFR) 74.442	384.60	349.18	189.94	574.05	144.77	0.50	545.46	148.95	4.67
(Bar Develop.) 75.320	257.44	233.69	127.32	384.37	97.06	0.72	365.69	99.81	3.48
(SZB) 75.688	203.06	184.32	100.48	303.22	76.60	0.70	288.63	78.77	2.86
(FoS) 76.692	51.46	46.70	25.50	76.87	19.45	0.26	73.27	19.98	0.80
(1.0L_s) 77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Deck moment (Mu) is for negative moment deck design, and is from superimposed dead load and live load only.

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
(0.0L_s) 0.000	0.00	0.00	19.03	12.74
(STRF) 0.443	0.00	0.00	18.84	12.62
0.860	0.00	0.00	18.67	12.60
(FoS) 1.193	0.00	0.00	82.21	12.51
(SZB) 2.196	0.00	0.00	80.13	12.24
(Bar Develop.) 2.564	0.00	0.00	79.37	12.15
(PSXFR) 3.443	0.00	0.00	77.54	11.91
(Bar Develop.) 3.625	0.00	0.00	77.17	11.86
(H) 4.693	0.00	0.00	74.95	11.58

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
(CS) 4.987	0.00	0.00	74.34	11.50
(SZB) 5.862	0.00	0.00	72.52	11.27
(1.5H) 6.443	0.00	0.00	71.31	11.11
($0.1L_s$) 7.702	0.00	0.00	68.69	10.78
(SZB) 11.362	0.00	0.00	61.08	9.80
($0.2L_s$) 15.405	0.00	0.00	52.67	8.72
(SZB) 19.612	0.00	0.00	43.91	7.60
(Deck Bar Cutoff) 21.642	0.00	0.00	39.69	7.06
($0.3L_s$) 23.107	0.00	0.00	36.63	6.67
(SZB) 30.612	0.00	0.00	21.00	4.67
($0.4L_s$) 30.810	0.00	0.00	20.58	4.62
(HP) 31.242	0.00	0.00	19.68	4.50
($0.5L_s$) 38.512	0.00	0.00	4.52	2.56
($0.6L_s$) 46.215	0.00	0.00	-11.53	0.51
(HP) 46.642	0.00	0.00	-12.42	0.39
(SZB) 47.272	0.00	0.00	-13.74	0.23
($0.7L_s$) 53.917	0.00	0.00	-27.59	-1.55
(SZB) 58.272	0.00	0.00	-36.66	-2.71
($0.8L_s$) 61.620	0.00	0.00	-43.63	-3.60
(SZB) 66.522	0.00	0.00	-53.83	-4.91
($0.9L_s$) 69.322	0.00	0.00	-59.65	-5.65
(1.5H) 71.442	0.00	0.00	-64.05	-6.22
(SZB) 72.022	0.00	0.00	-65.26	-6.37
(CS) 73.101	0.00	0.00	-67.50	-6.66
(H) 73.192	0.00	0.00	-67.69	-6.68
(Bar Develop.) 74.260	0.00	0.00	-69.91	-6.97
(PSXFR) 74.442	0.00	0.00	-70.29	-7.02
(Bar Develop.) 75.320	0.00	0.00	-72.11	-7.25
(SZB) 75.688	0.00	0.00	-72.87	-7.35
(FoS) 76.692	0.00	0.00	-74.96	-7.62
($1.0L_s$) 77.025	0.00	0.00	-75.65 -79.45	-7.71
77.025	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00

Shear - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.0L_s$) 0.000	5.11	0.00	99.72	0.00	39.62	0.00	128.59	0.00	104.83	0.00	39.62	0.00	128.59	0.00
(STRF) 0.443	5.06	-0.00	99.12	-0.10	39.38	0.00	127.94	0.00	104.19	-0.10	39.38	0.00	127.94	0.00
0.860	5.02	-0.00	98.57	-0.20	39.16	0.00	127.32	0.00	103.59	-0.20	39.16	0.00	127.32	0.00
(FoS) 1.193	4.98	-0.00	98.12	-0.28	38.98	0.00	126.82	0.00	103.10	-0.29	38.98	0.00	126.82	0.00
(SZB) 2.196	4.88	-0.00	96.76	-0.54	38.43	0.00	125.30	0.00	101.64	-0.54	38.43	0.00	125.30	0.00
(Bar Develop.) 2.564	4.84	-0.00	96.26	-0.63	38.22	0.00	124.74	0.00	101.10	-0.64	38.22	0.00	124.74	0.00
(PSXFR) 3.443	4.75	-0.00	95.05	-0.87	37.73	0.00	123.39	0.00	99.80	-0.87	37.73	0.00	123.39	0.00
(Bar Develop.) 3.625	4.73	-0.00	94.80	-0.92	37.62	0.00	123.10	0.00	99.53	-0.92	37.62	0.00	123.10	0.00
(H) 4.693	4.62	-0.01	93.32	-1.22	37.01	0.00	121.40	0.00	97.94	-1.23	37.01	0.00	121.40	0.00
(CS) 4.987	4.59	-0.01	92.92	-1.30	36.84	0.00	120.92	0.00	97.51	-1.31	36.84	0.00	120.92	0.00
(SZB) 5.862	4.50	-0.01	91.69	-1.58	36.34	0.00	119.47	0.00	96.19	-1.60	36.34	0.00	119.47	0.00
(1.5H) 6.443	4.44	-0.02	90.87	-1.84	36.00	0.00	118.49	0.00	95.32	-1.85	36.00	0.00	118.49	0.00
($0.1L_s$) 7.702	4.31	-0.02	89.10	-2.41	35.27	0.00	116.35	0.00	93.42	-2.43	35.27	0.00	116.35	0.00
(SZB) 11.362	3.95	-0.05	83.87	-4.21	33.04	0.00	109.89	0.00	87.83	-4.26	33.04	0.00	109.89	0.00
($0.2L_s$) 15.405	3.57	-0.10	77.98	-6.45	30.51	-0.75	102.23	0.00	81.55	-6.55	30.51	-0.75	102.23	0.00
(SZB) 19.612	3.19	-0.16	71.77	-9.04	27.77	-2.00	93.76	0.00	74.96	-9.21	27.77	-2.00	93.76	0.00
(Deck Bar Cutoff) 21.642	3.01	-0.20	68.74	-10.39	26.42	-2.66	89.48	0.00	71.75	-10.60	26.42	-2.66	89.48	0.00
($0.3L_s$) 23.107	2.89	-0.24	66.56	-11.40	25.44	-3.16	86.33	-1.08	69.45	-11.63	25.44	-3.16	86.33	-1.08
(SZB) 30.612	2.30	-0.44	55.32	-17.52	20.26	-6.02	69.31	-11.36	57.61	-17.95	20.26	-6.02	69.31	-11.36
($0.4L_s$) 30.810	2.28	-0.45	55.02	-17.71	20.12	-6.11	68.85	-11.85	57.30	-18.16	20.12	-6.11	68.85	-11.85
(HP) 31.242	2.25	-0.46	54.38	-18.14	19.82	-6.29	67.82	-12.91	56.63	-18.60	19.82	-6.29	67.82	-12.91
($0.5L_s$) 38.512	1.75	-0.74	43.54	-25.89	15.11	-9.55	49.94	-29.56	45.30	-26.62	15.11	-9.55	49.94	-29.56
($0.6L_s$) 46.215	1.31	-1.11	32.51	-35.35	10.27	-13.54	31.50	-43.33	33.82	-36.46	10.27	-13.54	31.50	-43.33
(HP) 46.642	1.29	-1.14	31.90	-35.91	10.00	-13.78	30.55	-44.06	33.19	-37.04	10.00	-13.78	30.55	-44.06
(SZB) 47.272	1.26	-1.17	31.00	-36.74	9.68	-14.13	29.14	-45.15	32.26	-37.91	9.68	-14.13	29.14	-45.15
($0.7L_s$) 53.917	0.96	-1.58	22.67	-45.87	7.61	-17.98	21.27	-56.98	23.63	-47.45	7.61	-17.98	21.27	-56.98
(SZB) 58.272	0.81	-1.89	18.29	-52.24	6.21	-20.67	16.50	-65.15	19.10	-54.13	6.21	-20.67	16.50	-65.15
($0.8L_s$) 61.620	0.71	-2.15	14.98	-57.33	5.12	-22.80	12.80	-71.65	15.69	-59.47	5.12	-22.80	12.80	-71.65
(SZB) 66.522	0.60	-2.56	10.26	-65.07	3.53	-26.03	11.48	-81.39	10.86	-67.63	3.53	-26.03	11.48	-81.39
($0.9L_s$) 69.322	0.56	-2.81	9.61	-69.64	3.53	-27.92	11.48	-87.11	10.17	-72.46	3.53	-27.92	11.48	-87.11
(1.5H) 71.442	0.53	-3.01	9.49	-73.17	3.53	-29.38	11.48	-91.47	10.03	-76.18	3.53	-29.38	11.48	-91.47
(SZB) 72.022	0.53	-3.07	9.47	-74.14	3.53	-29.78	11.48	-92.67	10.00	-77.21	3.53	-29.78	11.48	-92.67
(CS) 73.101	0.52	-3.18	9.43	-75.96	3.53	-30.53	11.48	-94.91	9.95	-79.14	3.53	-30.53	11.48	-94.91
(H) 73.192	0.52	-3.19	9.42	-76.11	3.53	-30.59	11.48	-95.10	9.94	-79.30	3.53	-30.59	11.48	-95.10
(Bar Develop.) 74.260	0.51	-3.29	9.39	-77.93	3.53	-31.33	11.48	-97.34	9.91	-81.22	3.53	-31.33	11.48	-97.34
(PSXFR) 74.442	0.51	-3.31	9.39	-78.24	3.53	-31.46	11.48	-97.72	9.90	-81.55	3.53	-31.46	11.48	-97.72
(Bar Develop.) 75.320	0.51	-3.40	9.38	-79.75	3.53	-32.07	11.48	-99.58	9.89	-83.15	3.53	-32.07	11.48	-99.58
(SZB) 75.688	0.51	-3.44	9.37	-80.38	3.53	-32.32	11.48	-100.35	9.88	-83.82	3.53	-32.32	11.48	-100.35
(FoS) 76.692	0.51	-3.55	9.36	-82.12	3.53	-33.03	11.48	-102.47	9.87	-85.67	3.53	-33.03	11.48	-102.47
($1.0L_s$) 77.025	0.51	-3.58	9.36	-82.70	3.53	-33.27	11.48	-103.18	9.87	-86.28	3.53	-33.27	11.48	-103.18

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Shear, Vu

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
(0.0L_s) 0.000	136.59	115.63	75.31	226.34	25.40	216.49	25.40
(STRF) 0.443	135.65	114.81	74.81	224.81	24.98	215.20	25.16
0.860	134.86	114.14	74.38	223.51	24.64	214.12	24.99
(FoS) 1.193	197.83	177.21	105.83	301.97	81.63	292.74	82.13
(SZB) 2.196	194.02	173.69	103.83	296.40	79.13	287.69	80.08
(Bar Develop.) 2.564	192.61	172.39	103.09	294.36	78.21	285.83	79.33
(PSXFR) 3.443	189.26	169.30	101.32	289.45	76.00	281.37	77.53
(Bar Develop.) 3.625	188.56	168.65	100.95	288.43	75.54	280.44	77.16
(H) 4.693	184.47	164.88	98.78	282.46	72.83	274.94	74.98
(CS) 4.987	183.34	163.84	98.18	280.81	72.08	273.41	74.38
(SZB) 5.862	179.98	160.74	96.40	275.88	69.80	268.83	72.59
(1.5H) 6.443	177.74	158.68	95.21	272.61	68.16	265.77	71.40
(0.1L_s) 7.702	172.89	154.20	92.63	265.51	64.58	259.10	68.83
(SZB) 11.362	158.71	141.15	85.01	244.76	53.89	239.41	61.35
(0.2L_s) 15.405	142.94	126.63	76.47	221.63	41.62	216.93	53.08
(SZB) 19.612	126.47	111.48	67.41	197.47	28.35	192.88	44.46
(Deck Bar Cutoff) 21.642	118.50	104.15	63.01	185.77	21.76	181.00	40.31
(0.3L_s) 23.107	112.75	98.86	59.81	177.33	16.95	172.35	35.85
(SZB) 30.612	83.28	71.76	43.22	134.07	-9.49	126.82	6.59
(0.4L_s) 30.810	82.50	71.04	42.78	132.94	-10.25	125.59	5.53
(HP) 31.242	80.81	69.49	41.82	130.45	-11.92	122.91	3.21
(0.5L_s) 38.512	52.38	43.32	26.21	88.77	-40.85	76.91	-34.17
(0.6L_s) 46.215	22.80	16.03	9.89	49.58	-77.89	32.91	-72.58
(HP) 46.642	21.16	14.53	8.98	47.50	-80.10	30.66	-74.76
(SZB) 47.272	18.75	12.30	7.76	44.44	-83.37	27.32	-77.97
(0.7L_s) 53.917	-5.50	-10.23	-3.16	15.53	-119.84	2.88	-113.73
(SZB) 58.272	-20.27	-24.09	-10.37	-1.33	-144.61	-12.47	-137.84
(0.8L_s) 61.620	-31.53	-34.67	-15.93	-14.14	-164.01	-24.33	-156.66
(SZB) 66.522	-47.87	-50.04	-24.07	-32.62	-192.99	-36.13	-184.52
(0.9L_s) 69.322	-55.13	-57.17	-27.35	-39.56	-209.84	-41.86	-200.64
(1.5H) 71.442	-60.24	-62.25	-29.84	-44.14	-222.71	-46.19	-212.88
(SZB) 72.022	-61.64	-63.64	-30.52	-45.38	-226.25	-47.37	-216.24
(CS) 73.101	-64.21	-66.20	-31.78	-47.67	-232.86	-49.58	-222.50
(H) 73.192	-64.43	-66.42	-31.89	-47.86	-233.41	-49.76	-223.02
(Bar Develop.) 74.260	-66.97	-68.95	-33.14	-50.11	-239.98	-51.94	-229.25
(PSXFR) 74.442	-67.40	-69.38	-33.35	-50.49	-241.10	-52.32	-230.31
(Bar Develop.) 75.320	-69.48	-71.45	-34.38	-52.31	-246.53	-54.11	-235.44
(SZB) 75.688	-70.34	-72.32	-34.81	-53.07	-248.81	-54.86	-237.60
(FoS) 76.692	-72.70	-74.68	-35.99	-55.14	-255.04	-56.91	-243.46
(1.0L_s) 77.025	-73.48 -77.28	-75.46 -79.26	-36.38 -38.28	-55.82 -59.24	-257.12 -261.86	-57.59 -61.01	-245.41 -250.16
77.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.442	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2	0.00	0.00	172.54	25.46
Abutment 3	0.00	0.00	79.45	7.71

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
Abutment 3 - Back	0.00	0.00	79.45	7.71	169.86

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	82.70	-9.36	33.27	-3.53	103.18	-11.48	86.28	-9.87	33.27	-3.53	103.18	-11.48

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	169.86	153.31	93.48	255.60	60.13	250.16	61.01

Live Load Reactions Without Impact

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	66.48	-7.65	28.93	-3.07	77.58	-8.63	70.06	-8.16	28.93	-3.07	77.58	-8.63

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Stresses

Product Load Stresses

At Release

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF, 0.0L_r) 0.000	0.000	0.000
(PSXFR) 3.000	-0.134	0.136
(0.1L_r) 7.700	-0.323	0.327
(0.2L_r) 15.400	-0.574	0.582
(0.3L_r) 23.100	-0.753	0.764
(HP, 0.4L_r) 30.799	-0.861	0.873
(0.5L_r) 38.499	-0.897	0.910
(HP, 0.6L_r) 46.199	-0.861	0.873
(0.7L_r) 53.899	-0.753	0.764
(0.8L_r) 61.599	-0.574	0.582
(0.9L_r) 69.299	-0.323	0.327
(PSXFR) 73.999	-0.134	0.136
(STLF, 1.0L_r) 76.999	0.000	0.000

During Storage

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF) -0.417	0.000	0.000
(0.0L_{st}) 0.000	0.000	-0.000
(PSXFR) 2.583	-0.115	0.117
(0.1L_{st}) 7.617	-0.316	0.320
(0.2L_{st}) 15.233	-0.561	0.570
(0.3L_{st}) 22.850	-0.737	0.748
(HP) 30.383	-0.841	0.854
(0.4L_{st}) 30.466	-0.842	0.854
(0.5L_{st}) 38.083	-0.877	0.890
(0.6L_{st}) 45.699	-0.842	0.854
(HP) 45.783	-0.841	0.854
(0.7L_{st}) 53.316	-0.737	0.748
(0.8L_{st}) 60.932	-0.561	0.570
(0.9L_{st}) 68.549	-0.316	0.320
(PSXFR) 73.582	-0.115	0.117
(1.0L_{st}) 76.165	0.000	-0.000
(STLF) 76.582	0.000	0.000

Girder Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.052 f_b = -0.220	f_t = 0.022 f_b = -0.092	f_t = 0.042 f_b = -0.179	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.084	f_t = 0.401 f_b = 0.010	f_t = -0.002 f_b = -1.700	f_t = 0.125 f_b = 0.000	f_t = 0.000 f_b = -0.529	f_t = 0.428 f_b = 0.000	f_t = 0.000 f_b = -1.814
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.050 f_b = -0.214	f_t = 0.021 f_b = -0.089	f_t = 0.041 f_b = -0.174	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.392 f_b = 0.020	f_t = -0.005 f_b = -1.662	f_t = 0.124 f_b = 0.000	f_t = 0.000 f_b = -0.526	f_t = 0.419 f_b = 0.000	f_t = 0.000 f_b = -1.777
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.050 f_b = -0.214	f_t = 0.021 f_b = -0.089	f_t = 0.041 f_b = -0.174	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.392 f_b = 0.020	f_t = -0.005 f_b = -1.662	f_t = 0.124 f_b = 0.000	f_t = 0.000 f_b = -0.526	f_t = 0.419 f_b = 0.000	f_t = 0.000 f_b = -1.777
(PSXFR) 2.583	f_t = -0.115 f_b = 0.117	f_t = 0.000 f_b = 0.000	f_t = -0.122 f_b = 0.123	f_t = -0.022 f_b = 0.022	f_t = 0.042 f_b = -0.177	f_t = 0.017 f_b = -0.074	f_t = 0.034 f_b = -0.144	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.338 f_b = 0.086	f_t = -0.020 f_b = -1.434	f_t = 0.120 f_b = 0.000	f_t = 0.000 f_b = -0.508	f_t = 0.365 f_b = 0.000	f_t = 0.000 f_b = -1.550
(0.1L_e) 7.617	f_t = -0.316 f_b = 0.320	f_t = 0.000 f_b = 0.000	f_t = -0.334 f_b = 0.339	f_t = -0.060 f_b = 0.061	f_t = 0.027 f_b = -0.112	f_t = 0.011 f_b = -0.047	f_t = 0.022 f_b = -0.091	f_t = 0.011 f_b = 0.005	f_t = -0.001 f_b = -0.048	f_t = 0.240 f_b = 0.294	f_t = -0.069 f_b = -1.020	f_t = 0.112 f_b = 0.066	f_t = -0.015 f_b = -0.473	f_t = 0.264 f_b = 0.059	f_t = -0.014 f_b = -1.119
(0.2L_e) 15.233	f_t = -0.562 f_b = 0.570	f_t = 0.000 f_b = 0.000	f_t = -0.594 f_b = 0.603	f_t = -0.108 f_b = 0.109	f_t = 0.007 f_b = -0.029	f_t = 0.003 f_b = -0.012	f_t = 0.006 f_b = -0.024	f_t = 0.008 f_b = 0.023	f_t = -0.005 f_b = -0.034	f_t = 0.184 f_b = 0.726	f_t = -0.171 f_b = -0.779	f_t = 0.099 f_b = 0.394	f_t = -0.093 f_b = -0.421	f_t = 0.225 f_b = 0.813	f_t = -0.192 f_b = -0.955
(0.3L_e) 22.850	f_t = -0.737 f_b = 0.748	f_t = 0.000 f_b = 0.000	f_t = -0.780 f_b = 0.791	f_t = -0.141 f_b = 0.144	f_t = -0.009 f_b = 0.037	f_t = -0.004 f_b = 0.015	f_t = -0.007 f_b = 0.030	f_t = 0.007 f_b = 0.044	f_t = -0.010 f_b = -0.030	f_t = 0.161 f_b = 1.181	f_t = -0.279 f_b = -0.682	f_t = 0.087 f_b = 0.650	f_t = -0.153 f_b = -0.368	f_t = 0.197 f_b = 1.392	f_t = -0.328 f_b = -0.836
(HP) 30.383	f_t = -0.842 f_b = 0.854	f_t = 0.000 f_b = 0.000	f_t = -0.891 f_b = 0.903	f_t = -0.162 f_b = 0.164	f_t = -0.020 f_b = 0.084	f_t = -0.008 f_b = 0.035	f_t = -0.016 f_b = 0.068	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.025	f_t = 0.138 f_b = 1.505	f_t = -0.355 f_b = -0.585	f_t = 0.074 f_b = 0.807	f_t = -0.190 f_b = -0.316	f_t = 0.169 f_b = 1.800	f_t = -0.424 f_b = -0.718
(0.4L_e) 30.466	f_t = -0.842 f_b = 0.854	f_t = 0.000 f_b = 0.000	f_t = -0.891 f_b = 0.904	f_t = -0.162 f_b = 0.164	f_t = -0.020 f_b = 0.085	f_t = -0.008 f_b = 0.035	f_t = -0.016 f_b = 0.069	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.025	f_t = 0.138 f_b = 1.508	f_t = -0.355 f_b = -0.584	f_t = 0.074 f_b = 0.808	f_t = -0.190 f_b = -0.315	f_t = 0.169 f_b = 1.803	f_t = -0.425 f_b = -0.717
(0.5L_e) 38.083	f_t = -0.877 f_b = 0.890	f_t = 0.000 f_b = 0.000	f_t = -0.928 f_b = 0.942	f_t = -0.169 f_b = 0.171	f_t = -0.027 f_b = 0.115	f_t = -0.011 f_b = 0.048	f_t = -0.022 f_b = 0.093	f_t = 0.005 f_b = 0.065	f_t = -0.015 f_b = -0.021	f_t = 0.115 f_b = 1.670	f_t = -0.394 f_b = -0.487	f_t = 0.062 f_b = 0.847	f_t = -0.200 f_b = -0.263	f_t = 0.141 f_b = 2.041	f_t = -0.481 f_b = -0.597
(0.6L_e) 45.699	f_t = -0.842 f_b = 0.854	f_t = 0.000 f_b = 0.000	f_t = -0.891 f_b = 0.904	f_t = -0.162 f_b = 0.164	f_t = -0.030 f_b = 0.127	f_t = -0.013 f_b = 0.053	f_t = -0.024 f_b = 0.103	f_t = 0.004 f_b = 0.066	f_t = -0.015 f_b = -0.017	f_t = 0.092 f_b = 1.697	f_t = -0.400 f_b = -0.390	f_t = 0.050 f_b = 0.897	f_t = -0.211 f_b = -0.210	f_t = 0.113 f_b = 2.037	f_t = -0.480 f_b = -0.478
(HP) 45.783	f_t = -0.842 f_b = 0.854	f_t = 0.000 f_b = 0.000	f_t = -0.891 f_b = 0.903	f_t = -0.162 f_b = 0.164	f_t = -0.030 f_b = 0.127	f_t = -0.013 f_b = 0.053	f_t = -0.024 f_b = 0.103	f_t = 0.004 f_b = 0.066	f_t = -0.015 f_b = -0.017	f_t = 0.092 f_b = 1.697	f_t = -0.400 f_b = -0.388	f_t = 0.049 f_b = 0.897	f_t = -0.211 f_b = -0.210	f_t = 0.112 f_b = 2.035	f_t = -0.480 f_b = -0.476
(0.7L_e) 53.316	f_t = -0.737 f_b = 0.748	f_t = 0.000 f_b = 0.000	f_t = -0.780 f_b = 0.791	f_t = -0.141 f_b = 0.144	f_t = -0.029 f_b = 0.122	f_t = -0.012 f_b = 0.051	f_t = -0.023 f_b = 0.099	f_t = 0.003 f_b = 0.059	f_t = -0.014 f_b = -0.013	f_t = 0.069 f_b = 1.559	f_t = -0.367 f_b = -0.292	f_t = 0.037 f_b = 0.848	f_t = -0.200 f_b = -0.158	f_t = 0.084 f_b = 1.881	f_t = -0.444 f_b = -0.358
(0.8L_e) 60.932	f_t = -0.562 f_b = 0.570	f_t = 0.000 f_b = 0.000	f_t = -0.594 f_b = 0.603	f_t = -0.108 f_b = 0.109	f_t = -0.023 f_b = 0.099	f_t = -0.010 f_b = 0.041	f_t = -0.019 f_b = 0.081	f_t = 0.002 f_b = 0.046	f_t = -0.011 f_b = -0.008	f_t = 0.046 f_b = 1.259	f_t = -0.297 f_b = -0.195	f_t = 0.025 f_b = 0.682	f_t = -0.161 f_b = -0.105	f_t = 0.056 f_b = 1.516	f_t = -0.358 f_b = -0.239
(0.9L_e) 68.549	f_t = -0.316 f_b = 0.320	f_t = 0.000 f_b = 0.000	f_t = -0.334 f_b = 0.339	f_t = -0.060 f_b = 0.061	f_t = -0.014 f_b = 0.058	f_t = -0.006 f_b = 0.024	f_t = -0.011 f_b = 0.047	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.023 f_b = 0.744	f_t = -0.175 f_b = -0.097	f_t = 0.012 f_b = 0.416	f_t = -0.098 f_b = -0.053	f_t = 0.028 f_b = 0.908	f_t = -0.214 f_b = -0.119
(PSXFR) 73.582	f_t = -0.115 f_b = 0.117	f_t = 0.000 f_b = 0.000	f_t = -0.122 f_b = 0.123	f_t = -0.022 f_b = 0.022	f_t = -0.005 f_b = 0.022	f_t = -0.002 f_b = 0.009	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.008 f_b = 0.278	f_t = -0.066 f_b = -0.033	f_t = 0.004 f_b = 0.159	f_t = -0.037 f_b = -0.018	f_t = 0.010 f_b = 0.345	f_t = -0.081 f_b = -0.041
(1.0L_e) 76.165	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.165	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 76.582	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per lane and include impact.

Deck Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.091	f_t = 0.038	f_t = 0.074	f_t = 0.035	f_t = 0.000	f_t = 0.704	f_t = -0.004	f_t = 0.219	f_t = 0.000	f_t = 0.751	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.018	f_b = 0.035	f_b = 0.016	f_b = 0.000	f_b = 0.331	f_b = -0.002	f_b = 0.103	f_b = 0.000	f_b = 0.354	f_b = 0.000
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.088	f_t = 0.037	f_t = 0.072	f_t = 0.034	f_t = -0.000	f_t = 0.688	f_t = -0.008	f_t = 0.218	f_t = 0.000	f_t = 0.735	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.017	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.324	f_b = -0.004	f_b = 0.102	f_b = 0.000	f_b = 0.346	f_b = 0.000
($0.0L_e$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.088	f_t = 0.037	f_t = 0.072	f_t = 0.034	f_t = -0.000	f_t = 0.688	f_t = -0.008	f_t = 0.218	f_t = 0.000	f_t = 0.735	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.017	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.324	f_b = -0.004	f_b = 0.102	f_b = 0.000	f_b = 0.346	f_b = 0.000
(PSXFR) 2.583	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.073	f_t = 0.031	f_t = 0.060	f_t = 0.028	f_t = -0.000	f_t = 0.594	f_t = -0.036	f_t = 0.210	f_t = 0.000	f_t = 0.642	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.035	f_b = 0.014	f_b = 0.028	f_b = 0.013	f_b = -0.000	f_b = 0.280	f_b = -0.017	f_b = 0.099	f_b = 0.000	f_b = 0.302	f_b = 0.000
($0.1L_e$) 7.617	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.047	f_t = 0.019	f_t = 0.038	f_t = 0.020	f_t = -0.002	f_t = 0.422	f_t = -0.122	f_t = 0.196	f_t = -0.027	f_t = 0.463	f_t = -0.024
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.009	f_b = -0.001	f_b = 0.199	f_b = -0.057	f_b = 0.092	f_b = -0.013	f_b = 0.218	f_b = -0.011
($0.2L_e$) 15.233	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.012	f_t = 0.005	f_t = 0.010	f_t = 0.014	f_t = -0.010	f_t = 0.323	f_t = -0.300	f_t = 0.174	f_t = -0.163	f_t = 0.396	f_t = -0.337
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.006	f_b = 0.002	f_b = 0.005	f_b = 0.007	f_b = -0.004	f_b = 0.152	f_b = -0.141	f_b = 0.082	f_b = -0.077	f_b = 0.186	f_b = -0.159
($0.3L_e$) 22.850	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.015	f_t = -0.006	f_t = -0.012	f_t = 0.012	f_t = -0.018	f_t = 0.282	f_t = -0.489	f_t = 0.152	f_t = -0.269	f_t = 0.346	f_t = -0.576
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.007	f_b = -0.003	f_b = -0.006	f_b = 0.006	f_b = -0.009	f_b = 0.133	f_b = -0.230	f_b = 0.072	f_b = -0.127	f_b = 0.163	f_b = -0.271
(HP) 30.383	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.035	f_t = -0.015	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.242	f_t = -0.623	f_t = 0.131	f_t = -0.334	f_t = 0.297	f_t = -0.745
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.114	f_b = -0.293	f_b = 0.062	f_b = -0.157	f_b = 0.140	f_b = -0.351
($0.4L_e$) 30.466	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.035	f_t = -0.015	f_t = -0.028	f_t = 0.011	f_t = -0.024	f_t = 0.242	f_t = -0.624	f_t = 0.131	f_t = -0.334	f_t = 0.297	f_t = -0.747
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.016	f_b = -0.007	f_b = -0.013	f_b = 0.005	f_b = -0.011	f_b = 0.114	f_b = -0.294	f_b = 0.061	f_b = -0.158	f_b = 0.140	f_b = -0.352
($0.5L_e$) 38.083	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.047	f_t = -0.020	f_t = -0.039	f_t = 0.009	f_t = -0.027	f_t = 0.202	f_t = -0.691	f_t = 0.109	f_t = -0.351	f_t = 0.247	f_t = -0.845
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.022	f_b = -0.009	f_b = -0.018	f_b = 0.004	f_b = -0.013	f_b = 0.095	f_b = -0.326	f_b = 0.051	f_b = -0.165	f_b = 0.116	f_b = -0.398
($0.6L_e$) 45.699	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.053	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.161	f_t = -0.703	f_t = 0.087	f_t = -0.371	f_t = 0.198	f_t = -0.843
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.331	f_b = 0.041	f_b = -0.175	f_b = 0.093	f_b = -0.397
(HP) 45.783	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.053	f_t = -0.022	f_t = -0.043	f_t = 0.007	f_t = -0.027	f_t = 0.161	f_t = -0.702	f_t = 0.087	f_t = -0.371	f_t = 0.197	f_t = -0.843
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.013	f_b = 0.076	f_b = -0.331	f_b = 0.041	f_b = -0.175	f_b = 0.093	f_b = -0.397
($0.7L_e$) 53.316	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.051	f_t = -0.021	f_t = -0.041	f_t = 0.005	f_t = -0.025	f_t = 0.121	f_t = -0.645	f_t = 0.065	f_t = -0.351	f_t = 0.148	f_t = -0.779
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.019	f_b = 0.002	f_b = -0.012	f_b = 0.057	f_b = -0.304	f_b = 0.031	f_b = -0.165	f_b = 0.070	f_b = -0.367
($0.8L_e$) 60.932	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.041	f_t = -0.017	f_t = -0.033	f_t = 0.004	f_t = -0.019	f_t = 0.081	f_t = -0.521	f_t = 0.044	f_t = -0.282	f_t = 0.099	f_t = -0.628
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.019	f_b = -0.008	f_b = -0.016	f_b = 0.002	f_b = -0.009	f_b = 0.038	f_b = -0.246	f_b = 0.020	f_b = -0.133	f_b = 0.047	f_b = -0.296
($0.9L_e$) 68.549	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.024	f_t = -0.010	f_t = -0.020	f_t = 0.002	f_t = -0.011	f_t = 0.040	f_t = -0.308	f_t = 0.022	f_t = -0.172	f_t = 0.049	f_t = -0.376
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.011	f_b = -0.005	f_b = -0.009	f_b = 0.001	f_b = -0.005	f_b = 0.019	f_b = -0.145	f_b = 0.010	f_b = -0.081	f_b = 0.023	f_b = -0.177
(PSXFR) 73.582	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.009	f_t = -0.004	f_t = -0.007	f_t = 0.001	f_t = -0.004	f_t = 0.014	f_t = -0.115	f_t = 0.007	f_t = -0.066	f_t = 0.017	f_t = -0.143
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.004	f_b = -0.002	f_b = -0.003	f_b = 0.000	f_b = -0.002	f_b = 0.006	f_b = -0.054	f_b = 0.003	f_b = -0.031	f_b = 0.008	f_b = -0.067
($1.0L_e$) 76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(STLF) 76.582	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000

* Live Load values are per lane and include impact.

Girder Stresses due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.860	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
0.860	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
8.476	f_t = -0.009	f_t = 0.000	f_t = 0.000
	f_b = 0.010	f_b = 0.000	f_b = 0.000
16.093	f_t = -0.017	f_t = 0.000	f_t = 0.000
	f_b = 0.017	f_b = 0.000	f_b = 0.000
23.709	f_t = -0.022	f_t = 0.000	f_t = 0.000
	f_b = 0.022	f_b = 0.000	f_b = 0.000
31.326	f_t = -0.025	f_t = 0.000	f_t = 0.000
	f_b = 0.025	f_b = 0.000	f_b = 0.000
38.942	f_t = -0.026	f_t = 0.000	f_t = 0.000
	f_b = 0.026	f_b = 0.000	f_b = 0.000
46.559	f_t = -0.025	f_t = 0.000	f_t = 0.000
	f_b = 0.025	f_b = 0.000	f_b = 0.000
54.175	f_t = -0.022	f_t = 0.000	f_t = 0.000
	f_b = 0.022	f_b = 0.000	f_b = 0.000
61.792	f_t = -0.017	f_t = 0.000	f_t = 0.000
	f_b = 0.017	f_b = 0.000	f_b = 0.000
69.408	f_t = -0.009	f_t = 0.000	f_t = 0.000
	f_b = 0.010	f_b = 0.000	f_b = 0.000
($1.0L_s$) 77.025	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000
77.025	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000

Girder Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System

and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000
8.476	f_t = 0.000 f_b = 0.000	f_t = 0.004 f_b = -0.016	f_t = 0.000 f_b = 0.000
16.093	f_t = 0.000 f_b = 0.000	f_t = 0.001 f_b = -0.004	f_t = 0.000 f_b = 0.000
23.709	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = 0.005	f_t = 0.000 f_b = 0.000
31.326	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.012	f_t = 0.000 f_b = 0.000
38.942	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.016	f_t = 0.000 f_b = 0.000
46.559	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
54.175	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
61.792	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.014	f_t = 0.000 f_b = 0.000
69.408	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = 0.008	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Deck Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
8.476	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = 0.003	f_t = 0.000 f_b = 0.000
16.093	f_t = 0.000 f_b = 0.000	f_t = 0.002 f_b = 0.001	f_t = 0.000 f_b = 0.000
23.709	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.000 f_b = 0.000
31.326	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = -0.002	f_t = 0.000 f_b = 0.000
38.942	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
46.559	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
54.175	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
61.792	f_t = 0.000 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.000
69.408	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.002	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 2: Prestress Release

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF, $0.0L_r$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.750	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.753	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.121	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(PSXFR) 3.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(Bar Develop.) 3.182	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(H) 4.250	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000
(CS) 4.544	f_t = -0.199 f_b = 0.202	f_t = 0.000 f_b = 0.000	f_t = -0.199 f_b = 0.202	f_t = 0.000 f_b = 0.000
(SZB) 5.419	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000
(1.5H) 6.000	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000
(0.1L_t) 7.700	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000
(SZB) 10.919	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000
(0.2L_t) 15.400	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000
(SZB) 19.169	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 21.199	f_t = -0.716 f_b = 0.726	f_t = 0.000 f_b = 0.000	f_t = -0.716 f_b = 0.726	f_t = 0.000 f_b = 0.000
(0.3L_t) 23.100	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000
(SZB) 30.169	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000
(HP, 0.4L_t) 30.799	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000
(0.5L_t) 38.499	f_t = -0.897 f_b = 0.910	f_t = 0.000 f_b = 0.000	f_t = -0.897 f_b = 0.910	f_t = 0.000 f_b = 0.000
(HP, 0.6L_t) 46.199	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000
(SZB) 46.829	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000	f_t = -0.855 f_b = 0.867	f_t = 0.000 f_b = 0.000
(0.7L_t) 53.899	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000	f_t = -0.753 f_b = 0.764	f_t = 0.000 f_b = 0.000
(SZB) 57.829	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000	f_t = -0.671 f_b = 0.680	f_t = 0.000 f_b = 0.000
(0.8L_t) 61.599	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000	f_t = -0.574 f_b = 0.582	f_t = 0.000 f_b = 0.000
(SZB) 66.079	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000	f_t = -0.437 f_b = 0.443	f_t = 0.000 f_b = 0.000
(0.9L_t) 69.299	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000	f_t = -0.323 f_b = 0.327	f_t = 0.000 f_b = 0.000
(1.5H) 70.999	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000	f_t = -0.258 f_b = 0.261	f_t = 0.000 f_b = 0.000
(SZB) 71.579	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000	f_t = -0.235 f_b = 0.238	f_t = 0.000 f_b = 0.000
(CS) 72.658	f_t = -0.191 f_b = 0.194	f_t = 0.000 f_b = 0.000	f_t = -0.191 f_b = 0.194	f_t = 0.000 f_b = 0.000
(H) 72.749	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000	f_t = -0.187 f_b = 0.190	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.817	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(PSXFR) 73.999	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000	f_t = -0.134 f_b = 0.136	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.877	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000	f_t = -0.096 f_b = 0.097	f_t = 0.000 f_b = 0.000
(SZB) 75.245	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(FoS) 76.249	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(STLF, 1.0L_t) 76.999	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 11: Cast Deck, Apply User Defined Loads

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.020	f_t = 0.000	f_t = -0.035	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.020	f_b = 0.000	f_b = 0.035	f_b = 0.000
(SZB) 1.337	f_t = -0.077 f_b = 0.078	f_t = 0.000 f_b = 0.000	f_t = -0.138 f_b = 0.140	f_t = 0.000 f_b = 0.000
(Bar Develop.) 1.705	f_t = -0.098 f_b = 0.100	f_t = 0.000 f_b = 0.000	f_t = -0.175 f_b = 0.177	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.147 f_b = 0.149	f_t = 0.000 f_b = 0.000	f_t = -0.262 f_b = 0.266	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.765	f_t = -0.157 f_b = 0.159	f_t = 0.000 f_b = 0.000	f_t = -0.280 f_b = 0.284	f_t = 0.000 f_b = 0.000
(H) 3.833	f_t = -0.214 f_b = 0.218	f_t = 0.000 f_b = 0.000	f_t = -0.382 f_b = 0.388	f_t = 0.000 f_b = 0.000
(CS) 4.127	f_t = -0.230 f_b = 0.233	f_t = 0.000 f_b = 0.000	f_t = -0.410 f_b = 0.416	f_t = 0.000 f_b = 0.000
(SZB) 5.003	f_t = -0.275 f_b = 0.279	f_t = 0.000 f_b = 0.000	f_t = -0.491 f_b = 0.498	f_t = 0.000 f_b = 0.000
(1.5H) 5.583	f_t = -0.305 f_b = 0.309	f_t = 0.000 f_b = 0.000	f_t = -0.543 f_b = 0.551	f_t = 0.000 f_b = 0.000
($0.1L_e$) 7.617	f_t = -0.404 f_b = 0.410	f_t = 0.000 f_b = 0.000	f_t = -0.720 f_b = 0.730	f_t = 0.000 f_b = 0.000
(SZB) 10.503	f_t = -0.534 f_b = 0.541	f_t = 0.000 f_b = 0.000	f_t = -0.951 f_b = 0.965	f_t = 0.000 f_b = 0.000
($0.2L_e$) 15.233	f_t = -0.718 f_b = 0.729	f_t = 0.000 f_b = 0.000	f_t = -1.280 f_b = 1.298	f_t = 0.000 f_b = 0.000
(SZB) 18.753	f_t = -0.834 f_b = 0.846	f_t = 0.000 f_b = 0.000	f_t = -1.485 f_b = 1.506	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 20.783	f_t = -0.891 f_b = 0.904	f_t = 0.000 f_b = 0.000	f_t = -1.588 f_b = 1.610	f_t = 0.000 f_b = 0.000
($0.3L_e$) 22.850	f_t = -0.943 f_b = 0.957	f_t = 0.000 f_b = 0.000	f_t = -1.680 f_b = 1.705	f_t = 0.000 f_b = 0.000
(SZB) 29.753	f_t = -1.069 f_b = 1.085	f_t = 0.000 f_b = 0.000	f_t = -1.905 f_b = 1.932	f_t = 0.000 f_b = 0.000
(HP) 30.383	f_t = -1.077 f_b = 1.093	f_t = 0.000 f_b = 0.000	f_t = -1.919 f_b = 1.946	f_t = 0.000 f_b = 0.000
($0.4L_e$) 30.466	f_t = -1.078 f_b = 1.094	f_t = 0.000 f_b = 0.000	f_t = -1.921 f_b = 1.948	f_t = 0.000 f_b = 0.000
($0.5L_e$) 38.083	f_t = -1.123 f_b = 1.139	f_t = 0.000 f_b = 0.000	f_t = -2.001 f_b = 2.030	f_t = 0.000 f_b = 0.000
($0.6L_e$) 45.699	f_t = -1.078 f_b = 1.094	f_t = 0.000 f_b = 0.000	f_t = -1.921 f_b = 1.948	f_t = 0.000 f_b = 0.000
(HP) 45.783	f_t = -1.077 f_b = 1.093	f_t = 0.000 f_b = 0.000	f_t = -1.919 f_b = 1.946	f_t = 0.000 f_b = 0.000
(SZB) 46.413	f_t = -1.069 f_b = 1.085	f_t = 0.000 f_b = 0.000	f_t = -1.905 f_b = 1.932	f_t = 0.000 f_b = 0.000
($0.7L_e$) 53.316	f_t = -0.943 f_b = 0.957	f_t = 0.000 f_b = 0.000	f_t = -1.680 f_b = 1.705	f_t = 0.000 f_b = 0.000
(SZB) 57.413	f_t = -0.834 f_b = 0.846	f_t = 0.000 f_b = 0.000	f_t = -1.485 f_b = 1.506	f_t = 0.000 f_b = 0.000
($0.8L_e$) 60.932	f_t = -0.718 f_b = 0.729	f_t = 0.000 f_b = 0.000	f_t = -1.280 f_b = 1.298	f_t = 0.000 f_b = 0.000
(SZB) 65.663	f_t = -0.534 f_b = 0.541	f_t = 0.000 f_b = 0.000	f_t = -0.951 f_b = 0.965	f_t = 0.000 f_b = 0.000
($0.9L_e$) 68.549	f_t = -0.404 f_b = 0.410	f_t = 0.000 f_b = 0.000	f_t = -0.720 f_b = 0.730	f_t = 0.000 f_b = 0.000
(1.5H) 70.582	f_t = -0.305 f_b = 0.309	f_t = 0.000 f_b = 0.000	f_t = -0.543 f_b = 0.551	f_t = 0.000 f_b = 0.000
(SZB) 71.163	f_t = -0.275 f_b = 0.279	f_t = 0.000 f_b = 0.000	f_t = -0.491 f_b = 0.498	f_t = 0.000 f_b = 0.000
(CS) 72.241	f_t = -0.219 f_b = 0.222	f_t = 0.000 f_b = 0.000	f_t = -0.391 f_b = 0.396	f_t = 0.000 f_b = 0.000
(H) 72.332	f_t = -0.214 f_b = 0.218	f_t = 0.000 f_b = 0.000	f_t = -0.382 f_b = 0.388	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.400	f_t = -0.157 f_b = 0.159	f_t = 0.000 f_b = 0.000	f_t = -0.280 f_b = 0.284	f_t = 0.000 f_b = 0.000
(PSXFR) 73.582	f_t = -0.147 f_b = 0.149	f_t = 0.000 f_b = 0.000	f_t = -0.262 f_b = 0.266	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.461	f_t = -0.098 f_b = 0.100	f_t = 0.000 f_b = 0.000	f_t = -0.175 f_b = 0.177	f_t = 0.000 f_b = 0.000
(SZB) 74.829	f_t = -0.077 f_b = 0.078	f_t = 0.000 f_b = 0.000	f_t = -0.138 f_b = 0.140	f_t = 0.000 f_b = 0.000
(FoS) 75.832	f_t = -0.020 f_b = 0.020	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
($1.0L_e$) 76.165	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.165	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(STLF) 76.582	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 17: Open to Traffic

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.063 f_b = -0.265	f_t = 0.042 f_b = -0.179
(STRF) 0.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = -0.312	f_t = 0.050 f_b = -0.210
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.071 f_b = -0.303	f_t = 0.048 f_b = -0.204
(FoS) 1.193	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.035 f_b = -0.261	f_t = 0.047 f_b = -0.200
(SZB) 2.196	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.073 f_b = -0.136	f_t = 0.044 f_b = -0.186
(Bar Develop.) 2.564	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.112 f_b = -0.091	f_t = 0.043 f_b = -0.181
(PSXFR) 3.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.203 f_b = 0.014	f_t = 0.040 f_b = -0.170
(Bar Develop.) 3.625	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.221 f_b = 0.036	f_t = 0.039 f_b = -0.167
(H) 4.693	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.329 f_b = 0.160	f_t = 0.036 f_b = -0.154
(CS) 4.987	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.357 f_b = 0.194	f_t = 0.035 f_b = -0.150
(SZB) 5.862	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.442 f_b = 0.292	f_t = 0.033 f_b = -0.139
(1.5H) 6.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.497 f_b = 0.356	f_t = 0.031 f_b = -0.132
(0.1L_s) 7.702	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.613 f_b = 0.490	f_t = 0.028 f_b = -0.117
(SZB) 11.362	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.925 f_b = 0.853	f_t = 0.018 f_b = -0.075
(0.2L_s) 15.405	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.224 f_b = 1.203	f_t = 0.008 f_b = -0.034
(SZB) 19.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.486 f_b = 1.511	f_t = -0.001 f_b = 0.003
(Deck Bar Cutoff) 21.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.594 f_b = 1.639	f_t = -0.005 f_b = 0.020
(0.3L_s) 23.107	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.665 f_b = 1.724	f_t = -0.007 f_b = 0.031
(SZB) 30.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.932 f_b = 2.047	f_t = -0.018 f_b = 0.077
(0.4L_s) 30.810	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.937 f_b = 2.053	f_t = -0.018 f_b = 0.078
(HP) 31.242	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.947 f_b = 2.066	f_t = -0.019 f_b = 0.080
(0.5L_s) 38.512	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.038 f_b = 2.190	f_t = -0.026 f_b = 0.109
(0.6L_s) 46.215	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.970 f_b = 2.136	f_t = -0.029 f_b = 0.122
(HP) 46.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.961 f_b = 2.127	f_t = -0.029 f_b = 0.122
(SZB) 47.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.948 f_b = 2.113	f_t = -0.029 f_b = 0.122
(0.7L_s) 53.917	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.732 f_b = 1.889	f_t = -0.028 f_b = 0.117
(SZB) 58.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.522 f_b = 1.665	f_t = -0.025 f_b = 0.107
(0.8L_s) 61.620	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.324 f_b = 1.451	f_t = -0.023 f_b = 0.095
(SZB) 66.522	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.976 f_b = 1.072	f_t = -0.017 f_b = 0.073
(0.9L_s) 69.322	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.747 f_b = 0.821	f_t = -0.013 f_b = 0.056
(1.5H) 71.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.558 f_b = 0.614	f_t = -0.010 f_b = 0.043
(SZB) 72.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.504 f_b = 0.555	f_t = -0.009 f_b = 0.039
(CS) 73.101	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.402 f_b = 0.442	f_t = -0.007 f_b = 0.031
(H) 73.192				

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.393 f_b = 0.433	f_t = -0.007 f_b = 0.030
(Bar Develop.) 74.260	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.288 f_b = 0.317	f_t = -0.005 f_b = 0.022
(PSXFR) 74.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.269 f_b = 0.297	f_t = -0.005 f_b = 0.021
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.180 f_b = 0.198	f_t = -0.003 f_b = 0.014
(SZB) 75.688	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.156	f_t = -0.003 f_b = 0.011
(FoS) 76.692	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = 0.039	f_t = -0.001 f_b = 0.003
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.0L_s$) 0.000	f_t = 0.017 f_b = 0.000	f_t = 0.000 f_b = -0.071	f_t = 0.225 f_b = 0.000	f_t = 0.000 f_b = -0.954	f_t = 0.041 f_b = 0.000	f_t = 0.000 f_b = -0.175	f_t = 0.242 f_b = 0.000	f_t = 0.000 f_b = -1.025	f_t = 0.041 f_b = 0.000	f_t = 0.000 f_b = -0.175
(STRF) 0.443	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.084	f_t = 0.266 f_b = 0.007	f_t = -0.002 f_b = -1.126	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.210	f_t = 0.285 f_b = 0.007	f_t = -0.002 f_b = -1.210	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.210
0.860	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.260 f_b = 0.014	f_t = -0.003 f_b = -1.102	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.209	f_t = 0.279 f_b = 0.014	f_t = -0.003 f_b = -1.183	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.209
(FoS) 1.193	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.080	f_t = 0.255 f_b = 0.019	f_t = -0.004 f_b = -1.082	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.208	f_t = 0.274 f_b = 0.019	f_t = -0.004 f_b = -1.161	f_t = 0.049 f_b = 0.000	f_t = 0.000 f_b = -0.208
(SZB) 2.196	f_t = 0.018 f_b = 0.000	f_t = -0.000 f_b = -0.074	f_t = 0.241 f_b = 0.036	f_t = -0.008 f_b = -1.023	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.205	f_t = 0.259 f_b = 0.036	f_t = -0.008 f_b = -1.097	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.205
(Bar Develop.) 2.564	f_t = 0.017 f_b = 0.000	f_t = -0.000 f_b = -0.072	f_t = 0.236 f_b = 0.042	f_t = -0.010 f_b = -1.001	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.204	f_t = 0.253 f_b = 0.042	f_t = -0.010 f_b = -1.074	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.204
(PSXFR) 3.443	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.224 f_b = 0.057	f_t = -0.013 f_b = -0.951	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.201	f_t = 0.240 f_b = 0.058	f_t = -0.014 f_b = -1.019	f_t = 0.048 f_b = 0.000	f_t = 0.000 f_b = -0.201
(Bar Develop.) 3.625	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.067	f_t = 0.222 f_b = 0.060	f_t = -0.014 f_b = -0.940	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.201	f_t = 0.238 f_b = 0.061	f_t = -0.014 f_b = -1.008	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.201
(H) 4.693	f_t = 0.015 f_b = 0.001	f_t = -0.000 f_b = -0.062	f_t = 0.207 f_b = 0.082	f_t = -0.019 f_b = -0.880	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.198	f_t = 0.222 f_b = 0.083	f_t = -0.020 f_b = -0.942	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.198
(CS) 4.987	f_t = 0.014 f_b = 0.002	f_t = -0.000 f_b = -0.061	f_t = 0.204 f_b = 0.090	f_t = -0.021 f_b = -0.864	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.197	f_t = 0.218 f_b = 0.092	f_t = -0.022 f_b = -0.925	f_t = 0.047 f_b = 0.000	f_t = 0.000 f_b = -0.197
(SZB) 5.862	f_t = 0.014 f_b = 0.002	f_t = -0.001 f_b = -0.058	f_t = 0.193 f_b = 0.116	f_t = -0.027 f_b = -0.818	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.195	f_t = 0.206 f_b = 0.118	f_t = -0.028 f_b = -0.875	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.195
(1.5H) 6.443	f_t = 0.013 f_b = 0.003	f_t = -0.001 f_b = -0.055	f_t = 0.186 f_b = 0.133	f_t = -0.031 f_b = -0.787	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.193	f_t = 0.199 f_b = 0.136	f_t = -0.032 f_b = -0.843	f_t = 0.046 f_b = 0.000	f_t = 0.000 f_b = -0.193
($0.1L_s$) 7.702	f_t = 0.012 f_b = 0.004	f_t = -0.001 f_b = -0.051	f_t = 0.169 f_b = 0.171	f_t = -0.040 f_b = -0.716	f_t = 0.045 f_b = 0.012	f_t = -0.003 f_b = -0.190	f_t = 0.181 f_b = 0.175	f_t = -0.041 f_b = -0.767	f_t = 0.045 f_b = 0.012	f_t = -0.003 f_b = -0.190
(SZB) 11.362	f_t = 0.009 f_b = 0.010	f_t = -0.002 f_b = -0.040	f_t = 0.134 f_b = 0.288	f_t = -0.068 f_b = -0.570	f_t = 0.042 f_b = 0.079	f_t = -0.019 f_b = -0.180	f_t = 0.144 f_b = 0.298	f_t = -0.070 f_b = -0.610	f_t = 0.042 f_b = 0.079	f_t = -0.019 f_b = -0.180
($0.2L_s$) 15.405	f_t = 0.008 f_b = 0.021	f_t = -0.005 f_b = -0.034	f_t = 0.123 f_b = 0.450	f_t = -0.106 f_b = -0.522	f_t = 0.040 f_b = 0.146	f_t = -0.034 f_b = -0.169	f_t = 0.131 f_b = 0.471	f_t = -0.111 f_b = -0.556	f_t = 0.040 f_b = 0.146	f_t = -0.034 f_b = -0.169
(SZB) 19.612	f_t = 0.008 f_b = 0.033	f_t = -0.008 f_b = -0.032	f_t = 0.115 f_b = 0.632	f_t = -0.149 f_b = -0.487	f_t = 0.037 f_b = 0.208	f_t = -0.049 f_b = -0.157	f_t = 0.122 f_b = 0.665	f_t = -0.157 f_b = -0.518	f_t = 0.037 f_b = 0.208	f_t = -0.049 f_b = -0.157
(Deck Bar Cutoff) 21.642	f_t = 0.007 f_b = 0.039	f_t = -0.009 f_b = -0.031	f_t = 0.111 f_b = 0.710	f_t = -0.167 f_b = -0.469	f_t = 0.036 f_b = 0.234	f_t = -0.055 f_b = -0.152	f_t = 0.118 f_b = 0.749	f_t = -0.177 f_b = -0.500	f_t = 0.036 f_b = 0.234	f_t = -0.055 f_b = -0.152
($0.3L_s$) 23.107	f_t = 0.007 f_b = 0.042	f_t = -0.010 f_b = -0.030	f_t = 0.108 f_b = 0.762	f_t = -0.180 f_b = -0.457	f_t = 0.035 f_b = 0.251	f_t = -0.059 f_b = -0.148	f_t = 0.115 f_b = 0.804	f_t = -0.190 f_b = -0.487	f_t = 0.035 f_b = 0.251	f_t = -0.059 f_b = -0.148
(SZB) 30.612	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.093 f_b = 0.984	f_t = -0.232 f_b = -0.393	f_t = 0.030 f_b = 0.317	f_t = -0.075 f_b = -0.127	f_t = 0.099 f_b = 1.040	f_t = -0.245 f_b = -0.419	f_t = 0.030 f_b = 0.317	f_t = -0.075 f_b = -0.127
($0.4L_s$) 30.810	f_t = 0.006 f_b = 0.057	f_t = -0.013 f_b = -0.026	f_t = 0.092 f_b = 0.988	f_t = -0.233 f_b = -0.392	f_t = 0.030 f_b = 0.318	f_t = -0.075 f_b = -0.127	f_t = 0.098 f_b = 1.045	f_t = -0.246 f_b = -0.417	f_t = 0.030 f_b = 0.318	f_t = -0.075 f_b = -0.127
(HP) 31.242	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.025	f_t = 0.091 f_b = 0.997	f_t = -0.235 f_b = -0.388	f_t = 0.030 f_b = 0.320	f_t = -0.075 f_b = -0.125	f_t = 0.097 f_b = 1.055	f_t = -0.249 f_b = -0.413	f_t = 0.030 f_b = 0.320	f_t = -0.075 f_b = -0.125
($0.5L_s$) 38.512	f_t = 0.005 f_b = 0.065	f_t = -0.015 f_b = -0.021	f_t = 0.077 f_b = 1.103	f_t = -0.260 f_b = -0.326	f_t = 0.025 f_b = 0.337	f_t = -0.079 f_b = -0.105	f_t = 0.082 f_b = 1.168	f_t = -0.275 f_b = -0.348	f_t = 0.025 f_b = 0.337	f_t = -0.079 f_b = -0.105
($0.6L_s$) 46.215	f_t = 0.004 f_b = 0.066	f_t = -0.015 f_b = -0.017	f_t = 0.062 f_b = 1.126	f_t = -0.265 f_b = -0.261	f_t = 0.020 f_b = 0.355	f_t = -0.084 f_b = -0.084	f_t = 0.066 f_b = 1.191	f_t = -0.281 f_b = -0.278	f_t = 0.020 f_b = 0.355	f_t = -0.084 f_b = -0.084
(HP) 46.642	f_t = 0.004 f_b = 0.066	f_t = -0.015 f_b = -0.017	f_t = 0.061 f_b = 1.124	f_t = -0.265 f_b = -0.257	f_t = 0.020 f_b = 0.356	f_t = -0.084 f_b = -0.083	f_t = 0.065 f_b = 1.190	f_t = -0.281 f_b = -0.274	f_t = 0.020 f_b = 0.356	f_t = -0.084 f_b = -0.083
(SZB) 47.272	f_t = 0.004 f_b = 0.065	f_t = -0.015 f_b = -0.017	f_t = 0.059 f_b = 1.122	f_t = -0.264 f_b = -0.252	f_t = 0.019 f_b = 0.356	f_t = -0.084 f_b = -0.081	f_t = 0.063 f_b = 1.187	f_t = -0.280 f_b = -0.269	f_t = 0.019 f_b = 0.356	f_t = -0.084 f_b = -0.081
($0.7L_s$) 53.917	f_t = 0.003	f_t = -0.014	f_t = 0.046	f_t = -0.245	f_t = 0.015	f_t = -0.080	f_t = 0.049	f_t = -0.259	f_t = 0.015	f_t = -0.080

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.060	f_b = -0.013	f_b = 1.038	f_b = -0.196	f_b = 0.338	f_b = -0.063	f_b = 1.097	f_b = -0.209	f_b = 0.338	f_b = -0.063
(SZB) 58.272	f_t = 0.002 f_b = 0.053	f_t = -0.013 f_b = -0.010	f_t = 0.037 f_b = 0.943	f_t = -0.222 f_b = -0.159	f_t = 0.012 f_b = 0.305	f_t = -0.072 f_b = -0.051	f_t = 0.040 f_b = 0.997	f_t = -0.235 f_b = -0.169	f_t = 0.012 f_b = 0.305	f_t = -0.072 f_b = -0.051
($0.8L_s$) 61.620	f_t = 0.002 f_b = 0.047	f_t = -0.011 f_b = -0.009	f_t = 0.031 f_b = 0.840	f_t = -0.198 f_b = -0.131	f_t = 0.010 f_b = 0.272	f_t = -0.064 f_b = -0.042	f_t = 0.033 f_b = 0.887	f_t = -0.209 f_b = -0.139	f_t = 0.010 f_b = 0.272	f_t = -0.064 f_b = -0.042
(SZB) 66.522	f_t = 0.001 f_b = 0.035	f_t = -0.008 f_b = -0.006	f_t = 0.021 f_b = 0.640	f_t = -0.151 f_b = -0.089	f_t = 0.007 f_b = 0.212	f_t = -0.050 f_b = -0.029	f_t = 0.022 f_b = 0.674	f_t = -0.159 f_b = -0.095	f_t = 0.007 f_b = 0.212	f_t = -0.050 f_b = -0.029
($0.9L_s$) 69.322	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.015 f_b = 0.497	f_t = -0.117 f_b = -0.065	f_t = 0.005 f_b = 0.167	f_t = -0.039 f_b = -0.021	f_t = 0.016 f_b = 0.524	f_t = -0.124 f_b = -0.070	f_t = 0.005 f_b = 0.167	f_t = -0.039 f_b = -0.021
(1.5H) 71.442	f_t = 0.001 f_b = 0.020	f_t = -0.005 f_b = -0.003	f_t = 0.011 f_b = 0.376	f_t = -0.089 f_b = -0.047	f_t = 0.004 f_b = 0.127	f_t = -0.030 f_b = -0.015	f_t = 0.012 f_b = 0.396	f_t = -0.093 f_b = -0.050	f_t = 0.004 f_b = 0.127	f_t = -0.030 f_b = -0.015
(SZB) 72.022	f_t = 0.001 f_b = 0.018	f_t = -0.004 f_b = -0.003	f_t = 0.010 f_b = 0.341	f_t = -0.080 f_b = -0.042	f_t = 0.003 f_b = 0.115	f_t = -0.027 f_b = -0.014	f_t = 0.011 f_b = 0.359	f_t = -0.085 f_b = -0.045	f_t = 0.003 f_b = 0.115	f_t = -0.027 f_b = -0.014
(CS) 73.101	f_t = 0.001 f_b = 0.015	f_t = -0.003 f_b = -0.002	f_t = 0.008 f_b = 0.273	f_t = -0.064 f_b = -0.033	f_t = 0.003 f_b = 0.093	f_t = -0.022 f_b = -0.011	f_t = 0.008 f_b = 0.288	f_t = -0.068 f_b = -0.035	f_t = 0.003 f_b = 0.093	f_t = -0.022 f_b = -0.011
(H) 73.192	f_t = 0.001 f_b = 0.014	f_t = -0.003 f_b = -0.002	f_t = 0.008 f_b = 0.267	f_t = -0.063 f_b = -0.032	f_t = 0.002 f_b = 0.091	f_t = -0.021 f_b = -0.010	f_t = 0.008 f_b = 0.281	f_t = -0.066 f_b = -0.035	f_t = 0.002 f_b = 0.091	f_t = -0.021 f_b = -0.010
(Bar Develop.) 74.260	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.002	f_t = 0.006 f_b = 0.197	f_t = -0.046 f_b = -0.023	f_t = 0.002 f_b = 0.067	f_t = -0.016 f_b = -0.008	f_t = 0.006 f_b = 0.207	f_t = -0.049 f_b = -0.025	f_t = 0.002 f_b = 0.067	f_t = -0.016 f_b = -0.008
(PSXFR) 74.442	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.184	f_t = -0.043 f_b = -0.022	f_t = 0.002 f_b = 0.063	f_t = -0.015 f_b = -0.007	f_t = 0.005 f_b = 0.194	f_t = -0.046 f_b = -0.023	f_t = 0.002 f_b = 0.063	f_t = -0.015 f_b = -0.007
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.007	f_t = -0.002 f_b = -0.001	f_t = 0.003 f_b = 0.124	f_t = -0.029 f_b = -0.014	f_t = 0.001 f_b = 0.042	f_t = -0.010 f_b = -0.005	f_t = 0.004 f_b = 0.130	f_t = -0.031 f_b = -0.015	f_t = 0.001 f_b = 0.042	f_t = -0.010 f_b = -0.005
(SZB) 75.688	f_t = 0.000 f_b = 0.005	f_t = -0.001 f_b = -0.001	f_t = 0.003 f_b = 0.098	f_t = -0.023 f_b = -0.011	f_t = 0.001 f_b = 0.033	f_t = -0.008 f_b = -0.004	f_t = 0.003 f_b = 0.103	f_t = -0.024 f_b = -0.012	f_t = 0.001 f_b = 0.033	f_t = -0.008 f_b = -0.004
(FoS) 76.692	f_t = 0.000 f_b = 0.001	f_t = -0.000 f_b = -0.000	f_t = 0.001 f_b = 0.025	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.009	f_t = -0.002 f_b = -0.001	f_t = 0.001 f_b = 0.026	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.009	f_t = -0.002 f_b = -0.001
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Girder Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.0L_s$) 0.000	f_t = 0.346 f_b = -0.444	f_t = 0.105 f_b = -1.469	f_t = 0.298 f_b = -0.444	f_t = 0.105 f_b = -1.264	f_t = 0.114 f_b = -0.222	f_t = 0.052 f_b = -0.485
(STRF) 0.443	f_t = 0.408 f_b = -0.515	f_t = 0.121 f_b = -1.732	f_t = 0.351 f_b = -0.516	f_t = 0.122 f_b = -1.490	f_t = 0.136 f_b = -0.261	f_t = 0.061 f_b = -0.575
0.860	f_t = 0.398 f_b = -0.494	f_t = 0.116 f_b = -1.690	f_t = 0.343 f_b = -0.496	f_t = 0.117 f_b = -1.454	f_t = 0.134 f_b = -0.254	f_t = 0.060 f_b = -0.567
(FoS) 1.193	f_t = 0.356 f_b = -0.442	f_t = 0.078 f_b = -1.622	f_t = 0.301 f_b = -0.445	f_t = 0.078 f_b = -1.390	f_t = 0.114 f_b = -0.230	f_t = 0.041 f_b = -0.542
(SZB) 2.196	f_t = 0.230 f_b = -0.286	f_t = -0.037 f_b = -1.419	f_t = 0.178 f_b = -0.294	f_t = -0.036 f_b = -1.200	f_t = 0.058 f_b = -0.161	f_t = -0.014 f_b = -0.469
(Bar Develop.) 2.564	f_t = 0.184 f_b = -0.230	f_t = -0.079 f_b = -1.346	f_t = 0.134 f_b = -0.239	f_t = -0.077 f_b = -1.131	f_t = 0.038 f_b = -0.136	f_t = -0.034 f_b = -0.442
(PSXFR) 3.443	f_t = 0.077 f_b = -0.097	f_t = -0.176 f_b = -1.174	f_t = 0.029 f_b = -0.109	f_t = -0.174 f_b = -0.970	f_t = -0.010 f_b = -0.078	f_t = -0.081 f_b = -0.380
(Bar Develop.) 3.625	f_t = 0.056 f_b = -0.070	f_t = -0.196 f_b = -1.139	f_t = 0.008 f_b = -0.082	f_t = -0.193 f_b = -0.938	f_t = -0.020 f_b = -0.066	f_t = -0.091 f_b = -0.367
(H) 4.693	f_t = -0.070 f_b = 0.090	f_t = -0.312 f_b = -0.936	f_t = -0.115 f_b = 0.073	f_t = -0.308 f_b = -0.747	f_t = -0.076 f_b = 0.003	f_t = -0.146 f_b = -0.294
(CS) 4.987	f_t = -0.104 f_b = 0.136	f_t = -0.344 f_b = -0.882	f_t = -0.148 f_b = 0.117	f_t = -0.339 f_b = -0.697	f_t = -0.091 f_b = 0.022	f_t = -0.161 f_b = -0.274
(SZB) 5.862	f_t = -0.203 f_b = 0.271	f_t = -0.437 f_b = -0.722	f_t = -0.244 f_b = 0.247	f_t = -0.432 f_b = -0.547	f_t = -0.136 f_b = 0.076	f_t = -0.205 f_b = -0.216
(1.5H) 6.443	f_t = -0.268 f_b = 0.360	f_t = -0.498 f_b = -0.619	f_t = -0.307 f_b = 0.332	f_t = -0.492 f_b = -0.450	f_t = -0.165 f_b = 0.112	f_t = -0.233 f_b = -0.178
($0.1L_s$) 7.702	f_t = -0.405 f_b = 0.549	f_t = -0.627 f_b = -0.393	f_t = -0.441 f_b = 0.514	f_t = -0.619 f_b = -0.240	f_t = -0.226 f_b = 0.205	f_t = -0.297 f_b = -0.098
(SZB) 11.362	f_t = -0.763 f_b = 1.075	f_t = -0.977 f_b = 0.167	f_t = -0.792 f_b = 1.016	f_t = -0.963 f_b = 0.289	f_t = -0.390 f_b = 0.507	f_t = -0.481 f_b = 0.119
($0.2L_s$) 15.405	f_t = -1.085 f_b = 1.639	f_t = -1.327 f_b = 0.612	f_t = -1.111 f_b = 1.545	f_t = -1.305 f_b = 0.723	f_t = -0.548 f_b = 0.803	f_t = -0.659 f_b = 0.331
(SZB) 19.612	f_t = -1.365 f_b = 2.179	f_t = -1.644 f_b = 0.996	f_t = -1.389 f_b = 2.046	f_t = -1.612 f_b = 1.100	f_t = -0.688 f_b = 1.069	f_t = -0.817 f_b = 0.521
(Deck Bar Cutoff) 21.642	f_t = -1.481 f_b = 2.408	f_t = -1.776 f_b = 1.159	f_t = -1.505 f_b = 2.258	f_t = -1.740 f_b = 1.259	f_t = -0.746 f_b = 1.180	f_t = -0.882 f_b = 0.602

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.3L$_s$) 23.107	f_t = -1.558 f_b = 2.559	f_t = -1.862 f_b = 1.268	f_t = -1.581 f_b = 2.398	f_t = -1.824 f_b = 1.365	f_t = -0.784 f_b = 1.254	f_t = -0.925 f_b = 0.656
(SZB) 30.612	f_t = -1.851 f_b = 3.164	f_t = -2.195 f_b = 1.705	f_t = -1.871 f_b = 2.956	f_t = -2.146 f_b = 1.789	f_t = -0.930 f_b = 1.537	f_t = -1.087 f_b = 0.871
(0.4L$_s$) 30.810	f_t = -1.857 f_b = 3.176	f_t = -2.202 f_b = 1.714	f_t = -1.877 f_b = 2.967	f_t = -2.152 f_b = 1.797	f_t = -0.933 f_b = 1.542	f_t = -1.090 f_b = 0.876
(HP) 31.242	f_t = -1.869 f_b = 3.201	f_t = -2.215 f_b = 1.733	f_t = -1.888 f_b = 2.990	f_t = -2.165 f_b = 1.815	f_t = -0.939 f_b = 1.553	f_t = -1.096 f_b = 0.885
(0.5L$_s$) 38.512	f_t = -1.982 f_b = 3.467	f_t = -2.339 f_b = 1.951	f_t = -1.998 f_b = 3.233	f_t = -2.284 f_b = 2.021	f_t = -0.995 f_b = 1.654	f_t = -1.151 f_b = 0.991
(0.6L$_s$) 46.215	f_t = -1.933 f_b = 3.449	f_t = -2.280 f_b = 1.979	f_t = -1.946 f_b = 3.210	f_t = -2.224 f_b = 2.035	f_t = -0.970 f_b = 1.662	f_t = -1.125 f_b = 1.002
(HP) 46.642	f_t = -1.925 f_b = 3.439	f_t = -2.271 f_b = 1.974	f_t = -1.938 f_b = 3.201	f_t = -2.215 f_b = 2.029	f_t = -0.966 f_b = 1.658	f_t = -1.121 f_b = 1.000
(SZB) 47.272	f_t = -1.913 f_b = 3.422	f_t = -2.256 f_b = 1.966	f_t = -1.926 f_b = 3.185	f_t = -2.200 f_b = 2.020	f_t = -0.959 f_b = 1.651	f_t = -1.114 f_b = 0.995
(0.7L$_s$) 53.917	f_t = -1.711 f_b = 3.103	f_t = -2.018 f_b = 1.798	f_t = -1.720 f_b = 2.884	f_t = -1.967 f_b = 1.839	f_t = -0.857 f_b = 1.510	f_t = -0.999 f_b = 0.908
(SZB) 58.272	f_t = -1.508 f_b = 2.769	f_t = -1.782 f_b = 1.603	f_t = -1.516 f_b = 2.569	f_t = -1.736 f_b = 1.637	f_t = -0.756 f_b = 1.343	f_t = -0.882 f_b = 0.809
(0.8L$_s$) 61.620	f_t = -1.314 f_b = 2.433	f_t = -1.556 f_b = 1.407	f_t = -1.320 f_b = 2.256	f_t = -1.514 f_b = 1.435	f_t = -0.658 f_b = 1.181	f_t = -0.770 f_b = 0.710
(SZB) 66.522	f_t = -0.971 f_b = 1.819	f_t = -1.152 f_b = 1.050	f_t = -0.976 f_b = 1.684	f_t = -1.121 f_b = 1.069	f_t = -0.487 f_b = 0.890	f_t = -0.572 f_b = 0.529
(0.9L$_s$) 69.322	f_t = -0.744 f_b = 1.402	f_t = -0.884 f_b = 0.808	f_t = -0.747 f_b = 1.297	f_t = -0.859 f_b = 0.822	f_t = -0.373 f_b = 0.689	f_t = -0.439 f_b = 0.407
(1.5H) 71.442	f_t = -0.556 f_b = 1.053	f_t = -0.662 f_b = 0.606	f_t = -0.559 f_b = 0.974	f_t = -0.643 f_b = 0.617	f_t = -0.279 f_b = 0.519	f_t = -0.329 f_b = 0.306
(SZB) 72.022	f_t = -0.503 f_b = 0.953	f_t = -0.598 f_b = 0.548	f_t = -0.505 f_b = 0.881	f_t = -0.581 f_b = 0.558	f_t = -0.252 f_b = 0.470	f_t = -0.298 f_b = 0.276
(CS) 73.101	f_t = -0.400 f_b = 0.761	f_t = -0.477 f_b = 0.438	f_t = -0.402 f_b = 0.703	f_t = -0.463 f_b = 0.445	f_t = -0.201 f_b = 0.376	f_t = -0.237 f_b = 0.220
(H) 73.192	f_t = -0.392 f_b = 0.744	f_t = -0.466 f_b = 0.428	f_t = -0.393 f_b = 0.688	f_t = -0.453 f_b = 0.435	f_t = -0.196 f_b = 0.368	f_t = -0.232 f_b = 0.216
(Bar Develop.) 74.260	f_t = -0.287 f_b = 0.546	f_t = -0.342 f_b = 0.314	f_t = -0.288 f_b = 0.505	f_t = -0.332 f_b = 0.319	f_t = -0.144 f_b = 0.270	f_t = -0.170 f_b = 0.158
(PSXFR) 74.442	f_t = -0.269 f_b = 0.512	f_t = -0.320 f_b = 0.294	f_t = -0.270 f_b = 0.473	f_t = -0.311 f_b = 0.299	f_t = -0.135 f_b = 0.253	f_t = -0.159 f_b = 0.148
(Bar Develop.) 75.320	f_t = -0.180 f_b = 0.342	f_t = -0.214 f_b = 0.197	f_t = -0.180 f_b = 0.316	f_t = -0.208 f_b = 0.200	f_t = -0.090 f_b = 0.170	f_t = -0.107 f_b = 0.099
(SZB) 75.688	f_t = -0.141 f_b = 0.270	f_t = -0.169 f_b = 0.155	f_t = -0.142 f_b = 0.249	f_t = -0.164 f_b = 0.158	f_t = -0.071 f_b = 0.134	f_t = -0.084 f_b = 0.078
(FoS) 76.692	f_t = -0.036 f_b = 0.068	f_t = -0.043 f_b = 0.039	f_t = -0.036 f_b = 0.063	f_t = -0.041 f_b = 0.040	f_t = -0.018 f_b = 0.034	f_t = -0.021 f_b = 0.020
(1.0L$_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.

Deck Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.110 f_b = 0.052	f_t = 0.074 f_b = 0.035
(STRF) 0.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.129 f_b = 0.061	f_t = 0.087 f_b = 0.041
0.860	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.125 f_b = 0.059	f_t = 0.085 f_b = 0.040
(FoS) 1.193	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.123 f_b = 0.058	f_t = 0.083 f_b = 0.039
(SZB) 2.196	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.114 f_b = 0.054	f_t = 0.077 f_b = 0.036
(Bar Develop.) 2.564	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.111 f_b = 0.052	f_t = 0.075 f_b = 0.035
(PSXFR) 3.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.104 f_b = 0.049	f_t = 0.070 f_b = 0.033
(Bar Develop.) 3.625	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.103 f_b = 0.048	f_t = 0.069 f_b = 0.033
(H) 4.693	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.094 f_b = 0.044	f_t = 0.064 f_b = 0.030
(CS) 4.987	f_t = 0.000	f_t = 0.000	f_t = 0.092	f_t = 0.062

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.029
(SZB) 5.862	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.085 f_b = 0.040	f_t = 0.057 f_b = 0.027
(1.5H) 6.443	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.081 f_b = 0.038	f_t = 0.055 f_b = 0.026
(0.1L_s) 7.702	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.072 f_b = 0.034	f_t = 0.048 f_b = 0.023
(SZB) 11.362	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.046 f_b = 0.022	f_t = 0.031 f_b = 0.015
(0.2L_s) 15.405	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.021 f_b = 0.010	f_t = 0.014 f_b = 0.007
(SZB) 19.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(Deck Bar Cutoff) 21.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.012 f_b = -0.006	f_t = -0.008 f_b = -0.004
(0.3L_s) 23.107	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(SZB) 30.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.047 f_b = -0.022	f_t = -0.032 f_b = -0.015
(0.4L_s) 30.810	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.048 f_b = -0.023	f_t = -0.032 f_b = -0.015
(HP) 31.242	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.049 f_b = -0.023	f_t = -0.033 f_b = -0.016
(0.5L_s) 38.512	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.067 f_b = -0.031	f_t = -0.045 f_b = -0.021
(0.6L_s) 46.215	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.035	f_t = -0.050 f_b = -0.024
(HP) 46.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.035	f_t = -0.050 f_b = -0.024
(SZB) 47.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.035	f_t = -0.050 f_b = -0.024
(0.7L_s) 53.917	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.072 f_b = -0.034	f_t = -0.049 f_b = -0.023
(SZB) 58.272	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.066 f_b = -0.031	f_t = -0.044 f_b = -0.021
(0.8L_s) 61.620	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.059 f_b = -0.028	f_t = -0.040 f_b = -0.019
(SZB) 66.522	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.045 f_b = -0.021	f_t = -0.030 f_b = -0.014
(0.9L_s) 69.322	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = -0.016	f_t = -0.023 f_b = -0.011
(1.5H) 71.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.026 f_b = -0.012	f_t = -0.018 f_b = -0.008
(SZB) 72.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.024 f_b = -0.011	f_t = -0.016 f_b = -0.008
(CS) 73.101	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(H) 73.192	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(Bar Develop.) 74.260	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.006	f_t = -0.009 f_b = -0.004
(PSXFR) 74.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.013 f_b = -0.006	f_t = -0.009 f_b = -0.004
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.006 f_b = -0.003
(SZB) 75.688	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = -0.005 f_b = -0.002
(FoS) 76.692	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(1.0L_s) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Deck Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.0L_s) 0.000	f_t = 0.029 f_b = 0.014	f_t = 0.000 f_b = 0.000	f_t = 0.395 f_b = 0.186	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = 0.034	f_t = 0.000 f_b = 0.000	f_t = 0.424 f_b = 0.200	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = 0.034	f_t = 0.000 f_b = 0.000
(STRF) 0.443	f_t = 0.035 f_b = 0.016	f_t = 0.000 f_b = 0.000	f_t = 0.466 f_b = 0.220	f_t = -0.003 f_b = -0.001	f_t = 0.087 f_b = 0.041	f_t = 0.000 f_b = 0.000	f_t = 0.501 f_b = 0.236	f_t = -0.003 f_b = -0.001	f_t = 0.087 f_b = 0.041	f_t = 0.000 f_b = 0.000

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
0.860	f_t = 0.034 f_b = 0.016	f_t = -0.000 f_b = 0.000	f_t = 0.456 f_b = 0.215	f_t = -0.006 f_b = -0.003	f_t = 0.086 f_b = 0.041	f_t = 0.000 f_b = 0.000	f_t = 0.490 f_b = 0.231	f_t = -0.006 f_b = -0.003	f_t = 0.086 f_b = 0.041	f_t = 0.000 f_b = 0.000
(FoS) 1.193	f_t = 0.033 f_b = 0.016	f_t = -0.000 f_b = -0.000	f_t = 0.448 f_b = 0.211	f_t = -0.008 f_b = -0.004	f_t = 0.086 f_b = 0.040	f_t = 0.000 f_b = 0.000	f_t = 0.481 f_b = 0.226	f_t = -0.008 f_b = -0.004	f_t = 0.086 f_b = 0.040	f_t = 0.000 f_b = 0.000
(SZB) 2.196	f_t = 0.031 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.423 f_b = 0.199	f_t = -0.015 f_b = -0.007	f_t = 0.085 f_b = 0.040	f_t = 0.000 f_b = 0.000	f_t = 0.454 f_b = 0.214	f_t = -0.015 f_b = -0.007	f_t = 0.085 f_b = 0.040	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.564	f_t = 0.030 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.415 f_b = 0.195	f_t = -0.017 f_b = -0.008	f_t = 0.084 f_b = 0.040	f_t = 0.000 f_b = 0.000	f_t = 0.445 f_b = 0.209	f_t = -0.017 f_b = -0.008	f_t = 0.084 f_b = 0.040	f_t = 0.000 f_b = 0.000
(PSXFR) 3.443	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.394 f_b = 0.185	f_t = -0.024 f_b = -0.011	f_t = 0.083 f_b = 0.039	f_t = 0.000 f_b = 0.000	f_t = 0.422 f_b = 0.199	f_t = -0.024 f_b = -0.011	f_t = 0.083 f_b = 0.039	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.625	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.389 f_b = 0.183	f_t = -0.025 f_b = -0.012	f_t = 0.083 f_b = 0.039	f_t = 0.000 f_b = 0.000	f_t = 0.417 f_b = 0.196	f_t = -0.025 f_b = -0.012	f_t = 0.083 f_b = 0.039	f_t = 0.000 f_b = 0.000
(H) 4.693	f_t = 0.026 f_b = 0.012	f_t = -0.001 f_b = -0.000	f_t = 0.364 f_b = 0.172	f_t = -0.034 f_b = -0.016	f_t = 0.082 f_b = 0.039	f_t = 0.000 f_b = 0.000	f_t = 0.390 f_b = 0.184	f_t = -0.034 f_b = -0.016	f_t = 0.082 f_b = 0.039	f_t = 0.000 f_b = 0.000
(CS) 4.987	f_t = 0.025 f_b = 0.012	f_t = -0.001 f_b = -0.000	f_t = 0.358 f_b = 0.168	f_t = -0.037 f_b = -0.018	f_t = 0.082 f_b = 0.038	f_t = 0.000 f_b = 0.000	f_t = 0.383 f_b = 0.180	f_t = -0.038 f_b = -0.018	f_t = 0.082 f_b = 0.038	f_t = 0.000 f_b = 0.000
(SZB) 5.862	f_t = 0.024 f_b = 0.011	f_t = -0.001 f_b = -0.000	f_t = 0.339 f_b = 0.159	f_t = -0.048 f_b = -0.023	f_t = 0.081 f_b = 0.038	f_t = 0.000 f_b = 0.000	f_t = 0.362 f_b = 0.171	f_t = -0.049 f_b = -0.023	f_t = 0.081 f_b = 0.038	f_t = 0.000 f_b = 0.000
(1.5H) 6.443	f_t = 0.023 f_b = 0.011	f_t = -0.001 f_b = -0.001	f_t = 0.326 f_b = 0.154	f_t = -0.055 f_b = -0.026	f_t = 0.080 f_b = 0.038	f_t = 0.000 f_b = 0.000	f_t = 0.349 f_b = 0.164	f_t = -0.056 f_b = -0.026	f_t = 0.080 f_b = 0.038	f_t = 0.000 f_b = 0.000
($0.1L_s$) 7.702	f_t = 0.021 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.297 f_b = 0.140	f_t = -0.071 f_b = -0.033	f_t = 0.079 f_b = 0.037	f_t = -0.005 f_b = -0.002	f_t = 0.318 f_b = 0.150	f_t = -0.072 f_b = -0.034	f_t = 0.079 f_b = 0.037	f_t = -0.005 f_b = -0.002
(SZB) 11.362	f_t = 0.017 f_b = 0.008	f_t = -0.004 f_b = -0.002	f_t = 0.236 f_b = 0.111	f_t = -0.119 f_b = -0.056	f_t = 0.074 f_b = 0.035	f_t = -0.033 f_b = -0.015	f_t = 0.253 f_b = 0.119	f_t = -0.123 f_b = -0.058	f_t = 0.074 f_b = 0.035	f_t = -0.033 f_b = -0.015
($0.2L_s$) 15.405	f_t = 0.014 f_b = 0.007	f_t = -0.009 f_b = -0.004	f_t = 0.216 f_b = 0.102	f_t = -0.186 f_b = -0.088	f_t = 0.070 f_b = 0.033	f_t = -0.060 f_b = -0.028	f_t = 0.230 f_b = 0.108	f_t = -0.195 f_b = -0.092	f_t = 0.070 f_b = 0.033	f_t = -0.060 f_b = -0.028
(SZB) 19.612	f_t = 0.013 f_b = 0.006	f_t = -0.014 f_b = -0.007	f_t = 0.201 f_b = 0.095	f_t = -0.261 f_b = -0.123	f_t = 0.065 f_b = 0.031	f_t = -0.086 f_b = -0.040	f_t = 0.215 f_b = 0.101	f_t = -0.275 f_b = -0.130	f_t = 0.065 f_b = 0.031	f_t = -0.086 f_b = -0.040
(Deck Bar Cutoff) 21.642	f_t = 0.013 f_b = 0.006	f_t = -0.016 f_b = -0.008	f_t = 0.194 f_b = 0.092	f_t = -0.294 f_b = -0.138	f_t = 0.063 f_b = 0.030	f_t = -0.097 f_b = -0.046	f_t = 0.207 f_b = 0.098	f_t = -0.310 f_b = -0.146	f_t = 0.063 f_b = 0.030	f_t = -0.097 f_b = -0.046
($0.3L_s$) 23.107	f_t = 0.012 f_b = 0.006	f_t = -0.018 f_b = -0.008	f_t = 0.189 f_b = 0.089	f_t = -0.315 f_b = -0.149	f_t = 0.061 f_b = 0.029	f_t = -0.104 f_b = -0.049	f_t = 0.202 f_b = 0.095	f_t = -0.333 f_b = -0.157	f_t = 0.061 f_b = 0.029	f_t = -0.104 f_b = -0.049
(SZB) 30.612	f_t = 0.011 f_b = 0.005	f_t = -0.023 f_b = -0.011	f_t = 0.163 f_b = 0.077	f_t = -0.407 f_b = -0.192	f_t = 0.053 f_b = 0.025	f_t = -0.131 f_b = -0.062	f_t = 0.174 f_b = 0.082	f_t = -0.431 f_b = -0.203	f_t = 0.053 f_b = 0.025	f_t = -0.131 f_b = -0.062
($0.4L_s$) 30.810	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.162 f_b = 0.076	f_t = -0.409 f_b = -0.193	f_t = 0.052 f_b = 0.025	f_t = -0.132 f_b = -0.062	f_t = 0.173 f_b = 0.081	f_t = -0.433 f_b = -0.204	f_t = 0.052 f_b = 0.025	f_t = -0.132 f_b = -0.062
(HP) 31.242	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.011	f_t = 0.161 f_b = 0.076	f_t = -0.413 f_b = -0.194	f_t = 0.052 f_b = 0.024	f_t = -0.132 f_b = -0.062	f_t = 0.171 f_b = 0.081	f_t = -0.437 f_b = -0.206	f_t = 0.052 f_b = 0.024	f_t = -0.132 f_b = -0.062
($0.5L_s$) 38.512	f_t = 0.009 f_b = 0.004	f_t = -0.027 f_b = -0.013	f_t = 0.135 f_b = 0.064	f_t = -0.457 f_b = -0.215	f_t = 0.044 f_b = 0.021	f_t = -0.139 f_b = -0.066	f_t = 0.144 f_b = 0.068	f_t = -0.484 f_b = -0.228	f_t = 0.044 f_b = 0.021	f_t = -0.139 f_b = -0.066
($0.6L_s$) 46.215	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.108 f_b = 0.051	f_t = -0.466 f_b = -0.219	f_t = 0.035 f_b = 0.016	f_t = -0.147 f_b = -0.069	f_t = 0.115 f_b = 0.054	f_t = -0.493 f_b = -0.232	f_t = 0.035 f_b = 0.016	f_t = -0.147 f_b = -0.069
(HP) 46.642	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.107 f_b = 0.050	f_t = -0.465 f_b = -0.219	f_t = 0.034 f_b = 0.016	f_t = -0.147 f_b = -0.069	f_t = 0.114 f_b = 0.053	f_t = -0.493 f_b = -0.232	f_t = 0.034 f_b = 0.016	f_t = -0.147 f_b = -0.069
(SZB) 47.272	f_t = 0.007 f_b = 0.003	f_t = -0.027 f_b = -0.013	f_t = 0.104 f_b = 0.049	f_t = -0.464 f_b = -0.219	f_t = 0.034 f_b = 0.016	f_t = -0.147 f_b = -0.069	f_t = 0.111 f_b = 0.052	f_t = -0.491 f_b = -0.231	f_t = 0.034 f_b = 0.016	f_t = -0.147 f_b = -0.069
($0.7L_s$) 53.917	f_t = 0.005 f_b = 0.003	f_t = -0.025 f_b = -0.012	f_t = 0.081 f_b = 0.038	f_t = -0.430 f_b = -0.202	f_t = 0.026 f_b = 0.012	f_t = -0.140 f_b = -0.066	f_t = 0.086 f_b = 0.041	f_t = -0.454 f_b = -0.214	f_t = 0.026 f_b = 0.012	f_t = -0.140 f_b = -0.066
(SZB) 58.272	f_t = 0.004 f_b = 0.002	f_t = -0.022 f_b = -0.010	f_t = 0.066 f_b = 0.031	f_t = -0.391 f_b = -0.184	f_t = 0.021 f_b = 0.010	f_t = -0.126 f_b = -0.059	f_t = 0.070 f_b = 0.033	f_t = -0.413 f_b = -0.194	f_t = 0.021 f_b = 0.010	f_t = -0.126 f_b = -0.059
($0.8L_s$) 61.620	f_t = 0.004 f_b = 0.002	f_t = -0.019 f_b = -0.009	f_t = 0.054 f_b = 0.025	f_t = -0.348 f_b = -0.164	f_t = 0.017 f_b = 0.008	f_t = -0.113 f_b = -0.053	f_t = 0.058 f_b = 0.027	f_t = -0.367 f_b = -0.173	f_t = 0.017 f_b = 0.008	f_t = -0.113 f_b = -0.053
(SZB) 66.522	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007	f_t = 0.037 f_b = 0.017	f_t = -0.265 f_b = -0.125	f_t = 0.012 f_b = 0.006	f_t = -0.088 f_b = -0.041	f_t = 0.039 f_b = 0.018	f_t = -0.279 f_b = -0.131	f_t = 0.012 f_b = 0.006	f_t = -0.088 f_b = -0.041
($0.9L_s$) 69.322	f_t = 0.002 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.027 f_b = 0.013	f_t = -0.206 f_b = -0.097	f_t = 0.009 f_b = 0.004	f_t = -0.069 f_b = -0.032	f_t = 0.029 f_b = 0.014	f_t = -0.217 f_b = -0.102	f_t = 0.009 f_b = 0.004	f_t = -0.069 f_b = -0.032
(1.5H) 71.442	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.020 f_b = 0.009	f_t = -0.156 f_b = -0.073	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.025	f_t = 0.021 f_b = 0.010	f_t = -0.164 f_b = -0.077	f_t = 0.006 f_b = 0.003	f_t = -0.053 f_b = -0.025
(SZB) 72.022	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.018 f_b = 0.008	f_t = -0.141 f_b = -0.066	f_t = 0.006 f_b = 0.003	f_t = -0.048 f_b = -0.023	f_t = 0.019 f_b = 0.009	f_t = -0.149 f_b = -0.070	f_t = 0.006 f_b = 0.003	f_t = -0.048 f_b = -0.023
(CS) 73.101	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.014 f_b = 0.006	f_t = -0.113 f_b = -0.053	f_t = 0.004 f_b = 0.002	f_t = -0.038 f_b = -0.018	f_t = 0.015 f_b = 0.007	f_t = -0.119 f_b = -0.056	f_t = 0.004 f_b = 0.002	f_t = -0.038 f_b = -0.018
(H) 73.192	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.013 f_b = 0.006	f_t = -0.111 f_b = -0.052	f_t = 0.004 f_b = 0.002	f_t = -0.038 f_b = -0.018	f_t = 0.014 f_b = 0.007	f_t = -0.116 f_b = -0.055	f_t = 0.004 f_b = 0.002	f_t = -0.038 f_b = -0.018
(Bar Develop.) 74.260	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.010 f_b = 0.005	f_t = -0.081 f_b = -0.038	f_t = 0.003 f_b = 0.001	f_t = -0.028 f_b = -0.013	f_t = 0.010 f_b = 0.005	f_t = -0.086 f_b = -0.040	f_t = 0.003 f_b = 0.001	f_t = -0.028 f_b = -0.013
(PSXFR) 74.442	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.009 f_b = 0.004	f_t = -0.076 f_b = -0.036	f_t = 0.003 f_b = 0.001	f_t = -0.026 f_b = -0.012	f_t = 0.010 f_b = 0.005	f_t = -0.080 f_b = -0.038	f_t = 0.003 f_b = 0.001	f_t = -0.026 f_b = -0.012
(Bar Develop.) 75.320	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.001	f_t = 0.006 f_b = 0.003	f_t = -0.051 f_b = -0.024	f_t = 0.002 f_b = 0.001	f_t = -0.018 f_b = -0.008	f_t = 0.006 f_b = 0.003	f_t = -0.054 f_b = -0.025	f_t = 0.002 f_b = 0.001	f_t = -0.018 f_b = -0.008
(SZB) 75.688	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.002	f_t = -0.040 f_b = -0.019	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007	f_t = 0.005 f_b = 0.002	f_t = -0.043 f_b = -0.020	f_t = 0.002 f_b = 0.001	f_t = -0.014 f_b = -0.007
(FoS) 76.692	f_t = 0.000	f_t = -0.001	f_t = 0.001	f_t = -0.010	f_t = 0.000	f_t = -0.004	f_t = 0.001	f_t = -0.011	f_t = 0.000	f_t = -0.004

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.000	f_b = -0.000	f_b = 0.001	f_b = -0.005	f_b = 0.000	f_b = -0.002	f_b = 0.001	f_b = -0.005	f_b = 0.000	f_b = -0.002
(1.0L$_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Deck Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.0L$_s$) 0.000	f_t = 0.608 f_b = 0.286	f_t = 0.184 f_b = 0.087	f_t = 0.523 f_b = 0.246	f_t = 0.184 f_b = 0.087	f_t = 0.201 f_b = 0.095	f_t = 0.092 f_b = 0.043
(STRF) 0.443	f_t = 0.717 f_b = 0.338	f_t = 0.213 f_b = 0.100	f_t = 0.617 f_b = 0.290	f_t = 0.214 f_b = 0.101	f_t = 0.238 f_b = 0.112	f_t = 0.108 f_b = 0.051
0.860	f_t = 0.700 f_b = 0.330	f_t = 0.204 f_b = 0.096	f_t = 0.602 f_b = 0.283	f_t = 0.206 f_b = 0.097	f_t = 0.235 f_b = 0.110	f_t = 0.105 f_b = 0.049
(FoS) 1.193	f_t = 0.686 f_b = 0.323	f_t = 0.197 f_b = 0.093	f_t = 0.590 f_b = 0.278	f_t = 0.199 f_b = 0.094	f_t = 0.232 f_b = 0.109	f_t = 0.103 f_b = 0.048
(SZB) 2.196	f_t = 0.645 f_b = 0.304	f_t = 0.176 f_b = 0.083	f_t = 0.555 f_b = 0.261	f_t = 0.179 f_b = 0.085	f_t = 0.223 f_b = 0.105	f_t = 0.096 f_b = 0.045
(Bar Develop.) 2.564	f_t = 0.631 f_b = 0.297	f_t = 0.169 f_b = 0.079	f_t = 0.542 f_b = 0.255	f_t = 0.172 f_b = 0.081	f_t = 0.220 f_b = 0.103	f_t = 0.093 f_b = 0.044
(PSXFR) 3.443	f_t = 0.596 f_b = 0.281	f_t = 0.150 f_b = 0.071	f_t = 0.512 f_b = 0.241	f_t = 0.155 f_b = 0.073	f_t = 0.212 f_b = 0.100	f_t = 0.087 f_b = 0.041
(Bar Develop.) 3.625	f_t = 0.589 f_b = 0.277	f_t = 0.147 f_b = 0.069	f_t = 0.506 f_b = 0.238	f_t = 0.152 f_b = 0.071	f_t = 0.211 f_b = 0.099	f_t = 0.086 f_b = 0.040
(H) 4.693	f_t = 0.548 f_b = 0.258	f_t = 0.123 f_b = 0.058	f_t = 0.470 f_b = 0.221	f_t = 0.130 f_b = 0.061	f_t = 0.202 f_b = 0.095	f_t = 0.079 f_b = 0.037
(CS) 4.987	f_t = 0.537 f_b = 0.253	f_t = 0.116 f_b = 0.055	f_t = 0.460 f_b = 0.217	f_t = 0.124 f_b = 0.058	f_t = 0.199 f_b = 0.094	f_t = 0.077 f_b = 0.036
(SZB) 5.862	f_t = 0.505 f_b = 0.238	f_t = 0.094 f_b = 0.044	f_t = 0.433 f_b = 0.204	f_t = 0.104 f_b = 0.049	f_t = 0.192 f_b = 0.091	f_t = 0.071 f_b = 0.034
(1.5H) 6.443	f_t = 0.484 f_b = 0.228	f_t = 0.079 f_b = 0.037	f_t = 0.414 f_b = 0.195	f_t = 0.091 f_b = 0.043	f_t = 0.188 f_b = 0.088	f_t = 0.068 f_b = 0.032
(0.1L$_s$) 7.702	f_t = 0.437 f_b = 0.206	f_t = 0.048 f_b = 0.022	f_t = 0.374 f_b = 0.176	f_t = 0.062 f_b = 0.029	f_t = 0.178 f_b = 0.084	f_t = 0.053 f_b = 0.025
(SZB) 11.362	f_t = 0.330 f_b = 0.155	f_t = -0.046 f_b = -0.022	f_t = 0.280 f_b = 0.132	f_t = -0.021 f_b = -0.010	f_t = 0.150 f_b = 0.071	f_t = -0.010 f_b = -0.005
(0.2L$_s$) 15.405	f_t = 0.266 f_b = 0.125	f_t = -0.160 f_b = -0.075	f_t = 0.220 f_b = 0.103	f_t = -0.121 f_b = -0.057	f_t = 0.122 f_b = 0.058	f_t = -0.073 f_b = -0.034
(SZB) 19.612	f_t = 0.211 f_b = 0.099	f_t = -0.279 f_b = -0.131	f_t = 0.168 f_b = 0.079	f_t = -0.224 f_b = -0.105	f_t = 0.096 f_b = 0.045	f_t = -0.131 f_b = -0.062
(Deck Bar Cutoff) 21.642	f_t = 0.187 f_b = 0.088	f_t = -0.330 f_b = -0.156	f_t = 0.145 f_b = 0.069	f_t = -0.268 f_b = -0.126	f_t = 0.084 f_b = 0.040	f_t = -0.155 f_b = -0.073
(0.3L$_s$) 23.107	f_t = 0.170 f_b = 0.080	f_t = -0.365 f_b = -0.172	f_t = 0.130 f_b = 0.061	f_t = -0.298 f_b = -0.140	f_t = 0.076 f_b = 0.036	f_t = -0.172 f_b = -0.081
(SZB) 30.612	f_t = 0.094 f_b = 0.044	f_t = -0.510 f_b = -0.240	f_t = 0.059 f_b = 0.028	f_t = -0.424 f_b = -0.200	f_t = 0.039 f_b = 0.018	f_t = -0.236 f_b = -0.111
(0.4L$_s$) 30.810	f_t = 0.092 f_b = 0.043	f_t = -0.513 f_b = -0.242	f_t = 0.058 f_b = 0.027	f_t = -0.427 f_b = -0.201	f_t = 0.038 f_b = 0.018	f_t = -0.237 f_b = -0.112
(HP) 31.242	f_t = 0.088 f_b = 0.042	f_t = -0.519 f_b = -0.245	f_t = 0.054 f_b = 0.026	f_t = -0.432 f_b = -0.204	f_t = 0.037 f_b = 0.017	f_t = -0.240 f_b = -0.113
(0.5L$_s$) 38.512	f_t = 0.032 f_b = 0.015	f_t = -0.595 f_b = -0.280	f_t = 0.004 f_b = 0.002	f_t = -0.499 f_b = -0.235	f_t = 0.010 f_b = 0.005	f_t = -0.265 f_b = -0.125
(0.6L$_s$) 46.215	f_t = -0.010 f_b = -0.005	f_t = -0.618 f_b = -0.291	f_t = -0.033 f_b = -0.015	f_t = -0.519 f_b = -0.245	f_t = -0.010 f_b = -0.005	f_t = -0.283 f_b = -0.133
(HP) 46.642	f_t = -0.012 f_b = -0.005	f_t = -0.618 f_b = -0.291	f_t = -0.034 f_b = -0.016	f_t = -0.519 f_b = -0.245	f_t = -0.011 f_b = -0.005	f_t = -0.283 f_b = -0.134
(SZB) 47.272	f_t = -0.014 f_b = -0.007	f_t = -0.617 f_b = -0.290	f_t = -0.036 f_b = -0.017	f_t = -0.518 f_b = -0.244	f_t = -0.012 f_b = -0.006	f_t = -0.284 f_b = -0.134
(0.7L$_s$) 53.917	f_t = -0.034 f_b = -0.016	f_t = -0.575 f_b = -0.271	f_t = -0.051 f_b = -0.024	f_t = -0.484 f_b = -0.228	f_t = -0.021 f_b = -0.010	f_t = -0.270 f_b = -0.127
(SZB) 58.272	f_t = -0.040 f_b = -0.019	f_t = -0.523 f_b = -0.246	f_t = -0.054 f_b = -0.025	f_t = -0.440 f_b = -0.207	f_t = -0.023 f_b = -0.011	f_t = -0.244 f_b = -0.115
(0.8L$_s$) 61.620	f_t = -0.041 f_b = -0.019	f_t = -0.465 f_b = -0.219	f_t = -0.052 f_b = -0.025	f_t = -0.392 f_b = -0.185	f_t = -0.023 f_b = -0.011	f_t = -0.218 f_b = -0.103
(SZB) 66.522	f_t = -0.035 f_b = -0.017	f_t = -0.354 f_b = -0.167	f_t = -0.043 f_b = -0.020	f_t = -0.298 f_b = -0.140	f_t = -0.019 f_b = -0.009	f_t = -0.169 f_b = -0.080
(0.9L$_s$) 69.322	f_t = -0.029 f_b = -0.014	f_t = -0.275 f_b = -0.130	f_t = -0.035 f_b = -0.016	f_t = -0.232 f_b = -0.109	f_t = -0.016 f_b = -0.007	f_t = -0.132 f_b = -0.062

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(1.5H) 71.442	f_t = -0.023 f_b = -0.011	f_t = -0.208 f_b = -0.098	f_t = -0.027 f_b = -0.013	f_t = -0.175 f_b = -0.082	f_t = -0.012 f_b = -0.006	f_t = -0.101 f_b = -0.047
(SZB) 72.022	f_t = -0.021 f_b = -0.010	f_t = -0.188 f_b = -0.089	f_t = -0.025 f_b = -0.012	f_t = -0.159 f_b = -0.075	f_t = -0.011 f_b = -0.005	f_t = -0.092 f_b = -0.043
(CS) 73.101	f_t = -0.017 f_b = -0.008	f_t = -0.151 f_b = -0.071	f_t = -0.020 f_b = -0.009	f_t = -0.127 f_b = -0.060	f_t = -0.009 f_b = -0.004	f_t = -0.074 f_b = -0.035
(H) 73.192	f_t = -0.017 f_b = -0.008	f_t = -0.148 f_b = -0.069	f_t = -0.020 f_b = -0.009	f_t = -0.124 f_b = -0.059	f_t = -0.009 f_b = -0.004	f_t = -0.072 f_b = -0.034
(Bar Develop.) 74.260	f_t = -0.013 f_b = -0.006	f_t = -0.109 f_b = -0.051	f_t = -0.015 f_b = -0.007	f_t = -0.091 f_b = -0.043	f_t = -0.007 f_b = -0.003	f_t = -0.053 f_b = -0.025
(PSXFR) 74.442	f_t = -0.012 f_b = -0.006	f_t = -0.102 f_b = -0.048	f_t = -0.014 f_b = -0.006	f_t = -0.086 f_b = -0.040	f_t = -0.006 f_b = -0.003	f_t = -0.050 f_b = -0.023
(Bar Develop.) 75.320	f_t = -0.008 f_b = -0.004	f_t = -0.068 f_b = -0.032	f_t = -0.009 f_b = -0.004	f_t = -0.057 f_b = -0.027	f_t = -0.004 f_b = -0.002	f_t = -0.033 f_b = -0.016
(SZB) 75.688	f_t = -0.006 f_b = -0.003	f_t = -0.054 f_b = -0.025	f_t = -0.007 f_b = -0.003	f_t = -0.045 f_b = -0.021	f_t = -0.003 f_b = -0.002	f_t = -0.026 f_b = -0.012
(FoS) 76.692	f_t = -0.002 f_b = -0.001	f_t = -0.014 f_b = -0.006	f_t = -0.002 f_b = -0.001	f_t = -0.012 f_b = -0.005	f_t = -0.001 f_b = -0.000	f_t = -0.007 f_b = -0.003
($1.0L_s$) 77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.025	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.442	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.

Stress due to Prestress

Span 2 Girder B

Girder Stresses

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STRF, $0.0L_T$) 0.000	(STRF) -0.417	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI
0.417	0.000	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI
0.417	($0.0L_e$) 0.000	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.81 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(PSXFR) 3.000	(PSXFR) 2.583	P_e (permanent) = 1147.53 kip e_p = 7.981 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.10 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 972.19 kip e_p = 7.981 in f_t = -0.430 KSI f_b = -2.559 KSI Service III P_e (permanent) = 972.19 kip e_p = 7.981 in f_t = -0.430 KSI f_b = -2.559 KSI (Fatigue I) P_e (permanent) = 972.19 kip e_p = 7.981 in f_t = -0.430 KSI f_b = -2.559 KSI
($0.1L_r$) 7.700	7.283	P_e (permanent) = 1143.86 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 981.60 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.790 KSI	Service I P_e (permanent) = 975.32 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.772 KSI Service III P_e (permanent) = 975.32 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.772 KSI (Fatigue I) P_e (permanent) = 975.32 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.772 KSI
8.033	($0.1L_e$) 7.617	P_e (permanent) = 1143.58 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 981.64 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.805 KSI	Service I P_e (permanent) = 975.54 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.788 KSI Service III P_e (permanent) = 975.54 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.788 KSI (Fatigue I) P_e (permanent) = 975.54 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.788 KSI
($0.2L_r$) 15.400	14.983	P_e (permanent) = 1136.27 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 982.02 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.131 KSI	Service I P_e (permanent) = 980.12 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.125 KSI Service III P_e (permanent) = 980.12 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.125 KSI (Fatigue I) P_e (permanent) = 980.12 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.125 KSI
15.650	($0.2L_e$) 15.233	P_e (permanent) = 1135.98 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.634 KSI	P_e (permanent) = 982.00 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.142 KSI	Service I P_e (permanent) = 980.25 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.136 KSI Service III P_e (permanent) = 980.25 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.136 KSI (Fatigue I) P_e (permanent) = 980.25 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.136 KSI
($0.3L_r$) 23.100	22.683	P_e (permanent) = 1126.05 kip e_p = 14.507 in f_t = 0.503 KSI	P_e (permanent) = 980.27 kip e_p = 14.507 in f_t = 0.438 KSI	Service I P_e (permanent) = 982.60 kip e_p = 14.507 in

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
		f_b = -3.979 KSI	f_b = -3.464 KSI	f_t = 0.439 KSI f_b = -3.472 KSI Service III P_e (permanent) = 982.60 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.472 KSI (Fatigue I) P_e (permanent) = 982.60 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.472 KSI
23.266	(0.3L_e) 22.850	P_e (permanent) = 1125.80 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 980.19 kip e_p = 14.561 in f_t = 0.445 KSI f_b = -3.471 KSI	Service I P_e (permanent) = 982.61 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI Service III P_e (permanent) = 982.61 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI (Fatigue I) P_e (permanent) = 982.61 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.479 KSI
(HP, 0.4L_t) 30.799	(HP) 30.383	P_e (permanent) = 1112.55 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 974.55 kip e_p = 17.007 in f_t = 0.767 KSI f_b = -3.780 KSI	Service I P_e (permanent) = 980.61 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI Service III P_e (permanent) = 980.61 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI (Fatigue I) P_e (permanent) = 980.61 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI
30.883	(0.4L_e) 30.466	P_e (permanent) = 1112.57 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 974.60 kip e_p = 17.007 in f_t = 0.768 KSI f_b = -3.780 KSI	Service I P_e (permanent) = 980.69 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI Service III P_e (permanent) = 980.69 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI (Fatigue I) P_e (permanent) = 980.69 kip e_p = 17.007 in f_t = 0.772 KSI f_b = -3.804 KSI
(0.5L_t) 38.499	(0.5L_e) 38.083	P_e (permanent) = 1113.54 kip e_p = 17.007 in f_t = 0.877 KSI f_b = -4.319 KSI	P_e (permanent) = 976.83 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.789 KSI	Service I P_e (permanent) = 985.10 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.821 KSI Service III P_e (permanent) = 985.10 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.821 KSI (Fatigue I) P_e (permanent) = 985.10 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.821 KSI
46.116	(0.6L_e) 45.699	P_e (permanent) = 1112.57 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 974.60 kip e_p = 17.007 in f_t = 0.768 KSI f_b = -3.780 KSI	Service I P_e (permanent) = 983.77 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				Service III P_e (permanent) = 983.77 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI (Fatigue I) P_e (permanent) = 983.77 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI
(HP, 0.6L_r) 46.199	(HP) 45.783	P_e (permanent) = 1112.55 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 974.55 kip e_p = 17.007 in f_t = 0.767 KSI f_b = -3.780 KSI	Service I P_e (permanent) = 983.72 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI Service III P_e (permanent) = 983.72 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI (Fatigue I) P_e (permanent) = 983.72 kip e_p = 17.007 in f_t = 0.775 KSI f_b = -3.816 KSI
53.732	(0.7L_e) 53.316	P_e (permanent) = 1125.80 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.986 KSI	P_e (permanent) = 980.19 kip e_p = 14.561 in f_t = 0.445 KSI f_b = -3.471 KSI	Service I P_e (permanent) = 988.27 kip e_p = 14.561 in f_t = 0.449 KSI f_b = -3.499 KSI Service III P_e (permanent) = 988.27 kip e_p = 14.561 in f_t = 0.449 KSI f_b = -3.499 KSI (Fatigue I) P_e (permanent) = 988.27 kip e_p = 14.561 in f_t = 0.449 KSI f_b = -3.499 KSI
(0.7L_r) 53.899	53.482	P_e (permanent) = 1126.05 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 980.27 kip e_p = 14.507 in f_t = 0.438 KSI f_b = -3.464 KSI	Service I P_e (permanent) = 988.30 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.492 KSI Service III P_e (permanent) = 988.30 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.492 KSI (Fatigue I) P_e (permanent) = 988.30 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.492 KSI
61.349	(0.8L_e) 60.932	P_e (permanent) = 1135.98 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.634 KSI	P_e (permanent) = 982.00 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.142 KSI	Service I P_e (permanent) = 987.97 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.161 KSI Service III P_e (permanent) = 987.97 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.161 KSI (Fatigue I) P_e (permanent) = 987.97 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.161 KSI
(0.8L_r) 61.599	61.182	P_e (permanent) = 1136.27 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.622 KSI	P_e (permanent) = 982.02 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.131 KSI	Service I P_e (permanent) = 987.90 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.149 KSI Service III P_e (permanent) = 987.90 kip e_p = 12.007 in

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				f_t = 0.105 KSI f_b = -3.149 KSI (Fatigue I) P_e (permanent) = 987.90 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.149 KSI
68.965	($0.9L_e$) 68.549	P_e (permanent) = 1143.58 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 981.64 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.805 KSI	Service I P_e (permanent) = 984.81 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.814 KSI Service III P_e (permanent) = 984.81 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.814 KSI (Fatigue I) P_e (permanent) = 984.81 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.814 KSI
($0.9L_r$) 69.299	68.882	P_e (permanent) = 1143.86 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 981.60 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.790 KSI	Service I P_e (permanent) = 984.64 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.799 KSI Service III P_e (permanent) = 984.64 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.799 KSI (Fatigue I) P_e (permanent) = 984.64 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.799 KSI
(PSXFR) 73.999	(PSXFR) 73.582	P_e (permanent) = 1147.53 kip e_p = 7.981 in f_t = -0.507 KSI f_b = -3.020 KSI	P_e (permanent) = 981.10 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 982.20 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.585 KSI Service III P_e (permanent) = 982.20 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.585 KSI (Fatigue I) P_e (permanent) = 982.20 kip e_p = 7.981 in f_t = -0.434 KSI f_b = -2.585 KSI
76.582	($1.0L_e$) 76.165	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI
76.582	76.165	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				(Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI
(STLF, 1.0L_t) 76.999	(STLF) 76.582	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI

Prestressing Force and Strand Stresses

Straight strands: N_s = 18, P_{jack} = 790.97 kip, A_{ps} = 3.906 in^2

Harped strands: N_h = 10, P_{jack} = 439.43 kip, A_{ps} = 2.170 in^2

A_{ps} = 6.076 in^2

P_{jack} = 1230.39 kip

Prestress Transfer Length = 36.000 in

Effective Prestress at Mid-Span

Loss Stage	Permanent Strand			
	Effective Force (kip)	Time-Dependent Effects (KSI)	Instantaneous Effects (KSI)	f_{pe} (KSI)
At Jacking	1230.39	0.000	0.000	202.500
Before Prestress Transfer	1230.39	0.000	0.000	202.500
After Prestress Transfer	1113.54	0.000	19.232	183.268
At Lifting	1113.54	0.000	19.232	183.268
At Shipping	1066.75	7.700	19.232	175.568
After Erection	1066.75	7.700	19.232	175.568
After Deck Placement	976.83	27.711	14.021	160.768
After Superimposed Dead Loads	985.10	27.711	12.660	162.129
Final (permanent loads only)	985.10	27.711	12.660	162.129
Final with Live Load (Service I)	985.10	27.711	12.660	162.129
Final with Live Load (Service III)	985.10	27.711	12.660	162.129
Final with Live Load (Fatigue I)	985.10	27.711	12.660	162.129

Time-Dependent Effects = change in strand stress due to creep, shrinkage, and relaxation
Instantaneous Effects = change in strand stress due to elastic shortening and externally applied loads
$f_{pe} = f_{pj}$ - Time-Dependent Effects - Instantaneous Effects

Specification Check Summary

The Specification Check was Successful

Specification Checks

Specification: CDOT

Stress Limitations on Prestressing Tendons [5.9.2.2]

Strand Stresses

Loss Stage	Stress Limit (KSI)	Straight		Harped	
		Strand Stress (KSI)	Status (C/D)	Strand Stress (KSI)	Status (C/D)
At Jacking (f_{pj})	202.500	202.500	Pass (1.00)	202.500	Pass (1.00)
After All Losses and Elastic Gains including Live Load (f_{pe})	194.400	162.129	Pass (1.20)	162.129	Pass (1.20)

Required Concrete Strengths

Required f'_{ci} = 5.296 KSI ⇒ 5.300 KSI

Actual f'_{ci} = 6.000 KSI

Required f'_c = 6.221 KSI ⇒ 6.300 KSI

Actual f'_c = 8.000 KSI

Continuity [5.12.3.3.5]

	f_b (KSI)	Boundary Condition	Is Compressive?
Abut 1	0.000	Hinged	No
Pier 2	-1.056	Continuous	Yes
Abut 3	0.000	Hinged	No

f_b is the calcuated stress at the bottom of the continuity diaphragm for the combination of superimposed permanent loads and 50% live load
Continuous connections are fully effective.
Continuity is accounted for in Service and Strength Limit States.

Interval 2: Prestress Release : Service I Compression

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Compression Stresses [5.9.2.3.1a]

f'_{ci} = 6.000 KSI

Compression stress limit = -0.65f'_{ci} = -3.900 KSI

Concrete strength required to satisfy this requirement = 5.296 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
(STRF) 0.443	(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)
(PSXFR) 3.443	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
8.143	(0.1L_t) 7.700	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	No	Yes	Pass (1.33)
15.843	(0.2L_t) 15.400	0.121	-3.622	-0.574	0.582	-0.453	-3.040	No	Yes	Pass (1.28)
23.543	(0.3L_t) 23.100	0.503	-3.979	-0.753	0.764	-0.250	-3.215	No	Yes	Pass (1.21)
(HP) 31.242	(HP, 0.4L_t) 30.799	0.876	-4.316	-0.861	0.873	0.015	-3.442	No	Yes	Pass (1.13)
38.942	(0.5L_t) 38.499	0.877	-4.319	-0.897	0.910	-0.020	-3.410	No	Yes	Pass (1.14)
(HP) 46.642	(HP, 0.6L_t) 46.199	0.876	-4.316	-0.861	0.873	0.015	-3.442	No	Yes	Pass (1.13)
54.342	(0.7L_t) 53.899	0.503	-3.979	-0.753	0.764	-0.250	-3.215	No	Yes	Pass (1.21)
62.042	(0.8L_t) 61.599	0.121	-3.622	-0.574	0.582	-0.453	-3.040	No	Yes	Pass (1.28)
69.742	(0.9L_t) 69.299	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	No	Yes	Pass (1.33)
(PSXFR) 74.442	(PSXFR) 73.999	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	No	Yes	Pass (1.35)
(STLF) 77.442	(STLF, 1.0L_t) 76.999	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)

Interval 2: Prestress Release : Service I Tension

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Tension Stresses [5.9.2.3.1b]

f'_{ci} = 6.000 KSI

Tension stress limit in areas other than the precompressed tensile zone = $0.0948\lambda\sqrt{f'_{ci}}$ but not more than 0.200 KSI = 0.200 KSI

Tension stress limit in areas with sufficient bonded reinforcement = $0.2400\lambda\sqrt{f'_{ci}}$ = 0.588 KSI

Concrete strength required to satisfy this requirement = 5.296 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
(STRF) 0.443	(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)
(PSXFR) 3.443	(PSXFR) 3.000	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
8.143	(0.1L_t) 7.700	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	0.200	-	No	Yes	Pass (-)
15.843	(0.2L_t) 15.400	0.121	-3.622	-0.574	0.582	-0.453	-3.040	0.200	-	No	Yes	Pass (-)
23.543	(0.3L_t) 23.100	0.503	-3.979	-0.753	0.764	-0.250	-3.215	0.200	-	No	Yes	Pass (-)
(HP) 31.242	(HP, 0.4L_t) 30.799	0.876	-4.316	-0.861	0.873	0.015	-3.442	0.200	-	No	Yes	Pass (10+)
38.942	(0.5L_t) 38.499	0.877	-4.319	-0.897	0.910	-0.020	-3.410	0.200	-	No	Yes	Pass (-)
(HP) 46.642	(HP, 0.6L_t) 46.199	0.876	-4.316	-0.861	0.873	0.015	-3.442	0.200	-	No	Yes	Pass (10+)
54.342	(0.7L_t) 53.899	0.503	-3.979	-0.753	0.764	-0.250	-3.215	0.200	-	No	Yes	Pass (-)
62.042	(0.8L_t) 61.599	0.121	-3.622	-0.574	0.582	-0.453	-3.040	0.200	-	No	Yes	Pass (-)
69.742	(0.9L_t) 69.299	-0.268	-3.252	-0.323	0.327	-0.591	-2.924	0.200	-	No	Yes	Pass (-)
(PSXFR) 74.442	(PSXFR) 73.999	-0.507	-3.020	-0.134	0.136	-0.641	-2.884	0.200	-	No	Yes	Pass (-)
(STLF) 77.442	(STLF, 1.0L_t) 76.999	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.45f'_c$ = -3.600 KSI

Concrete strength required to satisfy this requirement = 5.147 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 3.443	-0.434	-2.582	-0.262	0.266	-0.696	-2.316	No	Yes	Pass (1.55)
(0.1L_s) 7.702	-0.249	-2.771	-0.654	0.663	-0.903	-2.107	No	Yes	Pass (1.71)
(0.2L_s) 15.405	0.086	-3.112	-1.236	1.254	-1.151	-1.858	No	Yes	Pass (1.94)
(0.3L_s) 23.107	0.419	-3.445	-1.655	1.678	-1.235	-1.767	No	Yes	Pass (2.04)
(0.4L_s) 30.810	0.749	-3.763	-1.909	1.937	-1.160	-1.826	No	Yes	Pass (1.97)
(HP) 31.242	0.767	-3.780	-1.919	1.946	-1.151	-1.834	No	Yes	Pass (1.96)
(0.5L_s) 38.512	0.769	-3.789	-2.001	2.029	-1.231	-1.760	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
									(2.05)
($0.6L_s$) 46.215	0.768	-3.781	-1.928	1.955	-1.160	-1.826	No	Yes	Pass (1.97)
(HP) 46.642	0.767	-3.780	-1.919	1.946	-1.151	-1.834	No	Yes	Pass (1.96)
($0.7L_s$) 53.917	0.456	-3.482	-1.691	1.715	-1.235	-1.766	No	Yes	Pass (2.04)
($0.8L_s$) 61.620	0.123	-3.149	-1.291	1.309	-1.168	-1.840	No	Yes	Pass (1.96)
($0.9L_s$) 69.322	-0.212	-2.809	-0.727	0.738	-0.939	-2.071	No	Yes	Pass (1.74)
(PSXFR) 74.442	-0.434	-2.582	-0.262	0.266	-0.696	-2.316	No	Yes	Pass (1.55)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Tension

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Concrete strength required to satisfy this requirement = 5.147 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
0.860	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(PSXFR) 3.443	-0.434	-2.582	-0.262	0.266	-0.696	-2.316	-	0.537	No	Yes	Pass (-)
($0.1L_s$) 7.702	-0.249	-2.771	-0.654	0.663	-0.903	-2.107	-	0.537	No	Yes	Pass (-)
($0.2L_s$) 15.405	0.086	-3.112	-1.236	1.254	-1.151	-1.858	-	0.537	No	Yes	Pass (-)
($0.3L_s$) 23.107	0.419	-3.445	-1.655	1.678	-1.235	-1.767	-	0.537	No	Yes	Pass (-)
($0.4L_s$) 30.810	0.749	-3.763	-1.909	1.937	-1.160	-1.826	-	0.537	No	Yes	Pass (-)
(HP) 31.242	0.767	-3.780	-1.919	1.946	-1.151	-1.834	-	0.537	No	Yes	Pass (-)
($0.5L_s$) 38.512	0.769	-3.789	-2.001	2.029	-1.231	-1.760	-	0.537	No	Yes	Pass (-)
($0.6L_s$) 46.215	0.768	-3.781	-1.928	1.955	-1.160	-1.826	-	0.537	No	Yes	Pass (-)
(HP) 46.642	0.767	-3.780	-1.919	1.946	-1.151	-1.834	-	0.537	No	Yes	Pass (-)
($0.7L_s$) 53.917	0.456	-3.482	-1.691	1.715	-1.235	-1.766	-	0.537	No	Yes	Pass (-)
($0.8L_s$) 61.620	0.123	-3.149	-1.291	1.309	-1.168	-1.840	-	0.537	No	Yes	Pass (-)
($0.9L_s$) 69.322	-0.212	-2.809	-0.727	0.738	-0.939	-2.071	-	0.537	No	Yes	Pass (-)
(PSXFR) 74.442	-0.434	-2.582	-0.262	0.266	-0.696	-2.316	-	0.537	No	Yes	Pass (-)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	0.537	-	Yes	No	Pass (-)

Interval 17: Open to Traffic : Service I Compression without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.45f'_c$ = -3.600 KSI

Concrete strength required to satisfy this requirement = 6.221 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.120	-0.589	0.045	-0.928	No	Yes	Pass (3.88)
(PSXFR) 3.443	-0.430	-2.559	-0.163	-0.224	-0.593	-2.782	No	Yes	Pass (1.29)
($0.1L_s$) 7.702	-0.247	-2.752	-0.587	0.323	-0.834	-2.429	No	Yes	Pass (1.48)
($0.2L_s$) 15.405	0.085	-3.105	-1.221	1.134	-1.135	-1.970	No	Yes	Pass (1.83)
($0.3L_s$) 23.107	0.420	-3.453	-1.683	1.724	-1.262	-1.728	No	Yes	Pass (2.08)
($0.4L_s$) 30.810	0.754	-3.786	-1.969	2.106	-1.215	-1.680	No	Yes	Pass (2.14)
(HP) 31.242	0.772	-3.804	-1.980	2.121	-1.207	-1.683	No	Yes	Pass (2.14)
($0.5L_s$) 38.512	0.776	-3.821	-2.079	2.277	-1.304	-1.543	No	Yes	Pass (2.33)
($0.6L_s$) 46.215	0.775	-3.817	-2.014	2.240	-1.239	-1.577	No	Yes	Pass (2.28)
(HP) 46.642	0.775	-3.816	-2.006	2.232	-1.231	-1.584	No	Yes	Pass (2.27)

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.7L_s$) 53.917	0.460	-3.511	-1.774	1.994	-1.314	-1.517	No	Yes	Pass (2.37)
($0.8L_s$) 61.620	0.124	-3.169	-1.358	1.538	-1.234	-1.631	No	Yes	Pass (2.21)
($0.9L_s$) 69.322	-0.212	-2.818	-0.766	0.873	-0.979	-1.945	No	Yes	Pass (1.85)
(PSXFR) 74.442	-0.434	-2.585	-0.277	0.316	-0.711	-2.269	No	Yes	Pass (1.59)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)

Interval 17: Open to Traffic : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = $-0.6f'_c$ = -4.800 KSI
Concrete strength required to satisfy this requirement = 6.221 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.116	-1.690	0.041	-2.029	No	Yes	Pass (2.37)
(PSXFR) 3.443	-0.430	-2.559	-0.176	-1.174	-0.606	-3.733	No	Yes	Pass (1.29)
($0.1L_s$) 7.702	-0.247	-2.752	-0.627	-0.393	-0.874	-3.146	No	Yes	Pass (1.53)
($0.2L_s$) 15.405	0.085	-3.105	-1.327	0.612	-1.242	-2.493	No	Yes	Pass (1.93)
($0.3L_s$) 23.107	0.420	-3.453	-1.862	1.268	-1.442	-2.185	No	Yes	Pass (2.20)
($0.4L_s$) 30.810	0.754	-3.786	-2.202	1.714	-1.448	-2.072	No	Yes	Pass (2.32)
(HP) 31.242	0.772	-3.804	-2.215	1.733	-1.442	-2.071	No	Yes	Pass (2.32)
($0.5L_s$) 38.512	0.776	-3.821	-2.339	1.951	-1.564	-1.870	No	Yes	Pass (2.57)
($0.6L_s$) 46.215	0.775	-3.817	-2.280	1.979	-1.505	-1.838	No	Yes	Pass (2.61)
(HP) 46.642	0.775	-3.816	-2.271	1.974	-1.496	-1.841	No	Yes	Pass (2.61)
($0.7L_s$) 53.917	0.460	-3.511	-2.018	1.798	-1.558	-1.713	No	Yes	Pass (2.80)
($0.8L_s$) 61.620	0.124	-3.169	-1.556	1.407	-1.432	-1.761	No	Yes	Pass (2.73)
($0.9L_s$) 69.322	-0.212	-2.818	-0.884	0.808	-1.096	-2.010	No	Yes	Pass (2.39)
(PSXFR) 74.442	-0.434	-2.585	-0.320	0.294	-0.754	-2.291	No	Yes	Pass (2.10)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (10+)

Interval 17: Open to Traffic : Service I Tension without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]
f'_c = 8.000 KSI
Tension stress limit in the precompressed tensile zone = $0.0000\lambda\sqrt{f'_c}$ = 0.000 KSI
Concrete strength required to satisfy this requirement = 6.221 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.139	-0.507	0.064	-0.846	No	Yes	Pass (-)
(PSXFR) 3.443	-0.430	-2.559	-0.147	-0.155	-0.576	-2.713	No	Yes	Pass (-)
($0.1L_s$) 7.702	-0.247	-2.752	-0.574	0.378	-0.821	-2.374	No	Yes	Pass (-)
($0.2L_s$) 15.405	0.085	-3.105	-1.208	1.189	-1.123	-1.915	No	Yes	Pass (-)
($0.3L_s$) 23.107	0.420	-3.453	-1.665	1.797	-1.245	-1.656	No	Yes	Pass (-)
($0.4L_s$) 30.810	0.754	-3.786	-1.949	2.188	-1.196	-1.597	No	Yes	Pass (-)
(HP) 31.242	0.772	-3.804	-1.960	2.204	-1.188	-1.600	No	Yes	Pass (-)
($0.5L_s$) 38.512	0.776	-3.821	-2.059	2.364	-1.283	-1.457	No	Yes	Pass (-)
($0.6L_s$) 46.215	0.775	-3.817	-1.995	2.323	-1.220	-1.494	No	Yes	Pass (-)
(HP) 46.642	0.775	-3.816	-1.986	2.314	-1.211	-1.501	No	Yes	Pass (-)
($0.7L_s$) 53.917	0.460	-3.511	-1.757	2.066	-1.296	-1.445	No	Yes	Pass (-)
($0.8L_s$) 61.620	0.124	-3.169	-1.345	1.593	-1.221	-1.576	No	Yes	Pass (-)
	-0.212	-2.818	-0.759	0.904	-0.971	-1.914	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.9L_s$) 69.322									(-)
(PSXFR) 74.442	-0.434	-2.585	-0.274	0.327	-0.708	-2.258	No	Yes	Pass (-)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (-)

Interval 17: Open to Traffic : Service III Tension

Service III
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Location from Left Support (ft)	Pre-tension		Service III		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.343	-0.496	0.268	-0.836	No	Yes	Pass (-)
(PSXFR) 3.443	-0.430	-2.559	0.029	-0.109	-0.400	-2.668	No	Yes	Pass (-)
($0.1L_s$) 7.702	-0.247	-2.752	-0.441	0.514	-0.688	-2.239	No	Yes	Pass (-)
($0.2L_s$) 15.405	0.085	-3.105	-1.111	1.545	-1.026	-1.560	No	Yes	Pass (-)
($0.3L_s$) 23.107	0.420	-3.453	-1.581	2.398	-1.160	-1.055	No	Yes	Pass (-)
($0.4L_s$) 30.810	0.754	-3.786	-1.877	2.967	-1.123	-0.818	No	Yes	Pass (-)
(HP) 31.242	0.772	-3.804	-1.888	2.990	-1.116	-0.813	No	Yes	Pass (-)
($0.5L_s$) 38.512	0.776	-3.821	-1.998	3.233	-1.223	-0.587	No	Yes	Pass (-)
($0.6L_s$) 46.215	0.775	-3.817	-1.946	3.210	-1.172	-0.606	No	Yes	Pass (-)
(HP) 46.642	0.775	-3.816	-1.938	3.201	-1.164	-0.615	No	Yes	Pass (-)
($0.7L_s$) 53.917	0.460	-3.511	-1.720	2.884	-1.260	-0.627	No	Yes	Pass (-)
($0.8L_s$) 61.620	0.124	-3.169	-1.320	2.256	-1.197	-0.912	No	Yes	Pass (-)
($0.9L_s$) 69.322	-0.212	-2.818	-0.747	1.297	-0.959	-1.521	No	Yes	Pass (-)
(PSXFR) 74.442	-0.434	-2.585	-0.270	0.473	-0.704	-2.112	No	Yes	Pass (-)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
77.025	-0.076	-0.343	0.000	0.000	-0.076	-0.343	Yes	No	Pass (-)

Interval 17: Open to Traffic : Fatigue I Compression

Fatigue I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.4f'_c$ = -3.200 KSI

Concrete strength required to satisfy this requirement = 4.148 KSI

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.860	-0.075	-0.339	0.060	-0.567	0.022	-0.736	No	Yes	Pass (4.35)
(PSXFR) 3.443	-0.430	-2.559	-0.081	-0.380	-0.296	-1.659	No	Yes	Pass (1.93)
($0.1L_s$) 7.702	-0.247	-2.752	-0.297	-0.098	-0.421	-1.474	No	Yes	Pass (2.17)
($0.2L_s$) 15.405	0.085	-3.105	-0.659	0.331	-0.617	-1.221	No	Yes	Pass (2.62)
($0.3L_s$) 23.107	0.420	-3.453	-0.925	0.656	-0.715	-1.071	No	Yes	Pass (2.99)
($0.4L_s$) 30.810	0.754	-3.786	-1.090	0.876	-0.713	-1.017	No	Yes	Pass (3.15)
(HP) 31.242	0.772	-3.804	-1.096	0.885	-0.710	-1.017	No	Yes	Pass (3.15)
($0.5L_s$) 38.512	0.776	-3.821	-1.151	0.991	-0.763	-0.919	No	Yes	Pass (3.48)
($0.6L_s$) 46.215	0.775	-3.817	-1.125	1.002	-0.738	-0.906	No	Yes	Pass (3.53)
(HP) 46.642	0.775	-3.816	-1.121	1.000	-0.734	-0.908	No	Yes	Pass (3.52)
($0.7L_s$) 53.917	0.460	-3.511	-0.999	0.908	-0.769	-0.847	No	Yes	Pass (3.78)
($0.8L_s$) 61.620	0.124	-3.169	-0.770	0.710	-0.708	-0.874	No	Yes	Pass (3.66)
($0.9L_s$) 69.322	-0.212	-2.818	-0.439	0.407	-0.545	-1.002	No	Yes	Pass (3.19)
(PSXFR) 74.442	-0.434	-2.585	-0.159	0.148	-0.376	-1.144	No	Yes	Pass (2.80)
($1.0L_s$) 77.025	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
77.025	-0.076	-0.343	0.000	0.000	-0.038	-0.171	Yes	No	Pass (10+)

Principal Tensile Stresses in Webs

LRFD 5.9.2.3.3 - Principal Tensile Stresses in Webs limitations are not applicable.

Ultimate Moment Capacity

Positive Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-391.56	1891.00	-520.77	Pass (-)	Pass (-)
($0.1L_s$) 7.702	512.90	4357.67	682.16	Pass (6.39)	Pass (8.50)
($0.2L_s$) 15.405	1618.00	5377.60	2151.94	Pass (2.50)	Pass (3.32)
($0.3L_s$) 23.107	2643.32	5733.98	3515.62	Pass (1.63)	Pass (2.17)
($0.4L_s$) 30.810	3367.98	6086.39	4190.92	Pass (1.45)	Pass (1.81)
($0.5L_s$) 38.512	3727.05	6105.87	4197.52	Pass (1.45)	Pass (1.64)
($0.6L_s$) 46.215	3747.88	6105.87	4216.25	Pass (1.45)	Pass (1.63)
($0.7L_s$) 53.917	3403.21	5773.90	3983.34	Pass (1.45)	Pass (1.70)
($0.8L_s$) 61.620	2695.35	5417.15	3584.82	Pass (1.51)	Pass (2.01)
($0.9L_s$) 69.322	1565.38	4491.85	2081.96	Pass (2.16)	Pass (2.87)
($1.0L_s$) 77.025	0.00	2142.55	0.00	Pass (∞)	Pass (∞)

Positive Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-391.56	1891.00	-520.77	Pass (-)	Pass (-)
($0.1L_s$) 7.702	233.73	4357.67	682.16	Pass (6.39)	Pass (10+)
($0.2L_s$) 15.405	1480.11	5377.60	2151.94	Pass (2.50)	Pass (3.63)
($0.3L_s$) 23.107	2461.86	5733.98	3515.62	Pass (1.63)	Pass (2.33)
($0.4L_s$) 30.810	3153.74	6086.39	4190.92	Pass (1.45)	Pass (1.93)
($0.5L_s$) 38.512	3521.72	6105.87	4197.52	Pass (1.45)	Pass (1.73)
($0.6L_s$) 46.215	3513.14	6105.87	4216.25	Pass (1.45)	Pass (1.74)
($0.7L_s$) 53.917	3192.99	5773.90	3983.34	Pass (1.45)	Pass (1.81)
($0.8L_s$) 61.620	2526.04	5417.15	3584.82	Pass (1.51)	Pass (2.14)
($0.9L_s$) 69.322	1476.19	4491.85	2081.96	Pass (2.16)	Pass (3.04)
($1.0L_s$) 77.025	0.00	2142.55	0.00	Pass (∞)	Pass (∞)

Negative Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-2639.68	-3960.82	-1196.68	Pass (3.31)	Pass (1.50)
(FoS) 1.193	-2464.89	-6579.43	-1196.68	Pass (5.50)	Pass (2.67)
($0.1L_s$) 7.702	-1526.09	-6489.20	-1196.68	Pass (5.42)	Pass (4.25)
($0.2L_s$) 15.405	-977.14	-6404.66	-1196.68	Pass (5.35)	Pass (6.55)
(Deck Bar Cutoff) 21.642	-762.92	-4170.68	-1014.68	Pass (4.11)	Pass (5.47)
($0.3L_s$) 23.107	-721.83	-3477.46	-960.04	Pass (3.62)	Pass (4.82)
($0.4L_s$) 30.810	-524.54	-3347.72	-697.64	Pass (4.80)	Pass (6.38)
($0.5L_s$) 38.512	-358.64	-3341.22	-477.00	Pass (7.00)	Pass (9.32)
($0.6L_s$) 46.215	-224.14	-3347.70	-298.10	Pass (10+)	Pass (10+)
($0.7L_s$) 53.917	-121.02	-3367.02	-160.95	Pass (10+)	Pass (10+)
($0.8L_s$) 61.620	-49.29	-3397.43	-65.55	Pass (10+)	Pass (10+)

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.9L_s$) 69.322	-8.95	-3437.83	-11.90	Pass (10+)	Pass (10+)
(FoS) 76.692	0.26	-3486.30	1.07	Pass (-)	Pass (-)
($1.0L_s$) 77.025	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)

Negative Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-2176.30	-3960.82	-1196.68	Pass (3.31)	Pass (1.82)
(FoS) 1.193	-2036.91	-6579.43	-1196.68	Pass (5.50)	Pass (3.23)
($0.1L_s$) 7.702	-1268.59	-6489.20	-1196.68	Pass (5.42)	Pass (5.12)
($0.2L_s$) 15.405	-877.49	-6404.66	-1196.68	Pass (5.35)	Pass (7.30)
(Deck Bar Cutoff) 21.642	-673.36	-4170.68	-1014.68	Pass (4.11)	Pass (6.19)
($0.3L_s$) 23.107	-634.64	-3477.46	-960.04	Pass (3.62)	Pass (5.48)
($0.4L_s$) 30.810	-449.81	-3347.72	-697.64	Pass (4.80)	Pass (7.44)
($0.5L_s$) 38.512	-296.37	-3341.22	-477.00	Pass (7.00)	Pass (10+)
($0.6L_s$) 46.215	-174.31	-3347.70	-298.10	Pass (10+)	Pass (10+)
($0.7L_s$) 53.917	-83.65	-3367.02	-160.95	Pass (10+)	Pass (10+)
($0.8L_s$) 61.620	-24.38	-3397.43	-65.55	Pass (10+)	Pass (10+)
($0.9L_s$) 69.322	3.51	-3437.83	-11.90	Pass (10+)	Pass (-)
(FoS) 76.692	0.80	-3486.30	1.07	Pass (-)	Pass (-)
($1.0L_s$) 77.025	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)

Ultimate Shear Capacity

Ultimate Shears for Strength I Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\lvert V_u \rvert$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(CS) 4.987	Yes	Yes	280.81	545.95	Pass (1.94)
(SZB) 5.862	Yes	Yes	275.88	409.22	Pass (1.48)
(1.5H) 6.443	Yes	Yes	272.61	404.68	Pass (1.48)
($0.1L_s$) 7.702	Yes	Yes	265.51	411.17	Pass (1.55)
(SZB) 11.362	Yes	Yes	244.76	324.29	Pass (1.32)
($0.2L_s$) 15.405	Yes	Yes	221.63	330.69	Pass (1.49)
(SZB) 19.612	Yes	Yes	197.47	286.23	Pass (1.45)
(Deck Bar Cutoff) 21.642	Yes	Yes	185.77	286.93	Pass (1.54)
($0.3L_s$) 23.107	Yes	Yes	177.33	287.82	Pass (1.62)
(SZB) 30.612	Yes	Yes	134.07	247.57	Pass (1.85)
($0.4L_s$) 30.810	Yes	Yes	132.94	247.81	Pass (1.86)
(HP) 31.242	Yes	Yes	130.45	248.36	Pass (1.90)
($0.5L_s$) 38.512	Yes	Yes	88.77	220.50	Pass (2.48)
($0.6L_s$) 46.215	Yes	Yes	77.89	220.78	Pass (2.83)
(HP) 46.642	Yes	Yes	80.10	246.12	Pass (3.07)
(SZB) 47.272	Yes	Yes	83.37	244.91	Pass (2.94)
($0.7L_s$) 53.917	Yes	Yes	119.84	280.72	Pass (2.34)
(SZB) 58.272	Yes	Yes	144.61	274.84	Pass (1.90)
($0.8L_s$) 61.620	Yes	Yes	164.01	315.79	Pass (1.93)
(SZB) 66.522	Yes	Yes	192.99	308.45	Pass (1.60)
($0.9L_s$) 69.322	Yes	Yes	209.84	406.49	Pass (1.94)
(1.5H) 71.442	Yes	Yes	222.71	421.79	Pass (1.89)
(SZB) 72.022	Yes	Yes	226.25	418.41	Pass (1.85)
(CS) 73.101	Yes	Yes	232.86	569.32	Pass

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
					(2.44)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Ultimate Shears for Strength II Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(SZB) 5.862	Yes	Yes	268.83	418.24	Pass (1.56)
(1.5H) 6.443	Yes	Yes	265.77	413.14	Pass (1.55)
($0.1L_s$) 7.702	Yes	Yes	259.10	419.14	Pass (1.62)
(SZB) 11.362	Yes	Yes	239.41	328.86	Pass (1.37)
($0.2L_s$) 15.405	Yes	Yes	216.93	334.05	Pass (1.54)
(SZB) 19.612	Yes	Yes	192.88	289.61	Pass (1.50)
(Deck Bar Cutoff) 21.642	Yes	Yes	181.00	290.44	Pass (1.60)
($0.3L_s$) 23.107	Yes	Yes	172.35	291.36	Pass (1.69)
(SZB) 30.612	Yes	Yes	126.82	251.33	Pass (1.98)
($0.4L_s$) 30.810	Yes	Yes	125.59	251.59	Pass (2.00)
(HP) 31.242	Yes	Yes	122.91	252.16	Pass (2.05)
($0.5L_s$) 38.512	Yes	Yes	76.91	224.20	Pass (2.91)
($0.6L_s$) 46.215	Yes	Yes	72.58	224.57	Pass (3.09)
(HP) 46.642	No	Yes	74.76	250.04	Pass (3.34)
(SZB) 47.272	Yes	Yes	77.97	248.91	Pass (3.19)
($0.7L_s$) 53.917	Yes	Yes	113.73	284.45	Pass (2.50)
(SZB) 58.272	Yes	Yes	137.84	278.30	Pass (2.02)
($0.8L_s$) 61.620	Yes	Yes	156.66	319.33	Pass (2.04)
(SZB) 66.522	Yes	Yes	184.52	311.21	Pass (1.69)
($0.9L_s$) 69.322	Yes	Yes	200.64	408.97	Pass (2.04)
(1.5H) 71.442	Yes	Yes	212.88	423.84	Pass (1.99)
(SZB) 72.022	Yes	Yes	216.24	420.29	Pass (1.94)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Longitudinal Reinforcement for Shear Check - Strength I [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 1.193	1949.42	932.25	5.7.3.5-1	Pass (2.09)
(SZB) 2.196	1988.77	868.79	5.7.3.5-1	Pass (2.29)
(Bar Develop.) 2.564	2003.20	845.79	5.7.3.5-1	Pass (2.37)
(Bar Develop.) 3.625	2020.80	780.37	5.7.3.5-1	Pass (2.59)
(H) 4.693	2020.80	718.52	5.7.3.5-1	Pass (2.81)
(CS) 4.987	2020.80	703.51	5.7.3.5-1	Pass (2.87)
(SZB) 5.862	2020.80	656.26	5.7.3.5-1	Pass (3.08)
(1.5H) 6.443	2020.80	623.08	5.7.3.5-1	Pass (3.24)
($0.1L_s$) 7.702	2020.80	554.29	5.7.3.5-1	Pass (3.65)
(SZB) 11.362	1336.68	593.32	5.7.3.5-1	Pass (2.25)
($0.2L_s$) 15.405	1652.20	716.06	5.7.3.5-1	Pass (2.31)
(SZB) 19.612	1656.63	863.49	5.7.3.5-1	Pass (1.92)
(Deck Bar Cutoff) 21.642	1658.74	902.84	5.7.3.5-1	Pass (1.84)
($0.3L_s$) 23.107	1660.18	925.59	5.7.3.5-1	Pass (1.79)

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(SZB) 30.612	1664.29	1030.01	5.7.3.5-1	Pass (1.62)
(0.4L_s) 30.810	1664.34	1030.06	5.7.3.5-1	Pass (1.62)
(HP) 31.242	1664.43	1029.92	5.7.3.5-1	Pass (1.62)
(0.5L_s) 38.512	1664.43	1090.67	5.7.3.5-1	Pass (1.53)
(0.6L_s) 46.215	1664.43	1085.35	5.7.3.5-1	Pass (1.53)
(HP) 46.642	1664.43	1037.29	5.7.3.5-1	Pass (1.60)
(SZB) 47.272	1664.30	1041.21	5.7.3.5-1	Pass (1.60)
(0.7L_s) 53.917	1660.94	1037.31	5.7.3.5-1	Pass (1.60)
(SZB) 58.272	1656.71	1003.15	5.7.3.5-1	Pass (1.65)
(0.8L_s) 61.620	1653.20	928.60	5.7.3.5-1	Pass (1.78)
(SZB) 66.522	1336.76	791.90	5.7.3.5-1	Pass (1.69)
(0.9L_s) 69.322	1125.14	632.86	5.7.3.5-1	Pass (1.78)
(1.5H) 71.442	954.85	518.40	5.7.3.5-1	Pass (1.84)
(SZB) 72.022	844.48	489.13	5.7.3.5-1	Pass (1.73)
(CS) 73.101	812.34	425.14	5.7.3.5-1	Pass (1.91)
(H) 73.192	809.65	188.86	5.7.3.5-2	Pass (4.29)
(Bar Develop.) 74.260	777.88	188.86	5.7.3.5-2	Pass (4.12)
(Bar Develop.) 75.320	643.42	188.86	5.7.3.5-2	Pass (3.41)
(SZB) 75.688	584.35	188.86	5.7.3.5-2	Pass (3.09)
(FoS) 76.692	422.76	188.86	5.7.3.5-2	Pass (2.24)

Longitudinal Reinforcement for Shear Check - Strength II [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 1.193	1949.42	803.51	5.7.3.5-1	Pass (2.43)
(SZB) 2.196	1988.77	748.77	5.7.3.5-1	Pass (2.66)
(Bar Develop.) 2.564	2003.20	728.86	5.7.3.5-1	Pass (2.75)
(Bar Develop.) 3.625	2020.80	672.03	5.7.3.5-1	Pass (3.01)
(H) 4.693	2020.80	618.40	5.7.3.5-1	Pass (3.27)
(SZB) 5.862	2020.80	563.47	5.7.3.5-1	Pass (3.59)
(1.5H) 6.443	2020.80	533.69	5.7.3.5-1	Pass (3.79)
(0.1L_s) 7.702	2020.80	474.44	5.7.3.5-1	Pass (4.26)
(SZB) 11.362	1336.68	524.10	5.7.3.5-1	Pass (2.55)
(0.2L_s) 15.405	1652.20	664.67	5.7.3.5-1	Pass (2.49)
(SZB) 19.612	1656.63	806.67	5.7.3.5-1	Pass (2.05)
(Deck Bar Cutoff) 21.642	1658.74	842.46	5.7.3.5-1	Pass (1.97)
(0.3L_s) 23.107	1660.18	863.72	5.7.3.5-1	Pass (1.92)
(SZB) 30.612	1664.29	957.72	5.7.3.5-1	Pass (1.74)
(0.4L_s) 30.810	1664.34	957.50	5.7.3.5-1	Pass (1.74)
(HP) 31.242	1664.43	956.78	5.7.3.5-1	Pass (1.74)
(0.5L_s) 38.512	1664.43	1023.94	5.7.3.5-1	Pass (1.63)
(0.6L_s) 46.215	1664.43	1017.30	5.7.3.5-1	Pass (1.64)
(HP) 46.642	1664.43	967.92	5.7.3.5-1	Pass (1.72)
(SZB) 47.272	1664.30	969.92	5.7.3.5-1	Pass (1.72)
(0.7L_s) 53.917	1660.94	971.86	5.7.3.5-1	Pass (1.71)
(SZB) 58.272	1656.71	934.77	5.7.3.5-1	Pass (1.77)
(0.8L_s) 61.620	1653.20	870.67	5.7.3.5-1	Pass

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
				(1.90)
(SZB) 66.522	1336.76	736.50	5.7.3.5-1	Pass (1.82)
(0.9L_s) 69.322	1125.14	597.24	5.7.3.5-1	Pass (1.88)
(1.5H) 71.442	954.85	490.38	5.7.3.5-1	Pass (1.95)
(SZB) 72.022	844.48	462.93	5.7.3.5-1	Pass (1.82)
(H) 73.192	809.65	178.60	5.7.3.5-2	Pass (4.53)
(Bar Develop.) 74.260	777.88	178.60	5.7.3.5-2	Pass (4.36)
(Bar Develop.) 75.320	643.42	178.60	5.7.3.5-2	Pass (3.60)
(SZB) 75.688	584.35	178.60	5.7.3.5-2	Pass (3.27)
(FoS) 76.692	422.76	178.60	5.7.3.5-2	Pass (2.37)

Horizontal Interface Shears/Length for Strength I Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.860	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(FoS) 1.193	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(SZB) 2.196	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(Bar Develop.) 2.564	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(Bar Develop.) 3.625	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(H) 4.693	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(CS) 4.987	12.000	48.000	Pass	0.220	0.000	Pass	76.040	142.547	Pass (1.87)
(SZB) 5.862	12.000	48.000	Pass	0.220	0.000	Pass	74.707	142.547	Pass (1.91)
(1.5H) 6.443	12.000	48.000	Pass	0.220	0.000	Pass	73.820	142.547	Pass (1.93)
(0.1L_s) 7.702	12.000	48.000	Pass	0.220	0.000	Pass	71.897	142.547	Pass (1.98)
(SZB) 11.362	9.000	48.000	Pass	0.293	0.000	Pass	66.278	146.507	Pass (2.21)
(0.2L_s) 15.405	9.000	48.000	Pass	0.293	0.000	Pass	60.016	146.507	Pass (2.44)
(SZB) 19.612	12.000	48.000	Pass	0.220	0.000	Pass	53.473	142.547	Pass (2.67)
(Deck Bar Cutoff) 21.642	12.000	48.000	Pass	0.220	0.000	Pass	50.304	142.547	Pass (2.83)
(0.3L_s) 23.107	12.000	48.000	Pass	0.220	0.000	Pass	48.020	142.547	Pass (2.97)
(SZB) 30.612	18.000	48.000	Pass	0.147	0.000	Pass	36.305	138.587	Pass (3.82)
(0.4L_s) 30.810	18.000	48.000	Pass	0.147	0.000	Pass	35.998	138.587	Pass (3.85)
(HP) 31.242	18.000	48.000	Pass	0.147	0.000	Pass	35.325	138.587	Pass (3.92)
(0.5L_s) 38.512	18.000	48.000	Pass	0.147	0.000	Pass	24.038	138.587	Pass (5.77)
(0.6L_s) 46.215	18.000	48.000	Pass	0.147	0.000	Pass	21.092	138.587	Pass (6.57)
(HP) 46.642	18.000	48.000	Pass	0.147	0.000	Pass	21.691	138.587	Pass (6.39)
(SZB) 47.272	18.000	48.000	Pass	0.147	0.000	Pass	22.577	138.587	Pass (6.14)
(0.7L_s) 53.917	12.000	48.000	Pass	0.220	0.000	Pass	32.451	142.547	Pass (4.39)
(SZB) 58.272	12.000	48.000	Pass	0.220	0.000	Pass	39.159	142.547	Pass (3.64)
(0.8L_s) 61.620	9.000	48.000	Pass	0.293	0.000	Pass	44.413	146.507	Pass (3.30)
(SZB) 66.522	9.000	48.000	Pass	0.293	0.000	Pass	52.260	146.507	Pass (2.80)
(0.9L_s) 69.322	12.000	48.000	Pass	0.220	0.000	Pass	56.823	142.547	Pass (2.51)
(1.5H) 71.442	12.000	48.000	Pass	0.220	0.000	Pass	60.308	142.547	Pass (2.36)
(SZB) 72.022	12.000	48.000	Pass	0.220	0.000	Pass	61.267	142.547	Pass (2.33)
(CS) 73.101	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)
(H) 73.192	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)
(Bar Develop.) 74.260	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)
(Bar Develop.) 75.320	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)
(SZB) 75.688	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)
(FoS) 76.692	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)
(1.0L_s) 77.025	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
									(2.26)
77.025	12.000	48.000	Pass	0.220	0.000	Pass	63.055	142.547	Pass (2.26)

Horizontal Interface Shears/Length for Strength II Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.860	12.000	48.000	Pass	0.220	0.000	Pass	74.038	142.547	Pass (1.93)
(FoS) 1.193	12.000	48.000	Pass	0.220	0.000	Pass	74.038	142.547	Pass (1.93)
(SZB) 2.196	12.000	48.000	Pass	0.220	0.000	Pass	74.038	142.547	Pass (1.93)
(Bar Develop.) 2.564	12.000	48.000	Pass	0.220	0.000	Pass	74.038	142.547	Pass (1.93)
(Bar Develop.) 3.625	12.000	48.000	Pass	0.220	0.000	Pass	74.038	142.547	Pass (1.93)
(H) 4.693	12.000	48.000	Pass	0.220	0.000	Pass	74.038	142.547	Pass (1.93)
(SZB) 5.862	12.000	48.000	Pass	0.220	0.000	Pass	72.796	142.547	Pass (1.96)
(1.5H) 6.443	12.000	48.000	Pass	0.220	0.000	Pass	71.967	142.547	Pass (1.98)
($0.1L_s$) 7.702	12.000	48.000	Pass	0.220	0.000	Pass	70.162	142.547	Pass (2.03)
(SZB) 11.362	9.000	48.000	Pass	0.293	0.000	Pass	64.829	146.507	Pass (2.26)
($0.2L_s$) 15.405	9.000	48.000	Pass	0.293	0.000	Pass	58.743	146.507	Pass (2.49)
(SZB) 19.612	12.000	48.000	Pass	0.220	0.000	Pass	52.229	142.547	Pass (2.73)
(Deck Bar Cutoff) 21.642	12.000	48.000	Pass	0.220	0.000	Pass	49.012	142.547	Pass (2.91)
($0.3L_s$) 23.107	12.000	48.000	Pass	0.220	0.000	Pass	46.670	142.547	Pass (3.05)
(SZB) 30.612	18.000	48.000	Pass	0.147	0.000	Pass	34.341	138.587	Pass (4.04)
($0.4L_s$) 30.810	18.000	48.000	Pass	0.147	0.000	Pass	34.010	138.587	Pass (4.07)
(HP) 31.242	18.000	48.000	Pass	0.147	0.000	Pass	33.283	138.587	Pass (4.16)
($0.5L_s$) 38.512	18.000	48.000	Pass	0.147	0.000	Pass	20.827	138.587	Pass (6.65)
($0.6L_s$) 46.215	18.000	48.000	Pass	0.147	0.000	Pass	19.655	138.587	Pass (7.05)
(HP) 46.642	18.000	48.000	Pass	0.147	0.000	Pass	20.243	138.587	Pass (6.85)
(SZB) 47.272	18.000	48.000	Pass	0.147	0.000	Pass	21.114	138.587	Pass (6.56)
($0.7L_s$) 53.917	12.000	48.000	Pass	0.220	0.000	Pass	30.797	142.547	Pass (4.63)
(SZB) 58.272	12.000	48.000	Pass	0.220	0.000	Pass	37.325	142.547	Pass (3.82)
($0.8L_s$) 61.620	9.000	48.000	Pass	0.293	0.000	Pass	42.422	146.507	Pass (3.45)
(SZB) 66.522	9.000	48.000	Pass	0.293	0.000	Pass	49.967	146.507	Pass (2.93)
($0.9L_s$) 69.322	12.000	48.000	Pass	0.220	0.000	Pass	54.332	142.547	Pass (2.62)
(1.5H) 71.442	12.000	48.000	Pass	0.220	0.000	Pass	57.647	142.547	Pass (2.47)
(SZB) 72.022	12.000	48.000	Pass	0.220	0.000	Pass	58.556	142.547	Pass (2.43)
(H) 73.192	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)
(Bar Develop.) 74.260	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)
(Bar Develop.) 75.320	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)
(SZB) 75.688	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)
(FoS) 76.692	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)
($1.0L_s$) 77.025	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)
77.025	12.000	48.000	Pass	0.220	0.000	Pass	60.250	142.547	Pass (2.37)

Live Load Deflection Check [2.5.2.6.2]
Allowable deflection span ratio = L/800
Allowable maximum deflection = ± 1.155 in
Minimum live load deflection along girder = -0.222 in
Maximum live load deflection along girder = 0.093 in
Status = Pass

Constructability Checks

Girder Dimensions Detailing Check [5.12.3.2.2]

Dimension	Minimum (in)	Actual (in)	Status
Top Flange Thickness	2.000	3.500	Pass
Web Thickness	5.000	7.000	Pass
Bottom Flange Thickness	5.000	6.500	Pass

Stirrup Detailing Check: Strength I [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.860	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 1.193	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 2.196	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.564	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 3.625	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 4.693	#4	4.000	18.000	1.500	1.200	0.125	Pass
(CS) 4.987	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.862	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 6.443	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.702	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 11.362	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.405	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 19.612	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 21.642	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.107	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 30.612	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.810	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 31.242	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.512	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.215	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.642	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 47.272	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.917	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 58.272	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.620	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.522	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.322	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.442	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 72.022	#4	6.000	18.000	1.500	0.800	0.125	Pass
(CS) 73.101	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 73.192	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.260	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 75.320	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 75.688	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 76.692	#4	3.000	18.000	1.500	1.600	0.125	Pass
($1.0L_s$) 77.025	#4	3.000	18.000	1.500	1.600	0.125	Pass
77.025	#4	3.000	18.000	1.500	1.600	0.000	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Stirrup Detailing Check: Strength II [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.860	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 1.193	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 2.196	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.564	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 3.625	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 4.693	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.862	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 6.443	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.702	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 11.362	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.405	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 19.612	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 21.642	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.107	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 30.612	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.810	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 31.242	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.512	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.215	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.642	#4	18.000	18.000	1.500	0.267	0.000	Pass
(SZB) 47.272	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 53.917	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 58.272	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.620	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.522	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.322	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.442	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 72.022	#4	6.000	18.000	1.500	0.800	0.125	Pass
(H) 73.192	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.260	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 75.320	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 75.688	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 76.692	#4	3.000	18.000	1.500	1.600	0.125	Pass
($1.0L_s$) 77.025	#4	3.000	18.000	1.500	1.600	0.125	Pass
77.025	#4	3.000	18.000	1.500	1.600	0.000	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Hold Down Force

Hold Down Force (kip/strand)	Hold Down Force Limit (kip/strand)	Status
3.32	4.00	Pass

Haunch Geometry Checks

Note: Specification Checks for Haunch Geometry are Disabled in the Project Criteria. All Status values will be reported as N/A.

Slab Offset ("A" Dimension)

This table compares the input slab offset to the rounded computed slab offset required to have the least haunch depth be equal to the Fillet dimension. A failed status indicates that the top of the girder will encroach into the deck slab and the Slab Offset dimension should be refined.

Span	Girder	Provided (in)	Required (in)	Status	Notes
2	B	11.000	11.500	N/A	

Minimum Fillet Depth

This table compares the provided Fillet dimension to the minimum Fillet dimension specified in the girder library. A failed status indicates that the Fillet dimension is too small.

Span	Girder	Provided (in)	Required (in)	Status
2	B	1.000	1.000	N/A

Camber

	Camber (in)
Screed Camber, C at mid-span	1.048
Lower Bound Camber at 60 days, 50% of D_{60}	1.657
Average Camber at 60 days, 75% of D_{60}	2.486
Upper Bound Camber at 60 days, D_{60}	3.314

Bridge Description Details

Span 2 Girder B

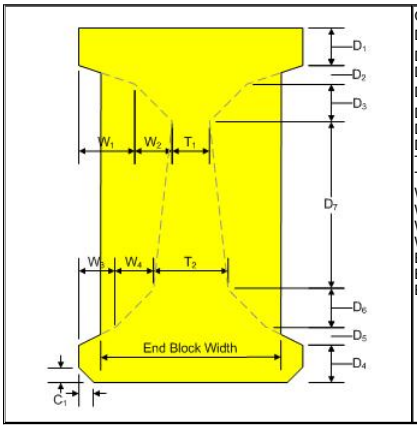
Deck and Roadway Widths

Location from Left Support (ft)	Station	Deck Width (ft)	Exterior Curb-Curb Width (ft)	Interior Curb-Curb Width (ft)	Overlay Toe-Toe Width (ft)
($0.0L_s$) 0.000	94+74.76	94.000	91.000	74.000	74.000
0.860	94+75.59	94.000	91.000	74.000	74.000
($0.1L_s$) 7.702	94+82.12	94.000	91.000	74.000	74.000
($0.2L_s$) 15.405	94+89.48	94.000	91.000	74.000	74.000
($0.3L_s$) 23.107	94+96.85	94.000	91.000	74.000	74.000
($0.4L_s$) 30.810	95+04.22	94.000	91.000	74.000	74.000
($0.5L_s$) 38.512	95+11.59	94.000	91.000	74.000	74.000
($0.6L_s$) 46.215	95+18.95	94.000	91.000	74.000	74.000
($0.7L_s$) 53.917	95+26.32	94.000	91.000	74.000	74.000
($0.8L_s$) 61.620	95+33.68	94.000	91.000	74.000	74.000
($0.9L_s$) 69.322	95+41.04	94.000	91.000	74.000	74.000
($1.0L_s$) 77.025	95+48.39	94.000	91.000	74.000	74.000
77.025	95+48.39	94.000	91.000	74.000	74.000

Intermediate Diaphragms

No intermediate diaphragms defined

BT-42 CDOT Dimensions



C1 = 0.000 in (0")
D1 = 3.500 in ($3^1/_2$")
D2 = 2.000 in (2")
D3 = 2.000 in (2")
D4 = 6.500 in ($6^1/_2$")
D5 = 6.000 in (6")
D6 = 0.000 in (0")
D7 = 22.000 in (1'-10")
T1 = 7.000 in (7")
T2 = 7.000 in (7")
W1 = 16.000 in (1'-4")
W2 = 2.000 in (2")
W3 = 10.000 in (10")
W4 = 0.000 in (0")
EndBlockWidth = 0.000 in (0")
EndBlockLength = 0.000 ft (0")
EndBlockTransition = 0.000 ft (0")

Strand Locations

X = 0 is at CL Girder, Y = 0 is at Top of Girder

Straight Strands

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
1	-3.000	-40.000	-3.000	-40.000	•	•
2	3.000	-40.000	3.000	-40.000	•	•
3	-5.000	-40.000	-5.000	-40.000	•	•
4	5.000	-40.000	5.000	-40.000	•	•
5	-7.000	-40.000	-7.000	-40.000	•	•
6	7.000	-40.000	7.000	-40.000	•	•
7	-9.000	-40.000	-9.000	-40.000	•	•

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
8	9.000	-40.000	9.000	-40.000	•	•
9	-3.000	-38.000	-3.000	-38.000		
10	3.000	-38.000	3.000	-38.000		
11	-5.000	-38.000	-5.000	-38.000		
12	5.000	-38.000	5.000	-38.000		
13	-7.000	-38.000	-7.000	-38.000		
14	7.000	-38.000	7.000	-38.000		
15	-9.000	-38.000	-9.000	-38.000		
16	9.000	-38.000	9.000	-38.000		
17	-11.000	-38.000	-11.000	-38.000		
18	11.000	-38.000	11.000	-38.000		

No Temporary Strands in Girder

Harped Strand Locations at Ends of Girder

Strand	X (in)	Y (in)
1	-1.000	-12.000
2	1.000	-12.000
3	-1.000	-10.000
4	1.000	-10.000
5	-1.000	-8.000
6	1.000	-8.000
7	-1.000	-6.000
8	1.000	-6.000
9	-1.000	-4.000
10	1.000	-4.000

Harped Strand Locations at Harping Points

Strand	X (in)	Y (in)
1	-1.000	-40.000
2	1.000	-40.000
3	-1.000	-38.000
4	1.000	-38.000
5	-1.000	-36.000
6	1.000	-36.000
7	-1.000	-34.000
8	1.000	-34.000
9	-1.000	-32.000
10	1.000	-32.000

Strand Eccentricity

Strand Eccentricity: Interval 2 Prestress Release

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	18.069	-12.820	7.037	13.1998	13.1998
0.417	0.000	18.070	-12.440	7.174	13.1998	13.1998
0.417	(0.0L_e) 0.000	18.070	-12.440	7.174	13.1998	13.1998
(FoS) 0.750	(FoS) 0.333	18.071	-12.136	7.283	13.1998	13.1998
(SZB) 1.753	(SZB) 1.337	18.074	-11.221	7.612	13.1998	13.1998
(Bar Develop.) 2.121	(Bar Develop.) 1.705	18.075	-10.885	7.732	13.1998	13.1998
(PSXFR) 3.000	(PSXFR) 2.583	18.078	-10.084	8.020	13.1998	13.1998
(Bar Develop.) 3.182	(Bar Develop.) 2.765	18.079	-9.918	8.080	13.1998	13.1998
(H) 4.250	(H) 3.833	18.082	-8.943	8.430	13.1998	13.1998
(CS) 4.544	(CS) 4.127	18.083	-8.675	8.526	13.1998	13.1998
(SZB) 5.419	(SZB) 5.003	18.085	-7.877	8.813	13.1998	13.1998
(1.5H) 6.000	(1.5H) 5.583	18.087	-7.347	9.003	13.1998	13.1998
(0.1L_t) 7.700	7.283	18.092	-5.797	9.561	13.1998	13.1998
8.033	(0.1L_e) 7.617	18.093	-5.493	9.670	13.1998	13.1998
(SZB) 10.919	(SZB) 10.503	18.102	-2.860	10.616	13.1998	13.1998
(0.2L_t) 15.400	14.983	18.116	1.227	12.084	13.1998	13.1998
15.650	(0.2L_e) 15.233	18.117	1.455	12.166	13.1998	13.1998
(SZB) 19.169	(SZB) 18.753	18.127	4.665	13.320	13.1998	13.1998
(Deck Bar Cutoff) 21.199	(Deck Bar Cutoff) 20.783	18.134	6.517	13.985	13.1998	13.1998
(0.3L_t) 23.100	22.683	18.139	8.250	14.608	13.1998	13.1998
23.266	(0.3L_e) 22.850	18.140	8.403	14.662	13.1998	13.1998
(SZB) 30.169	(SZB) 29.753	18.161	14.699	16.925	13.1998	13.1998
(HP, 0.4L_t) 30.799	(HP) 30.383	18.163	15.274	17.131	13.1998	13.1998
30.883	(0.4L_e) 30.466	18.163	15.274	17.131	∞	∞
(0.5L_t) 38.499	(0.5L_e) 38.083	18.163	15.274	17.131	∞	∞
46.116	(0.6L_e) 45.699	18.163	15.274	17.131	∞	∞
(HP, 0.6L_t) 46.199	(HP) 45.783	18.163	15.274	17.131	13.1998	13.1998
(SZB) 46.829	(SZB) 46.413	18.161	14.699	16.925	13.1998	13.1998
53.732	(0.7L_e) 53.316	18.140	8.403	14.662	13.1998	13.1998
(0.7L_t) 53.899	53.482	18.139	8.250	14.608	13.1998	13.1998
(SZB) 57.829	(SZB) 57.413	18.127	4.665	13.320	13.1998	13.1998
61.349	(0.8L_e) 60.932	18.117	1.455	12.166	13.1998	13.1998
(0.8L_t) 61.599	61.182	18.116	1.227	12.084	13.1998	13.1998
(SZB) 66.079	(SZB) 65.663	18.102	-2.860	10.616	13.1998	13.1998
68.965	(0.9L_e) 68.549	18.093	-5.493	9.670	13.1998	13.1998
(0.9L_t) 69.299	68.882	18.092	-5.797	9.561	13.1998	13.1998
(1.5H) 70.999	(1.5H) 70.582	18.087	-7.347	9.003	13.1998	13.1998
(SZB) 71.579	(SZB) 71.163	18.085	-7.877	8.813	13.1998	13.1998
(CS) 72.658	(CS) 72.241	18.082	-8.861	8.460	13.1998	13.1998
(H) 72.749	(H) 72.332	18.082	-8.943	8.430	13.1998	13.1998
(Bar Develop.) 73.817	(Bar Develop.) 73.400	18.079	-9.918	8.080	13.1998	13.1998
(PSXFR) 73.999	(PSXFR) 73.582	18.078	-10.084	8.020	13.1998	13.1998
(Bar Develop.) 74.877	(Bar Develop.) 74.461	18.075	-10.885	7.732	13.1998	13.1998
(SZB) 75.245	(SZB) 74.829	18.074	-11.221	7.612	13.1998	13.1998
(FoS) 76.249	(FoS) 75.832	18.071	-12.136	7.283	13.1998	13.1998

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
76.582	($1.0L_e$) 76.165	18.070	-12.440	7.174	13.1998	13.1998
76.582	76.165	18.070	-12.440	7.174	13.1998	13.1998
(STLF, $1.0L_t$) 76.999	(STLF) 76.582	18.069	-12.820	7.037	13.1998	13.1998

Eccentricities are based on the gross non-composite girder section
Eccentricities measured from neutral axis of non-composite section based on material properties at time of prestress release
Positive e_y values indicate strands are below the centroid

Debonding Criteria
Maximum number of debonded strands = 25% of total number of strands
Maximum number of debonded strands per row = 40% of strands in any row
Maximum number of debonded strands per section. The greater of 4 strands or 40% of strands debonded at any section
Maximum distance between debond sections = 3.000 ft

Deflection Multipliers
The factors below are multiplied by the specified load case's deflections when computing deflections and excess camber

Load Cases	Factor
Erection (Girder, Prestress)	1.000
Creep	1.000
Diaphragm, Construction, Shear key	1.000
Deck Panels	1.000
Slab, User Defined Loads at Cast Deck, Apply User Defined Loads	1.000
Haunch	1.000
Railing System (Traffic Barrier, Sidewalks), Overlay, User Defined Loads at Apply User Defined Loads, Install Railing System and Overlay	1.000

Transverse Reinforcement Stirrup Zones

Primary Bars

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Vertical Legs	# Legs Extended into Deck*	Confinement Bar Size
1	0.000	1.750	#4	3.000	2	0	(None)
2	1.750	5.416	#4	4.000	2	0	(None)
3	5.416	10.916	#4	6.000	2	0	(None)
4	10.916	19.166	#4	9.000	2	0	(None)
5	19.166	30.166	#4	12.000	2	0	(None)
6	30.166	46.833	#4	18.000	2	0	(None)
7	46.833	57.833	#4	12.000	2	0	(None)
8	57.833	66.083	#4	9.000	2	0	(None)
9	66.083	71.583	#4	6.000	2	0	(None)
10	71.583	75.249	#4	4.000	2	0	(None)
11	75.249	76.999	#4	3.000	2	0	(None)

* Bars add to horizontal interface shear capacity

Additional Bars for Horizontal Interface Shear Capacity

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Legs
1	0.000	10.917	#3	12.000	2
2	10.917	19.167	#3	9.000	2
3	19.167	30.167	#3	12.000	2
4	30.167	46.832	#3	18.000	2
5	46.832	57.832	#3	12.000	2
6	57.832	66.082	#3	9.000	2
7	66.082	76.999	#3	12.000	2

Additional Splitting Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)	# of Legs
0.500	#6	4.000	2

Additional Bottom Flange Confinement Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)
6.500	#3	4.000

Longitudinal Rebar Locations
Bar start and end locations measured from left end of girder

Row	Bar Start (ft)	Bar End (ft)	Girder Face	Cover (in)	Bar Size	# of Bars	Spacing (in)
1	0.000	76.999	Top	2.375	#4	4	6.000
2	0.000	76.999	Bottom	2.500	#4	2	24.000
3	0.000	76.999	Top	2.375	#6	2	36.000

Materials

Permanent Strands

Name	Grade 270 Low Relaxation 0.6"
Type	Low Relaxation
f_{pu}	270.000 KSI
f_{py}	243.000 KSI
E_{ps}	28500.000 KSI
A_{ps}	0.217 in^2

Deck Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Transverse Reinforcing Material (Stirrups, Confinement, and Horizontal Interface Shear Bars)

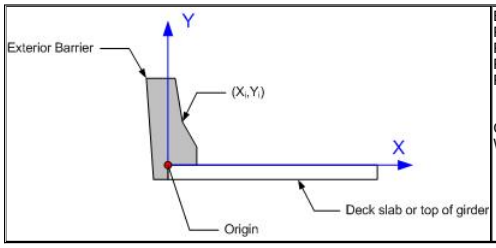
Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Longitudinal Girder Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

f_u	90.000 KSI	f_u	90.000 KSI	f_u	90.000 KSI

Parker Rail Dimensions



Barrier Points
Point 1= (0.000 in, 0.000 in)
Point 2= (0.000 in, 30.000 in)
Point 3= (18.000 in, 30.000 in)
Point 4= (18.000 in, 0.000 in)

Curb Offset = 0.000 in
Weight = 0.700 kip/ft/barrier

Project Criteria

Name: CDOT
Description: AASHTO LRFD Bridge Design Spec, 8th Ed. 2017, US Units, CDOT stress requirements
Based on: AASHTO LRFD Bridge Design Specification, Eighth Edition 2017 - US Units
Section Properties: Gross
Effective Flange Width computed in accordance with LRFD 4.6.2.6

Load Modifiers		Environmental		Structural Analysis
Ductility - η_D	1	Exposure Condition	Normal	Simple Spans Made Continuous
Importance - η_I	1	Relative Humidity	55%	
Redundancy - η_R	1			

Casting Yard Criteria

Max. Strand slope is not checked
Permissible hold down force per strand = 4.00 kip
The hold down force includes 0.00 % friction
Max. girder weight in casting yard is not checked
Girder was cured using Normal method
1 day of steam or radiant heat curing is equal to 7 days of normal curing

Concrete Stress Limits - Service I (5.9.2.3.1)
- Compressive Stress = -3.900 KSI
- Tensile Stress (w/o mild rebar) = 0.200 KSI
- Tensile Stress (w/ mild rebar) = 0.588 KSI
Splitting checks (5.9.4.4.1) are disabled.
Confinement checks (5.9.4.4.2) are disabled.

Temporary Strand Removal Criteria

Compression Stress Limits
- Service I = -5.200 KSI
Tension Stress Limits
- Service I (w/o mild rebar) = 0.537 KSI
- Service I (w/ mild rebar) = 0.679 KSI

Deck and Diaphragm Placement Stage Criteria

Compression Stress Limits
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.537 KSI

Final without Live Load Criteria

Railing system weight is distributed to 6 nearest girders
Compression Stress Limits (5.9.2.3.2a)
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.000 KSI

Effective Flange Width computed in accordance with LRFD 4.6.2.6

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1

Final with Live Load Stage Criteria

Compression Stress Limits (5.9.2.3.2a)
- Service I (permanent + live load) = -4.800 KSI
Tension Stress Limits (5.9.2.3.2b)
- Service III = 0.000 KSI
Allowable Compressive Concrete Stresses (5.5.3.1)
- Fatigue I = -3.200 KSI
LL Distribution factors are calculated in accordance with LRFD 4.6.2.2
Haunch Geometry check is disabled.

Moment Capacity Criteria

Modulus of rupture = 0.679 KSI

Shear Capacity Criteria

Shear capacity computed in accordance with LRFD 5.7.3.4.2 (General method)
Modulus of rupture = 0.566 KSI
Maximum Spacing of Transverse Reinforcement (LRFD 5.7.2.6)
Eqn 5.7.2.6-1: If $v_u < 0.125f'_c$ then $S_{max} = 0.8d_v \leq 18.000$ in
Eqn 5.7.2.6-2: If $v_u \geq 0.125f'_c$ then $S_{max} = 0.4d_v \leq 12.000$ in
Longitudinal reinforcement requirements computed in accordance with LRFD 5.7.3.5
Shear stress at girder/deck interface computed using the classical shear flow formula: $V_{ui} = (V_u Q)/(Ib)$
Maximum spacing of interface shear connectors (LRFD 5.7.4.5): 48.000 in, or the depth of the member.
Interface shear compressive force normal to shear plane, Pc, for use in LRFD Eq 5.7.4.3-3 is computed from the deck weight.

Haunch And Assumed Excess Camber Criteria

Haunch dead load is computed assuming that the top of the girder is flat (Zero assumed excess camber)
Composite section properties and capacities are computed assuming a Constant Haunch Depth equal to the Fillet value

Creep Criteria

Creep is calculated in accordance with LRFD (5.4.2.3.2)
# of hours from stressing to prestress transfer : 24
# of days from prestress transfer until removal of temporary strands / diaphram casting : 1 Min, 1 Max
# of days from prestress transfer until slab-girder continuity is achieved : 60 Min, 60 Max

Variability between upper and lower bound camber : 50

Losses Criteria

Losses calculated per Approximate Lump Sum Method in accordance with AASHTO LRFD 5.9.3.3
Assumed time at shipping = 10 day
Contribution to Elastic Gains
Slab = 100%

Haunch = 100%
Diaphragms = 100%
User DC (Before Deck Placement) = 100%
User DW (Before Deck Placement) = 100%
Railing System = 100%
Overlay = 100%
User DC (After Deck Placement) = 100%
User DW (After Deck Placement) = 100%

Stress Limits for Prestressing Tendons

Stress Limit at Jacking
- Stress Relieved Strand = $0.7f_{pu}$
- Low Relaxation Strand = $0.75f_{pu}$

Stress Limit at service limit state after all losses
- Stress Relieved Strand = $0.8f_{py}$
- Low Relaxation Strand = $0.8f_{py}$

Deflection Criteria
Live Load Deflection Limit: $L_{span}/800$

Loading Details

Uniform Loads Applied Along the Entire Girder

Load Type	w (kip/ft)
Girder	0.740
Sidewalk	0.279
Traffic Barrier	0.117
Pedestrian Live Load	0.106

Slab Load Applied Along Girder
Tributary width used to compute slab load is measured from top CL girder
Slab load is approximated with linear load segments applied along the length of the girder. Segments located outside of bearings are applied as point loads/moments at bearings.
Unit weight of Slab material is 0.150 kip/ft^3
Haunch weight includes effects of roadway geometry, and is measured along the centerline of the girder, but does not include a reduction for camber.

Location From Left Bearing (ft)	Casting Region	Main Slab Weight (kip/ft)	Assumed Haunch Depth (in)	Haunch Weight (kip/ft)	Total Slab Weight (kip/ft)
-0.417	1	0.783	2.995	0.134	0.918
0.000	1	0.783	3.000	0.134	0.918
7.617	1	0.783	3.078	0.138	0.921
15.233	1	0.783	3.138	0.141	0.924
22.850	1	0.783	3.182	0.143	0.926
30.466	1	0.783	3.207	0.144	0.927
38.083	1	0.783	3.216	0.144	0.927
45.699	1	0.783	3.207	0.144	0.927
53.316	1	0.783	3.181	0.143	0.926
60.932	1	0.783	3.138	0.141	0.924
68.549	1	0.783	3.078	0.138	0.921
76.165	1	0.783	3.000	0.134	0.918
76.165	1	0.783	3.000	0.134	0.918
76.582	1	0.783	2.995	0.134	0.918

Slab Cantilever Loads

Location	Main Slab		Haunch	
	Point Load (kip)	Point Moment (kip-ft)	Point Load (kip)	Point Moment (kip-ft)
Back Bearing	0.33	0.00	0.06	0.00
Ahead Bearing	0.33	0.00	0.06	0.00

Slab Haunch Load Details

Location From Left Bearing (ft)	Station	Offset (ft)	Casting Region	Top Slab Elevation (ft)	Girder Chord Elevation (ft)	Top Girder Elevation (ft)	Slab Thickness (in)	Assumed Haunch Depth (in)	Haunch Load (kip/ft)
-0.417	94+75.19	35.648 L	1	-0.713	-1.629	-1.629	8.000	2.995	0.134
0.000	94+75.59	35.630 L	1	-0.713	-1.629	-1.629	8.000	3.000	0.134
7.617	94+82.86	35.341 L	1	-0.707	-1.630	-1.630	8.000	3.078	0.138
15.233	94+90.14	35.123 L	1	-0.702	-1.631	-1.631	8.000	3.138	0.141
22.850	94+97.43	34.977 L	1	-0.700	-1.631	-1.631	8.000	3.182	0.143
30.466	95+04.71	34.904 L	1	-0.698	-1.632	-1.632	8.000	3.207	0.144
38.083	95+12.00	34.902 L	1	-0.698	-1.633	-1.633	8.000	3.216	0.144
45.699	95+19.28	34.973 L	1	-0.699	-1.633	-1.633	8.000	3.207	0.144
53.316	95+26.57	35.115 L	1	-0.702	-1.634	-1.634	8.000	3.181	0.143
60.932	95+33.85	35.330 L	1	-0.707	-1.635	-1.635	8.000	3.138	0.141
68.549	95+41.12	35.616 L	1	-0.712	-1.635	-1.635	8.000	3.078	0.138
76.165	95+48.39	35.975 L	1	-0.719	-1.636	-1.636	8.000	3.000	0.134
76.165	95+48.39	35.975 L	1	-0.719	-1.636	-1.636	8.000	3.000	0.134
76.582	95+48.79	35.997 L	1	-0.720	-1.636	-1.636	8.000	2.995	0.134

Overlay
Overlay load is uniform along entire girder length.

Load Type	W_{cc} (ft)	w (kip/ft)
Overlay Weight	74.000	0.227

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1
W_{cc} is the curb to curb width

Distribution of Uniform Barrier, Sidewalk, and Pedestrian Loads to Girder

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Left Ext. Barrier	0.700	0.167	0.117
Left Sidewalk	1.672	0.167	0.279
Left Pedestrian Live	0.637	0.167	0.106
Right Sidewalk	1.672	0.000	0.000
Right Ext. Barrier	0.700	0.000	0.000

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Right Pedestrian Live	0.637	0.000	0.000

Span 2

Pier Diaphragm Loads

Pier	Location	P (kip)	Moment Arm (ft)	M (kip-ft)
2	Back Bearing	2.43	0.000	0.00
	Ahead Bearing	2.39	0.000	0.00
3	Back Bearing	2.94	0.000	0.00

User Defined Loads

Point loads were not defined for this girder

Distributed Loads

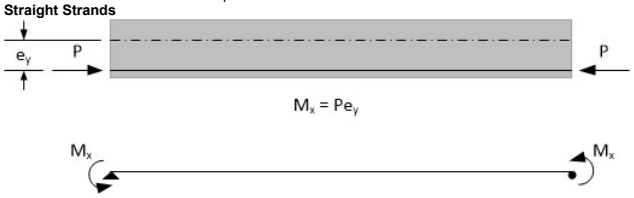
Interval	Load Case	Start Location (ft)	End Location (ft)	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Interval 11: Cast Deck, Apply User Defined Loads	DC	0.000	77.025	0.022	0.022	SIP Forms
Interval 15: Apply User Defined Loads, Install Railing System and Overlay	DW	0.000	77.025	0.040	0.040	Utility Load

Moment loads were not defined for this girder

Equivalent Pretension Loading

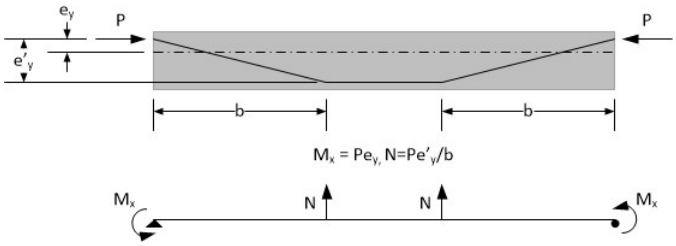
These loads are used to determine girder deflections due to pretension forces
Loads and eccentricities shown in positive directions

Straight Strands



M_x = (715.84 kip)(18.039 in) = 1076.08 kip-ft at 0.000 ft
M_x = (-715.84 kip)(18.039 in) = -1076.08 kip-ft at 76.999 ft

Harped Strands



M_x = (397.69 kip)(-12.850 in) = -425.87 kip-ft at 0.000 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.69 kip)(28.000 in)/(30.799 ft) = 30.13 kip at 30.799 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.69 kip)(28.000 in)/(30.799 ft) = 30.13 kip at 46.199 ft
M_x = (-397.69 kip)(-12.850 in) = 425.87 kip-ft at 76.999 ft

Live Loads

The following live loads were applied to the design (Service and Strength I) limit states:
HL-93

The following live loads were applied to the fatigue (Fatigue I) limit states:
Fatigue

The following live loads were applied to the permit (Strength II) limit states:
CDOT Permit

Limit State Load Factors

Limit State	γ_{DC}	γ_{DW}	γ_{LL}
Service I	1.00	1.00	1.00
Service III	1.00	1.00	0.80
Fatigue I	0.50	0.50	1.50
Strength I	1.25/ 0.90	1.50/ 0.65	1.75
Strength II	1.25/ 0.90	1.50/ 0.65	1.35

Live Load Details

Live Loads used for Design

The following live loads were applied to the design (Service and Strength I) limit states:
AASHTO LRFD 3.6.1.2: HL-93 Design Vehicular Live Load
Pedestrian live load was applied concurrently with vehicular live loads.

Live Loads Used for Fatigue Limit States

The following live loads were applied to the Fatigue I limit state:
AASHTO LRFD 3.6.1.4: Fatigue Vehicular Live Load
Pedestrian live load was not applied.

Live Loads Used for Design Permit Limit State

The following live loads were applied to the design permit (Strength II) limit state:
User-defined vehicular live load: CDOT Permit
Configuration: Truck applied only (no lane)
Usage: Use for all actions at all locations

Axle	Weight (kip)	Spacing (ft)
1	27.00	
2	25.00	14.000
3	25.00	4.000
4	25.00	12.000

Axle	Weight (kip)	Spacing (ft)
5	25.00	4.000
6	21.70	35.000
7	21.70	4.000
8	21.70	4.000

Pedestrian live load was not applied.

Transfer and Development Length Details

Transfer Length [5.9.4.3.1]

$l_t = 60d_b$

$d_b = 0.600$ in

$l_t = 36.000$ in

Development Length [5.9.4.3.2]

$$l_d \geq \kappa\left(f_{ps} - \frac{2}{3}f_{pe}\right)d_b$$

$$\frac{f_{px}}{f_{ps}} = \begin{cases} \dfrac{f_{pe}l_{px}}{f_{ps}l_t} \; for \; l_{px} < l_t \\ \dfrac{f_{pe} + \dfrac{(l_{px} - l_t)}{(l_d - l_t)}(f_{ps} - f_{pe})}{f_{ps}} \; for \; l_t < l_{px} \leq l_d \\ 1.0 \; for \; l_d < l_{px} \end{cases}$$

f_{px}/f_{ps} = Development Length Reduction Factor (See LRFD Eqn. 5.9.4.3.2-2 and -3)

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
0.000	93.221	22.187	0.600	75.292	5.000	0.033	93.221	22.187	0.600	94.115	5.000	0.033
($0.0L_e$) 0.000	93.221	22.187	0.600	75.292	5.000	0.033	93.221	22.187	0.600	94.115	5.000	0.033
(FoS) 0.333	106.061	39.945	0.600	76.254	9.000	0.094	106.061	39.945	0.600	95.318	9.000	0.094
(SZB) 1.337	144.521	93.437	0.600	78.941	21.039	0.378	144.521	93.437	0.600	98.676	21.039	0.378
(Bar Develop.) 1.705	158.578	113.076	0.600	79.866	25.456	0.504	158.578	113.076	0.600	99.833	25.456	0.504
(PSXFR) 2.583	191.610	160.004	0.600	81.543	36.000	0.835	191.610	160.004	0.600	101.929	36.000	0.835
(Bar Develop.) 2.765	192.994	160.023	0.600	82.859	38.184	0.837	192.994	160.023	0.600	103.574	38.184	0.835
(H) 3.833	201.126	160.137	0.600	90.593	51.000	0.852	201.126	160.137	0.600	113.241	51.000	0.836
(CS) 4.127	203.365	160.169	0.600	92.722	54.524	0.857	203.365	160.169	0.600	115.902	54.524	0.837
(SZB) 5.003	210.044	160.265	0.600	99.073	65.031	0.872	210.044	160.265	0.600	123.841	65.031	0.841
(1.5H) 5.583	214.470	160.330	0.600	103.280	72.000	0.883	214.470	160.330	0.600	129.100	72.000	0.845
($0.1L_e$) 7.617	229.983	160.557	0.600	118.027	96.398	0.920	229.983	160.557	0.600	147.534	96.398	0.862
(SZB) 10.503	252.051	160.874	0.600	139.009	131.031	0.972	252.051	160.874	0.600	173.762	131.031	0.888
($0.2L_e$) 15.233	268.093	161.332	0.600	154.117	187.797	1.000	268.093	161.332	0.600	192.646	187.797	0.988
(SZB) 18.753	268.701	161.580	0.600	154.542	230.031	1.000	268.701	161.580	0.600	193.178	230.031	1.000
(Deck Bar Cutoff) 20.783	269.048	161.673	0.600	154.816	254.392	1.000	269.048	161.673	0.600	193.520	254.392	1.000
($0.3L_e$) 22.850	269.367	161.720	0.600	155.092	279.195	1.000	269.367	161.720	0.600	193.864	279.195	1.000
(SZB) 29.753	269.963	161.453	0.600	155.834	362.031	1.000	269.963	161.453	0.600	194.793	362.031	1.000
(HP) 30.383	269.984	161.390	0.600	155.895	369.594	1.000	269.984	161.390	0.600	194.869	369.594	1.000
($0.4L_e$) 30.466	269.984	161.403	0.600	155.887	370.594	1.000	269.984	161.403	0.600	194.859	370.594	1.000
($0.5L_e$) 38.083	269.986	162.129	0.600	155.424	461.992	1.000	269.986	162.129	0.600	194.280	461.992	1.000
($0.6L_e$) 45.699	269.986	161.910	0.600	155.564	370.594	1.000	269.986	161.910	0.600	194.455	370.594	1.000
(HP) 45.783	269.986	161.903	0.600	155.568	369.594	1.000	269.986	161.903	0.600	194.461	369.594	1.000
(SZB) 46.413	269.964	162.003	0.600	155.483	362.031	1.000	269.964	162.003	0.600	194.354	362.031	1.000
($0.7L_e$) 53.316	269.375	162.651	0.600	154.504	279.195	1.000	269.375	162.651	0.600	193.130	279.195	1.000
(SZB) 57.413	268.714	162.704	0.600	153.835	230.031	1.000	268.714	162.704	0.600	192.294	230.031	1.000
($0.8L_e$) 60.932	268.107	162.601	0.600	153.318	187.797	1.000	268.107	162.601	0.600	191.647	187.797	0.990
(SZB) 65.663	252.066	162.312	0.600	138.104	131.031	0.975	252.066	162.312	0.600	172.630	131.031	0.892
($0.9L_e$) 68.549	229.997	162.082	0.600	117.065	96.398	0.925	229.997	162.082	0.600	146.331	96.398	0.866
(1.5H) 70.582	214.483	161.908	0.600	102.282	72.000	0.888	214.483	161.908	0.600	127.852	72.000	0.851
(SZB) 71.163	210.057	161.858	0.600	98.065	65.031	0.878	210.057	161.858	0.600	122.582	65.031	0.847
(CS) 72.241	201.828	161.765	0.600	90.225	52.086	0.860	201.828	161.765	0.600	112.781	52.086	0.843
(H) 72.332	201.138	161.758	0.600	89.568	51.000	0.859	201.138	161.758	0.600	111.960	51.000	0.843
(Bar Develop.) 73.400	193.006	161.667	0.600	81.818	38.184	0.845	193.006	161.667	0.600	102.273	38.184	0.843
(PSXFR) 73.582	191.622	161.652	0.600	80.500	36.000	0.844	191.622	161.652	0.600	100.624	36.000	0.844
(Bar Develop.) 74.461	158.583	114.254	0.600	79.117	25.456	0.509	158.583	114.254	0.600	98.896	25.456	0.509
(SZB) 74.829	144.524	94.414	0.600	78.318	21.039	0.382	144.524	94.414	0.600	97.897	21.039	0.382
(FoS) 75.832	106.061	40.368	0.600	75.984	9.000	0.095	106.061	40.368	0.600	94.980	9.000	0.095
($1.0L_e$) 76.165	93.221	22.423	0.600	75.141	5.000	0.033	93.221	22.423	0.600	93.926	5.000	0.033
76.165	93.221	22.423	0.600	75.141	5.000	0.033	93.221	22.423	0.600	93.926	5.000	0.033

Development Length of Longitudinal Rebar [5.10.8.2.1]

$$\ell_d = \ell_{db}\left(\frac{\lambda_{rl} \times \lambda_{cf} \times \lambda_{rc} \times \lambda_{er}}{\lambda}\right)$$

$$where \; \ell_{db} = 2.4d_b\frac{f_y}{\sqrt{f'_c}}$$

$$and \; \lambda_{cf} = \lambda_{rc} = \lambda_{er} = 1.0$$

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#4	0.200	0.500	60.000	8.000	1.000	1.000	1.000	25.456
#6	0.440	0.750	60.000	8.000	1.000	1.000	1.000	38.184

Development Length of Longitudinal Rebar [5.10.8.2.1] in Deck Slab

Full-length deck bars are considered to be developed along entire length of girder.
Partial-length longitudinal rebar specified using A_s are considered to be developed along entire specified bar length.

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#9	1.000	1.128	60.000	4.500	1.000	1.000	1.000	76.571

Prestress Loss Details

Approximate Estimate of Time-Dependent Losses [5.9.3.3]

Elastic Shortening - LRFD 5.9.3.2.3a

$$f_{cgp}(Permanent\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_p}{I_g} - \frac{M_g e_p}{I_g}$$

$$f_{cgp}(Temporary\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_t}{I_g} - \frac{M_g e_t}{I_g}$$

$$\Delta f_{pES} = \frac{E_p}{E_{ci}} f_{cgp}$$

A_g = 654.000 in^2
I_g = 153070.0 in^4
E_p = 28500.000 KSI
E_{ci} = 4557.295 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	1149.59	7.007	0.00	7.007	2.127	13.299
0.417	0.417	0.000(0.0L_e) 0.000	1149.31	7.142	11.81	7.142	2.134	13.344
(FoS) 0.750	(FoS) 0.333	1149.09	7.251	21.17	7.251	2.140	13.381
(SZB) 1.753	(SZB) 1.337	1148.41	7.576	48.83	7.576	2.158	13.493
(Bar Develop.) 2.121	(Bar Develop.) 1.705	1148.15	7.696	58.79	7.696	2.164	13.535
(PSXFR) 3.000	(PSXFR) 2.583	1147.53	7.981	82.17	7.981	2.181	13.638
(Bar Develop.) 3.182	(Bar Develop.) 2.765	1147.40	8.040	86.94	8.040	2.184	13.659
(H) 4.250	(H) 3.833	1146.61	8.387	114.44	8.387	2.205	13.789
(CS) 4.544	(CS) 4.127	1146.39	8.482	121.86	8.482	2.211	13.825
(SZB) 5.419	(SZB) 5.003	1145.72	8.767	143.58	8.767	2.228	13.936
(1.5H) 6.000	(1.5H) 5.583	1145.26	8.955	157.68	8.955	2.240	14.011
7.260	6.843	1144.23	9.364	187.40	9.364	2.267	14.180
(0.1L_t) 7.700	7.283	1143.86	9.507	197.51	9.507	2.277	14.241
8.033	(0.1L_e) 7.617	1143.58	9.615	205.07	9.615	2.285	14.288
(SZB) 10.919	(SZB) 10.503	1140.96	10.552	267.07	10.552	2.354	14.719
14.962	14.545	1136.76	11.865	343.57	11.865	2.464	15.409
(0.2L_t) 15.400	14.983	1136.27	12.007	351.12	12.007	2.477	15.491
15.650	(0.2L_e) 15.233	1135.98	12.088	355.38	12.088	2.485	15.538
(SZB) 19.169	(SZB) 18.753	1131.64	13.231	410.32	13.231	2.599	16.253
(Deck Bar Cutoff) 21.199	(Deck Bar Cutoff) 20.783	1128.86	13.890	437.85	13.890	2.672	16.711
22.665	22.248	1126.71	14.366	455.82	14.366	2.729	17.063
(0.3L_t) 23.100	22.683	1126.05	14.507	460.85	14.507	2.746	17.172
23.266	(0.3L_e) 22.850	1125.80	14.561	462.74	14.561	2.753	17.214
(SZB) 30.169	(SZB) 29.753	1113.80	16.802	522.95	16.802	3.068	19.189
30.367	29.950	1113.41	16.867	524.15	16.867	3.079	19.253
(HP, 0.4L_t) 30.799	(HP) 30.383	1112.55	17.007	526.68	17.007	3.101	19.394
30.883	(0.4L_e) 30.466	1112.57	17.007	527.16	17.007	3.101	19.390
38.070	37.653	1113.53	17.007	548.56	17.007	3.075	19.233
(0.5L_t) 38.499	(0.5L_e) 38.083	1113.54	17.007	548.63	17.007	3.075	19.232
45.772	45.355	1112.66	17.007	529.05	17.007	3.098	19.376
46.116	(0.6L_e) 45.699	1112.57	17.007	527.16	17.007	3.101	19.390
(HP, 0.6L_t) 46.199	(HP) 45.783	1112.55	17.007	526.68	17.007	3.101	19.394
(SZB) 46.829	(SZB) 46.413	1113.80	16.802	522.95	16.802	3.068	19.189
53.475	53.058	1125.40	14.645	465.62	14.645	2.763	17.279
53.732	(0.7L_e) 53.316	1125.80	14.561	462.74	14.561	2.753	17.214
(0.7L_t) 53.899	53.482	1126.05	14.507	460.85	14.507	2.746	17.172
(SZB) 57.829	(SZB) 57.413	1131.64	13.231	410.32	13.231	2.599	16.253
61.177	60.760	1135.78	12.144	358.27	12.144	2.490	15.571
61.349	(0.8L_e) 60.932	1135.98	12.088	355.38	12.088	2.485	15.538
(0.8L_t) 61.599	61.182	1136.27	12.007	351.12	12.007	2.477	15.491
(SZB) 66.079	(SZB) 65.663	1140.96	10.552	267.07	10.552	2.354	14.719
68.880	68.463	1143.50	9.643	207.00	9.643	2.287	14.300
68.965	(0.9L_e) 68.549	1143.58	9.615	205.07	9.615	2.285	14.288
(0.9L_t) 69.299	68.882	1143.86	9.507	197.51	9.507	2.277	14.241
(1.5H) 70.999	(1.5H) 70.582	1145.26	8.955	157.68	8.955	2.240	14.011
(SZB) 71.579	(SZB) 71.163	1145.72	8.767	143.58	8.767	2.228	13.936
(CS) 72.658	(CS) 72.241	1146.54	8.416	116.73	8.416	2.207	13.800
(H) 72.749	(H) 72.332	1146.61	8.387	114.44	8.387	2.205	13.789
(Bar Develop.) 73.817	(Bar Develop.) 73.400	1147.40	8.040	86.94	8.040	2.184	13.659
(PSXFR) 73.999	(PSXFR) 73.582	1147.53	7.981	82.17	7.981	2.181	13.638
(Bar Develop.) 74.877	(Bar Develop.) 74.461	1148.15	7.696	58.79	7.696	2.164	13.535
(SZB) 75.245	(SZB) 74.829	1148.41	7.576	48.83	7.576	2.158	13.493
(FoS) 76.249	(FoS) 75.832	1149.09	7.251	21.17	7.251	2.140	13.381
76.582	76.582	(1.0L_e) 76.165	76.165	1149.31	7.142	11.81	7.142	2.134	13.344
(STLF, 1.0L_t) 76.999	(STLF) 76.582	1149.59	7.007	0.00	7.007	2.127	13.299

P is the prestressing force after transfer : $P = A_{ps}(f_{pj} - \Delta f_{pES})$

A_{ps} = area of prestressing strands
e_p = eccentricty of permanent prestressing strands
e_{ps} = eccentricty of all prestressing strands

Approximate Lump Sum Estimate of Time Dependent Losses at Hauling

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 3\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 3\gamma_h\gamma_{st} + \frac{\Delta f_{pR}}{4}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLTH} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	7.700

Losses at Hauling

$\Delta f_{pH} = \Delta f_{pES} + \Delta f_{pLTH}$

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	13.299	7.700	20.999
0.417 0.417	0.000(0.0L_e) 0.000	13.344	7.700	21.044
(FoS) 0.750	(FoS) 0.333	13.381	7.700	21.081
(SZB) 1.753	(SZB) 1.337	13.493	7.700	21.193
(Bar Develop.) 2.121	(Bar Develop.) 1.705	13.535	7.700	21.236
(PSXFR) 3.000	(PSXFR) 2.583	13.638	7.700	21.338
(Bar Develop.) 3.182	(Bar Develop.) 2.765	13.659	7.700	21.360
(H) 4.250	(H) 3.833	13.789	7.700	21.489
(CS) 4.544	(CS) 4.127	13.825	7.700	21.526
(SZB) 5.419	(SZB) 5.003	13.936	7.700	21.636
(1.5H) 6.000	(1.5H) 5.583	14.011	7.700	21.712
7.260	6.843	14.180	7.700	21.881
(0.1L_t) 7.700	7.283	14.241	7.700	21.942
8.033	(0.1L_e) 7.617	14.288	7.700	21.988
(SZB) 10.919	(SZB) 10.503	14.719	7.700	22.419
14.962	14.545	15.409	7.700	23.110
(0.2L_t) 15.400	14.983	15.491	7.700	23.191
15.650	(0.2L_e) 15.233	15.538	7.700	23.239
(SZB) 19.169	(SZB) 18.753	16.253	7.700	23.953
(Deck Bar Cutoff) 21.199	(Deck Bar Cutoff) 20.783	16.711	7.700	24.411
22.665	22.248	17.063	7.700	24.764
(0.3L_t) 23.100	22.683	17.172	7.700	24.872
23.266	(0.3L_e) 22.850	17.214	7.700	24.914
(SZB) 30.169	(SZB) 29.753	19.189	7.700	26.890
30.367	29.950	19.253	7.700	26.954
(HP, 0.4L_t) 30.799	(HP) 30.383	19.394	7.700	27.094
30.883	(0.4L_e) 30.466	19.390	7.700	27.091
38.070	37.653	19.233	7.700	26.933
(0.5L_t) 38.499	(0.5L_e) 38.083	19.232	7.700	26.932
45.772	45.355	19.376	7.700	27.077
46.116	(0.6L_e) 45.699	19.390	7.700	27.091
(HP, 0.6L_t) 46.199	(HP) 45.783	19.394	7.700	27.094
(SZB) 46.829	(SZB) 46.413	19.189	7.700	26.890
53.475	53.058	17.279	7.700	24.980
53.732	(0.7L_e) 53.316	17.214	7.700	24.914
(0.7L_t) 53.899	53.482	17.172	7.700	24.872
(SZB) 57.829	(SZB) 57.413	16.253	7.700	23.953
61.177	60.760	15.571	7.700	23.271
61.349	(0.8L_e) 60.932	15.538	7.700	23.239
(0.8L_t) 61.599	61.182	15.491	7.700	23.191
(SZB) 66.079	(SZB) 65.663	14.719	7.700	22.419
68.880	68.463	14.300	7.700	22.001
68.965	(0.9L_e) 68.549	14.288	7.700	21.988
(0.9L_t) 69.299	68.882	14.241	7.700	21.942
(1.5H) 70.999	(1.5H) 70.582	14.011	7.700	21.712
(SZB) 71.579	(SZB) 71.163	13.936	7.700	21.636
(CS) 72.658	(CS) 72.241	13.800	7.700	21.500
(H) 72.749	(H) 72.332	13.789	7.700	21.489
(Bar Develop.) 73.817	(Bar Develop.) 73.400	13.659	7.700	21.360
(PSXFR) 73.999	(PSXFR) 73.582	13.638	7.700	21.338
(Bar Develop.) 74.877	(Bar Develop.) 74.461	13.535	7.700	21.236
(SZB) 75.245	(SZB) 74.829	13.493	7.700	21.193
(FoS) 76.249	(FoS) 75.832	13.381	7.700	21.081
76.582 76.582	(1.0L_e) 76.165 76.165	13.344	7.700	21.044
(STLF, 1.0L_t) 76.999	(STLF) 76.582	13.299	7.700	20.999

Approximate Lump Sum Estimate of Time Dependent Losses

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 10\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 12\gamma_h\gamma_{st} + \Delta f_{pR}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	27.711

Elastic Gain Due to Additional Dead Load

Change in strand stress due to loads applied to the non-composite girder

$$M_{adl} = K_s M_{slab} + K_h M_{haunch} + K_d M_{diaphragm} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$M_{Diaphragm}$ includes shear key dead load if applicable

$$\Delta f'_{cd} = \frac{M_{adl} e_p}{I_g}$$

$$\Delta f_{pED} = \frac{E_p}{E_c} \Delta f'_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

I_g = 153070.0 in^4

Slab: K_s = 1.00

Haunch: K_h = 1.00

Diaphragms: K_d = 1.00

User DC: K_{dc} = 1.00

User DW: K_{dw} = 1.00

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000
0.000	0.00	0.00	0.00	-0.00	0.00	-0.00	7.142	0.000	-0.000
(0.0L_e) 0.000	0.00	0.00	0.00	-0.00	0.00	-0.00	7.142	0.000	-0.000
(FoS) 0.333	9.90	1.78	0.00	0.27	0.00	11.95	7.251	0.007	0.039
(SZB) 1.337	39.17	7.04	0.00	1.10	0.00	47.32	7.576	0.028	0.160
(Bar Develop.) 1.705	49.71	8.94	0.00	1.39	0.00	60.05	7.696	0.036	0.206
(PSXFR) 2.583	74.45	13.40	0.00	2.09	0.00	89.94	7.981	0.056	0.320
(Bar Develop.) 2.765	79.50	14.31	0.00	2.23	0.00	96.04	8.040	0.061	0.344
(H) 3.833	108.60	19.56	0.00	3.05	0.00	131.20	8.387	0.086	0.491
(CS) 4.127	116.45	20.97	0.00	3.27	0.00	140.69	8.482	0.094	0.532
(SZB) 5.003	139.44	25.13	0.00	3.91	0.00	168.47	8.767	0.116	0.659
(1.5H) 5.583	154.35	27.82	0.00	4.33	0.00	186.50	8.955	0.131	0.745
6.843	185.80	33.51	0.00	5.21	0.00	224.52	9.364	0.165	0.937
7.283	196.50	35.45	0.00	5.51	0.00	237.46	9.507	0.177	1.007
(0.1L_e) 7.617	204.49	36.90	0.00	5.74	0.00	247.13	9.615	0.186	1.059
(SZB) 10.503	270.11	48.80	0.00	7.58	0.00	326.49	10.552	0.270	1.536
14.545	351.05	63.53	0.00	9.86	0.00	424.44	11.865	0.395	2.245
14.983	359.05	64.99	0.00	10.08	0.00	434.11	12.007	0.409	2.324
(0.2L_e) 15.233	363.54	65.81	0.00	10.21	0.00	439.56	12.088	0.417	2.369
(SZB) 18.753	421.69	76.42	0.00	11.84	0.00	509.95	13.231	0.529	3.008
(Deck Bar Cutoff) 20.783	450.81	81.75	0.00	12.66	0.00	545.22	13.890	0.594	3.377
22.248	469.83	85.23	0.00	13.19	0.00	568.25	14.366	0.640	3.640
22.683	475.15	86.20	0.00	13.34	0.00	574.69	14.507	0.654	3.717
(0.3L_e) 22.850	477.15	86.57	0.00	13.40	0.00	577.12	14.561	0.659	3.747
(SZB) 29.753	540.86	98.25	0.00	15.19	0.00	654.30	16.802	0.862	4.902
29.950	542.14	98.48	0.00	15.22	0.00	655.84	16.867	0.867	4.932
(HP) 30.383	544.82	98.98	0.00	15.30	0.00	659.09	17.007	0.879	4.998
(0.4L_e) 30.466	545.32	99.07	0.00	15.31	0.00	659.70	17.007	0.880	5.002
37.653	567.97	103.23	0.00	15.95	0.00	687.14	17.007	0.916	5.210
(0.5L_e) 38.083	568.04	103.24	0.00	15.95	0.00	687.23	17.007	0.916	5.211
45.355	547.32	99.44	0.00	15.37	0.00	662.13	17.007	0.883	5.021
(0.6L_e) 45.699	545.32	99.07	0.00	15.31	0.00	659.70	17.007	0.880	5.002
(HP) 45.783	544.82	98.98	0.00	15.30	0.00	659.09	17.007	0.879	4.998
(SZB) 46.413	540.86	98.25	0.00	15.19	0.00	654.30	16.802	0.862	4.902
53.058	480.20	87.13	0.00	13.49	0.00	580.81	14.645	0.667	3.792
(0.7L_e) 53.316	477.15	86.57	0.00	13.40	0.00	577.12	14.561	0.659	3.747
53.482	475.15	86.20	0.00	13.34	0.00	574.70	14.507	0.654	3.717
(SZB) 57.413	421.69	76.42	0.00	11.84	0.00	509.95	13.231	0.529	3.008
60.760	366.61	66.36	0.00	10.30	0.00	443.27	12.144	0.422	2.400
(0.8L_e) 60.932	363.54	65.81	0.00	10.21	0.00	439.56	12.088	0.417	2.369
61.182	359.05	64.99	0.00	10.08	0.00	434.11	12.007	0.409	2.324
(SZB) 65.663	270.11	48.80	0.00	7.59	0.00	326.50	10.552	0.270	1.536
68.463	206.54	37.27	0.00	5.80	0.00	249.61	9.643	0.189	1.073
(0.9L_e) 68.549	204.49	36.90	0.00	5.74	0.00	247.13	9.615	0.186	1.059
68.882	196.50	35.45	0.00	5.52	0.00	237.46	9.507	0.177	1.007
(1.5H) 70.582	154.35	27.82	0.00	4.33	0.00	186.51	8.955	0.131	0.745
(SZB) 71.163	139.44	25.13	0.00	3.92	0.00	168.48	8.767	0.116	0.659
(CS) 72.241	111.03	20.00	0.00	3.12	0.00	134.14	8.416	0.089	0.503
(H) 72.332	108.60	19.56	0.00	3.05	0.00	131.21	8.387	0.086	0.491
(Bar Develop.) 73.400	79.50	14.31	0.00	2.23	0.00	96.04	8.040	0.061	0.344
(PSXFR) 73.582	74.45	13.40	0.00	2.09	0.00	89.94	7.981	0.056	0.320
(Bar Develop.) 74.461	49.71	8.94	0.00	1.40	0.00	60.05	7.696	0.036	0.206
(SZB) 74.829	39.17	7.04	0.00	1.10	0.00	47.32	7.576	0.028	0.160
(FoS) 75.832	9.90	1.78	0.00	0.28	0.00	11.96	7.251	0.007	0.039
(1.0L_e) 76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	0.000	0.000
76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	0.000	0.000
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000

Elastic Gain Due to Superimposed Dead Load

Change in strand stress due to loads applied to the composite girder

$$M_{sidl} = K_r M_{railing\ system} + K_r M_{sidewalk} + K_o M_{overlay} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$$\Delta f''_{cd} = \frac{M_{sidl}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pSIDL} = \frac{E_p}{E_c} \Delta f''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

Railing System: K_r = 1.00
Overlay: K_o = 1.00
User DC: K_{dc} = 1.00
User DW: K_{dw} = 1.00

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
(STRF) -0.417	-200.32	-83.87	-162.91	0.00	-28.76	-475.86	7.007	372063.7	33.988	21.150	-0.305	-1.732
0.000	-194.81	-81.57	-158.44	0.00	-27.97	-462.79	7.142	372063.7	33.988	21.150	-0.298	-1.696
(0.0L_e) 0.000	-194.81	-81.57	-158.44	0.00	-27.97	-462.79	7.142	372063.7	33.988	21.150	-0.298	-1.696
(FoS) 0.333	-190.44	-79.74	-154.89	0.00	-27.34	-452.40	7.251	372063.7	33.988	21.150	-0.293	-1.667
(SZB) 1.337	-177.46	-74.30	-144.33	0.00	-25.47	-421.57	7.576	372063.7	33.988	21.150	-0.278	-1.579
(Bar Develop.) 1.705	-172.77	-72.34	-140.51	0.00	-24.80	-410.42	7.696	372063.7	33.988	21.150	-0.272	-1.546
(PSXFR) 2.583	-161.72	-67.71	-131.53	0.00	-23.22	-384.18	7.981	372063.7	33.988	21.150	-0.258	-1.467
(Bar Develop.) 2.765	-159.46	-66.77	-129.69	0.00	-22.89	-378.81	8.040	372063.7	33.988	21.150	-0.255	-1.451
(H) 3.833	-146.38	-61.29	-119.05	0.00	-21.01	-347.73	8.387	372063.7	33.988	21.150	-0.238	-1.354
(CS) 4.127	-142.84	-59.80	-116.17	0.00	-20.50	-339.31	8.482	372063.7	33.988	21.150	-0.233	-1.327
(SZB) 5.003	-132.42	-55.44	-107.70	0.00	-19.01	-314.57	8.767	372063.7	33.988	21.150	-0.219	-1.247
(1.5H) 5.583	-125.63	-52.60	-102.17	0.00	-18.03	-298.43	8.955	372063.7	33.988	21.150	-0.210	-1.193
6.843	-111.22	-46.57	-90.46	0.00	-15.97	-264.21	9.364	372063.7	33.988	21.150	-0.189	-1.076
7.283	-106.29	-44.50	-86.45	0.00	-15.26	-252.49	9.507	372063.7	33.988	21.150	-0.182	-1.035
(0.1L_e) 7.617	-102.59	-42.95	-83.44	0.00	-14.73	-243.71	9.615	372063.7	33.988	21.150	-0.176	-1.004
(SZB) 10.503	-71.87	-30.09	-58.45	0.00	-10.32	-170.73	10.552	372063.7	33.988	21.150	-0.129	-0.733
14.545	-32.74	-13.71	-26.62	0.00	-4.70	-77.77	11.865	372063.7	33.988	21.150	-0.062	-0.352
14.983	-28.77	-12.05	-23.40	0.00	-4.13	-68.35	12.007	372063.7	33.988	21.150	-0.055	-0.311
(0.2L_e) 15.233	-26.53	-11.11	-21.58	0.00	-3.81	-63.03	12.088	372063.7	33.988	21.150	-0.051	-0.288
(SZB) 18.753	3.15	1.32	2.56	0.00	0.45	7.49	13.231	372063.7	33.988	21.150	0.006	0.036
(Deck Bar Cutoff) 20.783	18.70	7.83	15.21	0.00	2.69	44.43	13.890	372063.7	33.988	21.150	0.038	0.218
22.248	29.22	12.23	23.76	0.00	4.19	69.41	14.366	372063.7	33.988	21.150	0.061	0.346
22.683	32.22	13.49	26.21	0.00	4.63	76.55	14.507	372063.7	33.988	21.150	0.068	0.384
(0.3L_e) 22.850	33.36	13.97	27.13	0.00	4.79	79.25	14.561	372063.7	33.988	21.150	0.070	0.398
(SZB) 29.753	73.68	30.85	59.92	0.00	10.58	175.03	16.802	372063.7	33.988	21.150	0.167	0.952
29.950	74.64	31.25	60.70	0.00	10.71	177.31	16.867	372063.7	33.988	21.150	0.170	0.966
(HP) 30.383	76.70	32.11	62.38	0.00	11.01	182.20	17.007	372063.7	33.988	21.150	0.175	0.997
(0.4L_e) 30.466	77.09	32.28	62.70	0.00	11.07	183.13	17.007	372063.7	33.988	21.150	0.176	1.003
37.653	103.53	43.35	84.20	0.00	14.86	245.93	17.007	372063.7	33.988	21.150	0.237	1.346
(0.5L_e) 38.083	104.65	43.82	85.11	0.00	15.02	248.61	17.007	372063.7	33.988	21.150	0.239	1.361
45.355	115.88	48.52	94.25	0.00	16.64	275.29	17.007	372063.7	33.988	21.150	0.265	1.507
(0.6L_e) 45.699	116.05	48.59	94.39	0.00	16.66	275.69	17.007	372063.7	33.988	21.150	0.265	1.509
(HP) 45.783	116.09	48.60	94.41	0.00	16.66	275.77	17.007	372063.7	33.988	21.150	0.265	1.510
(SZB) 46.413	116.29	48.69	94.58	0.00	16.69	276.25	16.802	372063.7	33.988	21.150	0.264	1.502
53.058	111.71	46.77	90.86	0.00	16.04	265.38	14.645	372063.7	33.988	21.150	0.235	1.338
(0.7L_e) 53.316	111.29	46.59	90.51	0.00	15.98	264.36	14.561	372063.7	33.988	21.150	0.234	1.329
53.482	111.00	46.47	90.28	0.00	15.93	263.69	14.507	372063.7	33.988	21.150	0.233	1.323
(SZB) 57.413	102.04	42.72	82.99	0.00	14.65	242.39	13.231	372063.7	33.988	21.150	0.204	1.159
60.760	91.01	38.10	74.02	0.00	13.06	216.19	12.144	372063.7	33.988	21.150	0.174	0.991
(0.8L_e) 60.932	90.35	37.83	73.49	0.00	12.97	214.64	12.088	372063.7	33.988	21.150	0.173	0.981
61.182	89.39	37.43	72.70	0.00	12.83	212.36	12.007	372063.7	33.988	21.150	0.170	0.968
(SZB) 65.663	69.22	28.98	56.30	0.00	9.94	164.43	10.552	372063.7	33.988	21.150	0.124	0.705
68.463	53.77	22.51	43.73	0.00	7.72	127.73	9.643	372063.7	33.988	21.150	0.093	0.527
(0.9L_e) 68.549	53.26	22.30	43.32	0.00	7.65	126.52	9.615	372063.7	33.988	21.150	0.092	0.521
68.882	51.27	21.47	41.70	0.00	7.36	121.79	9.507	372063.7	33.988	21.150	0.088	0.499
(1.5H) 70.582	40.62	17.01	33.04	0.00	5.83	96.50	8.955	372063.7	33.988	21.150	0.068	0.386
(SZB) 71.163	36.80	15.41	29.93	0.00	5.28	87.43	8.767	372063.7	33.988	21.150	0.061	0.346
(CS) 72.241	29.46	12.33	23.96	0.00	4.23	69.98	8.416	372063.7	33.988	21.150	0.048	0.273
(H) 72.332	28.83	12.07	23.44	0.00	4.14	68.48	8.387	372063.7	33.988	21.150	0.047	0.267
(Bar Develop.) 73.400	21.21	8.88	17.25	0.00	3.04	50.38	8.040	372063.7	33.988	21.150	0.034	0.193
(PSXFR) 73.582	19.88	8.32	16.17	0.00	2.85	47.22	7.981	372063.7	33.988	21.150	0.032	0.180
(Bar Develop.) 74.461	13.32	5.58	10.84	0.00	1.91	31.65	7.696	372063.7	33.988	21.150	0.021	0.119
(SZB) 74.829	10.52	4.40	8.55	0.00	1.51	24.98	7.576	372063.7	33.988	21.150	0.016	0.094
(FoS) 75.832	2.67	1.12	2.17	0.00	0.38	6.34	7.251	372063.7	33.988	21.150	0.004	0.023
(1.0L_e) 76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	372063.7	33.988	21.150	0.000	0.000
76.165	0.00	0.00	0.00	0.00	0.00	0.00	7.142	372063.7	33.988	21.150	0.000	0.000
(STLF) 76.582	0.00	0.00	0.00	0.00	0.00	0.00	7.007	372063.7	33.988	21.150	0.000	0.000

Elastic Gain Due to Live Load

Change in strand stress due to live load applied to the composite girder

$$\Delta f'''_{cd} = \frac{K_{llim} M_{llim}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pLL} = \frac{E_p}{E_c} \Delta f'''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

K_{llim} = 0.00

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(STRF) -0.417	0.00	0.00	7.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
0.000	0.00	0.00	7.142	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	7.142	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(FoS) 0.333	0.00	0.00	7.251	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 1.337	0.00	0.00	7.576	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 1.705	0.00	0.00	7.696	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(PSXFR) 2.583	0.00	0.00	7.981	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 2.765	0.00	0.00	8.040	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(H) 3.833	0.00	0.00	8.387	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(CS) 4.127	0.00	0.00	8.482	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 5.003	0.00	0.00	8.767	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(1.5H) 5.583	0.00	0.00	8.955	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
6.843	0.00	0.00	9.364	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
7.283	0.00	0.00	9.507	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.1L_e$) 7.617	0.00	0.00	9.615	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 10.503	0.00	0.00	10.552	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
14.545	0.00	0.00	11.865	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
14.983	0.00	0.00	12.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.2L_e$) 15.233	0.00	0.00	12.088	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 18.753	0.00	0.00	13.231	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(Deck Bar Cutoff) 20.783	0.00	0.00	13.890	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
22.248	0.00	0.00	14.366	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
22.683	0.00	0.00	14.507	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.3L_e$) 22.850	0.00	0.00	14.561	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 29.753	0.00	0.00	16.802	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
29.950	0.00	0.00	16.867	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 30.383	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.4L_e$) 30.466	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
37.653	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.5L_e$) 38.083	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
45.355	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.6L_e$) 45.699	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(HP) 45.783	0.00	0.00	17.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 46.413	0.00	0.00	16.802	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
53.058	0.00	0.00	14.645	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.7L_e$) 53.316	0.00	0.00	14.561	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
53.482	0.00	0.00	14.507	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 57.413	0.00	0.00	13.231	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
60.760	0.00	0.00	12.144	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.8L_e$) 60.932	0.00	0.00	12.088	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
61.182	0.00	0.00	12.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 65.663	0.00	0.00	10.552	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
68.463	0.00	0.00	9.643	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($0.9L_e$) 68.549	0.00	0.00	9.615	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
68.882	0.00	0.00	9.507	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(1.5H) 70.582	0.00	0.00	8.955	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 71.163	0.00	0.00	8.767	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(CS) 72.241	0.00	0.00	8.416	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(H) 72.332	0.00	0.00	8.387	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 73.400	0.00	0.00	8.040	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(PSXFR) 73.582	0.00	0.00	7.981	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 74.461	0.00	0.00	7.696	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 74.829	0.00	0.00	7.576	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(FoS) 75.832	0.00	0.00	7.251	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
($1.0L_e$) 76.165	0.00	0.00	7.142	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
76.165	0.00	0.00	7.142	372063.7	33.988	21.150	0.000	0.000	0.000	0.000
(STLF) 76.582	0.00	0.00	7.007	372063.7	33.988	21.150	0.000	0.000	0.000	0.000

Effective Prestress

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL}$

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL} + \Delta f_{pLL}$

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(STRF) -0.417	202.500	13.299	27.711	0.000	-1.732	42.742	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	202.500	13.344	27.711	-0.000	-1.696	42.751	0.139	22.187	0.000	0.000	22.187	22.187	22.187
($0.0L_e$) 0.000	202.500	13.344	27.711	-0.000	-1.696	42.751	0.139	22.187	0.000	0.000	22.187	22.187	22.187
(FoS) 0.333	202.500	13.381	27.711	0.039	-1.667	42.720	0.250	39.945	0.000	0.000	39.945	39.945	39.945
(SZB) 1.337	202.500	13.493	27.711	0.160	-1.579	42.623	0.584	93.437	0.000	0.000	93.437	93.437	93.437
(Bar Develop.) 1.705	202.500	13.535	27.711	0.206	-1.546	42.586	0.707	113.076	0.000	0.000	113.076	113.076	113.076
(PSXFR) 2.583	202.500	13.638	27.711	0.320	-1.467	42.496	1.000	160.004	0.000	0.000	160.004	160.004	160.004
(Bar Develop.) 2.765	202.500	13.659	27.711	0.344	-1.451	42.477	1.000	160.023	0.000	0.000	160.023	160.023	160.023
(H) 3.833	202.500	13.789	27.711	0.491	-1.354	42.363	1.000	160.137	0.000	0.000	160.137	160.137	160.137
(CS) 4.127	202.500	13.825	27.711	0.532	-1.327	42.331	1.000	160.169	0.000	0.000	160.169	160.169	160.169
(SZB) 5.003	202.500	13.936	27.711	0.659	-1.247	42.235	1.000	160.265	0.000	0.000	160.265	160.265	160.265
(1.5H) 5.583	202.500	14.011	27.711	0.745	-1.193	42.170	1.000	160.330	0.000	0.000	160.330	160.330	160.330
6.843	202.500	14.180	27.711	0.937	-1.076	42.030	1.000	160.470	0.000	0.000	160.470	160.470	160.470
7.283	202.500	14.241	27.711	1.007	-1.035	41.980	1.000	160.520	0.000	0.000	160.520	160.520	160.520
($0.1L_e$) 7.617	202.500	14.288	27.711	1.059	-1.004	41.943	1.000	160.557	0.000	0.000	160.557	160.557	160.557

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(SZB) 10.503	202.500	14.719	27.711	1.536	-0.733	41.626	1.000	160.874	0.000	0.000	160.874	160.874	160.874
14.545	202.500	15.409	27.711	2.245	-0.352	41.227	1.000	161.273	0.000	0.000	161.273	161.273	161.273
14.983	202.500	15.491	27.711	2.324	-0.311	41.189	1.000	161.311	0.000	0.000	161.311	161.311	161.311
($0.2L_e$) 15.233	202.500	15.538	27.711	2.369	-0.288	41.168	1.000	161.332	0.000	0.000	161.332	161.332	161.332
(SZB) 18.753	202.500	16.253	27.711	3.008	0.036	40.920	1.000	161.580	0.000	0.000	161.580	161.580	161.580
(Deck Bar Cutoff) 20.783	202.500	16.711	27.711	3.377	0.218	40.827	1.000	161.673	0.000	0.000	161.673	161.673	161.673
22.248	202.500	17.063	27.711	3.640	0.346	40.788	1.000	161.712	0.000	0.000	161.712	161.712	161.712
22.683	202.500	17.172	27.711	3.717	0.384	40.782	1.000	161.718	0.000	0.000	161.718	161.718	161.718
($0.3L_e$) 22.850	202.500	17.214	27.711	3.747	0.398	40.780	1.000	161.720	0.000	0.000	161.720	161.720	161.720
(SZB) 29.753	202.500	19.189	27.711	4.902	0.952	41.047	1.000	161.453	0.000	0.000	161.453	161.453	161.453
29.950	202.500	19.253	27.711	4.932	0.966	41.066	1.000	161.434	0.000	0.000	161.434	161.434	161.434
(HP) 30.383	202.500	19.394	27.711	4.998	0.997	41.110	1.000	161.390	0.000	0.000	161.390	161.390	161.390
($0.4L_e$) 30.466	202.500	19.390	27.711	5.002	1.003	41.097	1.000	161.403	0.000	0.000	161.403	161.403	161.403
37.653	202.500	19.233	27.711	5.210	1.346	40.387	1.000	162.113	0.000	0.000	162.113	162.113	162.113
($0.5L_e$) 38.083	202.500	19.232	27.711	5.211	1.361	40.371	1.000	162.129	0.000	0.000	162.129	162.129	162.129
45.355	202.500	19.376	27.711	5.021	1.507	40.560	1.000	161.940	0.000	0.000	161.940	161.940	161.940
($0.6L_e$) 45.699	202.500	19.390	27.711	5.002	1.509	40.590	1.000	161.910	0.000	0.000	161.910	161.910	161.910
(HP) 45.783	202.500	19.394	27.711	4.998	1.510	40.597	1.000	161.903	0.000	0.000	161.903	161.903	161.903
(SZB) 46.413	202.500	19.189	27.711	4.902	1.502	40.497	1.000	162.003	0.000	0.000	162.003	162.003	162.003
53.058	202.500	17.279	27.711	3.792	1.338	39.860	1.000	162.640	0.000	0.000	162.640	162.640	162.640
($0.7L_e$) 53.316	202.500	17.214	27.711	3.747	1.329	39.849	1.000	162.651	0.000	0.000	162.651	162.651	162.651
53.482	202.500	17.172	27.711	3.717	1.323	39.843	1.000	162.657	0.000	0.000	162.657	162.657	162.657
(SZB) 57.413	202.500	16.253	27.711	3.008	1.159	39.796	1.000	162.704	0.000	0.000	162.704	162.704	162.704
60.760	202.500	15.571	27.711	2.400	0.991	39.891	1.000	162.609	0.000	0.000	162.609	162.609	162.609
($0.8L_e$) 60.932	202.500	15.538	27.711	2.369	0.981	39.899	1.000	162.601	0.000	0.000	162.601	162.601	162.601
61.182	202.500	15.491	27.711	2.324	0.968	39.910	1.000	162.590	0.000	0.000	162.590	162.590	162.590
(SZB) 65.663	202.500	14.719	27.711	1.536	0.705	40.188	1.000	162.312	0.000	0.000	162.312	162.312	162.312
68.463	202.500	14.300	27.711	1.073	0.527	40.411	1.000	162.089	0.000	0.000	162.089	162.089	162.089
($0.9L_e$) 68.549	202.500	14.288	27.711	1.059	0.521	40.418	1.000	162.082	0.000	0.000	162.082	162.082	162.082
68.882	202.500	14.241	27.711	1.007	0.499	40.446	1.000	162.054	0.000	0.000	162.054	162.054	162.054
(1.5H) 70.582	202.500	14.011	27.711	0.745	0.386	40.592	1.000	161.908	0.000	0.000	161.908	161.908	161.908
(SZB) 71.163	202.500	13.936	27.711	0.659	0.346	40.642	1.000	161.858	0.000	0.000	161.858	161.858	161.858
(CS) 72.241	202.500	13.800	27.711	0.503	0.273	40.735	1.000	161.765	0.000	0.000	161.765	161.765	161.765
(H) 72.332	202.500	13.789	27.711	0.491	0.267	40.742	1.000	161.758	0.000	0.000	161.758	161.758	161.758
(Bar Develop.) 73.400	202.500	13.659	27.711	0.344	0.193	40.833	1.000	161.667	0.000	0.000	161.667	161.667	161.667
(PSXFR) 73.582	202.500	13.638	27.711	0.320	0.180	40.848	1.000	161.652	0.000	0.000	161.652	161.652	161.652
(Bar Develop.) 74.461	202.500	13.535	27.711	0.206	0.119	40.921	0.707	114.254	0.000	0.000	114.254	114.254	114.254
(SZB) 74.829	202.500	13.493	27.711	0.160	0.094	40.951	0.584	94.414	0.000	0.000	94.414	94.414	94.414
(FoS) 75.832	202.500	13.381	27.711	0.039	0.023	41.029	0.250	40.368	0.000	0.000	40.368	40.368	40.368
($1.0L_e$) 76.165	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
76.165	202.500	13.344	27.711	0.000	0.000	41.055	0.139	22.423	0.000	0.000	22.423	22.423	22.423
(STLF) 76.582	202.500	13.299	27.711	0.000	0.000	41.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Prestress Loss

% Loss Initial = $(\Delta f_{pES})/f_{pj}$

% Loss Final (Time dependent losses only) = $(\Delta f_{pLT})/f_{pj}$

% Loss Total (Time dependent losses and instantaneous effects) = $(f_{pj} - f_{pe})/f_{pj}$

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(STRF) -0.417	13.299	100.0	27.711	100.0	42.742	0.000	100.0
0.000	13.344	87.0	27.711	88.0	42.751	22.187	89.0
($0.0L_e$) 0.000	13.344	87.0	27.711	88.0	42.751	22.187	89.0
(FoS) 0.333	13.381	76.7	27.711	78.4	42.720	39.945	80.3
(SZB) 1.337	13.493	45.5	27.711	49.6	42.623	93.437	53.9
(Bar Develop.) 1.705	13.535	34.0	27.711	39.0	42.586	113.076	44.2
(PSXFR) 2.583	13.638	6.7	27.711	13.7	42.496	160.004	21.0
(Bar Develop.) 2.765	13.659	6.7	27.711	13.7	42.477	160.023	21.0
(H) 3.833	13.789	6.8	27.711	13.7	42.363	160.137	20.9
(CS) 4.127	13.825	6.8	27.711	13.7	42.331	160.169	20.9
(SZB) 5.003	13.936	6.9	27.711	13.7	42.235	160.265	20.9
(1.5H) 5.583	14.011	6.9	27.711	13.7	42.170	160.330	20.8
6.843	14.180	7.0	27.711	13.7	42.030	160.470	20.8
7.283	14.241	7.0	27.711	13.7	41.980	160.520	20.7
($0.1L_e$) 7.617	14.288	7.1	27.711	13.7	41.943	160.557	20.7
(SZB) 10.503	14.719	7.3	27.711	13.7	41.626	160.874	20.6
14.545	15.409	7.6	27.711	13.7	41.227	161.273	20.4
14.983	15.491	7.6	27.711	13.7	41.189	161.311	20.3
($0.2L_e$) 15.233	15.538	7.7	27.711	13.7	41.168	161.332	20.3
(SZB) 18.753	16.253	8.0	27.711	13.7	40.920	161.580	20.2
(Deck Bar Cutoff) 20.783	16.711	8.3	27.711	13.7	40.827	161.673	20.2
22.248	17.063	8.4	27.711	13.7	40.788	161.712	20.1
22.683	17.172	8.5	27.711	13.7	40.782	161.718	20.1
($0.3L_e$) 22.850	17.214	8.5	27.711	13.7	40.780	161.720	20.1
(SZB) 29.753	19.189	9.5	27.711	13.7	41.047	161.453	20.3
29.950	19.253	9.5	27.711	13.7	41.066	161.434	20.3
(HP) 30.383	19.394	9.6	27.711	13.7	41.110	161.390	20.3
($0.4L_e$) 30.466	19.390	9.6	27.711	13.7	41.097	161.403	20.3
37.653	19.233	9.5	27.711	13.7	40.387	162.113	19.9
($0.5L_e$) 38.083	19.232	9.5	27.711	13.7	40.371	162.129	19.9

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
45.355	19.376	9.6	27.711	13.7	40.560	161.940	20.0
($0.6L_e$) 45.699	19.390	9.6	27.711	13.7	40.590	161.910	20.0
(HP) 45.783	19.394	9.6	27.711	13.7	40.597	161.903	20.0
(SZB) 46.413	19.189	9.5	27.711	13.7	40.497	162.003	20.0
53.058	17.279	8.5	27.711	13.7	39.860	162.640	19.7
($0.7L_e$) 53.316	17.214	8.5	27.711	13.7	39.849	162.651	19.7
53.482	17.172	8.5	27.711	13.7	39.843	162.657	19.7
(SZB) 57.413	16.253	8.0	27.711	13.7	39.796	162.704	19.7
60.760	15.571	7.7	27.711	13.7	39.891	162.609	19.7
($0.8L_e$) 60.932	15.538	7.7	27.711	13.7	39.899	162.601	19.7
61.182	15.491	7.6	27.711	13.7	39.910	162.590	19.7
(SZB) 65.663	14.719	7.3	27.711	13.7	40.188	162.312	19.8
68.463	14.300	7.1	27.711	13.7	40.411	162.089	20.0
($0.9L_e$) 68.549	14.288	7.1	27.711	13.7	40.418	162.082	20.0
68.882	14.241	7.0	27.711	13.7	40.446	162.054	20.0
(1.5H) 70.582	14.011	6.9	27.711	13.7	40.592	161.908	20.0
(SZB) 71.163	13.936	6.9	27.711	13.7	40.642	161.858	20.1
(CS) 72.241	13.800	6.8	27.711	13.7	40.735	161.765	20.1
(H) 72.332	13.789	6.8	27.711	13.7	40.742	161.758	20.1
(Bar Develop.) 73.400	13.659	6.7	27.711	13.7	40.833	161.667	20.2
(PSXFR) 73.582	13.638	6.7	27.711	13.7	40.848	161.652	20.2
(Bar Develop.) 74.461	13.535	34.0	27.711	39.0	40.921	114.254	43.6
(SZB) 74.829	13.493	45.5	27.711	49.6	40.951	94.414	53.4
(FoS) 75.832	13.381	76.7	27.711	78.4	41.029	40.368	80.1
($1.0L_e$) 76.165	13.344	87.0	27.711	88.0	41.055	22.423	88.9
76.165	13.344	87.0	27.711	88.0	41.055	22.423	88.9
(STLF) 76.582	13.299	100.0	27.711	100.0	41.010	0.000	100.0

Reinforcement Requirements for Tension Limits

Minimum amount of bonded reinforcement sufficent to resist the tensile force in the concrete [5.9.2.3][C5.9.2.3.1b]

Reinforcement required for tension stress limit, Interval 2 - Prestress Release, [C5.9.2.3.1b]

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
(STRF, $0.0L_t$) 0.000	0.000	0.000	0.000	0.000	0.00	0.000	-
(PSXFR) 3.000	12.014	-0.641	-2.884	0.000	0.00	0.000	-
($0.1L_t$) 7.700	10.630	-0.591	-2.924	0.000	0.00	0.000	-
($0.2L_t$) 15.400	7.353	-0.453	-3.040	0.000	0.00	0.000	-
($0.3L_t$) 23.100	3.541	-0.250	-3.215	0.000	0.00	0.000	-
(HP, $0.4L_t$) 30.799	-0.185	0.015	-3.442	7.974	0.06	0.000	0.002
($0.5L_t$) 38.499	0.246	-0.020	-3.410	0.000	0.00	0.000	-
(HP, $0.6L_t$) 46.199	-0.185	0.015	-3.442	7.974	0.06	0.000	0.002
($0.7L_t$) 53.899	3.541	-0.250	-3.215	0.000	0.00	0.000	-
($0.8L_t$) 61.599	7.353	-0.453	-3.040	0.000	0.00	0.000	-
($0.9L_t$) 69.299	10.630	-0.591	-2.924	0.000	0.00	0.000	-
(PSXFR) 73.999	12.014	-0.641	-2.884	0.000	0.00	0.000	-
(STLF, $1.0L_t$) 76.999	0.000	0.000	0.000	0.000	0.00	0.000	-

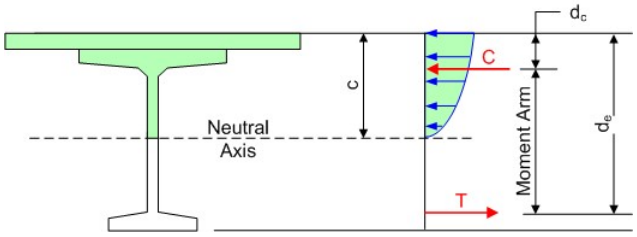
Y_{na}, the location of the neutral axis, is measured from the top of the non-composite girder

* to be considered sufficient, reinforcement must be fully developed and lie within the tension area of the section

** minimum area of sufficiently bonded reinforcement needed to use the alternative tensile stress limit

Moment Capacity Details

Positive Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
($0.0L_s$) 0.000	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
(STRF) 0.443	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
0.860	1.419	0.710	46.102	48.811	48.000	0.098	22.187	0.779	93.221	1.000	45.392	566.41	566.41	2142.55
0.860	1.419	0.710	46.102	48.811	48.000	0.098	22.187	0.779	93.221	1.000	45.392	566.41	566.41	2142.55
(FoS) 1.193	1.615	0.808	44.464	48.684	48.000	0.086	39.945	1.402	106.061	1.000	43.656	644.43	644.43	2344.45
2.193	2.199	1.099	41.489	48.391	48.000	0.062	93.262	3.272	144.396	1.000	40.389	877.35	877.35	2952.95
(SZB) 2.196	2.201	1.100	41.482	48.390	48.000	0.062	93.437	3.278	144.521	1.000	40.381	878.11	878.11	2954.95
(Bar Develop.) 2.564	2.415	1.207	40.813	48.307	48.000	0.057	113.076	3.968	158.578	1.000	39.605	963.52	963.52	3180.05
(PSXFR) 3.443	3.311	1.403	39.762	48.142	48.000	0.040	160.004	5.614	191.610	1.000	38.359	1164.22	1164.22	3721.54
3.485	3.319	1.406	39.763	48.141	48.000	0.040	160.009	5.614	191.927	1.000	38.357	1166.15	1166.15	3727.54

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(Bar Develop.) 3.625	3.347	1.414	39.767	48.137	48.000	0.040	160.023	5.615	192.994	1.000	38.353	1172.63	1172.63	3747.79
(H) 4.693	3.548	1.484	39.816	48.103	48.000	0.038	160.137	5.619	201.126	1.000	38.332	1222.04	1222.04	3903.60
(CS) 4.987	3.601	1.504	39.836	48.094	48.000	0.037	160.169	5.620	203.365	1.000	38.331	1235.64	1235.64	3946.98
5.443	3.682	1.536	39.870	46.206	48.000	0.036	160.219	5.622	206.845	1.000	38.334	1256.79	1256.79	4014.85
(SZB) 5.862	3.754	1.566	39.907	46.205	48.000	0.035	160.265	5.623	210.044	1.000	38.342	1276.23	1276.23	4077.72
(1.5H) 6.443	3.860	1.611	39.966	46.206	48.000	0.034	160.330	5.626	214.470	1.000	38.355	1303.12	1303.12	4165.09
($0.1L_s$) 7.702	4.081	1.712	40.120	44.554	48.000	0.032	160.470	5.631	224.076	1.000	38.408	1361.49	1361.49	4357.67
8.143	4.156	1.748	40.182	44.577	48.000	0.032	160.520	5.632	227.438	1.000	38.434	1381.91	1381.91	4426.06
8.476	4.211	1.774	40.231	44.596	48.000	0.031	160.557	5.634	229.983	1.000	38.457	1397.38	1397.38	4478.21
9.543	4.384	1.861	40.403	44.665	48.000	0.030	160.676	5.638	238.134	1.000	38.543	1446.90	1446.90	4647.28
(SZB) 11.362	4.667	2.007	40.742	43.390	48.000	0.028	160.874	5.645	252.051	1.000	38.735	1531.46	1531.46	4943.42
12.143	4.784	2.069	40.902	42.174	48.000	0.027	160.956	5.648	258.026	1.000	38.834	1567.77	1567.77	5073.49
($0.2L_s$) 15.405	4.976	2.172	41.805	41.805	48.000	0.026	161.273	5.659	267.972	1.000	39.633	1628.20	1628.20	5377.60
15.843	4.977	2.172	41.942	41.942	48.000	0.026	161.311	5.660	268.049	1.000	39.770	1628.66	1628.66	5397.63
16.093	4.978	2.173	42.020	42.020	48.000	0.026	161.332	5.661	268.093	1.000	39.848	1628.93	1628.93	5409.08
16.893	4.980	2.174	42.271	42.271	48.000	0.026	161.397	5.663	268.232	1.000	40.097	1629.78	1629.78	5445.79
18.843	4.987	2.178	42.885	42.885	48.000	0.026	161.535	5.668	268.569	1.000	40.708	1631.83	1631.83	5535.67
(SZB) 19.612	4.989	2.179	43.129	43.129	48.000	0.026	161.580	5.669	268.701	1.000	40.950	1632.63	1632.63	5571.29
(Deck Bar Cutoff) 21.642	4.996	2.183	43.772	43.772	48.000	0.026	161.673	5.673	269.048	1.000	41.590	1634.74	1634.74	5665.69
21.647	4.996	2.183	43.774	43.774	48.000	0.026	161.673	5.673	269.049	1.000	41.591	1634.74	1634.74	5665.92
($0.3L_s$) 23.107	5.000	2.185	44.239	44.239	48.000	0.026	161.712	5.674	269.285	1.000	42.054	1636.18	1636.18	5733.98
23.543	5.002	2.186	44.378	44.378	48.000	0.026	161.718	5.674	269.345	1.000	42.192	1636.54	1636.54	5754.11
23.709	5.002	2.186	44.431	44.431	48.000	0.026	161.720	5.674	269.367	1.000	42.245	1636.68	1636.68	5761.82
24.243	5.003	2.187	44.602	44.602	48.000	0.026	161.724	5.675	269.440	1.000	42.415	1637.12	1637.12	5786.54
25.543	5.006	2.188	45.018	45.018	48.000	0.026	161.718	5.674	269.598	1.000	42.830	1638.08	1638.08	5846.60
(SZB) 30.612	5.013	2.192	46.653	46.653	48.000	0.026	161.453	5.665	269.963	1.000	44.461	1640.29	1640.29	6077.49
($0.4L_s$) 30.810	5.013	2.192	46.717	46.717	48.000	0.026	161.434	5.664	269.970	1.000	44.525	1640.34	1640.34	6086.39
(HP) 31.242	5.014	2.192	46.857	46.857	48.000	0.026	161.390	5.663	269.984	1.000	44.665	1640.43	1640.43	6105.84
31.247	5.014	2.192	46.857	46.857	48.000	0.026	161.391	5.663	269.984	1.000	44.665	1640.43	1640.43	6105.84
31.326	5.014	2.192	46.857	46.857	48.000	0.026	161.403	5.663	269.984	1.000	44.665	1640.43	1640.43	6105.84
31.592	5.014	2.192	46.857	46.857	48.000	0.026	161.445	5.665	269.984	1.000	44.665	1640.43	1640.43	6105.85
32.242	5.014	2.192	46.857	46.857	48.000	0.026	161.541	5.668	269.985	1.000	44.665	1640.43	1640.43	6105.85
($0.5L_s$) 38.512	5.014	2.192	46.857	46.857	48.000	0.026	162.113	5.688	269.986	1.000	44.665	1640.43	1640.43	6105.87
38.942	5.014	2.192	46.857	46.857	48.000	0.026	162.129	5.689	269.986	1.000	44.665	1640.44	1640.44	6105.87
45.642	5.014	2.192	46.857	46.857	48.000	0.026	161.987	5.684	269.986	1.000	44.665	1640.43	1640.43	6105.87
($0.6L_s$) 46.215	5.014	2.192	46.857	46.857	48.000	0.026	161.940	5.682	269.986	1.000	44.665	1640.43	1640.43	6105.87
46.292	5.014	2.192	46.857	46.857	48.000	0.026	161.934	5.682	269.986	1.000	44.665	1640.43	1640.43	6105.87
46.559	5.014	2.192	46.857	46.857	48.000	0.026	161.910	5.681	269.986	1.000	44.665	1640.43	1640.43	6105.86
46.637	5.014	2.192	46.857	46.857	48.000	0.026	161.903	5.681	269.986	1.000	44.665	1640.43	1640.43	6105.86
(HP) 46.642	5.014	2.192	46.857	46.857	48.000	0.026	161.903	5.681	269.986	1.000	44.665	1640.43	1640.43	6105.86
(SZB) 47.272	5.013	2.192	46.653	46.653	48.000	0.026	162.003	5.684	269.964	1.000	44.461	1640.30	1640.30	6077.51
52.342	5.006	2.188	45.018	45.018	48.000	0.026	162.554	5.704	269.604	1.000	42.830	1638.11	1638.11	5846.69
53.642	5.003	2.187	44.601	44.601	48.000	0.026	162.628	5.706	269.448	1.000	42.415	1637.16	1637.16	5786.67
($0.7L_s$) 53.917	5.003	2.186	44.513	44.513	48.000	0.026	162.640	5.707	269.410	1.000	42.327	1636.94	1636.94	5773.90
54.175	5.002	2.186	44.431	44.431	48.000	0.026	162.651	5.707	269.375	1.000	42.245	1636.73	1636.73	5761.96
54.342	5.002	2.186	44.378	44.378	48.000	0.026	162.657	5.707	269.353	1.000	42.192	1636.59	1636.59	5754.24
(SZB) 58.272	4.990	2.179	43.128	43.128	48.000	0.026	162.704	5.709	268.714	1.000	40.949	1632.71	1632.71	5571.48
59.042	4.987	2.178	42.885	42.885	48.000	0.026	162.692	5.708	268.582	1.000	40.707	1631.90	1631.90	5535.86
60.992	4.981	2.174	42.271	42.271	48.000	0.026	162.635	5.706	268.246	1.000	40.097	1629.86	1629.86	5445.98
($0.8L_s$) 61.620	4.979	2.173	42.074	42.074	48.000	0.026	162.609	5.706	268.137	1.000	39.900	1629.20	1629.20	5417.15
61.792	4.978	2.173	42.020	42.020	48.000	0.026	162.601	5.705	268.107	1.000	39.847	1629.02	1629.02	5409.27
62.042	4.977	2.172	41.941	41.941	48.000	0.026	162.590	5.705	268.063	1.000	39.769	1628.75	1628.75	5397.81
65.742	4.785	2.069	40.902	42.173	48.000	0.027	162.369	5.697	258.041	1.000	38.833	1567.86	1567.86	5073.67
(SZB) 66.522	4.667	2.007	40.741	43.390	48.000	0.028	162.312	5.695	252.066	1.000	38.734	1531.55	1531.55	4943.59
68.342	4.385	1.861	40.402	44.664	48.000	0.030	162.170	5.690	238.148	1.000	38.542	1446.99	1446.99	4647.43
($0.9L_s$) 69.322	4.226	1.782	40.243	44.601	48.000	0.031	162.089	5.687	230.654	1.000	38.462	1401.45	1401.45	4491.85
69.408	4.212	1.775	40.230	44.596	48.000	0.031	162.082	5.687	229.997	1.000	38.456	1397.46	1397.46	4478.35
69.742	4.156	1.748	40.181	44.577	48.000	0.032	162.054	5.686	227.451	1.000	38.433	1381.99	1381.99	4426.20
(1.5H) 71.442	3.860	1.611	39.965	46.206	48.000	0.034	161.908	5.681	214.483	1.000	38.354	1303.20	1303.20	4165.21
(SZB) 72.022	3.755	1.566	39.906	46.204	48.000	0.035	161.858	5.679	210.057	1.000	38.340	1276.31	1276.31	4077.83
72.442	3.682	1.536	39.869	46.206	48.000	0.036	161.822	5.678	206.857	1.000	38.333	1256.86	1256.86	4014.96
(CS) 73.101	3.565	1.491	39.821	48.100	48.000	0.037	161.765	5.676	201.828	1.000	38.330	1226.31	1226.31	3917.06
(H) 73.192	3.549	1.485	39.815	48.103	48.000	0.038	161.758	5.676	201.138	1.000	38.331	1222.11	1222.11	3903.71
(Bar Develop.) 74.260	3.347	1.415	39.766	48.137	48.000	0.040	161.667	5.673	193.006	1.000	38.351	1172.70	1172.70	3747.89
74.400	3.319	1.406	39.762	48.141	48.000	0.040	161.655	5.672	191.938	1.000	38.356	1166.22	1166.22	3727.64
(PSXFR) 74.442	3.311	1.403	39.761	48.142	48.000	0.040	161.652	5.672	191.622	1.000	38.358	1164.29	1164.29	3721.63
(Bar Develop.) 75.320	2.415	1.207	40.812	48.307	48.000	0.057	114.254	4.009	158.583	1.000	39.605	963.55	963.55	3180.08
(SZB) 75.688	2.201	1.100	41.481	48.390	48.000	0.062	94.414	3.313	144.524	1.000	40.381	878.13	878.13	2954.97
75.692	2.199	1.099	41.488	48.391	48.000	0.062	94.237	3.307	144.398	1.000	40.389	877.36	877.36	2952.97
(FoS) 76.692	1.615	0.808	44.464	48.684	48.000	0.086	40.368	1.416	106.061	1.000	43.656	644.43	644.43	2344.45
($1.0L_s$) 77.025	1.419	0.710	46.102	48.811	48.000	0.098	22.423	0.787	93.221	1.000	45.392	566.41	566.41	2142.55
77.025	1.419	0.710	46.102	48.811	48.000	0.098	22.423	0.787	93.221	1.000	45.392	566.41	566.41	2142.55
(STLF) 77.442	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00

* Used to compute d_v for shear. Depth to resultant tension force for strands in tension. See PCI Bridge Design Manual, 3rd Edition, MNL-133-11, §8.4.1.2

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \leq \phi = 0.75 + \frac{0.25(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \leq 1.0$$

Positive Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($0.0L_s$) 0.000	0.509	0.000	13236.0	13236.0	0.00	898.49
(STRF) 0.443	0.679	0.000	7237.4	10947.0	0.00	990.81
0.860	0.679	0.339	7237.4	10947.0	-0.00	1331.16
0.860	0.679	0.339	7237.4	10947.0	-0.00	1331.16
(FoS) 1.193	0.679	0.614	7237.4	10947.0	21.31	1596.28
2.193	0.679	1.460	7237.4	10947.0	84.13	2412.32
(SZB) 2.196	0.679	1.462	7237.4	10947.0	84.34	2415.04
(Bar Develop.) 2.564	0.679	1.781	7237.4	10947.0	107.03	2723.24
(PSXFR) 3.443	0.679	2.559	7237.4	10947.0	160.30	3476.15
3.485	0.679	2.560	7237.4	10947.0	162.79	3476.76
(Bar Develop.) 3.625	0.679	2.567	7237.4	10947.0	171.17	3478.85
(H) 4.693	0.679	2.615	7237.4	10947.0	233.84	3495.34
(CS) 4.987	0.679	2.629	7237.4	10947.0	250.73	3500.07
5.443	0.679	2.649	7237.4	10947.0	276.70	3507.58
(SZB) 5.862	0.679	2.668	7237.4	10947.0	300.25	3514.65
(1.5H) 6.443	0.679	2.695	7237.4	10947.0	332.37	3524.73
($0.1L_s$) 7.702	0.679	2.752	7237.4	10947.0	400.11	3547.67
8.143	0.679	2.772	7237.4	10947.0	423.15	3556.04
8.476	0.679	2.788	7237.4	10947.0	440.39	3562.49
9.543	0.679	2.836	7237.4	10947.0	494.27	3583.82
(SZB) 11.362	0.679	2.920	7237.4	10947.0	581.76	3622.55
12.143	0.679	2.956	7237.4	10947.0	617.58	3640.05
($0.2L_s$) 15.405	0.679	3.105	7237.4	10947.0	756.19	3718.74
15.843	0.679	3.125	7237.4	10947.0	773.42	3729.95
16.093	0.679	3.136	7237.4	10947.0	783.12	3736.43
16.893	0.679	3.173	7237.4	10947.0	813.45	3757.47
18.843	0.679	3.261	7237.4	10947.0	882.84	3810.78
(SZB) 19.612	0.679	3.296	7237.4	10947.0	908.46	3832.58
(Deck Bar Cutoff) 21.642	0.679	3.387	7237.4	10947.0	971.26	3892.06
21.647	0.679	3.388	7237.4	10947.0	971.40	3892.20
($0.3L_s$) 23.107	0.679	3.453	7237.4	10947.0	1012.26	3936.67
23.543	0.679	3.472	7237.4	10947.0	1023.73	3950.18
23.709	0.679	3.479	7237.4	10947.0	1028.04	3955.38
24.243	0.679	3.503	7237.4	10947.0	1041.53	3972.14
25.543	0.679	3.560	7237.4	10947.0	1072.38	4013.70
(SZB) 30.612	0.679	3.777	7237.4	10947.0	1165.43	4184.04
($0.4L_s$) 30.810	0.679	3.786	7237.4	10947.0	1168.18	4190.92
(HP) 31.242	0.679	3.804	7237.4	10947.0	1173.97	4206.01
31.247	0.679	3.804	7237.4	10947.0	1174.03	4206.00
31.326	0.679	3.804	7237.4	10947.0	1175.04	4205.77
31.592	0.679	3.805	7237.4	10947.0	1178.42	4205.02
32.242	0.679	3.807	7237.4	10947.0	1186.13	4203.34
($0.5L_s$) 38.512	0.679	3.821	7237.4	10947.0	1223.90	4197.52
38.942	0.679	3.821	7237.4	10947.0	1224.05	4197.81
45.642	0.679	3.818	7237.4	10947.0	1186.13	4213.88
($0.6L_s$) 46.215	0.679	3.817	7237.4	10947.0	1179.37	4216.25
46.292	0.679	3.817	7237.4	10947.0	1178.42	4216.58
46.559	0.679	3.816	7237.4	10947.0	1175.04	4217.75
46.637	0.679	3.816	7237.4	10947.0	1174.03	4218.10
(HP) 46.642	0.679	3.816	7237.4	10947.0	1173.97	4218.13
(SZB) 47.272	0.679	3.790	7237.4	10947.0	1165.43	4196.96
52.342	0.679	3.579	7237.4	10947.0	1072.38	4032.17
53.642	0.679	3.523	7237.4	10947.0	1041.53	3991.78
($0.7L_s$) 53.917	0.679	3.511	7237.4	10947.0	1034.63	3983.34
54.175	0.679	3.499	7237.4	10947.0	1028.05	3975.47
54.342	0.679	3.492	7237.4	10947.0	1023.73	3970.40
(SZB) 58.272	0.679	3.319	7237.4	10947.0	908.46	3855.57
59.042	0.679	3.284	7237.4	10947.0	882.84	3834.21
60.992	0.679	3.197	7237.4	10947.0	813.45	3781.88
($0.8L_s$) 61.620	0.679	3.169	7237.4	10947.0	789.73	3765.60
61.792	0.679	3.161	7237.4	10947.0	783.12	3761.19
62.042	0.679	3.149	7237.4	10947.0	773.43	3754.82
65.742	0.679	2.981	7237.4	10947.0	617.59	3666.07
(SZB) 66.522	0.679	2.946	7237.4	10947.0	581.76	3648.73
68.342	0.679	2.863	7237.4	10947.0	494.27	3610.29
($0.9L_s$) 69.322	0.679	2.818	7237.4	10947.0	444.80	3590.73
69.408	0.679	2.814	7237.4	10947.0	440.39	3589.06
69.742	0.679	2.799	7237.4	10947.0	423.16	3582.62
(1.5H) 71.442	0.679	2.721	7237.4	10947.0	332.38	3551.36
(SZB) 72.022	0.679	2.695	7237.4	10947.0	300.25	3541.27
72.442	0.679	2.676	7237.4	10947.0	276.70	3534.18
(CS) 73.101	0.679	2.646	7237.4	10947.0	239.06	3523.35
(H) 73.192	0.679	2.642	7237.4	10947.0	233.84	3521.89
(Bar Develop.) 74.260	0.679	2.593	7237.4	10947.0	171.17	3505.30
74.400	0.679	2.587	7237.4	10947.0	162.79	3503.20
(PSXFR) 74.442	0.679	2.585	7237.4	10947.0	160.30	3502.58
(Bar Develop.) 75.320	0.679	1.800	7237.4	10947.0	107.04	2741.85
(SZB) 75.688	0.679	1.478	7237.4	10947.0	84.34	2430.39
75.692	0.679	1.475	7237.4	10947.0	84.14	2427.63
(FoS) 76.692	0.679	0.621	7237.4	10947.0	21.31	1602.80
($1.0L_s$) 77.025	0.679	0.343	7237.4	10947.0	0.00	1334.78
77.025	0.679	0.343	7237.4	10947.0	0.00	1334.78

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STLF) 77.442	0.679	0.000	7237.4	10947.0	0.00	990.81

Flexural cracking variability factor, γ_1 = 1.6
Prestress variability factor, γ_2 = 1.1
Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement,γ_3 = 1

$$M_{cr} = \gamma_3\left[\left(\gamma_1 f_r + \gamma_2 f_{cpe}\right)S_c - M_{dnc}\left(\frac{S_c}{S_{nc}} - 1\right)\right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$
f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.
S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads
S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads
M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

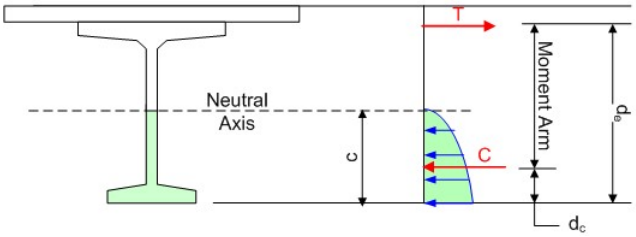
Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	1.33M_u (kip-ft)	ϕM_n Min (kip-ft)
(0.0L_s) 0.000	898.49	Strength II	-391.56	-520.77	-520.77
(STRF) 0.443	990.81	Strength II	-380.36	-505.88	-505.88
0.860	1331.16	Strength II	-369.91	-491.98	-491.98
0.860	1331.16	Strength II	-369.91	-491.98	-491.98
(FoS) 1.193	1596.28	Strength II	-342.42	-455.42	-455.42
2.193	2412.32	Strength II	-261.32	-347.55	-347.55
(SZB) 2.196	2415.04	Strength II	-261.06	-347.20	-347.20
(Bar Develop.) 2.564	2723.24	Strength II	-231.72	-308.19	-308.19
(PSXFR) 3.443	3476.15	Strength II	-162.81	-216.53	-216.53
3.485	3476.76	Strength II	-159.58	-212.24	-212.24
(Bar Develop.) 3.625	3478.85	Strength II	-148.73	-197.81	-197.81
(H) 4.693	3495.34	Strength I	74.40	98.96	98.96
(CS) 4.987	3500.07	Strength I	117.78	156.65	156.65
5.443	3507.58	Strength I	184.82	245.82	245.82
(SZB) 5.862	3514.65	Strength I	246.36	327.65	327.65
(1.5H) 6.443	3524.73	Strength I	331.11	440.37	440.37
(0.1L_s) 7.702	3547.67	Strength I	512.90	682.16	682.16
8.143	3556.04	Strength I	575.98	766.05	766.05
8.476	3562.49	Strength I	623.86	829.74	829.74
9.543	3583.82	Strength I	775.72	1031.70	1031.70
(SZB) 11.362	3622.55	Strength I	1030.23	1370.21	1370.21
12.143	3640.05	Strength I	1138.58	1514.31	1514.31
(0.2L_s) 15.405	3718.74	Strength I	1618.00	2151.94	2151.94
15.843	3729.95	Strength I	1682.97	2238.35	2238.35
16.093	3736.43	Strength I	1719.60	2287.07	2287.07
16.893	3757.47	Strength I	1834.79	2440.27	2440.27
18.843	3810.78	Strength I	2103.71	2797.93	2797.93
(SZB) 19.612	3832.58	Strength I	2207.30	2935.71	2935.71
(Deck Bar Cutoff) 21.642	3892.06	Strength I	2469.79	3284.82	3284.82
21.647	3892.20	Strength I	2470.40	3285.63	3285.63
(0.3L_s) 23.107	3936.67	Strength I	2643.32	3515.62	3515.62
23.543	3950.18	Strength I	2692.83	3581.46	3581.46
23.709	3955.38	Strength I	2711.67	3606.52	3606.52
24.243	3972.14	Strength I	2770.81	3685.17	3685.17
25.543	4013.70	Strength I	2909.43	3869.54	3869.54
(SZB) 30.612	4184.04	Strength I	3353.93	4460.73	4184.04
(0.4L_s) 30.810	4190.92	Strength I	3367.98	4479.41	4190.92
(HP) 31.242	4206.01	Strength I	3397.85	4519.14	4206.01
31.247	4206.00	Strength I	3398.19	4519.59	4206.00
31.326	4205.77	Strength I	3403.47	4526.62	4205.77
31.592	4205.02	Strength I	3421.15	4550.13	4205.02
32.242	4203.34	Strength I	3462.83	4605.57	4203.34
(0.5L_s) 38.512	4197.52	Strength I	3727.05	4956.98	4197.52
38.942	4197.81	Strength I	3735.81	4968.63	4197.81
45.642	4213.88	Strength I	3757.52	4997.50	4213.88
(0.6L_s) 46.215	4216.25	Strength I	3747.88	4984.68	4216.25
46.292	4216.58	Strength I	3746.45	4982.78	4216.58
46.559	4217.75	Strength I	3741.25	4975.86	4217.75
46.637	4218.10	Strength I	3739.62	4973.70	4218.10
(HP) 46.642	4218.13	Strength I	3739.52	4973.56	4218.13
(SZB) 47.272	4196.96	Strength I	3724.90	4954.12	4196.96
52.342	4032.17	Strength I	3506.61	4663.79	4032.17
53.642	3991.78	Strength I	3422.50	4551.92	3991.78
(0.7L_s) 53.917	3983.34	Strength I	3403.21	4526.26	3983.34
54.175	3975.47	Strength I	3385.45	4502.65	3975.47
54.342	3970.40	Strength I	3374.28	4487.80	3970.40
(SZB) 58.272	3855.57	Strength I	3053.86	4061.64	3855.57
59.042	3834.21	Strength I	2978.30	3961.14	3834.21
60.992	3781.88	Strength I	2768.54	3682.16	3682.16
(0.8L_s) 61.620	3765.60	Strength I	2695.35	3584.82	3584.82
61.792	3761.19	Strength I	2674.84	3557.53	3557.53
62.042	3754.82	Strength I	2644.62	3517.34	3517.34
65.742	3666.07	Strength I	2144.20	2851.79	2851.79
(SZB) 66.522	3648.73	Strength I	2025.90	2694.44	2694.44

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
68.342	3610.29	Strength I	1733.19	2305.14	2305.14
(0.9L_s) 69.322	3590.73	Strength I	1565.38	2081.96	2081.96
69.408	3589.06	Strength I	1550.34	2061.95	2061.95
69.742	3582.62	Strength I	1491.47	1983.66	1983.66
(1.5H) 71.442	3551.36	Strength I	1178.50	1567.41	1567.41
(SZB) 72.022	3541.27	Strength I	1066.69	1418.69	1418.69
72.442	3534.18	Strength I	984.41	1309.26	1309.26
(CS) 73.101	3523.35	Strength I	852.37	1133.65	1133.65
(H) 73.192	3521.89	Strength I	833.99	1109.21	1109.21
(Bar Develop.) 74.260	3505.30	Strength I	612.61	814.77	814.77
74.400	3503.20	Strength I	582.90	775.25	775.25
(PSXFR) 74.442	3502.58	Strength I	574.05	763.48	763.48
(Bar Develop.) 75.320	2741.85	Strength I	384.37	511.21	511.21
(SZB) 75.688	2430.39	Strength I	303.22	403.28	403.28
75.692	2427.63	Strength I	302.49	402.31	402.31
(FoS) 76.692	1602.80	Strength I	76.87	102.23	102.23
(1.0L_s) 77.025	1334.78	Strength II	0.00	0.00	0.00
77.025	1334.78	Strength II	0.00	0.00	0.00
(STLF) 77.442	990.81	Strength II	0.00	0.00	0.00

ϕM_n Min = min(M_{cr}, 1.33M_u)

Negative Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(0.0L_s) 0.000	32.938	9.455	50.990	50.990	0.002	0.750	41.535	1525.77	1525.77	-5281.09
(STRF) 0.443	16.059	5.274	51.045	51.045	0.007	0.900	45.771	1920.00	1920.00	-7323.41
0.860	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.19
0.860	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.19
(FoS) 1.193	16.059	5.274	50.964	50.964	0.007	0.900	45.691	1920.00	1920.00	-7310.48
2.193	16.059	5.274	50.859	50.859	0.007	0.900	45.586	1920.00	1920.00	-7293.71
(SZB) 2.196	16.059	5.274	50.859	50.859	0.007	0.900	45.585	1920.00	1920.00	-7293.66
(Bar Develop.) 2.564	16.059	5.273	50.821	50.821	0.006	0.900	45.548	1920.00	1920.00	-7287.62
(PSXFR) 3.443	16.059	5.273	50.732	50.732	0.006	0.900	45.459	1920.00	1920.00	-7273.47
3.485	16.059	5.273	50.728	50.728	0.006	0.900	45.455	1920.00	1920.00	-7272.81
(Bar Develop.) 3.625	16.059	5.273	50.714	50.714	0.006	0.900	45.441	1920.00	1920.00	-7270.59
(H) 4.693	16.059	5.273	50.610	50.610	0.006	0.900	45.338	1920.00	1920.00	-7254.02
(CS) 4.987	16.059	5.273	50.582	50.582	0.006	0.900	45.310	1920.00	1920.00	-7249.56
5.443	16.058	5.273	50.540	50.540	0.006	0.900	45.267	1920.00	1920.00	-7242.71
(SZB) 5.862	16.058	5.272	50.501	50.501	0.006	0.900	45.228	1920.00	1920.00	-7236.50
(1.5H) 6.443	16.058	5.272	50.448	50.448	0.006	0.900	45.175	1920.00	1920.00	-7228.04
(0.1L_s) 7.702	16.058	5.272	50.336	50.336	0.006	0.900	45.064	1920.00	1920.00	-7210.22
8.143	16.058	5.272	50.298	50.298	0.006	0.900	45.026	1920.00	1920.00	-7204.16
8.476	16.058	5.272	50.270	50.270	0.006	0.900	44.998	1920.00	1920.00	-7199.63
9.543	16.058	5.272	50.181	50.181	0.006	0.900	44.909	1920.00	1920.00	-7185.47
(SZB) 11.362	16.058	5.271	50.036	50.036	0.006	0.900	44.765	1920.00	1920.00	-7162.45
12.143	16.058	5.271	49.977	49.977	0.006	0.900	44.706	1920.00	1920.00	-7153.01
(0.2L_s) 15.405	16.057	5.270	49.747	49.747	0.006	0.900	44.477	1920.00	1920.00	-7116.29
15.843	16.057	5.270	49.718	49.718	0.006	0.900	44.448	1920.00	1920.00	-7111.69
16.093	16.057	5.270	49.702	49.702	0.006	0.900	44.432	1920.00	1920.00	-7109.11
16.893	15.607	5.187	49.651	49.651	0.007	0.900	44.464	1893.04	1893.04	-7014.41
18.843	11.860	4.381	49.534	49.534	0.010	0.900	45.154	1610.51	1610.51	-6060.05
(SZB) 19.612	10.750	4.080	49.491	49.491	0.011	0.900	45.411	1499.07	1499.07	-5672.87
(Deck Bar Cutoff) 21.642	8.256	3.244	49.383	49.383	0.015	0.900	46.139	1205.24	1205.24	-4634.09
21.647	8.250	3.242	49.383	49.383	0.015	0.900	46.141	1204.53	1204.53	-4631.55
(0.3L_s) 23.107	6.627	2.633	49.313	49.313	0.019	0.900	46.679	993.29	993.29	-3863.85
23.543	6.373	2.544	49.293	49.293	0.020	0.900	46.749	960.00	960.00	-3739.90
23.709	6.373	2.544	49.285	49.285	0.020	0.900	46.741	960.00	960.00	-3739.30
24.243	6.373	2.544	49.262	49.262	0.020	0.900	46.718	960.00	960.00	-3737.43
25.543	6.374	2.544	49.208	49.208	0.020	0.900	46.664	960.00	960.00	-3733.12
(SZB) 30.612	6.377	2.544	49.045	49.045	0.020	0.900	46.501	960.00	960.00	-3720.07
(0.4L_s) 30.810	6.378	2.544	49.040	49.040	0.020	0.900	46.496	960.00	960.00	-3719.69
(HP) 31.242	6.378	2.544	49.030	49.030	0.020	0.900	46.486	960.00	960.00	-3718.89
31.247	6.378	2.544	49.030	49.030	0.020	0.900	46.486	960.00	960.00	-3718.88
31.326	6.378	2.544	49.028	49.028	0.020	0.900	46.484	960.00	960.00	-3718.74
31.592	6.378	2.544	49.023	49.023	0.020	0.900	46.478	960.00	960.00	-3718.28
32.242	6.378	2.544	49.009	49.009	0.020	0.900	46.465	960.00	960.00	-3717.22
(0.5L_s) 38.512	6.379	2.544	48.950	48.950	0.020	0.900	46.406	960.00	960.00	-3712.47
38.942	6.379	2.544	48.950	48.950	0.020	0.900	46.406	960.00	960.00	-3712.49

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
45.642	6.378	2.544	49.027	49.027	0.020	0.900	46.483	960.00	960.00	-3718.63
($0.6L_s$) 46.215	6.378	2.544	49.040	49.040	0.020	0.900	46.496	960.00	960.00	-3719.67
46.292	6.378	2.544	49.042	49.042	0.020	0.900	46.498	960.00	960.00	-3719.82
46.559	6.377	2.544	49.048	49.048	0.020	0.900	46.504	960.00	960.00	-3720.33
46.637	6.377	2.544	49.050	49.050	0.020	0.900	46.506	960.00	960.00	-3720.49
(HP) 46.642	6.377	2.544	49.050	49.050	0.020	0.900	46.506	960.00	960.00	-3720.50
(SZB) 47.272	6.377	2.544	49.067	49.067	0.020	0.900	46.522	960.00	960.00	-3721.80
52.342	6.374	2.544	49.240	49.240	0.020	0.900	46.696	960.00	960.00	-3735.67
53.642	6.373	2.544	49.296	49.296	0.020	0.900	46.752	960.00	960.00	-3740.14
($0.7L_s$) 53.917	6.372	2.544	49.308	49.308	0.020	0.900	46.764	960.00	960.00	-3741.14
54.175	6.372	2.544	49.320	49.320	0.020	0.900	46.776	960.00	960.00	-3742.08
54.342	6.372	2.544	49.328	49.328	0.020	0.900	46.784	960.00	960.00	-3742.70
(SZB) 58.272	6.368	2.544	49.530	49.530	0.020	0.900	46.986	960.00	960.00	-3758.84
59.042	6.367	2.544	49.574	49.574	0.020	0.900	47.029	960.00	960.00	-3762.35
60.992	6.365	2.544	49.691	49.691	0.020	0.900	47.147	960.00	960.00	-3771.75
($0.8L_s$) 61.620	6.364	2.544	49.731	49.731	0.020	0.900	47.187	960.00	960.00	-3774.92
61.792	6.364	2.544	49.742	49.742	0.020	0.900	47.198	960.00	960.00	-3775.80
62.042	6.364	2.544	49.758	49.758	0.020	0.900	47.214	960.00	960.00	-3777.10
65.742	6.359	2.544	50.014	50.014	0.021	0.900	47.470	960.00	960.00	-3797.57
(SZB) 66.522	6.358	2.544	50.072	50.072	0.021	0.900	47.528	960.00	960.00	-3802.21
68.342	6.355	2.544	50.213	50.213	0.021	0.900	47.668	960.00	960.00	-3813.48
($0.9L_s$) 69.322	6.354	2.544	50.292	50.292	0.021	0.900	47.748	960.00	960.00	-3819.81
69.408	6.354	2.544	50.299	50.299	0.021	0.900	47.755	960.00	960.00	-3820.38
69.742	6.353	2.545	50.327	50.327	0.021	0.900	47.782	960.00	960.00	-3822.58
(1.5H) 71.442	6.350	2.545	50.471	50.471	0.021	0.900	47.927	960.00	960.00	-3834.14
(SZB) 72.022	6.349	2.545	50.523	50.523	0.021	0.900	47.978	960.00	960.00	-3838.23
72.442	6.348	2.545	50.560	50.560	0.021	0.900	48.015	960.00	960.00	-3841.22
(CS) 73.101	6.347	2.545	50.620	50.620	0.021	0.900	48.075	960.00	960.00	-3846.00
(H) 73.192	6.347	2.545	50.628	50.628	0.021	0.900	48.083	960.00	960.00	-3846.66
(Bar Develop.) 74.260	6.345	2.545	50.728	50.728	0.021	0.900	48.183	960.00	960.00	-3854.62
74.400	6.345	2.545	50.741	50.741	0.021	0.900	48.196	960.00	960.00	-3855.68
(PSXFR) 74.442	6.345	2.545	50.745	50.745	0.021	0.900	48.200	960.00	960.00	-3856.00
(Bar Develop.) 75.320	6.343	2.545	50.830	50.830	0.021	0.900	48.285	960.00	960.00	-3862.76
(SZB) 75.688	6.342	2.545	50.866	50.866	0.021	0.900	48.321	960.00	960.00	-3865.65
75.692	6.342	2.545	50.866	50.866	0.021	0.900	48.321	960.00	960.00	-3865.68
(FoS) 76.692	6.341	2.545	50.966	50.966	0.021	0.900	48.421	960.00	960.00	-3873.67
($1.0L_s$) 77.025	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
77.025	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
(STLF) 77.442	6.339	2.545	51.043	51.043	0.021	0.900	48.498	960.00	960.00	-3879.82

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.15(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 0.9$$

Negative Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($0.0L_s$) 0.000	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(STRF) 0.443	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
0.860	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
0.860	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(FoS) 1.193	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
2.193	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 2.196	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(Bar Develop.) 2.564	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(PSXFR) 3.443	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
3.485	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(Bar Develop.) 3.625	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(H) 4.693	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(CS) 4.987	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
5.443	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 5.862	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(1.5H) 6.443	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.1L_s$) 7.702	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
8.143	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
8.476	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
9.543	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 11.362	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
12.143	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.2L_s$) 15.405	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
15.843	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
16.093	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
16.893	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
18.843	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 19.612	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(Deck Bar Cutoff) 21.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
21.647	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.3L_s$) 23.107	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
23.543	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
23.709	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
24.243	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
25.543	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 30.612	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.4L_s$) 30.810	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(HP) 31.242	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
31.247	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
31.326	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
31.592	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
32.242	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.5L_s$) 38.512	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
38.942	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
45.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.6L_s$) 46.215	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
46.292	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
46.559	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
46.637	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(HP) 46.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 47.272	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
52.342	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
53.642	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.7L_s$) 53.917	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
54.175	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
54.342	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 58.272	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
59.042	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
60.992	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.8L_s$) 61.620	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
61.792	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
62.042	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
65.742	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 66.522	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
68.342	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($0.9L_s$) 69.322	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
69.408	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
69.742	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(1.5H) 71.442	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 72.022	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
72.442	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(CS) 73.101	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(H) 73.192	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(Bar Develop.) 74.260	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
74.400	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(PSXFR) 74.442	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(Bar Develop.) 75.320	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(SZB) 75.688	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
75.692	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(FoS) 76.692	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
($1.0L_s$) 77.025	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
77.025	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68
(STLF) 77.442	0.509	0.000	-26443.1	-26443.1	0.00	-1196.68

Flexural cracking variability factor, $\gamma_1 = 1.6$

Prestress variability factor, $\gamma_2 = 1.1$

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, $\gamma_3 = 0.67$

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

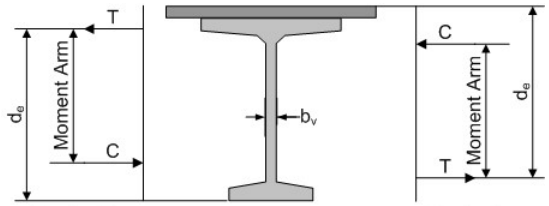
Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
($0.0L_s$) 0.000	-1196.68	Strength I	-2639.68	-3510.78	-1196.68
(STRF) 0.443	-1196.68	Strength I	-2574.38	-3423.92	-1196.68
0.860	-1196.68	Strength I	-2513.38	-3342.80	-1196.68
0.860	-1196.68	Strength I	-2513.38	-3342.80	-1196.68
(FoS) 1.193	-1196.68	Strength I	-2464.89	-3278.31	-1196.68
2.193	-1196.68	Strength I	-2321.23	-3087.23	-1196.68
(SZB) 2.196	-1196.68	Strength I	-2320.76	-3086.61	-1196.68
(Bar Develop.) 2.564	-1196.68	Strength I	-2268.58	-3017.21	-1196.68
(PSXFR) 3.443	-1196.68	Strength I	-2145.53	-2853.56	-1196.68
3.485	-1196.68	Strength I	-2139.75	-2845.87	-1196.68
(Bar Develop.) 3.625	-1196.68	Strength I	-2120.32	-2820.03	-1196.68
(H) 4.693	-1196.68	Strength I	-1901.61	-2529.14	-1196.68
(CS) 4.987	-1196.68	Strength I	-1864.65	-2479.98	-1196.68
5.443	-1196.68	Strength I	-1807.95	-2404.58	-1196.68
(SZB) 5.862	-1196.68	Strength I	-1756.40	-2336.01	-1196.68

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(1.5H) 6.443	-1196.68	Strength I	-1685.84	-2242.16	-1196.68
($0.1L_s$) 7.702	-1196.68	Strength I	-1526.09	-2029.70	-1196.68
8.143	-1196.68	Strength I	-1473.44	-1959.68	-1196.68
8.476	-1196.68	Strength I	-1433.98	-1907.20	-1196.68
9.543	-1196.68	Strength I	-1319.44	-1754.86	-1196.68
(SZB) 11.362	-1196.68	Strength I	-1169.12	-1554.93	-1196.68
12.143	-1196.68	Strength I	-1127.03	-1498.95	-1196.68
($0.2L_s$) 15.405	-1196.68	Strength I	-977.14	-1299.59	-1196.68
15.843	-1196.68	Strength I	-960.08	-1276.90	-1196.68
16.093	-1196.68	Strength I	-950.40	-1264.03	-1196.68
16.893	-1196.68	Strength I	-919.74	-1223.26	-1196.68
18.843	-1196.68	Strength I	-847.05	-1126.57	-1126.57
(SZB) 19.612	-1196.68	Strength I	-821.71	-1092.88	-1092.88
(Deck Bar Cutoff) 21.642	-1196.68	Strength I	-762.92	-1014.68	-1014.68
21.647	-1196.68	Strength I	-762.78	-1014.49	-1014.49
($0.3L_s$) 23.107	-1196.68	Strength I	-721.83	-960.04	-960.04
23.543	-1196.68	Strength I	-709.85	-944.10	-944.10
23.709	-1196.68	Strength I	-705.29	-938.04	-938.04
24.243	-1196.68	Strength I	-690.79	-918.75	-918.75
25.543	-1196.68	Strength I	-656.07	-872.57	-872.57
(SZB) 30.612	-1196.68	Strength I	-529.22	-703.86	-703.86
($0.4L_s$) 30.810	-1196.68	Strength I	-524.54	-697.64	-697.64
(HP) 31.242	-1196.68	Strength I	-514.40	-684.15	-684.15
31.247	-1196.68	Strength I	-514.28	-684.00	-684.00
31.326	-1196.68	Strength I	-512.45	-681.56	-681.56
31.592	-1196.68	Strength I	-506.26	-673.32	-673.32
32.242	-1196.68	Strength I	-491.32	-653.45	-653.45
($0.5L_s$) 38.512	-1196.68	Strength I	-358.64	-477.00	-477.00
38.942	-1196.68	Strength I	-350.31	-465.92	-465.92
45.642	-1196.68	Strength I	-233.06	-309.97	-309.97
($0.6L_s$) 46.215	-1196.68	Strength I	-224.14	-298.10	-298.10
46.292	-1196.68	Strength I	-222.95	-296.52	-296.52
46.559	-1196.68	Strength I	-218.86	-291.09	-291.09
46.637	-1196.68	Strength I	-217.67	-289.50	-289.50
(HP) 46.642	-1196.68	Strength I	-217.59	-289.40	-289.40
(SZB) 47.272	-1196.68	Strength I	-208.12	-276.80	-276.80
52.342	-1196.68	Strength I	-139.56	-185.61	-185.61
53.642	-1196.68	Strength I	-124.16	-165.14	-165.14
($0.7L_s$) 53.917	-1196.68	Strength I	-121.02	-160.95	-160.95
54.175	-1196.68	Strength I	-118.11	-157.08	-157.08
54.342	-1196.68	Strength I	-116.25	-154.61	-154.61
(SZB) 58.272	-1196.68	Strength I	-76.61	-101.89	-101.89
59.042	-1196.68	Strength I	-69.80	-92.84	-92.84
60.992	-1196.68	Strength I	-53.96	-71.77	-71.77
($0.8L_s$) 61.620	-1196.68	Strength I	-49.29	-65.55	-65.55
61.792	-1196.68	Strength I	-48.05	-63.90	-63.90
62.042	-1196.68	Strength I	-46.27	-61.53	-61.53
65.742	-1196.68	Strength I	-23.80	-31.65	-31.65
(SZB) 66.522	-1196.68	Strength I	-19.98	-26.58	-26.58
68.342	-1196.68	Strength I	-12.34	-16.41	-16.41
($0.9L_s$) 69.322	-1196.68	Strength I	-8.95	-11.90	-11.90
69.408	-1196.68	Strength I	-8.68	-11.54	-11.54
69.742	-1196.68	Strength I	-7.65	-10.18	-10.18
(1.5H) 71.442	-1196.68	Strength II	5.67	7.54	7.54
(SZB) 72.022	-1196.68	Strength II	5.85	7.78	7.78
72.442	-1196.68	Strength II	5.87	7.81	7.81
(CS) 73.101	-1196.68	Strength II	5.71	7.59	7.59
(H) 73.192	-1196.68	Strength II	5.67	7.54	7.54
(Bar Develop.) 74.260	-1196.68	Strength II	4.87	6.48	6.48
74.400	-1196.68	Strength II	4.72	6.28	6.28
(PSXFR) 74.442	-1196.68	Strength II	4.67	6.22	6.22
(Bar Develop.) 75.320	-1196.68	Strength II	3.48	4.63	4.63
(SZB) 75.688	-1196.68	Strength II	2.86	3.80	3.80
75.692	-1196.68	Strength II	2.85	3.80	3.80
(FoS) 76.692	-1196.68	Strength II	0.80	1.07	1.07
($1.0L_s$) 77.025	-1196.68	Strength II	0.00	0.00	0.00
77.025	-1196.68	Strength II	0.00	0.00	0.00
(STLF) 77.442	-1196.68	Strength II	0.00	0.00	0.00

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Shear Capacity Details

Effective Shear Dimensions for Strength I [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 4.987	7.000	50.582	51.000	45.524	36.720	45.310	45.524	Top
5.443	7.000	50.540	51.000	45.486	36.720	45.267	45.486	Top
(SZB) 5.862	7.000	50.501	51.000	45.451	36.720	45.228	45.451	Top
(1.5H) 6.443	7.000	50.448	51.000	45.403	36.720	45.175	45.403	Top
($0.1L_s$) 7.702	7.000	50.336	51.000	45.302	36.720	45.064	45.302	Top
8.143	7.000	50.298	51.000	45.268	36.720	45.026	45.268	Top
8.476	7.000	50.270	51.000	45.243	36.720	44.998	45.243	Top
9.543	7.000	50.181	51.000	45.163	36.720	44.909	45.163	Top
(SZB) 11.362	7.000	43.390	51.000	39.051	36.720	38.735	39.051	Bottom
12.143	7.000	42.174	51.000	37.957	36.720	38.834	38.834	Bottom
($0.2L_s$) 15.405	7.000	41.805	51.000	37.624	36.720	39.633	39.633	Bottom
15.843	7.000	41.942	51.000	37.748	36.720	39.770	39.770	Bottom
16.093	7.000	42.020	51.000	37.818	36.720	39.848	39.848	Bottom
16.893	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
18.843	7.000	42.885	51.000	38.597	36.720	40.708	40.708	Bottom
(SZB) 19.612	7.000	43.129	51.000	38.816	36.720	40.950	40.950	Bottom
(Deck Bar Cutoff) 21.642	7.000	43.772	51.000	39.395	36.720	41.590	41.590	Bottom
21.647	7.000	43.774	51.000	39.396	36.720	41.591	41.591	Bottom
($0.3L_s$) 23.107	7.000	44.239	51.000	39.815	36.720	42.054	42.054	Bottom
23.543	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
23.709	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
24.243	7.000	44.602	51.000	40.142	36.720	42.415	42.415	Bottom
25.543	7.000	45.018	51.000	40.517	36.720	42.830	42.830	Bottom
(SZB) 30.612	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
($0.4L_s$) 30.810	7.000	46.717	51.000	42.046	36.720	44.525	44.525	Bottom
(HP) 31.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.247	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.326	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.592	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
32.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.512	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
38.942	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
45.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.6L_s$) 46.215	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.292	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.559	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.637	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(HP) 46.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(SZB) 47.272	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
52.342	7.000	45.018	51.000	40.516	36.720	42.830	42.830	Bottom
53.642	7.000	44.601	51.000	40.141	36.720	42.415	42.415	Bottom
($0.7L_s$) 53.917	7.000	44.513	51.000	40.062	36.720	42.327	42.327	Bottom
54.175	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
54.342	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
(SZB) 58.272	7.000	43.128	51.000	38.815	36.720	40.949	40.949	Bottom
59.042	7.000	42.885	51.000	38.597	36.720	40.707	40.707	Bottom
60.992	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
($0.8L_s$) 61.620	7.000	42.074	51.000	37.866	36.720	39.900	39.900	Bottom
61.792	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
62.042	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
65.742	7.000	42.173	51.000	37.956	36.720	38.833	38.833	Bottom
(SZB) 66.522	7.000	43.390	51.000	39.051	36.720	38.734	39.051	Bottom
68.342	7.000	44.664	51.000	40.198	36.720	38.542	40.198	Bottom
($0.9L_s$) 69.322	7.000	44.601	51.000	40.141	36.720	38.462	40.141	Bottom
69.408	7.000	44.596	51.000	40.136	36.720	38.456	40.136	Bottom
69.742	7.000	44.577	51.000	40.119	36.720	38.433	40.119	Bottom
(1.5H) 71.442	7.000	46.206	51.000	41.585	36.720	38.354	41.585	Bottom
(SZB) 72.022	7.000	46.204	51.000	41.584	36.720	38.340	41.584	Bottom
72.442	7.000	46.206	51.000	41.585	36.720	38.333	41.585	Bottom
(CS) 73.101	7.000	48.100	51.000	43.290	36.720	38.330	43.290	Bottom

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength I

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 4.987	0.9	280.81	26.26	45.524	7.000	0.897
5.443	0.9	278.24	26.26	45.486	7.000	0.888
(SZB) 5.862	0.9	275.88	26.27	45.451	7.000	0.881
(1.5H) 6.443	0.9	272.61	26.28	45.403	7.000	0.870
($0.1L_s$) 7.702	0.9	265.51	26.31	45.302	7.000	0.847
8.143	0.9	263.02	26.31	45.268	7.000	0.839
8.476	0.9	261.13	26.32	45.243	7.000	0.833
9.543	0.9	255.10	26.34	45.163	7.000	0.813
(SZB) 11.362	0.9	244.76	26.37	39.051	7.000	0.898
12.143	0.9	240.29	26.39	38.834	7.000	0.885
($0.2L_s$) 15.405	0.9	221.63	26.44	39.633	7.000	0.792
15.843	0.9	219.13	26.44	39.770	7.000	0.780
16.093	0.9	217.70	26.45	39.848	7.000	0.772
16.893	0.9	213.13	26.46	40.097	7.000	0.749
18.843	0.9	201.91	26.48	40.708	7.000	0.694
(SZB) 19.612	0.9	197.47	26.49	40.950	7.000	0.673
(Deck Bar Cutoff) 21.642	0.9	185.77	26.50	41.590	7.000	0.618
21.647	0.9	185.74	26.50	41.591	7.000	0.618
($0.3L_s$) 23.107	0.9	177.33	26.51	42.054	7.000	0.579
23.543	0.9	174.83	26.51	42.192	7.000	0.568
23.709	0.9	173.88	26.51	42.245	7.000	0.564
24.243	0.9	170.81	26.51	42.415	7.000	0.550
25.543	0.9	163.31	26.51	42.830	7.000	0.517
(SZB) 30.612	0.9	134.07	26.47	44.461	7.000	0.394
($0.4L_s$) 30.810	0.9	132.94	26.46	44.525	7.000	0.389
(HP) 31.242	0.9	130.45	26.46	44.665	7.000	0.379
31.247	0.9	130.42	0.00	44.665	7.000	0.463
31.326	0.9	129.97	0.00	44.665	7.000	0.462
31.592	0.9	128.44	0.00	44.665	7.000	0.456
32.242	0.9	124.70	0.00	44.665	7.000	0.443
($0.5L_s$) 38.512	0.9	88.77	0.00	44.665	7.000	0.315
38.942	0.9	86.35	0.00	44.665	7.000	0.307
45.642	0.9	74.95	0.00	44.665	7.000	0.266
($0.6L_s$) 46.215	0.9	77.89	0.00	44.665	7.000	0.277
46.292	0.9	78.29	0.00	44.665	7.000	0.278
46.559	0.9	79.67	0.00	44.665	7.000	0.283
46.637	0.9	80.08	0.00	44.665	7.000	0.285
(HP) 46.642	0.9	80.10	26.54	44.665	7.000	0.200
(SZB) 47.272	0.9	83.37	26.56	44.461	7.000	0.212
52.342	0.9	111.00	26.65	42.830	7.000	0.323
53.642	0.9	118.29	26.66	42.415	7.000	0.353
($0.7L_s$) 53.917	0.9	119.84	26.66	42.327	7.000	0.359
54.175	0.9	121.29	26.66	42.245	7.000	0.366
54.342	0.9	122.24	26.66	42.192	7.000	0.370
(SZB) 58.272	0.9	144.61	26.67	40.949	7.000	0.468
59.042	0.9	149.03	26.67	40.707	7.000	0.488
60.992	0.9	160.34	26.66	40.097	7.000	0.540
($0.8L_s$) 61.620	0.9	164.01	26.66	39.900	7.000	0.557
61.792	0.9	165.02	26.65	39.847	7.000	0.562
62.042	0.9	166.49	26.65	39.769	7.000	0.569
65.742	0.9	188.34	26.62	38.833	7.000	0.672
(SZB) 66.522	0.9	192.99	26.61	39.051	7.000	0.687
68.342	0.9	203.91	26.58	40.198	7.000	0.711
($0.9L_s$) 69.322	0.9	209.84	26.57	40.141	7.000	0.735
69.408	0.9	210.36	26.57	40.136	7.000	0.737
69.742	0.9	212.38	26.56	40.119	7.000	0.746
(1.5H) 71.442	0.9	222.71	26.54	41.585	7.000	0.759
(SZB) 72.022	0.9	226.25	26.53	41.584	7.000	0.772
72.442	0.9	228.82	26.53	41.585	7.000	0.782
(CS) 73.101	0.9	232.86	26.52	43.290	7.000	0.766

f_{po} - Strength I

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength I

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps} + E_c A_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 4.987	1638.99	280.81	26.26	254.55	45.524	33.680	29000.000	1.860	28500.000	946.526	5011.145	0.325
5.443	1558.93	278.24	26.26	251.98	45.486	33.680	29000.000	1.876	28500.000	946.526	5011.145	0.3
(SZB) 5.862	1486.18	275.88	26.27	249.61	45.451	33.680	29000.000	1.892	28500.000	946.526	5011.145	0.276
(1.5H) 6.443	1386.70	272.61	26.28	246.33	45.403	33.680	29000.000	1.532	28500.000	946.526	5011.145	0.317
	1165.99	265.51	26.31	239.20	45.302	33.680	29000.000	1.573	28500.000	946.526	5011.145	0.246

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.1L_s$) 7.702												
8.143	1092.60	263.02	26.31	236.71	45.268	33.680	29000.000	1.190	28500.000	946.526	5011.145	0.298
8.476	1037.64	261.13	26.32	234.81	45.243	33.680	29000.000	1.198	28500.000	946.526	5011.145	0.28
9.543	874.60	255.10	26.34	228.76	45.163	33.680	29000.000	1.224	28500.000	946.526	5011.145	0.227
(SZB) 11.362	1030.23	244.76	26.37	218.39	39.051	0.400	29000.000	5.111	28500.000	365.000	5011.145	-0.217
12.143	1138.58	240.29	26.39	213.91	38.834	0.400	29000.000	5.156	28500.000	365.000	5011.145	-0.206
($0.2L_s$) 15.405	1618.00	221.63	26.44	195.20	39.633	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.23
15.843	1682.97	219.13	26.44	192.69	39.770	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.222
16.093	1719.60	217.70	26.45	191.26	39.848	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.218
16.893	1834.79	213.13	26.46	186.67	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.205
18.843	2103.71	201.91	26.48	175.43	40.708	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.175
(SZB) 19.612	2207.30	197.47	26.49	170.98	40.950	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.164
(Deck Bar Cutoff) 21.642	2469.79	185.77	26.50	159.26	41.590	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.137
21.647	2470.40	185.74	26.50	159.24	41.591	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.137
($0.3L_s$) 23.107	2643.32	177.33	26.51	150.82	42.054	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.121
23.543	2692.83	174.83	26.51	148.32	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.116
23.709	2711.67	173.88	26.51	147.37	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.115
24.243	2770.81	170.81	26.51	144.30	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.109
25.543	2909.43	163.31	26.51	136.80	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0975
(SZB) 30.612	3353.93	134.07	26.47	107.61	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0673
($0.4L_s$) 30.810	3367.98	132.94	26.46	106.47	44.525	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0666
(HP) 31.242	3397.85	130.45	26.46	104.00	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0653
31.247	3398.19	130.42	0.00	130.42	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0521
31.326	3403.47	129.97	0.00	129.97	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0516
31.592	3421.15	128.44	0.00	128.44	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.05
32.242	3462.83	124.70	0.00	124.70	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0463
($0.5L_s$) 38.512	3727.05	88.77	0.00	88.77	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0289
38.942	3735.81	86.35	0.00	86.35	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.029
45.642	3757.52	74.95	0.00	74.95	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0317
($0.6L_s$) 46.215	3747.88	77.89	0.00	77.89	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0316
46.292	3746.45	78.29	0.00	78.29	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0315
46.559	3741.25	79.67	0.00	79.67	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0316
46.637	3739.62	80.08	0.00	80.08	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0316
(HP) 46.642	3739.52	80.10	26.54	53.56	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0448
(SZB) 47.272	3724.90	83.37	26.56	56.82	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0428
52.342	3506.61	111.00	26.65	84.36	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0405
53.642	3422.50	118.29	26.66	91.63	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0439
($0.7L_s$) 53.917	3403.21	119.84	26.66	93.18	42.327	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0449
54.175	3385.45	121.29	26.66	94.63	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0457
54.342	3374.28	122.24	26.66	95.57	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0462
(SZB) 58.272	3053.86	144.61	26.67	117.94	40.949	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0673
59.042	2978.30	149.03	26.67	122.36	40.707	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0735
60.992	2768.54	160.34	26.66	133.68	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0924
($0.8L_s$) 61.620	2695.35	164.01	26.66	137.36	39.900	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0995
61.792	2674.84	165.02	26.65	138.36	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.102
62.042	2644.62	166.49	26.65	139.83	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.105
65.742	2144.20	188.34	26.62	161.73	38.833	0.400	29000.000	5.167	28500.000	365.000	5011.145	-0.0766
(SZB) 66.522	2025.90	192.99	26.61	166.38	39.051	0.400	29000.000	5.122	28500.000	365.000	5011.145	-0.0902
68.342	1733.19	203.91	26.58	177.33	40.198	0.400	29000.000	4.603	28500.000	365.000	5011.145	-0.0889
($0.9L_s$) 69.322	1565.38	209.84	26.57	183.27	40.141	0.400	29000.000	4.550	28500.000	365.000	5011.145	-0.106
69.408	1550.34	210.36	26.57	183.79	40.136	0.400	29000.000	4.545	28500.000	365.000	5011.145	-0.107
69.742	1491.47	212.38	26.56	185.82	40.119	0.400	29000.000	4.527	28500.000	365.000	5011.145	-0.114
(1.5H) 71.442	1178.50	222.71	26.54	196.17	41.585	0.400	29000.000	4.048	28500.000	365.000	5011.145	-0.117
(SZB) 72.022	1066.69	226.25	26.53	199.72	41.584	0.400	29000.000	3.641	28500.000	365.000	5011.145	-0.0929
72.442	984.41	228.82	26.53	202.29	41.585	0.400	29000.000	3.626	28500.000	365.000	5011.145	-0.102
(CS) 73.101	852.37	232.86	26.52	206.34	43.290	0.400	29000.000	3.603	28500.000	365.000	5011.145	-0.123

Shear Parameter Summary - Strength I [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 4.987	Yes	1	---	---	0.112	0.325	3.86	30.14
5.443	Yes	1	---	---	0.111	0.3	3.92	30.05
(SZB) 5.862	Yes	1	---	---	0.11	0.276	3.98	29.97
(1.5H) 6.443	Yes	1	---	---	0.109	0.317	3.88	30.11
($0.1L_s$) 7.702	Yes	1	---	---	0.106	0.246	4.05	29.86
8.143	Yes	1	---	---	0.105	0.298	3.92	30.04
8.476	Yes	1	---	---	0.104	0.28	3.97	29.98
9.543	Yes	1	---	---	0.102	0.227	4.1	29.80
(SZB) 11.362	Yes	1	---	---	0.112	-0.217	5.73	28.24
12.143	Yes	1	---	---	0.111	-0.206	5.68	28.28
($0.2L_s$) 15.405	Yes	1	---	---	0.099	-0.23	5.8	28.19

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
15.843	Yes	1	---	---	0.0975	-0.222	5.76	28.22
16.093	Yes	1	---	---	0.0965	-0.218	5.74	28.24
16.893	Yes	1	---	---	0.0937	-0.205	5.67	28.28
18.843	Yes	1	---	---	0.0868	-0.175	5.53	28.39
(SZB) 19.612	Yes	1	---	---	0.0841	-0.164	5.47	28.43
(Deck Bar Cutoff) 21.642	Yes	1	---	---	0.0772	-0.137	5.35	28.52
21.647	Yes	1	---	---	0.0772	-0.137	5.35	28.52
($0.3L_s$) 23.107	Yes	1	---	---	0.0724	-0.121	5.28	28.58
23.543	Yes	1	---	---	0.071	-0.116	5.26	28.59
23.709	Yes	1	---	---	0.0705	-0.115	5.25	28.60
24.243	Yes	1	---	---	0.0687	-0.109	5.23	28.62
25.543	Yes	1	---	---	0.0646	-0.0975	5.18	28.66
(SZB) 30.612	Yes	1	---	---	0.0492	-0.0673	5.06	28.76
($0.4L_s$) 30.810	Yes	1	---	---	0.0486	-0.0666	5.05	28.77
(HP) 31.242	Yes	1	---	---	0.0474	-0.0653	5.05	28.77
31.247	Yes	1	---	---	0.0579	-0.0521	5	28.82
31.326	Yes	1	---	---	0.0577	-0.0516	4.99	28.82
31.592	Yes	1	---	---	0.0571	-0.05	4.99	28.82
32.242	Yes	1	---	---	0.0554	-0.0463	4.97	28.84
($0.5L_s$) 38.512	Yes	1	---	---	0.0394	-0.0289	4.91	28.90
38.942	Yes	1	---	---	0.0384	-0.029	4.91	28.90
45.642	Yes	1	---	---	0.0333	-0.0317	4.92	28.89
($0.6L_s$) 46.215	Yes	1	---	---	0.0346	-0.0316	4.92	28.89
46.292	Yes	1	---	---	0.0348	-0.0315	4.92	28.89
46.559	Yes	1	---	---	0.0354	-0.0316	4.92	28.89
46.637	Yes	1	---	---	0.0356	-0.0316	4.92	28.89
(HP) 46.642	Yes	1	---	---	0.025	-0.0448	4.97	28.84
(SZB) 47.272	Yes	1	---	---	0.0265	-0.0428	4.96	28.85
52.342	Yes	1	---	---	0.0403	-0.0405	4.95	28.86
53.642	Yes	1	---	---	0.0441	-0.0439	4.96	28.85
($0.7L_s$) 53.917	Yes	1	---	---	0.0449	-0.0449	4.97	28.84
54.175	Yes	1	---	---	0.0457	-0.0457	4.97	28.84
54.342	Yes	1	---	---	0.0462	-0.0462	4.97	28.84
(SZB) 58.272	Yes	1	---	---	0.0584	-0.0673	5.06	28.76
59.042	Yes	1	---	---	0.0609	-0.0735	5.08	28.74
60.992	Yes	1	---	---	0.0675	-0.0924	5.16	28.68
($0.8L_s$) 61.620	Yes	1	---	---	0.0696	-0.0995	5.19	28.65
61.792	Yes	1	---	---	0.0702	-0.102	5.2	28.64
62.042	Yes	1	---	---	0.0711	-0.105	5.21	28.63
65.742	Yes	1	---	---	0.084	-0.0766	5.09	28.73
(SZB) 66.522	Yes	1	---	---	0.0859	-0.0902	5.15	28.68
68.342	Yes	1	---	---	0.0888	-0.0889	5.14	28.69
($0.9L_s$) 69.322	Yes	1	---	---	0.0919	-0.106	5.21	28.63
69.408	Yes	1	---	---	0.0922	-0.107	5.22	28.62
69.742	Yes	1	---	---	0.0932	-0.114	5.25	28.60
(1.5H) 71.442	Yes	1	---	---	0.0949	-0.117	5.26	28.59
(SZB) 72.022	Yes	1	---	---	0.0966	-0.0929	5.16	28.67
72.442	Yes	1	---	---	0.0978	-0.102	5.2	28.64
(CS) 73.101	Yes	1	---	---	0.0958	-0.123	5.29	28.57

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength I

$$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 4.987	3.86	8.000	-	7.000	45.524	109.89
5.443	3.92	8.000	-	7.000	45.486	111.54
(SZB) 5.862	3.98	8.000	-	7.000	45.451	113.09
(1.5H) 6.443	3.88	8.000	-	7.000	45.403	110.17
($0.1L_s$) 7.702	4.05	8.000	-	7.000	45.302	114.89
8.143	3.92	8.000	-	7.000	45.268	111.10
8.476	3.97	8.000	-	7.000	45.243	112.25
9.543	4.1	8.000	-	7.000	45.163	115.88
(SZB) 11.362	5.73	8.000	-	7.000	39.051	140.07
12.143	5.68	8.000	-	7.000	38.834	137.89
($0.2L_s$) 15.405	5.8	8.000	-	7.000	39.633	143.84
15.843	5.76	8.000	-	7.000	39.770	143.34
16.093	5.74	8.000	-	7.000	39.848	143.07
16.893	5.67	8.000	-	7.000	40.097	142.28
18.843	5.53	8.000	-	7.000	40.708	140.74
(SZB) 19.612	5.47	8.000	-	7.000	40.950	140.24
(Deck Bar Cutoff) 21.642	5.35	8.000	-	7.000	41.590	139.24
21.647	5.35	8.000	-	7.000	41.591	139.23
($0.3L_s$) 23.107	5.28	8.000	-	7.000	42.054	138.87
23.543	5.26	8.000	-	7.000	42.192	138.81
23.709	5.25	8.000	-	7.000	42.245	138.79
24.243	5.23	8.000	-	7.000	42.415	138.75
25.543	5.18	8.000	-	7.000	42.830	138.77
(SZB) 30.612	5.06	8.000	-	7.000	44.461	140.62
	5.05	8.000	-	7.000	44.525	140.75

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(0.4L_s) 30.810						
(HP) 31.242	5.05	8.000	-	7.000	44.665	141.04
31.247	5	8.000	-	7.000	44.665	139.59
31.326	4.99	8.000	-	7.000	44.665	139.54
31.592	4.99	8.000	-	7.000	44.665	139.37
32.242	4.97	8.000	-	7.000	44.665	138.96
(0.5L_s) 38.512	4.91	8.000	-	7.000	44.665	137.11
38.942	4.91	8.000	-	7.000	44.665	137.11
45.642	4.92	8.000	-	7.000	44.665	137.40
(0.6L_s) 46.215	4.92	8.000	-	7.000	44.665	137.39
46.292	4.92	8.000	-	7.000	44.665	137.39
46.559	4.92	8.000	-	7.000	44.665	137.39
46.637	4.92	8.000	-	7.000	44.665	137.39
(HP) 46.642	4.97	8.000	-	7.000	44.665	138.79
(SZB) 47.272	4.96	8.000	-	7.000	44.461	137.95
52.342	4.95	8.000	-	7.000	42.830	132.65
53.642	4.96	8.000	-	7.000	42.415	131.72
(0.7L_s) 53.917	4.97	8.000	-	7.000	42.327	131.54
54.175	4.97	8.000	-	7.000	42.245	131.37
54.342	4.97	8.000	-	7.000	42.192	131.26
(SZB) 58.272	5.06	8.000	-	7.000	40.949	129.51
59.042	5.08	8.000	-	7.000	40.707	129.38
60.992	5.16	8.000	-	7.000	40.097	129.38
(0.8L_s) 61.620	5.19	8.000	-	7.000	39.900	129.49
61.792	5.2	8.000	-	7.000	39.847	129.53
62.042	5.21	8.000	-	7.000	39.769	129.59
65.742	5.09	8.000	-	7.000	38.833	123.73
(SZB) 66.522	5.15	8.000	-	7.000	39.051	125.78
68.342	5.14	8.000	-	7.000	40.198	129.34
(0.9L_s) 69.322	5.21	8.000	-	7.000	40.141	130.95
69.408	5.22	8.000	-	7.000	40.136	131.10
69.742	5.25	8.000	-	7.000	40.119	131.70
(1.5H) 71.442	5.26	8.000	-	7.000	41.585	136.90
(SZB) 72.022	5.16	8.000	-	7.000	41.584	134.23
72.442	5.2	8.000	-	7.000	41.585	135.26
(CS) 73.101	5.29	8.000	-	7.000	43.290	143.18

Shear Resistance Provided By Shear Reinforcement - Strength I

$$V_s = \frac{A_v f_y d_v (\cot\theta + \cot\alpha)\sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 4.987	60.000	0.400	4.000	1.200	45.524	30.14	90.00	470.46
5.443	60.000	0.400	4.000	1.200	45.486	30.05	90.00	471.78
(SZB) 5.862	60.000	0.400	6.000	0.800	45.451	29.97	90.00	315.33
(1.5H) 6.443	60.000	0.400	6.000	0.800	45.403	30.11	90.00	313.19
(0.1L_s) 7.702	60.000	0.400	6.000	0.800	45.302	29.86	90.00	315.65
8.143	60.000	0.400	6.000	0.800	45.268	30.04	90.00	313.08
8.476	60.000	0.400	6.000	0.800	45.243	29.98	90.00	313.68
9.543	60.000	0.400	6.000	0.800	45.163	29.80	90.00	315.49
(SZB) 11.362	60.000	0.400	9.000	0.533	39.051	28.24	90.00	193.88
12.143	60.000	0.400	9.000	0.533	38.834	28.28	90.00	192.48
(0.2L_s) 15.405	60.000	0.400	9.000	0.533	39.633	28.19	90.00	197.15
15.843	60.000	0.400	9.000	0.533	39.770	28.22	90.00	197.61
16.093	60.000	0.400	9.000	0.533	39.848	28.24	90.00	197.87
16.893	60.000	0.400	9.000	0.533	40.097	28.28	90.00	198.72
18.843	60.000	0.400	9.000	0.533	40.708	28.39	90.00	200.88
(SZB) 19.612	60.000	0.400	12.000	0.400	40.950	28.43	90.00	151.31
(Deck Bar Cutoff) 21.642	60.000	0.400	12.000	0.400	41.590	28.52	90.00	153.07
21.647	60.000	0.400	12.000	0.400	41.591	28.52	90.00	153.08
(0.3L_s) 23.107	60.000	0.400	12.000	0.400	42.054	28.58	90.00	154.41
23.543	60.000	0.400	12.000	0.400	42.192	28.59	90.00	154.82
23.709	60.000	0.400	12.000	0.400	42.245	28.60	90.00	154.97
24.243	60.000	0.400	12.000	0.400	42.415	28.62	90.00	155.48
25.543	60.000	0.400	12.000	0.400	42.830	28.66	90.00	156.73
(SZB) 30.612	60.000	0.400	18.000	0.267	44.461	28.76	90.00	107.99
(0.4L_s) 30.810	60.000	0.400	18.000	0.267	44.525	28.77	90.00	108.14
(HP) 31.242	60.000	0.400	18.000	0.267	44.665	28.77	90.00	108.46
31.247	60.000	0.400	18.000	0.267	44.665	28.82	90.00	108.25
31.326	60.000	0.400	18.000	0.267	44.665	28.82	90.00	108.24
31.592	60.000	0.400	18.000	0.267	44.665	28.82	90.00	108.22
32.242	60.000	0.400	18.000	0.267	44.665	28.84	90.00	108.16
(0.5L_s) 38.512	60.000	0.400	18.000	0.267	44.665	28.90	90.00	107.89
38.942	60.000	0.400	18.000	0.267	44.665	28.90	90.00	107.89
45.642	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.93
(0.6L_s) 46.215	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.93
46.292	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.93
46.559	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.93
46.637	60.000	0.400	18.000	0.267	44.665	28.89	90.00	107.93
(HP) 46.642	60.000	0.400	18.000	0.267	44.665	28.84	90.00	108.13

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(SZB) 47.272	60.000	0.400	18.000	0.267	44.461	28.85	90.00	107.61
52.342	60.000	0.400	12.000	0.400	42.830	28.86	90.00	155.44
53.642	60.000	0.400	12.000	0.400	42.415	28.85	90.00	154.01
($0.7L_s$) 53.917	60.000	0.400	12.000	0.400	42.327	28.84	90.00	153.71
54.175	60.000	0.400	12.000	0.400	42.245	28.84	90.00	153.43
54.342	60.000	0.400	12.000	0.400	42.192	28.84	90.00	153.25
(SZB) 58.272	60.000	0.400	12.000	0.400	40.949	28.76	90.00	149.19
59.042	60.000	0.400	9.000	0.533	40.707	28.74	90.00	197.92
60.992	60.000	0.400	9.000	0.533	40.097	28.68	90.00	195.49
($0.8L_s$) 61.620	60.000	0.400	9.000	0.533	39.900	28.65	90.00	194.74
61.792	60.000	0.400	9.000	0.533	39.847	28.64	90.00	194.53
62.042	60.000	0.400	9.000	0.533	39.769	28.63	90.00	194.24
65.742	60.000	0.400	9.000	0.533	38.833	28.73	90.00	188.90
(SZB) 66.522	60.000	0.400	9.000	0.533	39.051	28.68	90.00	190.33
68.342	60.000	0.400	6.000	0.800	40.198	28.69	90.00	293.83
($0.9L_s$) 69.322	60.000	0.400	6.000	0.800	40.141	28.63	90.00	294.14
69.408	60.000	0.400	6.000	0.800	40.136	28.62	90.00	294.17
69.742	60.000	0.400	6.000	0.800	40.119	28.60	90.00	294.30
(1.5H) 71.442	60.000	0.400	6.000	0.800	41.585	28.59	90.00	305.21
(SZB) 72.022	60.000	0.400	6.000	0.800	41.584	28.67	90.00	304.14
72.442	60.000	0.400	4.000	1.200	41.585	28.64	90.00	456.84
(CS) 73.101	60.000	0.400	4.000	1.200	43.290	28.57	90.00	476.98

Nominal Shear Resistance - Strength I

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	$V_{n1}$$ (kip)	V_{n2}# (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 4.987	8.000	7.000	45.524	26.26	109.89	470.46	606.61	663.60	606.61	0.9	545.95
5.443	8.000	7.000	45.486	26.26	111.54	471.78	609.58	663.06	609.58	0.9	548.62
(SZB) 5.862	8.000	7.000	45.451	26.27	113.09	315.33	454.69	662.58	454.69	0.9	409.22
(1.5H) 6.443	8.000	7.000	45.403	26.28	110.17	313.19	449.64	661.92	449.64	0.9	404.68
($0.1L_s$) 7.702	8.000	7.000	45.302	26.31	114.89	315.65	456.85	660.54	456.85	0.9	411.17
8.143	8.000	7.000	45.268	26.31	111.10	313.08	450.49	660.07	450.49	0.9	405.44
8.476	8.000	7.000	45.243	26.32	112.25	313.68	452.25	659.72	452.25	0.9	407.03
9.543	8.000	7.000	45.163	26.34	115.88	315.49	457.71	658.62	457.71	0.9	411.94
(SZB) 11.362	8.000	7.000	39.051	26.37	140.07	193.88	360.32	573.09	360.32	0.9	324.29
12.143	8.000	7.000	38.834	26.39	137.89	192.48	356.76	570.05	356.76	0.9	321.09
($0.2L_s$) 15.405	8.000	7.000	39.633	26.44	143.84	197.15	367.43	581.31	367.43	0.9	330.69
15.843	8.000	7.000	39.770	26.44	143.34	197.61	367.39	583.22	367.39	0.9	330.65
16.093	8.000	7.000	39.848	26.45	143.07	197.87	367.39	584.31	367.39	0.9	330.65
16.893	8.000	7.000	40.097	26.46	142.28	198.72	367.46	587.82	367.46	0.9	330.71
18.843	8.000	7.000	40.708	26.48	140.74	200.88	368.10	596.39	368.10	0.9	331.29
(SZB) 19.612	8.000	7.000	40.950	26.49	140.24	151.31	318.04	599.78	318.04	0.9	286.23
(Deck Bar Cutoff) 21.642	8.000	7.000	41.590	26.50	139.24	153.07	318.81	608.76	318.81	0.9	286.93
21.647	8.000	7.000	41.591	26.50	139.23	153.08	318.81	608.78	318.81	0.9	286.93
($0.3L_s$) 23.107	8.000	7.000	42.054	26.51	138.87	154.41	319.79	615.26	319.79	0.9	287.82
23.543	8.000	7.000	42.192	26.51	138.81	154.82	320.14	617.20	320.14	0.9	288.13
23.709	8.000	7.000	42.245	26.51	138.79	154.97	320.28	617.94	320.28	0.9	288.25
24.243	8.000	7.000	42.415	26.51	138.75	155.48	320.74	620.32	320.74	0.9	288.67
25.543	8.000	7.000	42.830	26.51	138.77	156.73	322.02	626.13	322.02	0.9	289.81
(SZB) 30.612	8.000	7.000	44.461	26.47	140.62	107.99	275.08	648.93	275.08	0.9	247.57
($0.4L_s$) 30.810	8.000	7.000	44.525	26.46	140.75	108.14	275.35	649.82	275.35	0.9	247.81
(HP) 31.242	8.000	7.000	44.665	26.46	141.04	108.46	275.95	651.77	275.95	0.9	248.36
31.247	8.000	7.000	44.665	0.00	139.59	108.25	247.84	625.31	247.84	0.9	223.06
31.326	8.000	7.000	44.665	0.00	139.54	108.24	247.78	625.31	247.78	0.9	223.00
31.592	8.000	7.000	44.665	0.00	139.37	108.22	247.58	625.31	247.58	0.9	222.82
32.242	8.000	7.000	44.665	0.00	138.96	108.16	247.12	625.31	247.12	0.9	222.41
($0.5L_s$) 38.512	8.000	7.000	44.665	0.00	137.11	107.89	245.00	625.31	245.00	0.9	220.50
38.942	8.000	7.000	44.665	0.00	137.11	107.89	245.00	625.31	245.00	0.9	220.50
45.642	8.000	7.000	44.665	0.00	137.40	107.93	245.34	625.31	245.34	0.9	220.80
($0.6L_s$) 46.215	8.000	7.000	44.665	0.00	137.39	107.93	245.31	625.31	245.31	0.9	220.78
46.292	8.000	7.000	44.665	0.00	137.39	107.93	245.31	625.31	245.31	0.9	220.78
46.559	8.000	7.000	44.665	0.00	137.39	107.93	245.31	625.31	245.31	0.9	220.78
46.637	8.000	7.000	44.665	0.00	137.39	107.93	245.32	625.31	245.32	0.9	220.78
(HP) 46.642	8.000	7.000	44.665	26.54	138.79	108.13	273.47	651.85	273.47	0.9	246.12
(SZB) 47.272	8.000	7.000	44.461	26.56	137.95	107.61	272.12	649.02	272.12	0.9	244.91
52.342	8.000	7.000	42.830	26.65	132.65	155.44	314.74	626.27	314.74	0.9	283.26
53.642	8.000	7.000	42.415	26.66	131.72	154.01	312.38	620.47	312.38	0.9	281.15
($0.7L_s$) 53.917	8.000	7.000	42.327	26.66	131.54	153.71	311.91	619.24	311.91	0.9	280.72
54.175	8.000	7.000	42.245	26.66	131.37	153.43	311.47	618.09	311.47	0.9	280.32
54.342	8.000	7.000	42.192	26.66	131.26	153.25	311.17	617.35	311.17	0.9	280.06
(SZB) 58.272	8.000	7.000	40.949	26.67	129.51	149.19	305.37	599.96	305.37	0.9	274.84
59.042	8.000	7.000	40.707	26.67	129.38	197.92	353.98	596.57	353.98	0.9	318.58
60.992	8.000	7.000	40.097	26.66	129.38	195.49	351.53	588.01	351.53	0.9	316.38
($0.8L_s$) 61.620	8.000	7.000	39.900	26.66	129.49	194.74	350.88	585.26	350.88	0.9	315.79
61.792	8.000	7.000	39.847	26.65	129.53	194.53	350.71	584.51	350.71	0.9	315.64
62.042	8.000	7.000	39.769	26.65	129.59	194.24	350.48	583.42	350.48	0.9	315.43
65.742	8.000	7.000	38.833	26.62	123.73	188.90	339.24	570.27	339.24	0.9	305.32
(SZB) 66.522	8.000	7.000	39.051	26.61	125.78	190.33	342.72	573.32	342.72	0.9	308.45
68.342	8.000	7.000	40.198	26.58	129.34	293.83	449.76	589.36	449.76	0.9	404.78
($0.9L_s$) 69.322	8.000	7.000	40.141	26.57	130.95	294.14	451.66	588.54	451.66	0.9	406.49

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
69.408	8.000	7.000	40.136	26.57	131.10	294.17	451.84	588.48	451.84	0.9	406.65
69.742	8.000	7.000	40.119	26.56	131.70	294.30	452.57	588.23	452.57	0.9	407.31
(1.5H) 71.442	8.000	7.000	41.585	26.54	136.90	305.21	468.65	608.73	468.65	0.9	421.79
(SZB) 72.022	8.000	7.000	41.584	26.53	134.23	304.14	464.90	608.71	464.90	0.9	418.41
72.442	8.000	7.000	41.585	26.53	135.26	456.84	618.63	608.72	608.72	0.9	547.85
(CS) 73.101	8.000	7.000	43.290	26.52	143.18	476.98	646.67	632.58	632.58	0.9	569.32

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength I

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

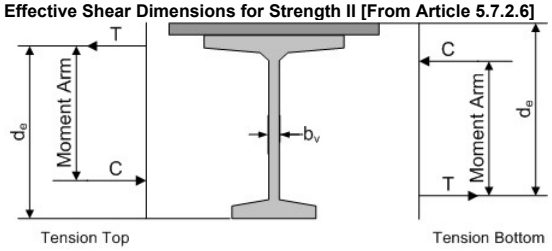
Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_V/S (in^2/ft)
(CS) 4.987	312.01	109.89	26.26	175.86	60.000	45.524	30.14	0.449
5.443	309.16	111.54	26.26	171.36	60.000	45.486	30.05	0.436
(SZB) 5.862	306.54	113.09	26.27	167.17	60.000	45.451	29.97	0.424
(1.5H) 6.443	302.90	110.17	26.28	166.44	60.000	45.403	30.11	0.425
($0.1L_s$) 7.702	295.01	114.89	26.31	153.81	60.000	45.302	29.86	0.390
8.143	292.24	111.10	26.31	154.83	60.000	45.268	30.04	0.396
8.476	290.15	112.25	26.32	151.58	60.000	45.243	29.98	0.387
9.543	283.44	115.88	26.34	141.22	60.000	45.163	29.80	0.358
(SZB) 11.362	271.95	140.07	26.37	105.51	60.000	39.051	28.24	0.290
12.143	266.99	137.89	26.39	102.71	60.000	38.834	28.28	0.285
($0.2L_s$) 15.405	246.26	143.84	26.44	75.98	60.000	39.633	28.19	0.206
15.843	243.48	143.34	26.44	73.70	60.000	39.770	28.22	0.199
16.093	241.89	143.07	26.45	72.38	60.000	39.848	28.24	0.195
16.893	236.81	142.28	26.46	68.07	60.000	40.097	28.28	0.183
18.843	224.35	140.74	26.48	57.13	60.000	40.708	28.39	0.152
(SZB) 19.612	219.41	140.24	26.49	52.69	60.000	40.950	28.43	0.139
(Deck Bar Cutoff) 21.642	206.41	139.24	26.50	40.67	60.000	41.590	28.52	0.106
21.647	206.38	139.23	26.50	40.64	60.000	41.591	28.52	0.106
($0.3L_s$) 23.107	197.04	138.87	26.51	31.65	60.000	42.054	28.58	0.082
23.543	194.26	138.81	26.51	28.94	60.000	42.192	28.59	0.075
23.709	193.20	138.79	26.51	27.89	60.000	42.245	28.60	0.072
24.243	189.79	138.75	26.51	24.53	60.000	42.415	28.62	0.063
25.543	181.45	138.77	26.51	16.17	60.000	42.830	28.66	0.041
(SZB) 30.612	148.97	140.62	26.47	0.00	60.000	44.461	28.76	0.000
($0.4L_s$) 30.810	147.71	140.75	26.46	0.00	60.000	44.525	28.77	0.000
(HP) 31.242	144.95	141.04	26.46	0.00	60.000	44.665	28.77	0.000
31.247	144.92	139.59	0.00	5.32	60.000	44.665	28.82	0.013
31.326	144.42	139.54	0.00	4.88	60.000	44.665	28.82	0.012
31.592	142.72	139.37	0.00	3.35	60.000	44.665	28.82	0.008
32.242	138.56	138.96	0.00	0.00	60.000	44.665	28.84	0.000
($0.5L_s$) 38.512	98.63	137.11	0.00	0.00	60.000	44.665	28.90	0.000
38.942	95.95	137.11	0.00	0.00	60.000	44.665	28.90	0.000
45.642	83.28	137.40	0.00	0.00	60.000	44.665	28.89	0.000
($0.6L_s$) 46.215	86.55	137.39	0.00	0.00	60.000	44.665	28.89	0.000
46.292	86.99	137.39	0.00	0.00	60.000	44.665	28.89	0.000
46.559	88.52	137.39	0.00	0.00	60.000	44.665	28.89	0.000
46.637	88.97	137.39	0.00	0.00	60.000	44.665	28.89	0.000
(HP) 46.642	89.00	138.79	26.54	0.00	60.000	44.665	28.84	0.000
(SZB) 47.272	92.64	137.95	26.56	0.00	60.000	44.461	28.85	0.000
52.342	123.34	132.65	26.65	0.00	60.000	42.830	28.86	0.000
53.642	131.43	131.72	26.66	0.00	60.000	42.415	28.85	0.000
($0.7L_s$) 53.917	133.15	131.54	26.66	0.00	60.000	42.327	28.84	0.000
54.175	134.77	131.37	26.66	0.00	60.000	42.245	28.84	0.000
54.342	135.82	131.26	26.66	0.00	60.000	42.192	28.84	0.000
(SZB) 58.272	160.68	129.51	26.67	4.50	60.000	40.949	28.76	0.012
59.042	165.59	129.38	26.67	9.54	60.000	40.707	28.74	0.026
60.992	178.15	129.38	26.66	22.11	60.000	40.097	28.68	0.060
($0.8L_s$) 61.620	182.23	129.49	26.66	26.09	60.000	39.900	28.65	0.071
61.792	183.35	129.53	26.65	27.17	60.000	39.847	28.64	0.074
62.042	184.99	129.59	26.65	28.74	60.000	39.769	28.63	0.079
65.742	209.27	123.73	26.62	58.92	60.000	38.833	28.73	0.166
(SZB) 66.522	214.43	125.78	26.61	62.04	60.000	39.051	28.68	0.174
68.342	226.57	129.34	26.58	70.64	60.000	40.198	28.69	0.192
($0.9L_s$) 69.322	233.16	130.95	26.57	75.64	60.000	40.141	28.63	0.206
69.408	233.74	131.10	26.57	76.07	60.000	40.136	28.62	0.207
69.742	235.98	131.70	26.56	77.72	60.000	40.119	28.60	0.211
(1.5H) 71.442	247.46	136.90	26.54	84.02	60.000	41.585	28.59	0.220
(SZB) 72.022	251.39	134.23	26.53	90.63	60.000	41.584	28.67	0.238
72.442	254.24	135.26	26.53	92.45	60.000	41.585	28.64	0.243
(CS) 73.101	258.73	143.18	26.52	89.04	60.000	43.290	28.57	0.224

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength I

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 4.987	1.200	0.449	5.885	10.701	16.586
5.443	1.200	0.436	6.057	11.013	17.070
(SZB) 5.862	0.800	0.424	6.225	11.317	17.542
(1.5H) 6.443	0.800	0.425	6.209	11.290	17.499
($0.1L_s$) 7.702	0.800	0.390	6.772	12.313	19.085
8.143	0.800	0.396	6.673	12.132	18.805
8.476	0.800	0.387	6.829	12.417	19.246
9.543	0.800	0.358	7.372	13.404	20.777
(SZB) 11.362	0.533	0.290	9.096	16.538	25.634
12.143	0.533	0.285	9.276	16.866	26.142
($0.2L_s$) 15.405	0.533	0.206	12.844	23.353	36.197
15.843	0.533	0.199	13.273	24.132	37.405
16.093	0.533	0.195	13.533	24.605	38.138
16.893	0.533	0.183	14.450	26.273	40.723
18.843	0.533	0.152	17.406	31.647	49.053
(SZB) 19.612	0.400	0.139	18.955	34.463	53.418
(Deck Bar Cutoff) 21.642	0.400	0.106	24.842	45.167	70.009
21.647	0.400	0.106	24.861	45.202	70.062
($0.3L_s$) 23.107	0.400	0.082	32.196	58.538	90.733
23.543	0.400	0.075	35.313	64.206	99.519
23.709	0.400	0.072	36.673	66.677	103.350
24.243	0.400	0.063	41.837	76.068	117.905
25.543	0.400	0.041	63.976	116.321	180.297
(SZB) 30.612	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.810	0.267	0.000	N/A	N/A	N/A
(HP) 31.242	0.267	0.000	N/A	N/A	N/A
31.247	0.267	0.013	201.262	365.931	567.193
31.326	0.267	0.012	219.715	399.481	619.196
31.592	0.267	0.008	319.697	581.268	900.965
32.242	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.512	0.267	0.000	N/A	N/A	N/A
38.942	0.267	0.000	N/A	N/A	N/A
45.642	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.215	0.267	0.000	N/A	N/A	N/A
46.292	0.267	0.000	N/A	N/A	N/A
46.559	0.267	0.000	N/A	N/A	N/A
46.637	0.267	0.000	N/A	N/A	N/A
(HP) 46.642	0.267	0.000	N/A	N/A	N/A
(SZB) 47.272	0.267	0.000	N/A	N/A	N/A
52.342	0.400	0.000	N/A	N/A	N/A
53.642	0.400	0.000	N/A	N/A	N/A
($0.7L_s$) 53.917	0.400	0.000	N/A	N/A	N/A
54.175	0.400	0.000	N/A	N/A	N/A
54.342	0.400	0.000	N/A	N/A	N/A
(SZB) 58.272	0.400	0.012	218.947	398.086	617.033
59.042	0.533	0.026	102.699	186.725	289.424
60.992	0.533	0.060	43.767	79.576	123.342
($0.8L_s$) 61.620	0.533	0.071	36.947	67.176	104.124
61.792	0.533	0.074	35.438	64.432	99.870
62.042	0.533	0.079	33.453	60.824	94.278
65.742	0.533	0.166	15.868	28.852	44.720
(SZB) 66.522	0.533	0.174	15.185	27.610	42.795
68.342	0.800	0.192	13.726	24.956	38.682
($0.9L_s$) 69.322	0.800	0.206	12.833	23.333	36.166
69.408	0.800	0.207	12.762	23.204	35.966
69.742	0.800	0.211	12.497	22.721	35.218
(1.5H) 71.442	0.800	0.220	11.988	21.796	33.784
(SZB) 72.022	0.800	0.238	11.074	20.135	31.210
72.442	1.200	0.243	10.871	19.766	30.638
(CS) 73.101	1.200	0.224	11.786	21.429	33.215

Effective Shear Dimensions for Strength II [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 4.987	7.000	50.582	51.000	45.524	36.720	45.310	45.524	Top
5.443	7.000	50.540	51.000	45.486	36.720	45.267	45.486	Top

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(SZB) 5.862	7.000	50.501	51.000	45.451	36.720	45.228	45.451	Top
(1.5H) 6.443	7.000	50.448	51.000	45.403	36.720	45.175	45.403	Top
($0.1L_s$) 7.702	7.000	50.336	51.000	45.302	36.720	45.064	45.302	Top
8.143	7.000	50.298	51.000	45.268	36.720	45.026	45.268	Top
8.476	7.000	50.270	51.000	45.243	36.720	44.998	45.243	Top
9.543	7.000	50.181	51.000	45.163	36.720	44.909	45.163	Top
(SZB) 11.362	7.000	43.390	51.000	39.051	36.720	38.735	39.051	Bottom
12.143	7.000	42.174	51.000	37.957	36.720	38.834	38.834	Bottom
($0.2L_s$) 15.405	7.000	41.805	51.000	37.624	36.720	39.633	39.633	Bottom
15.843	7.000	41.942	51.000	37.748	36.720	39.770	39.770	Bottom
16.093	7.000	42.020	51.000	37.818	36.720	39.848	39.848	Bottom
16.893	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
18.843	7.000	42.885	51.000	38.597	36.720	40.708	40.708	Bottom
(SZB) 19.612	7.000	43.129	51.000	38.816	36.720	40.950	40.950	Bottom
(Deck Bar Cutoff) 21.642	7.000	43.772	51.000	39.395	36.720	41.590	41.590	Bottom
21.647	7.000	43.774	51.000	39.396	36.720	41.591	41.591	Bottom
($0.3L_s$) 23.107	7.000	44.239	51.000	39.815	36.720	42.054	42.054	Bottom
23.543	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
23.709	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
24.243	7.000	44.602	51.000	40.142	36.720	42.415	42.415	Bottom
25.543	7.000	45.018	51.000	40.517	36.720	42.830	42.830	Bottom
(SZB) 30.612	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
($0.4L_s$) 30.810	7.000	46.717	51.000	42.046	36.720	44.525	44.525	Bottom
(HP) 31.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.247	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.326	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
31.592	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
32.242	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.5L_s$) 38.512	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
38.942	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
45.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
($0.6L_s$) 46.215	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.292	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.559	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
46.637	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(HP) 46.642	7.000	46.857	51.000	42.172	36.720	44.665	44.665	Bottom
(SZB) 47.272	7.000	46.653	51.000	41.988	36.720	44.461	44.461	Bottom
52.342	7.000	45.018	51.000	40.516	36.720	42.830	42.830	Bottom
53.642	7.000	44.601	51.000	40.141	36.720	42.415	42.415	Bottom
($0.7L_s$) 53.917	7.000	44.513	51.000	40.062	36.720	42.327	42.327	Bottom
54.175	7.000	44.431	51.000	39.988	36.720	42.245	42.245	Bottom
54.342	7.000	44.378	51.000	39.940	36.720	42.192	42.192	Bottom
(SZB) 58.272	7.000	43.128	51.000	38.815	36.720	40.949	40.949	Bottom
59.042	7.000	42.885	51.000	38.597	36.720	40.707	40.707	Bottom
60.992	7.000	42.271	51.000	38.044	36.720	40.097	40.097	Bottom
($0.8L_s$) 61.620	7.000	42.074	51.000	37.866	36.720	39.900	39.900	Bottom
61.792	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
62.042	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
65.742	7.000	42.173	51.000	37.956	36.720	38.833	38.833	Bottom
(SZB) 66.522	7.000	43.390	51.000	39.051	36.720	38.734	39.051	Bottom
68.342	7.000	44.664	51.000	40.198	36.720	38.542	40.198	Bottom
($0.9L_s$) 69.322	7.000	44.601	51.000	40.141	36.720	38.462	40.141	Bottom
69.408	7.000	44.596	51.000	40.136	36.720	38.456	40.136	Bottom
69.742	7.000	44.577	51.000	40.119	36.720	38.433	40.119	Bottom
(1.5H) 71.442	7.000	46.206	51.000	41.585	36.720	38.354	41.585	Bottom
(SZB) 72.022	7.000	46.204	51.000	41.584	36.720	38.340	41.584	Bottom
72.442	7.000	46.206	51.000	41.585	36.720	38.333	41.585	Bottom
(CS) 73.101	7.000	48.100	51.000	43.290	36.720	38.330	43.290	Bottom

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength II

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 4.987	0.9	273.41	26.26	45.524	7.000	0.871
5.443	0.9	271.03	26.26	45.486	7.000	0.863
(SZB) 5.862	0.9	268.83	26.27	45.451	7.000	0.856
(1.5H) 6.443	0.9	265.77	26.28	45.403	7.000	0.846
($0.1L_s$) 7.702	0.9	259.10	26.31	45.302	7.000	0.825
8.143	0.9	256.76	26.31	45.268	7.000	0.817
8.476	0.9	254.98	26.32	45.243	7.000	0.811
9.543	0.9	249.26	26.34	45.163	7.000	0.793
(SZB) 11.362	0.9	239.41	26.37	39.051	7.000	0.877
12.143	0.9	235.13	26.39	38.834	7.000	0.864
($0.2L_s$) 15.405	0.9	216.93	26.44	39.633	7.000	0.774
15.843	0.9	214.46	26.44	39.770	7.000	0.761
16.093	0.9	213.05	26.45	39.848	7.000	0.754
16.893	0.9	208.50	26.46	40.097	7.000	0.731

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
18.843	0.9	197.34	26.48	40.708	7.000	0.677
(SZB) 19.612	0.9	192.88	26.49	40.950	7.000	0.655
(Deck Bar Cutoff) 21.642	0.9	181.00	26.50	41.590	7.000	0.600
21.647	0.9	180.97	26.50	41.591	7.000	0.600
($0.3L_s$) 23.107	0.9	172.35	26.51	42.054	7.000	0.560
23.543	0.9	169.76	26.51	42.192	7.000	0.549
23.709	0.9	168.77	26.51	42.245	7.000	0.544
24.243	0.9	165.58	26.51	42.415	7.000	0.530
25.543	0.9	157.79	26.51	42.830	7.000	0.496
(SZB) 30.612	0.9	126.82	26.47	44.461	7.000	0.368
($0.4L_s$) 30.810	0.9	125.59	26.46	44.525	7.000	0.363
(HP) 31.242	0.9	122.91	26.46	44.665	7.000	0.352
31.247	0.9	122.88	0.00	44.665	7.000	0.437
31.326	0.9	122.39	0.00	44.665	7.000	0.435
31.592	0.9	120.73	0.00	44.665	7.000	0.429
32.242	0.9	116.68	0.00	44.665	7.000	0.415
($0.5L_s$) 38.512	0.9	76.91	0.00	44.665	7.000	0.273
38.942	0.9	74.17	0.00	44.665	7.000	0.264
45.642	0.9	69.68	0.00	44.665	7.000	0.248
($0.6L_s$) 46.215	0.9	72.58	0.00	44.665	7.000	0.258
46.292	0.9	72.98	0.00	44.665	7.000	0.259
46.559	0.9	74.33	0.00	44.665	7.000	0.264
46.637	0.9	74.73	0.00	44.665	7.000	0.266
(HP) 46.642	0.9	74.76	26.54	44.665	7.000	0.181
(SZB) 47.272	0.9	77.97	26.56	44.461	7.000	0.193
52.342	0.9	105.10	26.65	42.830	7.000	0.301
53.642	0.9	112.22	26.66	42.415	7.000	0.330
($0.7L_s$) 53.917	0.9	113.73	26.66	42.327	7.000	0.337
54.175	0.9	115.15	26.66	42.245	7.000	0.342
54.342	0.9	116.06	26.66	42.192	7.000	0.346
(SZB) 58.272	0.9	137.84	26.67	40.949	7.000	0.441
59.042	0.9	142.14	26.67	40.707	7.000	0.461
60.992	0.9	153.12	26.66	40.097	7.000	0.511
($0.8L_s$) 61.620	0.9	156.66	26.66	39.900	7.000	0.528
61.792	0.9	157.63	26.65	39.847	7.000	0.532
62.042	0.9	159.04	26.65	39.769	7.000	0.539
65.742	0.9	180.05	26.62	38.833	7.000	0.638
(SZB) 66.522	0.9	184.52	26.61	39.051	7.000	0.653
68.342	0.9	194.99	26.58	40.198	7.000	0.675
($0.9L_s$) 69.322	0.9	200.64	26.57	40.141	7.000	0.699
69.408	0.9	201.14	26.57	40.136	7.000	0.701
69.742	0.9	203.06	26.56	40.119	7.000	0.709
(1.5H) 71.442	0.9	212.88	26.54	41.585	7.000	0.721
(SZB) 72.022	0.9	216.24	26.53	41.584	7.000	0.734
72.442	0.9	218.66	26.53	41.585	7.000	0.744
(CS) 73.101	0.9	222.50	26.52	43.290	7.000	0.728

f_{po} - Strength II

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength II

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \; for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \; for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 4.987	1318.52	273.41	26.26	247.16	45.524	33.680	29000.000	1.860	28500.000	946.526	5011.145	0.236
5.443	1248.38	271.03	26.26	244.77	45.486	33.680	29000.000	1.876	28500.000	946.526	5011.145	0.213
(SZB) 5.862	1184.35	268.83	26.27	242.56	45.451	33.680	29000.000	1.892	28500.000	946.526	5011.145	0.192
(1.5H) 6.443	1096.36	265.77	26.28	239.49	45.403	33.680	29000.000	1.532	28500.000	946.526	5011.145	0.235
($0.1L_s$) 7.702	908.49	259.10	26.31	232.80	45.302	33.680	29000.000	1.573	28500.000	946.526	5011.145	0.172
8.143	869.32 $	256.76	26.31	230.45	45.268	33.680	29000.000	1.190	28500.000	946.526	5011.145	0.233
8.476	862.09 $	254.98	26.32	228.66	45.243	33.680	29000.000	1.198	28500.000	946.526	5011.145	0.228
9.543	838.97 $	249.26	26.34	222.92	45.163	33.680	29000.000	1.224	28500.000	946.526	5011.145	0.212
(SZB) 11.362	839.72	239.41	26.37	213.03	39.051	0.400	29000.000	5.111	28500.000	365.000	5011.145	-0.249
12.143	971.60	235.13	26.39	208.74	38.834	0.400	29000.000	5.156	28500.000	365.000	5011.145	-0.234
($0.2L_s$) 15.405	1480.11	216.93	26.44	190.49	39.633	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.253
15.843	1543.33	214.46	26.44	188.02	39.770	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.246
16.093	1578.88	213.05	26.45	186.60	39.848	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.241
16.893	1690.45	208.50	26.46	182.04	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.229
18.843	1946.14	197.34	26.48	170.86	40.708	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.201
(SZB) 19.612	2044.71	192.88	26.49	166.39	40.950	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.19
(Deck Bar Cutoff) 21.642	2293.79	181.00	26.50	154.49	41.590	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.165
21.647	2294.36	180.97	26.50	154.46	41.591	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.165
	2461.86	172.35	26.51	145.84	42.054	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.149

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.3L_s$) 23.107												
23.543	2509.98	169.76	26.51	143.25	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.145
23.709	2528.18	168.77	26.51	142.26	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.143
24.243	2585.24	165.58	26.51	139.07	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.138
25.543	2716.74	157.79	26.51	131.28	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.127
(SZB) 30.612	3140.28	126.82	26.47	100.35	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0995
($0.4L_s$) 30.810	3153.74	125.59	26.46	99.13	44.525	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.099
(HP) 31.242	3182.38	122.91	26.46	96.46	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0978
31.247	3182.70	122.88	0.00	122.88	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0846
31.326	3187.78	122.39	0.00	122.39	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0842
31.592	3205.02	120.73	0.00	120.73	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0827
32.242	3247.14	116.68	0.00	116.68	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0791
($0.5L_s$) 38.512	3521.72	76.91	0.00	76.91	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0622
38.942	3531.60	74.17	0.00	74.17	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0623
45.642	3527.62	69.68	0.00	69.68	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.065
($0.6L_s$) 46.215	3513.14	72.58	0.00	72.58	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0655
46.292	3511.02	72.98	0.00	72.98	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0656
46.559	3503.37	74.33	0.00	74.33	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0659
46.637	3501.02	74.73	0.00	74.73	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0661
(HP) 46.642	3500.87	74.76	26.54	48.22	44.665	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0792
(SZB) 47.272	3480.36	77.97	26.56	51.41	44.461	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0783
52.342	3278.56	105.10	26.65	78.45	42.830	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0751
53.642	3209.20	112.22	26.66	85.56	42.415	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0769
($0.7L_s$) 53.917	3192.99	113.73	26.66	87.07	42.327	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0775
54.175	3177.32	115.15	26.66	88.48	42.245	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0781
54.342	3166.96	116.06	26.66	89.40	42.192	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0786
(SZB) 58.272	2867.93	137.84	26.67	111.17	40.949	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0977
59.042	2796.52	142.14	26.67	115.47	40.707	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.104
60.992	2596.36	153.12	26.66	126.46	40.097	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.122
($0.8L_s$) 61.620	2526.04	156.66	26.66	130.00	39.900	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.128
61.792	2506.32	157.63	26.65	130.98	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.13
62.042	2477.26	159.04	26.65	132.39	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.133
65.742	2010.12	180.05	26.62	153.43	38.833	0.400	29000.000	5.167	28500.000	365.000	5011.145	-0.102
(SZB) 66.522	1901.81	184.52	26.61	157.92	39.051	0.400	29000.000	5.122	28500.000	365.000	5011.145	-0.114
68.342	1631.93	194.99	26.58	168.40	40.198	0.400	29000.000	4.603	28500.000	365.000	5011.145	-0.109
($0.9L_s$) 69.322	1476.19	200.64	26.57	174.07	40.141	0.400	29000.000	4.550	28500.000	365.000	5011.145	-0.124
69.408	1462.19	201.14	26.57	174.57	40.136	0.400	29000.000	4.545	28500.000	365.000	5011.145	-0.126
69.742	1407.39	203.06	26.56	176.50	40.119	0.400	29000.000	4.527	28500.000	365.000	5011.145	-0.131
(1.5H) 71.442	1114.91	212.88	26.54	186.34	41.585	0.400	29000.000	4.048	28500.000	365.000	5011.145	-0.131
(SZB) 72.022	1009.97	216.24	26.53	189.71	41.584	0.400	29000.000	3.641	28500.000	365.000	5011.145	-0.106
72.442	932.62	218.66	26.53	192.14	41.585	0.400	29000.000	3.626	28500.000	365.000	5011.145	-0.115
(CS) 73.101	808.32	222.50	26.52	195.98	43.290	0.400	29000.000	3.603	28500.000	365.000	5011.145	-0.134

$N_u = 0$

$ - Taken as $|V_u - V_p|d_v$ per definitions given in 5.7.3.4.2

Shear Parameter Summary - Strength II [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

$a_g = 0.750$ in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 4.987	Yes	1	---	---	0.109	0.236	4.08	29.83
5.443	Yes	1	---	---	0.108	0.213	4.14	29.75
(SZB) 5.862	Yes	1	---	---	0.107	0.192	4.2	29.67
(1.5H) 6.443	Yes	1	---	---	0.106	0.235	4.08	29.82
($0.1L_s$) 7.702	Yes	1	---	---	0.103	0.172	4.25	29.60
8.143	Yes	1	---	---	0.102	0.233	4.08	29.82
8.476	Yes	1	---	---	0.101	0.228	4.1	29.80
9.543	Yes	1	---	---	0.0991	0.212	4.14	29.74
(SZB) 11.362	Yes	1	---	---	0.11	-0.249	5.9	28.13
12.143	Yes	1	---	---	0.108	-0.234	5.82	28.18
($0.2L_s$) 15.405	Yes	1	---	---	0.0967	-0.253	5.92	28.11
15.843	Yes	1	---	---	0.0951	-0.246	5.88	28.14
16.093	Yes	1	---	---	0.0942	-0.241	5.86	28.15
16.893	Yes	1	---	---	0.0914	-0.229	5.79	28.20
18.843	Yes	1	---	---	0.0846	-0.201	5.65	28.30
(SZB) 19.612	Yes	1	---	---	0.0819	-0.19	5.6	28.33
(Deck Bar Cutoff) 21.642	Yes	1	---	---	0.075	-0.165	5.48	28.42
21.647	Yes	1	---	---	0.075	-0.165	5.48	28.42
($0.3L_s$) 23.107	Yes	1	---	---	0.0701	-0.149	5.4	28.48
23.543	Yes	1	---	---	0.0686	-0.145	5.38	28.49
23.709	Yes	1	---	---	0.0681	-0.143	5.38	28.50
24.243	Yes	1	---	---	0.0663	-0.138	5.35	28.52
25.543	Yes	1	---	---	0.062	-0.127	5.31	28.56

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(SZB) 30.612	Yes	1	---	---	0.046	-0.0995	5.19	28.65
($0.4L_s$) 30.810	Yes	1	---	---	0.0454	-0.099	5.18	28.65
(HP) 31.242	Yes	1	---	---	0.044	-0.0978	5.18	28.66
31.247	Yes	1	---	---	0.0546	-0.0846	5.13	28.70
31.326	Yes	1	---	---	0.0544	-0.0842	5.12	28.71
31.592	Yes	1	---	---	0.0536	-0.0827	5.12	28.71
32.242	Yes	1	---	---	0.0518	-0.0791	5.1	28.72
($0.5L_s$) 38.512	Yes	1	---	---	0.0342	-0.0622	5.03	28.78
38.942	Yes	1	---	---	0.0329	-0.0623	5.04	28.78
45.642	Yes	1	---	---	0.031	-0.065	5.05	28.77
($0.6L_s$) 46.215	Yes	1	---	---	0.0322	-0.0655	5.05	28.77
46.292	Yes	1	---	---	0.0324	-0.0656	5.05	28.77
46.559	Yes	1	---	---	0.033	-0.0659	5.05	28.77
46.637	Yes	1	---	---	0.0332	-0.0661	5.05	28.77
(HP) 46.642	Yes	1	---	---	0.0226	-0.0792	5.1	28.72
(SZB) 47.272	Yes	1	---	---	0.0241	-0.0783	5.1	28.73
52.342	Yes	1	---	---	0.0376	-0.0751	5.09	28.74
53.642	Yes	1	---	---	0.0413	-0.0769	5.09	28.73
($0.7L_s$) 53.917	Yes	1	---	---	0.0421	-0.0775	5.1	28.73
54.175	Yes	1	---	---	0.0428	-0.0781	5.1	28.73
54.342	Yes	1	---	---	0.0433	-0.0786	5.1	28.72
(SZB) 58.272	Yes	1	---	---	0.0552	-0.0977	5.18	28.66
59.042	Yes	1	---	---	0.0576	-0.104	5.2	28.64
60.992	Yes	1	---	---	0.0639	-0.122	5.28	28.57
($0.8L_s$) 61.620	Yes	1	---	---	0.066	-0.128	5.31	28.55
61.792	Yes	1	---	---	0.0665	-0.13	5.32	28.54
62.042	Yes	1	---	---	0.0674	-0.133	5.33	28.53
65.742	Yes	1	---	---	0.0798	-0.102	5.2	28.64
(SZB) 66.522	Yes	1	---	---	0.0816	-0.114	5.25	28.60
68.342	Yes	1	---	---	0.0844	-0.109	5.23	28.62
($0.9L_s$) 69.322	Yes	1	---	---	0.0874	-0.124	5.29	28.57
69.408	Yes	1	---	---	0.0876	-0.126	5.3	28.56
69.742	Yes	1	---	---	0.0886	-0.131	5.32	28.54
(1.5H) 71.442	Yes	1	---	---	0.0902	-0.131	5.32	28.54
(SZB) 72.022	Yes	1	---	---	0.0918	-0.106	5.22	28.63
72.442	Yes	1	---	---	0.0929	-0.115	5.25	28.60
(CS) 73.101	Yes	1	---	---	0.091	-0.134	5.34	28.53

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength II

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 4.987	4.08	8.000	-	7.000	45.524	116.14
5.443	4.14	8.000	-	7.000	45.486	117.78
(SZB) 5.862	4.2	8.000	-	7.000	45.451	119.34
(1.5H) 6.443	4.08	8.000	-	7.000	45.403	115.93
($0.1L_s$) 7.702	4.25	8.000	-	7.000	45.302	120.47
8.143	4.08	8.000	-	7.000	45.268	115.69
8.476	4.1	8.000	-	7.000	45.243	116.00
9.543	4.14	8.000	-	7.000	45.163	117.02
(SZB) 11.362	5.9	8.000	-	7.000	39.051	144.22
12.143	5.82	8.000	-	7.000	38.834	141.48
($0.2L_s$) 15.405	5.92	8.000	-	7.000	39.633	146.91
15.843	5.88	8.000	-	7.000	39.770	146.40
16.093	5.86	8.000	-	7.000	39.848	146.13
16.893	5.79	8.000	-	7.000	40.097	145.34
18.843	5.65	8.000	-	7.000	40.708	143.89
(SZB) 19.612	5.6	8.000	-	7.000	40.950	143.42
(Deck Bar Cutoff) 21.642	5.48	8.000	-	7.000	41.590	142.52
21.647	5.48	8.000	-	7.000	41.591	142.52
($0.3L_s$) 23.107	5.4	8.000	-	7.000	42.054	142.18
23.543	5.38	8.000	-	7.000	42.192	142.12
23.709	5.38	8.000	-	7.000	42.245	142.11
24.243	5.35	8.000	-	7.000	42.415	142.08
25.543	5.31	8.000	-	7.000	42.830	142.17
(SZB) 30.612	5.19	8.000	-	7.000	44.461	144.30
($0.4L_s$) 30.810	5.18	8.000	-	7.000	44.525	144.43
(HP) 31.242	5.18	8.000	-	7.000	44.665	144.75
31.247	5.13	8.000	-	7.000	44.665	143.22
31.326	5.12	8.000	-	7.000	44.665	143.17
31.592	5.12	8.000	-	7.000	44.665	143.01
32.242	5.1	8.000	-	7.000	44.665	142.59
($0.5L_s$) 38.512	5.03	8.000	-	7.000	44.665	140.70
38.942	5.04	8.000	-	7.000	44.665	140.70
45.642	5.05	8.000	-	7.000	44.665	141.01
($0.6L_s$) 46.215	5.05	8.000	-	7.000	44.665	141.07
46.292	5.05	8.000	-	7.000	44.665	141.08
46.559	5.05	8.000	-	7.000	44.665	141.11

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
46.637	5.05	8.000	-	7.000	44.665	141.13
(HP) 46.642	5.1	8.000	-	7.000	44.665	142.61
(SZB) 47.272	5.1	8.000	-	7.000	44.461	141.85
52.342	5.09	8.000	-	7.000	42.830	136.31
53.642	5.09	8.000	-	7.000	42.415	135.17
($0.7L_s$) 53.917	5.1	8.000	-	7.000	42.327	134.96
54.175	5.1	8.000	-	7.000	42.245	134.76
54.342	5.1	8.000	-	7.000	42.192	134.64
(SZB) 58.272	5.18	8.000	-	7.000	40.949	132.70
59.042	5.2	8.000	-	7.000	40.707	132.54
60.992	5.28	8.000	-	7.000	40.097	132.50
($0.8L_s$) 61.620	5.31	8.000	-	7.000	39.900	132.60
61.792	5.32	8.000	-	7.000	39.847	132.64
62.042	5.33	8.000	-	7.000	39.769	132.70
65.742	5.2	8.000	-	7.000	38.833	126.24
(SZB) 66.522	5.25	8.000	-	7.000	39.051	128.20
68.342	5.23	8.000	-	7.000	40.198	131.44
($0.9L_s$) 69.322	5.29	8.000	-	7.000	40.141	132.92
69.408	5.3	8.000	-	7.000	40.136	133.06
69.742	5.32	8.000	-	7.000	40.119	133.62
(1.5H) 71.442	5.32	8.000	-	7.000	41.585	138.54
(SZB) 72.022	5.22	8.000	-	7.000	41.584	135.72
72.442	5.25	8.000	-	7.000	41.585	136.70
(CS) 73.101	5.34	8.000	-	7.000	43.290	144.56

Shear Resistance Provided By Shear Reinforcement - Strength II

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 4.987	60.000	0.400	4.000	1.200	45.524	29.83	90.00	476.42
5.443	60.000	0.400	4.000	1.200	45.486	29.75	90.00	477.58
(SZB) 5.862	60.000	0.400	6.000	0.800	45.451	29.67	90.00	319.11
(1.5H) 6.443	60.000	0.400	6.000	0.800	45.403	29.82	90.00	316.83
($0.1L_s$) 7.702	60.000	0.400	6.000	0.800	45.302	29.60	90.00	318.94
8.143	60.000	0.400	6.000	0.800	45.268	29.82	90.00	315.95
8.476	60.000	0.400	6.000	0.800	45.243	29.80	90.00	316.00
9.543	60.000	0.400	6.000	0.800	45.163	29.74	90.00	316.17
(SZB) 11.362	60.000	0.400	9.000	0.533	39.051	28.13	90.00	194.80
12.143	60.000	0.400	9.000	0.533	38.834	28.18	90.00	193.29
($0.2L_s$) 15.405	60.000	0.400	9.000	0.533	39.633	28.11	90.00	197.82
15.843	60.000	0.400	9.000	0.533	39.770	28.14	90.00	198.28
16.093	60.000	0.400	9.000	0.533	39.848	28.15	90.00	198.55
16.893	60.000	0.400	9.000	0.533	40.097	28.20	90.00	199.42
18.843	60.000	0.400	9.000	0.533	40.708	28.30	90.00	201.62
(SZB) 19.612	60.000	0.400	12.000	0.400	40.950	28.33	90.00	151.88
(Deck Bar Cutoff) 21.642	60.000	0.400	12.000	0.400	41.590	28.42	90.00	153.69
21.647	60.000	0.400	12.000	0.400	41.591	28.42	90.00	153.69
($0.3L_s$) 23.107	60.000	0.400	12.000	0.400	42.054	28.48	90.00	155.05
23.543	60.000	0.400	12.000	0.400	42.192	28.49	90.00	155.46
23.709	60.000	0.400	12.000	0.400	42.245	28.50	90.00	155.62
24.243	60.000	0.400	12.000	0.400	42.415	28.52	90.00	156.13
25.543	60.000	0.400	12.000	0.400	42.830	28.56	90.00	157.40
(SZB) 30.612	60.000	0.400	18.000	0.267	44.461	28.65	90.00	108.50
($0.4L_s$) 30.810	60.000	0.400	18.000	0.267	44.525	28.65	90.00	108.64
(HP) 31.242	60.000	0.400	18.000	0.267	44.665	28.66	90.00	108.97
31.247	60.000	0.400	18.000	0.267	44.665	28.70	90.00	108.76
31.326	60.000	0.400	18.000	0.267	44.665	28.71	90.00	108.75
31.592	60.000	0.400	18.000	0.267	44.665	28.71	90.00	108.73
32.242	60.000	0.400	18.000	0.267	44.665	28.72	90.00	108.67
($0.5L_s$) 38.512	60.000	0.400	18.000	0.267	44.665	28.78	90.00	108.41
38.942	60.000	0.400	18.000	0.267	44.665	28.78	90.00	108.41
45.642	60.000	0.400	18.000	0.267	44.665	28.77	90.00	108.45
($0.6L_s$) 46.215	60.000	0.400	18.000	0.267	44.665	28.77	90.00	108.46
46.292	60.000	0.400	18.000	0.267	44.665	28.77	90.00	108.46
46.559	60.000	0.400	18.000	0.267	44.665	28.77	90.00	108.47
46.637	60.000	0.400	18.000	0.267	44.665	28.77	90.00	108.47
(HP) 46.642	60.000	0.400	18.000	0.267	44.665	28.72	90.00	108.68
(SZB) 47.272	60.000	0.400	18.000	0.267	44.461	28.73	90.00	108.16
52.342	60.000	0.400	12.000	0.400	42.830	28.74	90.00	156.22
53.642	60.000	0.400	12.000	0.400	42.415	28.73	90.00	154.75
($0.7L_s$) 53.917	60.000	0.400	12.000	0.400	42.327	28.73	90.00	154.44
54.175	60.000	0.400	12.000	0.400	42.245	28.73	90.00	154.15
54.342	60.000	0.400	12.000	0.400	42.192	28.72	90.00	153.97
(SZB) 58.272	60.000	0.400	12.000	0.400	40.949	28.66	90.00	149.85
59.042	60.000	0.400	9.000	0.533	40.707	28.64	90.00	198.79
60.992	60.000	0.400	9.000	0.533	40.097	28.57	90.00	196.32
($0.8L_s$) 61.620	60.000	0.400	9.000	0.533	39.900	28.55	90.00	195.56
61.792	60.000	0.400	9.000	0.533	39.847	28.54	90.00	195.35
62.042	60.000	0.400	9.000	0.533	39.769	28.53	90.00	195.05

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
65.742	60.000	0.400	9.000	0.533	38.833	28.64	90.00	189.58
(SZB) 66.522	60.000	0.400	9.000	0.533	39.051	28.60	90.00	190.98
68.342	60.000	0.400	6.000	0.800	40.198	28.62	90.00	294.68
($0.9L_s$) 69.322	60.000	0.400	6.000	0.800	40.141	28.57	90.00	294.91
69.408	60.000	0.400	6.000	0.800	40.136	28.56	90.00	294.94
69.742	60.000	0.400	6.000	0.800	40.119	28.54	90.00	295.05
(1.5H) 71.442	60.000	0.400	6.000	0.800	41.585	28.54	90.00	305.85
(SZB) 72.022	60.000	0.400	6.000	0.800	41.584	28.63	90.00	304.73
72.442	60.000	0.400	4.000	1.200	41.585	28.60	90.00	457.70
(CS) 73.101	60.000	0.400	4.000	1.200	43.290	28.53	90.00	477.79

Nominal Shear Resistance - Strength II

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1} [$] (kip)	V_{n2} [#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 4.987	8.000	7.000	45.524	26.26	116.14	476.42	618.82	663.60	618.82	0.9	556.93
5.443	8.000	7.000	45.486	26.26	117.78	477.58	621.63	663.06	621.63	0.9	559.46
(SZB) 5.862	8.000	7.000	45.451	26.27	119.34	319.11	464.72	662.58	464.72	0.9	418.24
(1.5H) 6.443	8.000	7.000	45.403	26.28	115.93	316.83	459.04	661.92	459.04	0.9	413.14
($0.1L_s$) 7.702	8.000	7.000	45.302	26.31	120.47	318.94	465.71	660.54	465.71	0.9	419.14
8.143	8.000	7.000	45.268	26.31	115.69	315.95	457.96	660.07	457.96	0.9	412.16
8.476	8.000	7.000	45.243	26.32	116.00	316.00	458.32	659.72	458.32	0.9	412.49
9.543	8.000	7.000	45.163	26.34	117.02	316.17	459.53	658.62	459.53	0.9	413.57
(SZB) 11.362	8.000	7.000	39.051	26.37	144.22	194.80	365.40	573.09	365.40	0.9	328.86
12.143	8.000	7.000	38.834	26.39	141.48	193.29	361.15	570.05	361.15	0.9	325.04
($0.2L_s$) 15.405	8.000	7.000	39.633	26.44	146.91	197.82	371.17	581.31	371.17	0.9	334.05
15.843	8.000	7.000	39.770	26.44	146.40	198.28	371.13	583.22	371.13	0.9	334.02
16.093	8.000	7.000	39.848	26.45	146.13	198.55	371.13	584.31	371.13	0.9	334.02
16.893	8.000	7.000	40.097	26.46	145.34	199.42	371.21	587.82	371.21	0.9	334.09
18.843	8.000	7.000	40.708	26.48	143.89	201.62	371.99	596.39	371.99	0.9	334.79
(SZB) 19.612	8.000	7.000	40.950	26.49	143.42	151.88	321.79	599.78	321.79	0.9	289.61
(Deck Bar Cutoff) 21.642	8.000	7.000	41.590	26.50	142.52	153.69	322.72	608.76	322.72	0.9	290.44
21.647	8.000	7.000	41.591	26.50	142.52	153.69	322.72	608.78	322.72	0.9	290.45
($0.3L_s$) 23.107	8.000	7.000	42.054	26.51	142.18	155.05	323.73	615.26	323.73	0.9	291.36
23.543	8.000	7.000	42.192	26.51	142.12	155.46	324.09	617.20	324.09	0.9	291.68
23.709	8.000	7.000	42.245	26.51	142.11	155.62	324.23	617.94	324.23	0.9	291.81
24.243	8.000	7.000	42.415	26.51	142.08	156.13	324.72	620.32	324.72	0.9	292.25
25.543	8.000	7.000	42.830	26.51	142.17	157.40	326.09	626.13	326.09	0.9	293.48
(SZB) 30.612	8.000	7.000	44.461	26.47	144.30	108.50	279.26	648.93	279.26	0.9	251.33
($0.4L_s$) 30.810	8.000	7.000	44.525	26.46	144.43	108.64	279.54	649.82	279.54	0.9	251.59
(HP) 31.242	8.000	7.000	44.665	26.46	144.75	108.97	280.17	651.77	280.17	0.9	252.16
31.247	8.000	7.000	44.665	0.00	143.22	108.76	251.98	625.31	251.98	0.9	226.79
31.326	8.000	7.000	44.665	0.00	143.17	108.75	251.93	625.31	251.93	0.9	226.73
31.592	8.000	7.000	44.665	0.00	143.01	108.73	251.74	625.31	251.74	0.9	226.56
32.242	8.000	7.000	44.665	0.00	142.59	108.67	251.27	625.31	251.27	0.9	226.14
($0.5L_s$) 38.512	8.000	7.000	44.665	0.00	140.70	108.41	249.11	625.31	249.11	0.9	224.20
38.942	8.000	7.000	44.665	0.00	140.70	108.41	249.11	625.31	249.11	0.9	224.20
45.642	8.000	7.000	44.665	0.00	141.01	108.45	249.46	625.31	249.46	0.9	224.52
($0.6L_s$) 46.215	8.000	7.000	44.665	0.00	141.07	108.46	249.52	625.31	249.52	0.9	224.57
46.292	8.000	7.000	44.665	0.00	141.08	108.46	249.54	625.31	249.54	0.9	224.58
46.559	8.000	7.000	44.665	0.00	141.11	108.47	249.58	625.31	249.58	0.9	224.62
46.637	8.000	7.000	44.665	0.00	141.13	108.47	249.59	625.31	249.59	0.9	224.64
(HP) 46.642	8.000	7.000	44.665	26.54	142.61	108.68	277.83	651.85	277.83	0.9	250.04
(SZB) 47.272	8.000	7.000	44.461	26.56	141.85	108.16	276.57	649.02	276.57	0.9	248.91
52.342	8.000	7.000	42.830	26.65	136.31	156.22	319.17	626.27	319.17	0.9	287.26
53.642	8.000	7.000	42.415	26.66	135.17	154.75	316.58	620.47	316.58	0.9	284.92
($0.7L_s$) 53.917	8.000	7.000	42.327	26.66	134.96	154.44	316.06	619.24	316.06	0.9	284.45
54.175	8.000	7.000	42.245	26.66	134.76	154.15	315.58	618.09	315.58	0.9	284.02
54.342	8.000	7.000	42.192	26.66	134.64	153.97	315.28	617.35	315.28	0.9	283.75
(SZB) 58.272	8.000	7.000	40.949	26.67	132.70	149.85	309.22	599.96	309.22	0.9	278.30
59.042	8.000	7.000	40.707	26.67	132.54	198.79	358.00	596.57	358.00	0.9	322.20
60.992	8.000	7.000	40.097	26.66	132.50	196.32	355.48	588.01	355.48	0.9	319.93
($0.8L_s$) 61.620	8.000	7.000	39.900	26.66	132.60	195.56	354.81	585.26	354.81	0.9	319.33
61.792	8.000	7.000	39.847	26.65	132.64	195.35	354.64	584.51	354.64	0.9	319.18
62.042	8.000	7.000	39.769	26.65	132.70	195.05	354.40	583.42	354.40	0.9	318.96
65.742	8.000	7.000	38.833	26.62	126.24	189.58	342.44	570.27	342.44	0.9	308.20
(SZB) 66.522	8.000	7.000	39.051	26.61	128.20	190.98	345.79	573.32	345.79	0.9	311.21
68.342	8.000	7.000	40.198	26.58	131.44	294.68	452.70	589.36	452.70	0.9	407.43
($0.9L_s$) 69.322	8.000	7.000	40.141	26.57	132.92	294.91	454.41	588.54	454.41	0.9	408.97
69.408	8.000	7.000	40.136	26.57	133.06	294.94	454.57	588.48	454.57	0.9	409.11
69.742	8.000	7.000	40.119	26.56	133.62	295.05	455.23	588.23	455.23	0.9	409.71
(1.5H) 71.442	8.000	7.000	41.585	26.54	138.54	305.85	470.93	608.73	470.93	0.9	423.84
(SZB) 72.022	8.000	7.000	41.584	26.53	135.72	304.73	466.98	608.71	466.98	0.9	420.29
72.442	8.000	7.000	41.585	26.53	136.70	457.70	620.92	608.72	608.72	0.9	547.85
(CS) 73.101	8.000	7.000	43.290	26.52	144.56	477.79	648.87	632.58	632.58	0.9	569.32

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength II

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 4.987	303.79	116.14	26.26	161.40	60.000	45.524	29.83	0.407
5.443	301.15	117.78	26.26	157.10	60.000	45.486	29.75	0.395
(SZB) 5.862	298.70	119.34	26.27	153.09	60.000	45.451	29.67	0.384
(1.5H) 6.443	295.30	115.93	26.28	153.09	60.000	45.403	29.82	0.387
($0.1L_s$) 7.702	287.89	120.47	26.31	141.12	60.000	45.302	29.60	0.354
8.143	285.29	115.69	26.31	143.28	60.000	45.268	29.82	0.363
8.476	283.31	116.00	26.32	140.99	60.000	45.243	29.80	0.357
9.543	276.95	117.02	26.34	133.60	60.000	45.163	29.74	0.338
(SZB) 11.362	266.01	144.22	26.37	95.41	60.000	39.051	28.13	0.261
12.143	261.25	141.48	26.39	93.39	60.000	38.834	28.18	0.258
($0.2L_s$) 15.405	241.03	146.91	26.44	67.68	60.000	39.633	28.11	0.182
15.843	238.29	146.40	26.44	65.44	60.000	39.770	28.14	0.176
16.093	236.72	146.13	26.45	64.14	60.000	39.848	28.15	0.172
16.893	231.67	145.34	26.46	59.87	60.000	40.097	28.20	0.160
18.843	219.26	143.89	26.48	48.89	60.000	40.708	28.30	0.129
(SZB) 19.612	214.31	143.42	26.49	44.40	60.000	40.950	28.33	0.117
(Deck Bar Cutoff) 21.642	201.11	142.52	26.50	32.08	60.000	41.590	28.42	0.083
21.647	201.07	142.52	26.50	32.05	60.000	41.591	28.42	0.083
($0.3L_s$) 23.107	191.50	142.18	26.51	22.81	60.000	42.054	28.48	0.059
23.543	188.62	142.12	26.51	19.99	60.000	42.192	28.49	0.051
23.709	187.52	142.11	26.51	18.90	60.000	42.245	28.50	0.049
24.243	183.98	142.08	26.51	15.38	60.000	42.415	28.52	0.039
25.543	175.32	142.17	26.51	6.64	60.000	42.830	28.56	0.017
(SZB) 30.612	140.91	144.30	26.47	0.00	60.000	44.461	28.65	0.000
($0.4L_s$) 30.810	139.55	144.43	26.46	0.00	60.000	44.525	28.65	0.000
(HP) 31.242	136.57	144.75	26.46	0.00	60.000	44.665	28.66	0.000
31.247	136.53	143.22	0.00	0.00	60.000	44.665	28.70	0.000
31.326	135.99	143.17	0.00	0.00	60.000	44.665	28.71	0.000
31.592	134.15	143.01	0.00	0.00	60.000	44.665	28.71	0.000
32.242	129.64	142.59	0.00	0.00	60.000	44.665	28.72	0.000
($0.5L_s$) 38.512	85.46	140.70	0.00	0.00	60.000	44.665	28.78	0.000
38.942	82.41	140.70	0.00	0.00	60.000	44.665	28.78	0.000
45.642	77.42	141.01	0.00	0.00	60.000	44.665	28.77	0.000
($0.6L_s$) 46.215	80.65	141.07	0.00	0.00	60.000	44.665	28.77	0.000
46.292	81.08	141.08	0.00	0.00	60.000	44.665	28.77	0.000
46.559	82.59	141.11	0.00	0.00	60.000	44.665	28.77	0.000
46.637	83.03	141.13	0.00	0.00	60.000	44.665	28.77	0.000
(HP) 46.642	83.06	142.61	26.54	0.00	60.000	44.665	28.72	0.000
(SZB) 47.272	86.63	141.85	26.56	0.00	60.000	44.461	28.73	0.000
52.342	116.78	136.31	26.65	0.00	60.000	42.830	28.74	0.000
53.642	124.69	135.17	26.66	0.00	60.000	42.415	28.73	0.000
($0.7L_s$) 53.917	126.37	134.96	26.66	0.00	60.000	42.327	28.73	0.000
54.175	127.94	134.76	26.66	0.00	60.000	42.245	28.73	0.000
54.342	128.96	134.64	26.66	0.00	60.000	42.192	28.72	0.000
(SZB) 58.272	153.15	132.70	26.67	0.00	60.000	40.949	28.66	0.000
59.042	157.94	132.54	26.67	0.00	60.000	40.707	28.64	0.000
60.992	170.13	132.50	26.66	10.97	60.000	40.097	28.57	0.030
($0.8L_s$) 61.620	174.07	132.60	26.66	14.81	60.000	39.900	28.55	0.040
61.792	175.15	132.64	26.65	15.85	60.000	39.847	28.54	0.043
62.042	176.72	132.70	26.65	17.36	60.000	39.769	28.53	0.047
65.742	200.06	126.24	26.62	47.20	60.000	38.833	28.64	0.133
(SZB) 66.522	205.03	128.20	26.61	50.22	60.000	39.051	28.60	0.140
68.342	216.65	131.44	26.58	58.63	60.000	40.198	28.62	0.159
($0.9L_s$) 69.322	222.94	132.92	26.57	63.44	60.000	40.141	28.57	0.172
69.408	223.49	133.06	26.57	63.86	60.000	40.136	28.56	0.173
69.742	225.62	133.62	26.56	65.44	60.000	40.119	28.54	0.177
(1.5H) 71.442	236.54	138.54	26.54	71.45	60.000	41.585	28.54	0.187
(SZB) 72.022	240.27	135.72	26.53	78.02	60.000	41.584	28.63	0.205
72.442	242.96	136.70	26.53	79.74	60.000	41.585	28.60	0.209
(CS) 73.101	247.22	144.56	26.52	76.14	60.000	43.290	28.53	0.191

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength II

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 4.987	1.200	0.407	6.494	11.807	18.301
5.443	1.200	0.395	6.688	12.160	18.848
(SZB) 5.862	0.800	0.384	6.879	12.507	19.385
(1.5H) 6.443	0.800	0.387	6.830	12.418	19.247
($0.1L_s$) 7.702	0.800	0.354	7.458	13.560	21.019
8.143	0.800	0.363	7.277	13.230	20.507
8.476	0.800	0.357	7.397	13.448	20.845
9.543	0.800	0.338	7.810	14.199	22.009
(SZB) 11.362	0.533	0.261	10.106	18.375	28.482
12.143	0.533	0.258	10.245	18.627	28.872
($0.2L_s$) 15.405	0.533	0.182	14.467	26.304	40.771

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
15.843	0.533	0.176	14.998	27.269	42.267
16.093	0.533	0.172	15.323	27.861	43.184
16.893	0.533	0.160	16.487	29.977	46.464
18.843	0.533	0.129	20.412	37.113	57.526
(SZB) 19.612	0.400	0.117	22.578	41.050	63.628
(Deck Bar Cutoff) 21.642	0.400	0.083	31.618	57.488	89.106
21.647	0.400	0.083	31.650	57.545	89.194
($0.3L_s$) 23.107	0.400	0.059	44.865	81.573	126.438
23.543	0.400	0.051	51.330	93.328	144.658
23.709	0.400	0.049	54.343	98.805	153.148
24.243	0.400	0.039	66.987	121.794	188.781
25.543	0.400	0.017	156.560	284.654	441.213
(SZB) 30.612	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.810	0.267	0.000	N/A	N/A	N/A
(HP) 31.242	0.267	0.000	N/A	N/A	N/A
31.247	0.267	0.000	N/A	N/A	N/A
31.326	0.267	0.000	N/A	N/A	N/A
31.592	0.267	0.000	N/A	N/A	N/A
32.242	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.512	0.267	0.000	N/A	N/A	N/A
38.942	0.267	0.000	N/A	N/A	N/A
45.642	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.215	0.267	0.000	N/A	N/A	N/A
46.292	0.267	0.000	N/A	N/A	N/A
46.559	0.267	0.000	N/A	N/A	N/A
46.637	0.267	0.000	N/A	N/A	N/A
(HP) 46.642	0.267	0.000	N/A	N/A	N/A
(SZB) 47.272	0.267	0.000	N/A	N/A	N/A
52.342	0.400	0.000	N/A	N/A	N/A
53.642	0.400	0.000	N/A	N/A	N/A
($0.7L_s$) 53.917	0.400	0.000	N/A	N/A	N/A
54.175	0.400	0.000	N/A	N/A	N/A
54.342	0.400	0.000	N/A	N/A	N/A
(SZB) 58.272	0.400	0.000	N/A	N/A	N/A
59.042	0.533	0.000	N/A	N/A	N/A
60.992	0.533	0.030	88.549	160.999	249.548
($0.8L_s$) 61.620	0.533	0.040	65.357	118.830	184.187
61.792	0.533	0.043	60.993	110.896	171.888
62.042	0.533	0.047	55.605	101.101	156.706
65.742	0.533	0.133	19.882	36.149	56.031
(SZB) 66.522	0.533	0.140	18.826	34.228	53.054
68.342	0.800	0.159	16.587	30.157	46.744
($0.9L_s$) 69.322	0.800	0.172	15.340	27.890	43.230
69.408	0.800	0.173	15.242	27.712	42.954
69.742	0.800	0.177	14.878	27.051	41.929
(1.5H) 71.442	0.800	0.187	14.125	25.682	39.807
(SZB) 72.022	0.800	0.205	12.890	23.436	36.326
72.442	1.200	0.209	12.628	22.961	35.589
(CS) 73.101	1.200	0.191	13.805	25.101	38.906

Horizontal Interface Shear Capacity Details

Strength I

Details for Horizontal Interface Shear Capacity (Strength I) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.860	372063.7	8395.9	280.81	76.040	43.000	0.147
(FoS) 1.193	372063.7	8395.9	280.81	76.040	43.000	0.147
(SZB) 2.196	372063.7	8395.9	280.81	76.040	43.000	0.147
(Bar Develop.) 2.564	372063.7	8395.9	280.81	76.040	43.000	0.147
(Bar Develop.) 3.625	372063.7	8395.9	280.81	76.040	43.000	0.147
(H) 4.693	372063.7	8395.9	280.81	76.040	43.000	0.147
(CS) 4.987	372063.7	8395.9	280.81	76.040	43.000	0.147
(SZB) 5.862	372063.7	8395.9	275.88	74.707	43.000	0.145
(1.5H) 6.443	372063.7	8395.9	272.61	73.820	43.000	0.143
($0.1L_s$) 7.702	372063.7	8395.9	265.51	71.897	43.000	0.139
(SZB) 11.362	372063.7	8395.9	244.76	66.278	43.000	0.128
($0.2L_s$) 15.405	372063.7	8395.9	221.63	60.016	43.000	0.116
(SZB) 19.612	372063.7	8395.9	197.47	53.473	43.000	0.104
(Deck Bar Cutoff) 21.642	372063.7	8395.9	185.77	50.304	43.000	0.097
($0.3L_s$) 23.107	372063.7	8395.9	177.33	48.020	43.000	0.093
(SZB) 30.612	372063.7	8395.9	134.07	36.305	43.000	0.070
($0.4L_s$) 30.810	372063.7	8395.9	132.94	35.998	43.000	0.070
(HP) 31.242	372063.7	8395.9	130.45	35.325	43.000	0.068
($0.5L_s$) 38.512	372063.7	8395.9	88.77	24.038	43.000	0.047
($0.6L_s$) 46.215	372063.7	8395.9	77.89	21.092	43.000	0.041
(HP) 46.642	372063.7	8395.9	80.10	21.691	43.000	0.042
(SZB) 47.272	372063.7	8395.9	83.37	22.577	43.000	0.044
($0.7L_s$) 53.917	372063.7	8395.9	119.84	32.451	43.000	0.063
(SZB) 58.272	372063.7	8395.9	144.61	39.159	43.000	0.076

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
($0.8L_s$) 61.620	372063.7	8395.9	164.01	44.413	43.000	0.086
(SZB) 66.522	372063.7	8395.9	192.99	52.260	43.000	0.101
($0.9L_s$) 69.322	372063.7	8395.9	209.84	56.823	43.000	0.110
(1.5H) 71.442	372063.7	8395.9	222.71	60.308	43.000	0.117
(SZB) 72.022	372063.7	8395.9	226.25	61.267	43.000	0.119
(CS) 73.101	372063.7	8395.9	232.86	63.055	43.000	0.122
(H) 73.192	372063.7	8395.9	232.86	63.055	43.000	0.122
(Bar Develop.) 74.260	372063.7	8395.9	232.86	63.055	43.000	0.122
(Bar Develop.) 75.320	372063.7	8395.9	232.86	63.055	43.000	0.122
(SZB) 75.688	372063.7	8395.9	232.86	63.055	43.000	0.122
(FoS) 76.692	372063.7	8395.9	232.86	63.055	43.000	0.122
($1.0L_s$) 77.025	372063.7	8395.9	232.86	63.055	43.000	0.122
77.025	372063.7	8395.9	232.86	63.055	43.000	0.122

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.860	0.000	∞	0.220	12.000	0.220
(FoS) 1.193	0.000	∞	0.220	12.000	0.220
(SZB) 2.196	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.564	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 3.625	0.000	∞	0.220	12.000	0.220
(H) 4.693	0.000	∞	0.220	12.000	0.220
(CS) 4.987	0.000	∞	0.220	12.000	0.220
(SZB) 5.862	0.000	∞	0.220	12.000	0.220
(1.5H) 6.443	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.702	0.000	∞	0.220	12.000	0.220
(SZB) 11.362	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.405	0.000	∞	0.220	9.000	0.293
(SZB) 19.612	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 21.642	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.107	0.000	∞	0.220	12.000	0.220
(SZB) 30.612	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.810	0.000	∞	0.220	18.000	0.147
(HP) 31.242	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.512	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.215	0.000	∞	0.220	18.000	0.147
(HP) 46.642	0.000	∞	0.220	18.000	0.147
(SZB) 47.272	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 53.917	0.000	∞	0.220	12.000	0.220
(SZB) 58.272	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.620	0.000	∞	0.220	9.000	0.293
(SZB) 66.522	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.322	0.000	∞	0.220	12.000	0.220
(1.5H) 71.442	0.000	∞	0.220	12.000	0.220
(SZB) 72.022	0.000	∞	0.220	12.000	0.220
(CS) 73.101	0.000	∞	0.220	12.000	0.220
(H) 73.192	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.260	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 75.320	0.000	∞	0.220	12.000	0.220
(SZB) 75.688	0.000	∞	0.220	12.000	0.220
(FoS) 76.692	0.000	∞	0.220	12.000	0.220
($1.0L_s$) 77.025	0.000	∞	0.220	12.000	0.220
77.025	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.860	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 1.193	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 2.196	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 2.564	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 3.625	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 4.693	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(CS) 4.987	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 5.862	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 6.443	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.1L_s$) 7.702	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 11.362	516.000	0.293	0.783	162.785	696.600	928.800	146.507
($0.2L_s$) 15.405	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 19.612	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Deck Bar Cutoff) 21.642	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.3L_s$) 23.107	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 30.612	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.4L_s$) 30.810	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 31.242	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.5L_s$) 38.512	516.000	0.147	0.783	153.985	696.600	928.800	138.587

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
($0.6L_s$) 46.215	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 46.642	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(SZB) 47.272	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.7L_s$) 53.917	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 58.272	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.8L_s$) 61.620	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 66.522	516.000	0.293	0.783	162.785	696.600	928.800	146.507
($0.9L_s$) 69.322	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 71.442	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 72.022	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(CS) 73.101	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 73.192	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 74.260	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 75.320	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 75.688	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 76.692	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($1.0L_s$) 77.025	516.000	0.220	0.783	158.385	696.600	928.800	142.547
77.025	516.000	0.220	0.783	158.385	696.600	928.800	142.547

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \text{lesser of, but not} < 0.0 \begin{cases} \frac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \frac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3) \text{ rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.860	516.000	0.147	0.430	-0.548	0.000	No
(FoS) 1.193	516.000	0.147	0.430	-0.548	0.000	No
(SZB) 2.196	516.000	0.147	0.430	-0.548	0.000	No
(Bar Develop.) 2.564	516.000	0.147	0.430	-0.548	0.000	No
(Bar Develop.) 3.625	516.000	0.147	0.430	-0.548	0.000	No
(H) 4.693	516.000	0.147	0.430	-0.548	0.000	No
(CS) 4.987	516.000	0.147	0.430	-0.548	0.000	No
(SZB) 5.862	516.000	0.145	0.430	-0.581	0.000	No
(1.5H) 6.443	516.000	0.143	0.430	-0.603	0.000	No
($0.1L_s$) 7.702	516.000	0.139	0.430	-0.650	0.000	No
(SZB) 11.362	516.000	0.128	0.430	-0.789	0.000	No
($0.2L_s$) 15.405	516.000	0.116	0.430	-0.943	0.000	No
(SZB) 19.612	516.000	0.104	0.430	-1.104	0.000	No
(Deck Bar Cutoff) 21.642	516.000	0.097	0.430	-1.182	0.000	No
($0.3L_s$) 23.107	516.000	0.093	0.430	-1.238	0.000	No
(SZB) 30.612	516.000	0.070	0.430	-1.527	0.000	No
($0.4L_s$) 30.810	516.000	0.070	0.430	-1.534	0.000	No
(HP) 31.242	516.000	0.068	0.430	-1.551	0.000	No
($0.5L_s$) 38.512	516.000	0.047	0.430	-1.829	0.000	No
($0.6L_s$) 46.215	516.000	0.041	0.430	-1.902	0.000	No
(HP) 46.642	516.000	0.042	0.430	-1.887	0.000	No
(SZB) 47.272	516.000	0.044	0.430	-1.865	0.000	No
($0.7L_s$) 53.917	516.000	0.063	0.430	-1.622	0.000	No
(SZB) 58.272	516.000	0.076	0.430	-1.457	0.000	No
($0.8L_s$) 61.620	516.000	0.086	0.430	-1.327	0.000	No
(SZB) 66.522	516.000	0.101	0.430	-1.134	0.000	No
($0.9L_s$) 69.322	516.000	0.110	0.430	-1.022	0.000	No
(1.5H) 71.442	516.000	0.117	0.430	-0.936	0.000	No
(SZB) 72.022	516.000	0.119	0.430	-0.912	0.000	No
(CS) 73.101	516.000	0.122	0.430	-0.868	0.000	No
(H) 73.192	516.000	0.122	0.430	-0.868	0.000	No
(Bar Develop.) 74.260	516.000	0.122	0.430	-0.868	0.000	No
(Bar Develop.) 75.320	516.000	0.122	0.430	-0.868	0.000	No
(SZB) 75.688	516.000	0.122	0.430	-0.868	0.000	No
(FoS) 76.692	516.000	0.122	0.430	-0.868	0.000	No
($1.0L_s$) 77.025	516.000	0.122	0.430	-0.868	0.000	No
77.025	516.000	0.122	0.430	-0.868	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Strength II

Details for Horizontal Interface Shear Capacity (Strength II) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.860	372063.7	8395.9	273.41	74.038	43.000	0.143
(FoS) 1.193	372063.7	8395.9	273.41	74.038	43.000	0.143
(SZB) 2.196	372063.7	8395.9	273.41	74.038	43.000	0.143
(Bar Develop.) 2.564	372063.7	8395.9	273.41	74.038	43.000	0.143
(Bar Develop.) 3.625	372063.7	8395.9	273.41	74.038	43.000	0.143
(H) 4.693	372063.7	8395.9	273.41	74.038	43.000	0.143
(SZB) 5.862	372063.7	8395.9	268.83	72.796	43.000	0.141
(1.5H) 6.443	372063.7	8395.9	265.77	71.967	43.000	0.139
($0.1L_s$) 7.702	372063.7	8395.9	259.10	70.162	43.000	0.136

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
(SZB) 11.362	372063.7	8395.9	239.41	64.829	43.000	0.126
($0.2L_s$) 15.405	372063.7	8395.9	216.93	58.743	43.000	0.114
(SZB) 19.612	372063.7	8395.9	192.88	52.229	43.000	0.101
(Deck Bar Cutoff) 21.642	372063.7	8395.9	181.00	49.012	43.000	0.095
($0.3L_s$) 23.107	372063.7	8395.9	172.35	46.670	43.000	0.090
(SZB) 30.612	372063.7	8395.9	126.82	34.341	43.000	0.067
($0.4L_s$) 30.810	372063.7	8395.9	125.59	34.010	43.000	0.066
(HP) 31.242	372063.7	8395.9	122.91	33.283	43.000	0.065
($0.5L_s$) 38.512	372063.7	8395.9	76.91	20.827	43.000	0.040
($0.6L_s$) 46.215	372063.7	8395.9	72.58	19.655	43.000	0.038
(HP) 46.642	372063.7	8395.9	74.76	20.243	43.000	0.039
(SZB) 47.272	372063.7	8395.9	77.97	21.114	43.000	0.041
($0.7L_s$) 53.917	372063.7	8395.9	113.73	30.797	43.000	0.060
(SZB) 58.272	372063.7	8395.9	137.84	37.325	43.000	0.072
($0.8L_s$) 61.620	372063.7	8395.9	156.66	42.422	43.000	0.082
(SZB) 66.522	372063.7	8395.9	184.52	49.967	43.000	0.097
($0.9L_s$) 69.322	372063.7	8395.9	200.64	54.332	43.000	0.105
(1.5H) 71.442	372063.7	8395.9	212.88	57.647	43.000	0.112
(SZB) 72.022	372063.7	8395.9	216.24	58.556	43.000	0.113
(H) 73.192	372063.7	8395.9	222.50	60.250	43.000	0.117
(Bar Develop.) 74.260	372063.7	8395.9	222.50	60.250	43.000	0.117
(Bar Develop.) 75.320	372063.7	8395.9	222.50	60.250	43.000	0.117
(SZB) 75.688	372063.7	8395.9	222.50	60.250	43.000	0.117
(FoS) 76.692	372063.7	8395.9	222.50	60.250	43.000	0.117
($1.0L_s$) 77.025	372063.7	8395.9	222.50	60.250	43.000	0.117
77.025	372063.7	8395.9	222.50	60.250	43.000	0.117

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.860	0.000	∞	0.220	12.000	0.220
(FoS) 1.193	0.000	∞	0.220	12.000	0.220
(SZB) 2.196	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.564	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 3.625	0.000	∞	0.220	12.000	0.220
(H) 4.693	0.000	∞	0.220	12.000	0.220
(SZB) 5.862	0.000	∞	0.220	12.000	0.220
(1.5H) 6.443	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.702	0.000	∞	0.220	12.000	0.220
(SZB) 11.362	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.405	0.000	∞	0.220	9.000	0.293
(SZB) 19.612	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 21.642	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.107	0.000	∞	0.220	12.000	0.220
(SZB) 30.612	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.810	0.000	∞	0.220	18.000	0.147
(HP) 31.242	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.512	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.215	0.000	∞	0.220	18.000	0.147
(HP) 46.642	0.000	∞	0.220	18.000	0.147
(SZB) 47.272	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 53.917	0.000	∞	0.220	12.000	0.220
(SZB) 58.272	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.620	0.000	∞	0.220	9.000	0.293
(SZB) 66.522	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.322	0.000	∞	0.220	12.000	0.220
(1.5H) 71.442	0.000	∞	0.220	12.000	0.220
(SZB) 72.022	0.000	∞	0.220	12.000	0.220
(H) 73.192	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.260	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 75.320	0.000	∞	0.220	12.000	0.220
(SZB) 75.688	0.000	∞	0.220	12.000	0.220
(FoS) 76.692	0.000	∞	0.220	12.000	0.220
($1.0L_s$) 77.025	0.000	∞	0.220	12.000	0.220
77.025	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, $\mu = 1$, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, $\gamma_{DC} = 0.9$, $K_1 = 0.3$, $K_2 = 1.800$ KSI, $\phi = 0.9$, $f'_c = 4.500$ KSI, $f_y = 60.000$ KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c], K_1 f'_c a_{cv}, K_2 a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
0.860	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 1.193	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 2.196	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 2.564	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 3.625	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 4.693	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 5.862	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 6.443	516.000	0.220	0.783	158.385	696.600	928.800	142.547

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
($0.1L_s$) 7.702	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 11.362	516.000	0.293	0.783	162.785	696.600	928.800	146.507
($0.2L_s$) 15.405	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 19.612	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Deck Bar Cutoff) 21.642	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.3L_s$) 23.107	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 30.612	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.4L_s$) 30.810	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 31.242	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.5L_s$) 38.512	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.6L_s$) 46.215	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(HP) 46.642	516.000	0.147	0.783	153.985	696.600	928.800	138.587
(SZB) 47.272	516.000	0.147	0.783	153.985	696.600	928.800	138.587
($0.7L_s$) 53.917	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 58.272	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($0.8L_s$) 61.620	516.000	0.293	0.783	162.785	696.600	928.800	146.507
(SZB) 66.522	516.000	0.293	0.783	162.785	696.600	928.800	146.507
($0.9L_s$) 69.322	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(1.5H) 71.442	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 72.022	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(H) 73.192	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 74.260	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(Bar Develop.) 75.320	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(SZB) 75.688	516.000	0.220	0.783	158.385	696.600	928.800	142.547
(FoS) 76.692	516.000	0.220	0.783	158.385	696.600	928.800	142.547
($1.0L_s$) 77.025	516.000	0.220	0.783	158.385	696.600	928.800	142.547
77.025	516.000	0.220	0.783	158.385	696.600	928.800	142.547

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \text{lesser of, but not} < 0.0 \begin{cases} \frac{0.05 a_{cv}}{f_y} & \text{(5.7.4.2-1)} \\ \frac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & \text{(5.7.4.3-3) rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.860	516.000	0.143	0.430	-0.598	0.000	No
(FoS) 1.193	516.000	0.143	0.430	-0.598	0.000	No
(SZB) 2.196	516.000	0.143	0.430	-0.598	0.000	No
(Bar Develop.) 2.564	516.000	0.143	0.430	-0.598	0.000	No
(Bar Develop.) 3.625	516.000	0.143	0.430	-0.598	0.000	No
(H) 4.693	516.000	0.143	0.430	-0.598	0.000	No
(SZB) 5.862	516.000	0.141	0.430	-0.628	0.000	No
(1.5H) 6.443	516.000	0.139	0.430	-0.649	0.000	No
($0.1L_s$) 7.702	516.000	0.136	0.430	-0.693	0.000	No
(SZB) 11.362	516.000	0.126	0.430	-0.824	0.000	No
($0.2L_s$) 15.405	516.000	0.114	0.430	-0.974	0.000	No
(SZB) 19.612	516.000	0.101	0.430	-1.135	0.000	No
(Deck Bar Cutoff) 21.642	516.000	0.095	0.430	-1.214	0.000	No
($0.3L_s$) 23.107	516.000	0.090	0.430	-1.272	0.000	No
(SZB) 30.612	516.000	0.067	0.430	-1.575	0.000	No
($0.4L_s$) 30.810	516.000	0.066	0.430	-1.583	0.000	No
(HP) 31.242	516.000	0.065	0.430	-1.601	0.000	No
($0.5L_s$) 38.512	516.000	0.040	0.430	-1.908	0.000	No
($0.6L_s$) 46.215	516.000	0.038	0.430	-1.937	0.000	No
(HP) 46.642	516.000	0.039	0.430	-1.922	0.000	No
(SZB) 47.272	516.000	0.041	0.430	-1.901	0.000	No
($0.7L_s$) 53.917	516.000	0.060	0.430	-1.663	0.000	No
(SZB) 58.272	516.000	0.072	0.430	-1.502	0.000	No
($0.8L_s$) 61.620	516.000	0.082	0.430	-1.376	0.000	No
(SZB) 66.522	516.000	0.097	0.430	-1.190	0.000	No
($0.9L_s$) 69.322	516.000	0.105	0.430	-1.083	0.000	No
(1.5H) 71.442	516.000	0.112	0.430	-1.001	0.000	No
(SZB) 72.022	516.000	0.113	0.430	-0.979	0.000	No
(H) 73.192	516.000	0.117	0.430	-0.937	0.000	No
(Bar Develop.) 74.260	516.000	0.117	0.430	-0.937	0.000	No
(Bar Develop.) 75.320	516.000	0.117	0.430	-0.937	0.000	No
(SZB) 75.688	516.000	0.117	0.430	-0.937	0.000	No
(FoS) 76.692	516.000	0.117	0.430	-0.937	0.000	No
($1.0L_s$) 77.025	516.000	0.117	0.430	-0.937	0.000	No
77.025	516.000	0.117	0.430	-0.937	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Stirrup Detailing Check Details

$$\frac{A_v}{S} min = \frac{0.0316 \lambda \sqrt{f'_c}\, b_v}{f_y}$$

f'_c = 8.000 KSI

f_y = 60.000 KSI

Details for Minimum Transverse Reinforcement Check - 5.7.2.5-1

Location from Left Support (ft)	b_v (in)	A_v/S_{min} (in^2/ft)
0.000	7.000	0.125
(FoS) 0.333	7.000	0.125
(SZB) 1.337	7.000	0.125
(Bar Develop.) 1.705	7.000	0.125
(Bar Develop.) 2.765	7.000	0.125
(H) 3.833	7.000	0.125
(CS) 4.127	7.000	0.125
(SZB) 5.003	7.000	0.125
(1.5H) 5.583	7.000	0.125
6.843	7.000	0.125
(SZB) 10.503	7.000	0.125
14.545	7.000	0.125
(SZB) 18.753	7.000	0.125
(Deck Bar Cutoff) 20.783	7.000	0.125
22.248	7.000	0.125
(SZB) 29.753	7.000	0.125
29.950	7.000	0.125
(HP) 30.383	7.000	0.125
37.653	7.000	0.125
45.355	7.000	0.125
(HP) 45.783	7.000	0.125
(SZB) 46.413	7.000	0.125
53.058	7.000	0.125
(SZB) 57.413	7.000	0.125
60.760	7.000	0.125
(SZB) 65.663	7.000	0.125
68.463	7.000	0.125
(1.5H) 70.582	7.000	0.125
(SZB) 71.163	7.000	0.125
(CS) 72.241	7.000	0.125
(H) 72.332	7.000	0.125
(Bar Develop.) 73.400	7.000	0.125
(Bar Develop.) 74.461	7.000	0.125
(SZB) 74.829	7.000	0.125
(FoS) 75.832	7.000	0.125
($1.0L_e$) 76.165	7.000	0.125
76.165	7.000	N/A

Strength I - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.960	1.000	7.000	45.900	18.000
(FoS) 0.333	0.951	1.000	7.000	45.868	18.000
(SZB) 1.337	0.926	1.000	7.000	45.773	18.000
(Bar Develop.) 1.705	0.917	1.000	7.000	45.739	18.000
(Bar Develop.) 2.765	0.894	1.000	7.000	45.643	18.000
(H) 3.833	0.896	1.000	7.000	45.549	18.000
(CS) 4.127	0.897	1.000	7.000	45.524	18.000
(SZB) 5.003	0.881	1.000	7.000	45.451	18.000
(1.5H) 5.583	0.870	1.000	7.000	45.403	18.000
6.843	0.847	1.000	7.000	45.302	18.000
(SZB) 10.503	0.898	1.000	7.000	39.051	18.000
14.545	0.792	1.000	7.000	39.633	18.000
(SZB) 18.753	0.673	1.000	7.000	40.950	18.000
(Deck Bar Cutoff) 20.783	0.618	1.000	7.000	41.590	18.000
22.248	0.579	1.000	7.000	42.054	18.000
(SZB) 29.753	0.394	1.000	7.000	44.461	18.000
29.950	0.389	1.000	7.000	44.525	18.000
(HP) 30.383	0.379	1.000	7.000	44.665	18.000
37.653	0.315	1.000	7.000	44.665	18.000
45.355	0.277	1.000	7.000	44.665	18.000
(HP) 45.783	0.200	1.000	7.000	44.665	18.000
(SZB) 46.413	0.212	1.000	7.000	44.461	18.000
53.058	0.359	1.000	7.000	42.327	18.000
(SZB) 57.413	0.468	1.000	7.000	40.949	18.000
60.760	0.557	1.000	7.000	39.900	18.000
(SZB) 65.663	0.687	1.000	7.000	39.051	18.000
68.463	0.735	1.000	7.000	40.141	18.000
(1.5H) 70.582	0.759	1.000	7.000	41.585	18.000
(SZB) 71.163	0.772	1.000	7.000	41.584	18.000
(CS) 72.241	0.766	1.000	7.000	43.290	18.000
(H) 72.332	0.766	1.000	7.000	43.293	18.000
(Bar Develop.) 73.400	0.766	1.000	7.000	43.323	18.000
(Bar Develop.) 74.461	0.789	1.000	7.000	43.476	18.000
(SZB) 74.829	0.798	1.000	7.000	43.551	18.000
(FoS) 75.832	0.822	1.000	7.000	43.816	18.000
($1.0L_e$) 76.165	0.803	1.000	7.000	45.392	18.000

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
76.165	0.803	1.000	7.000	45.392	N/A

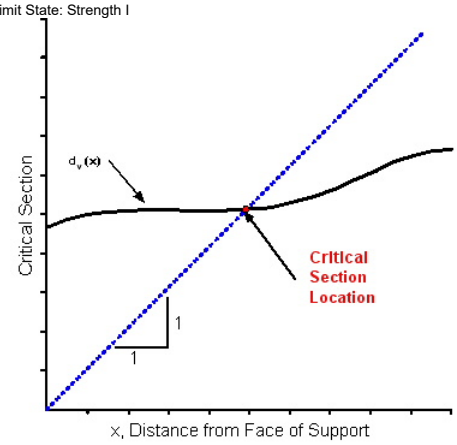
Strength II - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.960	1.000	7.000	45.900	18.000
(FoS) 0.333	0.951	1.000	7.000	45.868	18.000
(SZB) 1.337	0.926	1.000	7.000	45.773	18.000
(Bar Develop.) 1.705	0.917	1.000	7.000	45.739	18.000
(Bar Develop.) 2.765	0.894	1.000	7.000	45.643	18.000
(H) 3.833	0.896	1.000	7.000	45.549	18.000
(CS) 4.127	0.897	1.000	7.000	45.524	18.000
(SZB) 5.003	0.881	1.000	7.000	45.451	18.000
(1.5H) 5.583	0.870	1.000	7.000	45.403	18.000
6.843	0.847	1.000	7.000	45.302	18.000
(SZB) 10.503	0.898	1.000	7.000	39.051	18.000
14.545	0.792	1.000	7.000	39.633	18.000
(SZB) 18.753	0.673	1.000	7.000	40.950	18.000
(Deck Bar Cutoff) 20.783	0.618	1.000	7.000	41.590	18.000
22.248	0.579	1.000	7.000	42.054	18.000
(SZB) 29.753	0.394	1.000	7.000	44.461	18.000
29.950	0.389	1.000	7.000	44.525	18.000
(HP) 30.383	0.379	1.000	7.000	44.665	18.000
37.653	0.315	1.000	7.000	44.665	18.000
45.355	0.277	1.000	7.000	44.665	18.000
(HP) 45.783	0.200	1.000	7.000	44.665	18.000
(SZB) 46.413	0.212	1.000	7.000	44.461	18.000
53.058	0.359	1.000	7.000	42.327	18.000
(SZB) 57.413	0.468	1.000	7.000	40.949	18.000
60.760	0.557	1.000	7.000	39.900	18.000
(SZB) 65.663	0.687	1.000	7.000	39.051	18.000
68.463	0.735	1.000	7.000	40.141	18.000
(1.5H) 70.582	0.759	1.000	7.000	41.585	18.000
(SZB) 71.163	0.772	1.000	7.000	41.584	18.000
(CS) 72.241	0.766	1.000	7.000	43.290	18.000
(H) 72.332	0.766	1.000	7.000	43.293	18.000
(Bar Develop.) 73.400	0.766	1.000	7.000	43.323	18.000
(Bar Develop.) 74.461	0.789	1.000	7.000	43.476	18.000
(SZB) 74.829	0.798	1.000	7.000	43.551	18.000
(FoS) 75.832	0.822	1.000	7.000	43.816	18.000
(1.0L_e) 76.165	0.803	1.000	7.000	45.392	18.000
76.165	0.803	1.000	7.000	45.392	N/A

Critical Section for Shear Details

Limit State: Strength I



LRFD 5.8.3.2
Critical Section = d_v measured at d_v from the face of support

Critical Section Calculation for Ahead side of Pier 2

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(FoS) 0.333	0.000	45.868	No
1.333	12.000	45.773	No
(SZB) 1.337	12.039	45.773	No
(Bar Develop.) 1.705	16.456	45.739	No
(PSXFR) 2.583	27.000	45.659	No
2.625	27.500	45.655	No
(Bar Develop.) 2.765	29.184	45.643	No
(H) 3.833	42.000	45.549	No

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
4.127	45.524	45.524	*Yes
4.583	51.000	45.486	No
(SZB) 5.003	56.031	45.451	No
(1.5H) 5.583	63.000	45.403	No
6.843	78.115	45.302	No
7.283	83.398	45.268	No
($0.1L_e$) 7.617	87.398	45.243	No
8.683	100.198	45.163	No

* - Intersection values are linearly interpolated
Critical Section is at 3.794 ft (45.524 in) from the face of support on the Ahead side of Pier 2

Critical Section Calculation for Back side of Pier 3

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
67.482	100.198	40.198	No
68.463	88.430	40.141	No
($0.9L_e$) 68.549	87.398	40.136	No
68.882	83.398	40.119	No
(1.5H) 70.582	63.000	41.585	No
(SZB) 71.163	56.031	41.584	No
71.582	51.000	41.585	No
72.241	43.086	43.086	*Yes
(H) 72.332	42.000	43.293	No
(Bar Develop.) 73.400	29.184	43.323	No
73.540	27.500	43.327	No
(PSXFR) 73.582	27.000	43.328	No
(Bar Develop.) 74.461	16.456	43.476	No
(SZB) 74.829	12.039	43.551	No
74.832	12.000	43.552	No
(FoS) 75.832	0.000	43.816	No

* - Intersection values are linearly interpolated
Critical Section is at 3.591 ft (43.086 in) from the face of support on the Back side of Pier 3

Longitudinal Reinforcement for Shear

$$A_s f_y + A_{ps} f_{ps} \geq \left[\frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right] \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Strength I

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y* (KSI)	A_{ps} (in^2)	f_{ps}* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 1.193	33.680	57.881	2.170	0.000	2438.26	45.868	0.9
(SZB) 2.196	33.680	59.049	2.170	0.000	2215.34	45.773	0.9
(Bar Develop.) 2.564	33.680	59.477	2.170	0.000	2134.79	45.739	0.9
(Bar Develop.) 3.625	33.680	60.000	2.170	0.000	1906.36	45.643	0.9
(H) 4.693	33.680	60.000	2.170	0.000	1691.16	45.549	0.9
(CS) 4.987	33.680	60.000	2.170	0.000	1638.99	45.524	0.9
(SZB) 5.862	33.680	60.000	2.170	0.000	1486.18	45.451	0.9
(1.5H) 6.443	33.680	60.000	1.736	0.000	1386.70	45.403	0.9
($0.1L_s$) 7.702	33.680	60.000	1.736	0.000	1165.99	45.302	0.9
(SZB) 11.362	0.400	60.000	5.208	252.051	1030.23	39.051	1
($0.2L_s$) 15.405	0.400	60.000	6.076	267.972	1618.00	39.633	1
(SZB) 19.612	0.400	60.000	6.076	268.701	2207.30	40.950	1
(Deck Bar Cutoff) 21.642	0.400	60.000	6.076	269.048	2469.79	41.590	1
($0.3L_s$) 23.107	0.400	60.000	6.076	269.285	2643.32	42.054	1
(SZB) 30.612	0.400	60.000	6.076	269.963	3353.93	44.461	1
($0.4L_s$) 30.810	0.400	60.000	6.076	269.970	3367.98	44.525	1
(HP) 31.242	0.400	60.000	6.076	269.984	3397.85	44.665	1
($0.5L_s$) 38.512	0.400	60.000	6.076	269.986	3727.05	44.665	1
($0.6L_s$) 46.215	0.400	60.000	6.076	269.986	3747.88	44.665	1
(HP) 46.642	0.400	60.000	6.076	269.986	3739.52	44.665	1
(SZB) 47.272	0.400	60.000	6.076	269.964	3724.90	44.461	1
($0.7L_s$) 53.917	0.400	60.000	6.076	269.410	3403.21	42.327	1
(SZB) 58.272	0.400	60.000	6.076	268.714	3053.86	40.949	1
($0.8L_s$) 61.620	0.400	60.000	6.076	268.137	2695.35	39.900	1
(SZB) 66.522	0.400	60.000	5.208	252.066	2025.90	39.051	1
($0.9L_s$) 69.322	0.400	60.000	4.774	230.654	1565.38	40.141	1
(1.5H) 71.442	0.400	60.000	4.340	214.483	1178.50	41.585	1
(SZB) 72.022	0.400	60.000	3.906	210.057	1066.69	41.584	1
(CS) 73.101	0.400	60.000	3.906	201.828	852.37	43.290	1
(H) 73.192	0.400	60.000	3.906	201.138	833.99	43.293	1
(Bar Develop.) 74.260	0.400	60.000	3.906	193.006	612.61	43.323	1
(Bar Develop.) 75.320	0.400	60.000	3.906	158.583	384.37	43.476	1
(SZB) 75.688	0.400	49.590	3.906	144.524	303.22	43.551	1
(FoS) 76.692	0.400	21.213	3.906	106.061	76.87	43.816	1

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 1.193	0.00	0.75	280.81	0.9	312.01	26.26	30.14
(SZB) 2.196	0.00	0.75	280.81	0.9	312.01	26.26	30.14
(Bar Develop.) 2.564	0.00	0.75	280.81	0.9	312.01	26.26	30.14
(Bar Develop.) 3.625	0.00	0.75	280.81	0.9	312.01	26.26	30.14
(H) 4.693	0.00	0.75	280.81	0.9	312.01	26.26	30.14
(CS) 4.987	0.00	0.75	280.81	0.9	312.01	26.26	30.14
(SZB) 5.862	0.00	0.75	275.88	0.9	306.54	26.27	29.97
(1.5H) 6.443	0.00	0.75	272.61	0.9	302.90	26.28	30.11
($0.1L_s$) 7.702	0.00	0.75	265.51	0.9	295.01	26.31	29.86
(SZB) 11.362	0.00	0.75	244.76	0.9	193.88	26.37	28.24
($0.2L_s$) 15.405	0.00	0.75	221.63	0.9	197.15	26.44	28.19
(SZB) 19.612	0.00	0.75	197.47	0.9	151.31	26.49	28.43
(Deck Bar Cutoff) 21.642	0.00	0.75	185.77	0.9	153.07	26.50	28.52
($0.3L_s$) 23.107	0.00	0.75	177.33	0.9	154.41	26.51	28.58
(SZB) 30.612	0.00	0.75	134.07	0.9	107.99	26.47	28.76
($0.4L_s$) 30.810	0.00	0.75	132.94	0.9	108.14	26.46	28.77
(HP) 31.242	0.00	0.75	130.45	0.9	108.46	26.46	28.77
($0.5L_s$) 38.512	0.00	0.75	88.77	0.9	98.63	0.00	28.90
($0.6L_s$) 46.215	0.00	0.75	77.89	0.9	86.55	0.00	28.89
(HP) 46.642	0.00	0.75	80.10	0.9	89.00	26.54	28.84
(SZB) 47.272	0.00	0.75	83.37	0.9	92.64	26.56	28.85
($0.7L_s$) 53.917	0.00	0.75	119.84	0.9	133.15	26.66	28.84
(SZB) 58.272	0.00	0.75	144.61	0.9	149.19	26.67	28.76
($0.8L_s$) 61.620	0.00	0.75	164.01	0.9	182.23	26.66	28.65
(SZB) 66.522	0.00	0.75	192.99	0.9	190.33	26.61	28.68
($0.9L_s$) 69.322	0.00	0.75	209.84	0.9	233.16	26.57	28.63
(1.5H) 71.442	0.00	0.75	222.71	0.9	247.46	26.54	28.59
(SZB) 72.022	0.00	0.75	226.25	0.9	251.39	26.53	28.67
(CS) 73.101	0.00	0.75	232.86	0.9	258.73	26.52	28.57
(H) 73.192	0.00	0.75	232.86	0.9	258.73	26.52	28.57
(Bar Develop.) 74.260	0.00	0.75	232.86	0.9	258.73	26.52	28.57
(Bar Develop.) 75.320	0.00	0.75	232.86	0.9	258.73	26.52	28.57
(SZB) 75.688	0.00	0.75	232.86	0.9	258.73	26.52	28.57
(FoS) 76.692	0.00	0.75	232.86	0.9	258.73	26.52	28.57

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 1.193	932.25	1949.42	5.7.3.5-1
(SZB) 2.196	868.79	1988.77	5.7.3.5-1
(Bar Develop.) 2.564	845.79	2003.20	5.7.3.5-1
(Bar Develop.) 3.625	780.37	2020.80	5.7.3.5-1
(H) 4.693	718.52	2020.80	5.7.3.5-1
(CS) 4.987	703.51	2020.80	5.7.3.5-1
(SZB) 5.862	656.26	2020.80	5.7.3.5-1
(1.5H) 6.443	623.08	2020.80	5.7.3.5-1
($0.1L_s$) 7.702	554.29	2020.80	5.7.3.5-1
(SZB) 11.362	593.32	1336.68	5.7.3.5-1
($0.2L_s$) 15.405	716.06	1652.20	5.7.3.5-1
(SZB) 19.612	863.49	1656.63	5.7.3.5-1
(Deck Bar Cutoff) 21.642	902.84	1658.74	5.7.3.5-1
($0.3L_s$) 23.107	925.59	1660.18	5.7.3.5-1
(SZB) 30.612	1030.01	1664.29	5.7.3.5-1
($0.4L_s$) 30.810	1030.06	1664.34	5.7.3.5-1
(HP) 31.242	1029.92	1664.43	5.7.3.5-1
($0.5L_s$) 38.512	1090.67	1664.43	5.7.3.5-1
($0.6L_s$) 46.215	1085.35	1664.43	5.7.3.5-1
(HP) 46.642	1037.29	1664.43	5.7.3.5-1
(SZB) 47.272	1041.21	1664.30	5.7.3.5-1
($0.7L_s$) 53.917	1037.31	1660.94	5.7.3.5-1
(SZB) 58.272	1003.15	1656.71	5.7.3.5-1
($0.8L_s$) 61.620	928.60	1653.20	5.7.3.5-1
(SZB) 66.522	791.90	1336.76	5.7.3.5-1
($0.9L_s$) 69.322	632.86	1125.14	5.7.3.5-1
(1.5H) 71.442	518.40	954.85	5.7.3.5-1
(SZB) 72.022	489.13	844.48	5.7.3.5-1
(CS) 73.101	425.14	812.34	5.7.3.5-1
(H) 73.192	188.86	809.65	5.7.3.5-2
(Bar Develop.) 74.260	188.86	777.88	5.7.3.5-2
(Bar Develop.) 75.320	188.86	643.42	5.7.3.5-2
(SZB) 75.688	188.86	584.35	5.7.3.5-2
(FoS) 76.692	188.86	422.76	5.7.3.5-2

Strength II

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 1.193	33.680	57.881	2.170	0.000	2010.28	45.868	0.9

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(SZB) 2.196	33.680	59.049	2.170	0.000	1818.20	45.773	0.9
(Bar Develop.) 2.564	33.680	59.477	2.170	0.000	1748.54	45.739	0.9
(Bar Develop.) 3.625	33.680	60.000	2.170	0.000	1550.32	45.643	0.9
(H) 4.693	33.680	60.000	2.170	0.000	1363.93	45.549	0.9
(SZB) 5.862	33.680	60.000	2.170	0.000	1184.35	45.451	0.9
(1.5H) 6.443	33.680	60.000	1.736	0.000	1096.36	45.403	0.9
($0.1L_s$) 7.702	33.680	60.000	1.736	0.000	908.49	45.302	0.9
(SZB) 11.362	0.400	60.000	5.208	252.051	839.72	39.051	1
($0.2L_s$) 15.405	0.400	60.000	6.076	267.972	1480.11	39.633	1
(SZB) 19.612	0.400	60.000	6.076	268.701	2044.71	40.950	1
(Deck Bar Cutoff) 21.642	0.400	60.000	6.076	269.048	2293.79	41.590	1
($0.3L_s$) 23.107	0.400	60.000	6.076	269.285	2461.86	42.054	1
(SZB) 30.612	0.400	60.000	6.076	269.963	3140.28	44.461	1
($0.4L_s$) 30.810	0.400	60.000	6.076	269.970	3153.74	44.525	1
(HP) 31.242	0.400	60.000	6.076	269.984	3182.38	44.665	1
($0.5L_s$) 38.512	0.400	60.000	6.076	269.986	3521.72	44.665	1
($0.6L_s$) 46.215	0.400	60.000	6.076	269.986	3513.14	44.665	1
(HP) 46.642	0.400	60.000	6.076	269.986	3500.87	44.665	1
(SZB) 47.272	0.400	60.000	6.076	269.964	3480.36	44.461	1
($0.7L_s$) 53.917	0.400	60.000	6.076	269.410	3192.99	42.327	1
(SZB) 58.272	0.400	60.000	6.076	268.714	2867.93	40.949	1
($0.8L_s$) 61.620	0.400	60.000	6.076	268.137	2526.04	39.900	1
(SZB) 66.522	0.400	60.000	5.208	252.066	1901.81	39.051	1
($0.9L_s$) 69.322	0.400	60.000	4.774	230.654	1476.19	40.141	1
(1.5H) 71.442	0.400	60.000	4.340	214.483	1114.91	41.585	1
(SZB) 72.022	0.400	60.000	3.906	210.057	1009.97	41.584	1
(H) 73.192	0.400	60.000	3.906	201.138	791.00	43.293	1
(Bar Develop.) 74.260	0.400	60.000	3.906	193.006	581.95	43.323	1
(Bar Develop.) 75.320	0.400	60.000	3.906	158.583	365.69	43.476	1
(SZB) 75.688	0.400	49.590	3.906	144.524	288.63	43.551	1
(FoS) 76.692	0.400	21.213	3.906	106.061	73.27	43.816	1

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 1.193	0.00	0.75	273.41	0.9	303.79	26.26	29.83
(SZB) 2.196	0.00	0.75	273.41	0.9	303.79	26.26	29.83
(Bar Develop.) 2.564	0.00	0.75	273.41	0.9	303.79	26.26	29.83
(Bar Develop.) 3.625	0.00	0.75	273.41	0.9	303.79	26.26	29.83
(H) 4.693	0.00	0.75	273.41	0.9	303.79	26.26	29.83
(SZB) 5.862	0.00	0.75	268.83	0.9	298.70	26.27	29.67
(1.5H) 6.443	0.00	0.75	265.77	0.9	295.30	26.28	29.82
($0.1L_s$) 7.702	0.00	0.75	259.10	0.9	287.89	26.31	29.60
(SZB) 11.362	0.00	0.75	239.41	0.9	194.80	26.37	28.13
($0.2L_s$) 15.405	0.00	0.75	216.93	0.9	197.82	26.44	28.11
(SZB) 19.612	0.00	0.75	192.88	0.9	151.88	26.49	28.33
(Deck Bar Cutoff) 21.642	0.00	0.75	181.00	0.9	153.69	26.50	28.42
($0.3L_s$) 23.107	0.00	0.75	172.35	0.9	155.05	26.51	28.48
(SZB) 30.612	0.00	0.75	126.82	0.9	108.50	26.47	28.65
($0.4L_s$) 30.810	0.00	0.75	125.59	0.9	108.64	26.46	28.65
(HP) 31.242	0.00	0.75	122.91	0.9	108.97	26.46	28.66
($0.5L_s$) 38.512	0.00	0.75	76.91	0.9	85.46	0.00	28.78
($0.6L_s$) 46.215	0.00	0.75	72.58	0.9	80.65	0.00	28.77
(HP) 46.642	0.00	0.75	74.76	0.9	83.06	26.54	28.72
(SZB) 47.272	0.00	0.75	77.97	0.9	86.63	26.56	28.73
($0.7L_s$) 53.917	0.00	0.75	113.73	0.9	126.37	26.66	28.73
(SZB) 58.272	0.00	0.75	137.84	0.9	149.85	26.67	28.66
($0.8L_s$) 61.620	0.00	0.75	156.66	0.9	174.07	26.66	28.55
(SZB) 66.522	0.00	0.75	184.52	0.9	190.98	26.61	28.60
($0.9L_s$) 69.322	0.00	0.75	200.64	0.9	222.94	26.57	28.57
(1.5H) 71.442	0.00	0.75	212.88	0.9	236.54	26.54	28.54
(SZB) 72.022	0.00	0.75	216.24	0.9	240.27	26.53	28.63
(H) 73.192	0.00	0.75	222.50	0.9	247.22	26.52	28.53
(Bar Develop.) 74.260	0.00	0.75	222.50	0.9	247.22	26.52	28.53
(Bar Develop.) 75.320	0.00	0.75	222.50	0.9	247.22	26.52	28.53
(SZB) 75.688	0.00	0.75	222.50	0.9	247.22	26.52	28.53
(FoS) 76.692	0.00	0.75	222.50	0.9	247.22	26.52	28.53

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

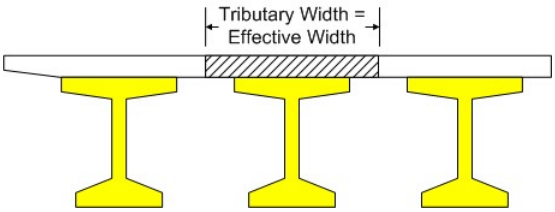
Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 1.193	803.51	1949.42	5.7.3.5-1
(SZB) 2.196	748.77	1988.77	5.7.3.5-1
(Bar Develop.) 2.564	728.86	2003.20	5.7.3.5-1
(Bar Develop.) 3.625	672.03	2020.80	5.7.3.5-1
(H) 4.693	618.40	2020.80	5.7.3.5-1

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(SZB) 5.862	563.47	2020.80	5.7.3.5-1
(1.5H) 6.443	533.69	2020.80	5.7.3.5-1
(0.1L_s) 7.702	474.44	2020.80	5.7.3.5-1
(SZB) 11.362	524.10	1336.68	5.7.3.5-1
(0.2L_s) 15.405	664.67	1652.20	5.7.3.5-1
(SZB) 19.612	806.67	1656.63	5.7.3.5-1
(Deck Bar Cutoff) 21.642	842.46	1658.74	5.7.3.5-1
(0.3L_s) 23.107	863.72	1660.18	5.7.3.5-1
(SZB) 30.612	957.72	1664.29	5.7.3.5-1
(0.4L_s) 30.810	957.50	1664.34	5.7.3.5-1
(HP) 31.242	956.78	1664.43	5.7.3.5-1
(0.5L_s) 38.512	1023.94	1664.43	5.7.3.5-1
(0.6L_s) 46.215	1017.30	1664.43	5.7.3.5-1
(HP) 46.642	967.92	1664.43	5.7.3.5-1
(SZB) 47.272	969.92	1664.30	5.7.3.5-1
(0.7L_s) 53.917	971.86	1660.94	5.7.3.5-1
(SZB) 58.272	934.77	1656.71	5.7.3.5-1
(0.8L_s) 61.620	870.67	1653.20	5.7.3.5-1
(SZB) 66.522	736.50	1336.76	5.7.3.5-1
(0.9L_s) 69.322	597.24	1125.14	5.7.3.5-1
(1.5H) 71.442	490.38	954.85	5.7.3.5-1
(SZB) 72.022	462.93	844.48	5.7.3.5-1
(H) 73.192	178.60	809.65	5.7.3.5-2
(Bar Develop.) 74.260	178.60	777.88	5.7.3.5-2
(Bar Develop.) 75.320	178.60	643.42	5.7.3.5-2
(SZB) 75.688	178.60	584.35	5.7.3.5-2
(FoS) 76.692	178.60	422.76	5.7.3.5-2

Splitting Resistance Details

Check for Splitting resistance (LRFD 5.9.4.4.1) is disabled in Project Criteria library.

Effective Flange Width Details



Effective flange width is measured at top CL girder and is taken as one-half the distance to the adjacent girder on each side of the component
Left Tributary Width = 7.833 ft
Right Tributary Width = 7.833 ft
Effective Flange Width = 7.833 ft = 94.001 in

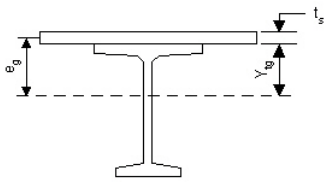
Live Load Distribution Factor Details

Moment and Shear

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
(0.0L_s) 0.000	0.663	0.663	0.840	0.397	0.397	0.587
0.860	0.663	0.663	0.839	0.397	0.397	0.586
(0.1L_s) 7.702	0.663	0.663	0.832	0.397	0.397	0.582
(0.2L_s) 15.405	0.663	0.663	0.825	0.397	0.397	0.577
(0.3L_s) 23.107	0.663	0.663	0.818	0.397	0.397	0.571
(0.4L_s) 30.810	0.663	0.663	0.810	0.397	0.397	0.566
(0.5L_s) 38.512	0.663	0.663	0.803	0.397	0.397	0.561
(0.6L_s) 46.215	0.663	0.663	0.803	0.397	0.397	0.561
(0.7L_s) 53.917	0.663	0.663	0.803	0.397	0.397	0.561
(0.8L_s) 61.620	0.663	0.663	0.803	0.397	0.397	0.561
(0.9L_s) 69.322	0.663	0.663	0.803	0.397	0.397	0.561
(1.0L_s) 77.025	0.663	0.663	0.803	0.397	0.397	0.561
77.025	0.663	0.663	0.803	0.397	0.397	0.561

Method of Computation:
Type (k) cross section. With AASHTO LRFD Method per Article 4.6.2.2

Longitudinal Stiffness Parameters
Modular ratio: n = 1.209
Moment of Inertia: I_g = 153070.0 in^4
Area: A_g = 654.000 in^2
Top centroidal distance: Y_{tg} = 20.850 in
Slab Thickness: t_s = 8.000 in



Distance between CG of slab and girder: $e_g = Y_{tg} + \frac{t_s}{2} + fillet$

e_g = 25.850 in

Stiffness Parameter: $K_g = n\left(I_g + A_g e_g^2\right)$ K_g = 713476.7 in^4

Distribution Factor Parameters

Deck Width, Girder Spacing and Deck Overhang are measured along a line that is normal to the alignment and passing through a point 38.096 ft from the left support along the centerline of girder. The measurement line passes through Station 95+11.59 (34.900 L)

Bridge Width: W = 94.000 ft
Roadway Width: w = 91.000 ft
Number of Design Lanes: N_L = 7
Lane Width: wLane = 12.000 ft
Number of Girders: N_b = 12
Girder Spacing: S_{avg} = 7.835 ft
Deck Overhang = 4.265 ft
Distance from exterior web of exterior girder to curb line: d_e = 2.766 ft
Skew Angle at start: θ = 17.50 deg
Skew Angle at end: θ = 11.64 deg

Strength and Service Limit States

Distribution Factor for Negative Moment over Pier 2

Average Skew Angle: θ = 17.50 deg
Span Length: L = 76.949 ft

1 Loaded Lane: Spec Equations

$$mg_1^{MI} = 0.06 + \left(\frac{S}{14}\right)^{0.4}\left(\frac{S}{L}\right)^{0.3}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_1 = 0.476

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{MI} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{MI}_1 = 0.476
Skew Corrected Factor: mg^{MI}_{2+} = 0.663 **< Controls**

Distribution Factor for Positive and Negative Moment in Span 2

Average Skew Angle: θ = 14.57 deg
Span Length: L = 77.025 ft

1 Loaded Lane: Spec Equations

$$mg_1^{MI} = 0.06 + \left(\frac{S}{14}\right)^{0.4}\left(\frac{S}{L}\right)^{0.3}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_1 = 0.476

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{MI} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.663

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{MI}_1 = 0.476
Skew Corrected Factor: mg^{MI}_{2+} = 0.663 **< Controls**

Distribution Factor for Shear in Span 2

Average Skew Angle: θ = 14.57 deg
Span Length: L = 77.025 ft

1 Loaded Lane: Spec Equations

$$mg_1^{VI} = 0.36 + \left(\frac{S}{25}\right)$$

mg^{VI}_1 = 0.673

2+ Loaded Lanes: Spec Equations

$$mg_{2+}^{VI} = 0.2 + \left(\frac{S}{12}\right) - \left(\frac{S}{35}\right)^{2.0}$$

mg^{VI}_{2+} = 0.803

Skew Correction

$$1.0 + 0.20\left(\frac{12.0Lt_s^3}{K_g}\right)^{0.3}\tan\theta$$

Skew Correction Factor: = 1.046

Skew Corrected Factor: mg^{VI}_1 = 0.704
Skew Corrected Factor: mg^{VI}_{2+} = 0.840 **< Controls**

Fatigue Limit States

Distribution Factor for Positive and Negative Moment in Span 2

$gMI_{Fatigue}$ = $mgMI_1$/m = 0.476/ 1.200 = 0.397

Distribution Factor for Shear in Span 2

$gVI_{Fatigue}$ = $mgVI_1/m$ = 0.704/ 1.200 = 0.587

Creep Coefficient Details

$$\psi(t,t_i) = 1.9K_1K_2k_sk_{hc}k_fk_{td}t_i^{-0.118}$$

for which:

$$k_s = 1.45 - 0.13(V/S) \geq 1.0$$

$$k_{hc} = 1.56 - 0.008H$$

$$k_f = \frac{5}{1+f'_{ci}}$$

$$k_{td} = \frac{t}{12\left(\frac{100-4f'_{ci}}{f'_{ei}+20}\right)+t}$$

where:
H = 55%, V/S = 3.326 in, K_1 = 1, K_2 = 1
Curing Method = Normal

Minimum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805307

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970086

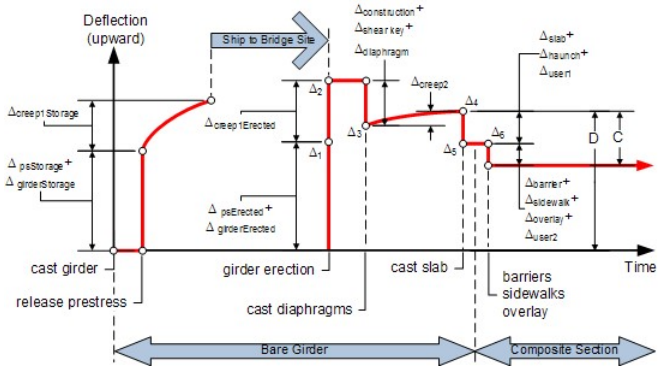
Maximum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805307

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01765, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970086

Camber Details



Minimum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.700	-0.263	0.833	0.569
(0.2L_r) 15.400	-0.498	1.536	1.038
(0.3L_r) 23.100	-0.682	2.076	1.393
(HP, 0.4L_r) 30.799	-0.799	2.418	1.619
(0.5L_r) 38.499	-0.839	2.534	1.694
(HP, 0.6L_r) 46.199	-0.799	2.418	1.619
(0.7L_r) 53.899	-0.682	2.076	1.393
(0.8L_r) 61.599	-0.498	1.536	1.038
(0.9L_r) 69.299	-0.263	0.833	0.569
76.582	-0.015	0.048	0.033
(STLF, 1.0L_r) 76.999	0.000	0.000	0.000

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.617	-0.252	0.818	0.000	0.566
(0.2L_{st}) 15.233	-0.477	1.509	0.000	1.031
(0.3L_{st}) 22.850	-0.653	2.038	0.000	1.384
(0.4L_{st}) 30.466	-0.765	2.373	0.000	1.607
(0.5L_{st}) 38.083	-0.803	2.486	0.000	1.682
(0.6L_{st}) 45.699	-0.765	2.373	0.000	1.607
(0.7L_{st}) 53.316	-0.653	2.038	0.000	1.384
(0.8L_{st}) 60.932	-0.477	1.509	0.000	1.031
(0.9L_{st}) 68.549	-0.252	0.818	0.000	0.566
(1.0L_{st}) 76.165	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.582	0.014	-0.048	0.000	-0.034

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release $\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.014	0.002	0.000	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	-0.252	0.818	0.000	0.000	0.000	0.549	-0.243	-0.044	-0.007	-0.006	-0.002	-0.005	0.000
(0.2L_e) 15.233	-0.477	1.509	0.000	0.000	0.000	1.001	-0.459	-0.083	-0.013	-0.017	-0.007	-0.014	0.000
(0.3L_e) 22.850	-0.653	2.038	0.000	0.000	0.000	1.343	-0.629	-0.114	-0.018	-0.030	-0.012	-0.024	0.000
(0.4L_e) 30.466	-0.765	2.373	0.000	0.000	0.000	1.559	-0.736	-0.134	-0.021	-0.041	-0.017	-0.033	0.000
(0.5L_e) 38.083	-0.803	2.486	0.000	0.000	0.000	1.632	-0.773	-0.140	-0.022	-0.048	-0.020	-0.039	0.000
(0.6L_e) 45.699	-0.765	2.373	0.000	0.000	0.000	1.559	-0.736	-0.134	-0.021	-0.049	-0.021	-0.040	0.000
(0.7L_e) 53.316	-0.653	2.038	0.000	0.000	0.000	1.343	-0.629	-0.114	-0.018	-0.044	-0.019	-0.036	0.000
(0.8L_e) 60.932	-0.477	1.509	0.000	0.000	0.000	1.001	-0.459	-0.083	-0.013	-0.034	-0.014	-0.027	0.000
(0.9L_e) 68.549	-0.252	0.818	0.000	0.000	0.000	0.549	-0.243	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	0.014	-0.048	0.000	0.000	0.000	-0.033	0.014	0.002	0.000	0.001	0.000	0.000	0.000

Δ_{creep1} = ψ(0, 1)[($\Delta_{girder\ Storage}$ + $\Delta_{ps\ Storage}$) - ($\Delta_{girder\ Storage}$ + $\Delta_{ps\ Storage}$ at location of erected segment supports)]
Δ_{creep2} = [ψ(59, 1) - ψ(0, 1)][($\Delta_{girder\ Storage}$ + $\Delta_{ps\ Storage}$) - ($\Delta_{girder\ Storage}$ + $\Delta_{ps\ Storage}$ at location of erected segment supports)] + ψ(59, 1)(δ_{girder} + $\Delta_{diaphragm}$)
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	D_{60} = Δ_4 (in)	Δ_5 (in)	Δ_{excess} = Δ_6 (in)	C = Δ_4 - Δ_6 (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.050	-0.050	-0.016
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	0.566	0.566	0.566	1.116	0.822	0.809	0.306
(0.2L_e) 15.233	1.031	1.031	1.031	2.032	1.477	1.439	0.593
(0.3L_e) 22.850	1.384	1.384	1.384	2.727	1.967	1.900	0.827
(0.4L_e) 30.466	1.607	1.607	1.607	3.167	2.276	2.185	0.982
(0.5L_e) 38.083	1.682	1.682	1.682	3.315	2.379	2.273	1.042
(0.6L_e) 45.699	1.607	1.607	1.607	3.167	2.276	2.166	1.000
(0.7L_e) 53.316	1.384	1.384	1.384	2.727	1.967	1.868	0.860
(0.8L_e) 60.932	1.031	1.031	1.031	2.032	1.477	1.401	0.631
(0.9L_e) 68.549	0.566	0.566	0.566	1.116	0.822	0.781	0.334
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	-0.034	-0.034	-0.034	-0.067	-0.050	-0.048	-0.019

Δ_1 = 1 * ($\Delta_{girder\ Erected}$ + $\Delta_{ps\ Erected}$)
Δ_2 = Δ_1 + 1 * Δ_{creep1}
Δ_3 = Δ_2 + 1 * ($\Delta_{diaphragm}$)
Δ_4 = Δ_3 + 1 * Δ_{creep2}
Δ_5 = Δ_4 + 1 * (Δ_{slab} + Δ_{user1}) + 1 * Δ_{haunch}
Δ_6 = Δ_5 + 1 * ($\Delta_{barrier}$ + $\Delta_{sidewalk}$ + $\Delta_{overlay}$ + Δ_{user2}) = Δ_{excess} = Computed Excess Camber

Maximum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.700	-0.263	0.833	0.569
(0.2L_r) 15.400	-0.498	1.536	1.038
(0.3L_r) 23.100	-0.682	2.076	1.393
(HP, 0.4L_r) 30.799	-0.799	2.418	1.619
(0.5L_r) 38.499	-0.839	2.534	1.694
(HP, 0.6L_r) 46.199	-0.799	2.418	1.619
(0.7L_r) 53.899	-0.682	2.076	1.393
(0.8L_r) 61.599	-0.498	1.536	1.038
(0.9L_r) 69.299	-0.263	0.833	0.569
76.582	-0.015	0.048	0.033
(STLF, 1.0L_r) 76.999	0.000	0.000	0.000

Δ_i = Δ_{girder} + Δ_{ps} = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.617	-0.252	0.818	0.000	0.566
(0.2L_{st}) 15.233	-0.477	1.509	0.000	1.031
(0.3L_{st}) 22.850	-0.653	2.038	0.000	1.384
(0.4L_{st}) 30.466	-0.765	2.373	0.000	1.607
(0.5L_{st}) 38.083	-0.803	2.486	0.000	1.682
(0.6L_{st}) 45.699	-0.765	2.373	0.000	1.607
(0.7L_{st}) 53.316	-0.653	2.038	0.000	1.384
(0.8L_{st}) 60.932	-0.477	1.509	0.000	1.031
(0.9L_{st}) 68.549	-0.252	0.818	0.000	0.566
(1.0L_{st}) 76.165	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.582	0.014	-0.048	0.000	-0.034

Δ_{creep1} = ψ(0, 1)($\Delta_{girder\ Storage}$ + $\Delta_{ps\ Storage}$)
Δ_{es} = Δ_{girder} + Δ_{ps} + Δ_{creep1} = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.014	0.002	0.000	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	-0.252	0.818	0.000	0.000	0.000	0.549	-0.243	-0.044	-0.007	-0.006	-0.002	-0.005	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(0.2L_e) 15.233	-0.477	1.509	0.000	0.000	0.000	1.001	-0.459	-0.083	-0.013	-0.017	-0.007	-0.014	0.000
(0.3L_e) 22.850	-0.653	2.038	0.000	0.000	0.000	1.343	-0.629	-0.114	-0.018	-0.030	-0.012	-0.024	0.000
(0.4L_e) 30.466	-0.765	2.373	0.000	0.000	0.000	1.559	-0.736	-0.134	-0.021	-0.041	-0.017	-0.033	0.000
(0.5L_e) 38.083	-0.803	2.486	0.000	0.000	0.000	1.632	-0.773	-0.140	-0.022	-0.048	-0.020	-0.039	0.000
(0.6L_e) 45.699	-0.765	2.373	0.000	0.000	0.000	1.559	-0.736	-0.134	-0.021	-0.049	-0.021	-0.040	0.000
(0.7L_e) 53.316	-0.653	2.038	0.000	0.000	0.000	1.343	-0.629	-0.114	-0.018	-0.044	-0.019	-0.036	0.000
(0.8L_e) 60.932	-0.477	1.509	0.000	0.000	0.000	1.001	-0.459	-0.083	-0.013	-0.034	-0.014	-0.027	0.000
(0.9L_e) 68.549	-0.252	0.818	0.000	0.000	0.000	0.549	-0.243	-0.044	-0.007	-0.018	-0.008	-0.015	0.000
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	0.014	-0.048	0.000	0.000	0.000	-0.033	0.014	0.002	0.000	0.001	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

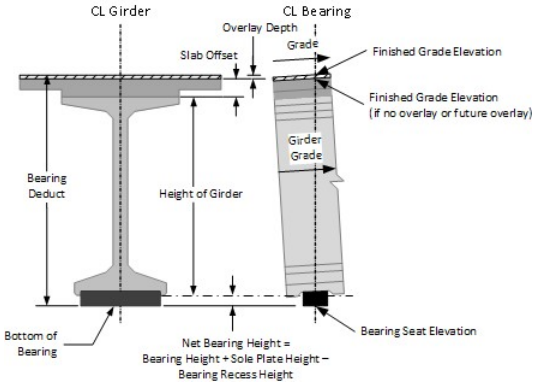
Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.050	-0.050	-0.016
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.617	0.566	0.566	0.566	1.116	0.822	0.809	0.306
(0.2L_e) 15.233	1.031	1.031	1.031	2.032	1.477	1.439	0.593
(0.3L_e) 22.850	1.384	1.384	1.384	2.727	1.967	1.900	0.827
(0.4L_e) 30.466	1.607	1.607	1.607	3.167	2.276	2.185	0.982
(0.5L_e) 38.083	1.682	1.682	1.682	3.315	2.379	2.273	1.042
(0.6L_e) 45.699	1.607	1.607	1.607	3.167	2.276	2.166	1.000
(0.7L_e) 53.316	1.384	1.384	1.384	2.727	1.967	1.868	0.860
(0.8L_e) 60.932	1.031	1.031	1.031	2.032	1.477	1.401	0.631
(0.9L_e) 68.549	0.566	0.566	0.566	1.116	0.822	0.781	0.334
(1.0L_e) 76.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.582	-0.034	-0.034	-0.034	-0.067	-0.050	-0.048	-0.019

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Haunch Details

Slab Offset check disabled in Project Criteria. No analysis performed.

Bearing Seat Elevation Details



NOTE: Vertical height dimensions listed in the tables below are adjusted for girder and roadway grade and orientation.
NOTE: Bearing Deduct is a nominal value rounded to 1/8"

Abutment 1 Ahead

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+04.36	43.319 L	-0.866	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.533	0.000	-5.533	56.000
B	1	94+01.38	35.605 L	-0.712	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	93+98.35	27.903 L	-0.558	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	93+95.26	20.214 L	-0.404	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.071	0.000	-5.071	56.000
E	1	93+92.11	12.537 L	-0.251	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.917	0.000	-4.917	56.000
F	1	93+88.90	4.874 L	-0.097	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.764	0.000	-4.764	56.000
G	1	93+85.21	3.734 R	-0.075	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.741	0.000	-4.741	56.000
H	1	93+81.83	11.432 R	-0.229	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	93+78.38	19.114 R	-0.382	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	93+74.86	26.781 R	-0.536	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.202	0.000	-5.202	56.000
K	1	93+71.27	34.433 R	-0.689	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.355	0.000	-5.355	56.000

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
L	1	93+67.60	42.068 R	-0.841	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.508	0.000	-5.508	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Back

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+76.29	43.946 L	-0.879	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.546	0.000	-5.546	56.000
B	1	94+74.02	35.973 L	-0.719	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	94+71.71	28.007 L	-0.560	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.227	0.000	-5.227	56.000
D	1	94+69.34	20.048 L	-0.401	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.068	0.000	-5.068	56.000
E	1	94+66.93	12.097 L	-0.242	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.909	0.000	-4.909	56.000
F	1	94+64.47	4.154 L	-0.083	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.750	0.000	-4.750	56.000
G	1	94+62.21	3.014 R	-0.060	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.727	0.000	-4.727	56.000
H	1	94+59.63	11.009 R	-0.220	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	94+56.99	18.995 R	-0.380	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.047	0.000	-5.047	56.000
J	1	94+54.30	26.971 R	-0.539	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.206	0.000	-5.206	56.000
K	1	94+51.55	34.939 R	-0.699	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.365	0.000	-5.365	56.000
L	1	94+48.74	42.897 R	-0.858	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.525	0.000	-5.525	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Ahead

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+77.78	43.375 L	-0.868	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.534	0.000	-5.534	56.000
B	1	94+75.59	35.630 L	-0.713	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	94+73.35	27.892 L	-0.558	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	94+71.08	20.161 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.070	0.000	-5.070	56.000
E	1	94+68.75	12.436 L	-0.249	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.915	0.000	-4.915	56.000
F	1	94+66.39	4.719 L	-0.094	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.761	0.000	-4.761	56.000
G	1	94+63.76	3.662 R	-0.073	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.740	0.000	-4.740	56.000
H	1	94+61.28	11.394 R	-0.228	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	94+58.75	19.119 R	-0.382	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	94+56.17	26.836 R	-0.537	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.203	0.000	-5.203	56.000
K	1	94+53.53	34.543 R	-0.691	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.358	0.000	-5.358	56.000
L	1	94+50.84	42.242 R	-0.845	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.512	0.000	-5.512	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Abutment 3 Back

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	95+49.88	43.902 L	-0.878	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.545	0.000	-5.545	56.000
B	1	95+48.39	35.975 L	-0.719	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	95+46.88	28.051 L	-0.561	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.228	0.000	-5.228	56.000
D	1	95+45.33	20.130 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.069	0.000	-5.069	56.000
E	1	95+43.75	12.213 L	-0.244	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.911	0.000	-4.911	56.000
F	1	95+42.14	4.298 L	-0.086	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.753	0.000	-4.753	56.000
G	1	95+40.61	3.069 R	-0.061	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.728	0.000	-4.728	56.000
H	1	95+38.92	11.009 R	-0.220	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	95+37.20	18.945 R	-0.379	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.046	0.000	-5.046	56.000
J	1	95+35.45	26.877 R	-0.538	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.204	0.000	-5.204	56.000
K	1	95+33.65	34.805 R	-0.696	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.363	0.000	-5.363	56.000
L	1	95+31.82	42.729 R	-0.855	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.521	0.000	-5.521	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Bearing Design Parameters

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2 - Ahead	28.50	0.00	30.16	5.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Abutment 3 - Back	28.50	2.94	30.16	5.42	8.17	3.42	6.55	3.58	-0.51	103.02 (D0)	-11.66 (D0)	59.29 (F0)	-6.30 (F0)	128.52 (P0)	-14.31 (P0)

* Live Load values are per lane and include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Girder Bearing Reactions due to User Defined Loads in Interval 17: Open to Traffic

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3 - Back	0.84	1.16	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
Abutment 3 - Back	0.00	0.00	79.45	7.71	169.86

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	82.70	-9.36	33.27	-3.53	103.18	-11.48	86.28	-9.87	33.27	-3.53	103.18	-11.48

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	169.86	153.31	93.48	255.60	60.13	250.16	61.01

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.58	-0.51	66.48	-7.65	28.93	-3.07	77.58	-8.63	70.06	-8.16	28.93	-3.07	77.58	-8.63

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Without Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	153.63	140.34	86.97	227.21	63.12	215.60	64.85

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load		* Legal Routine		* Legal Special		* Legal Emergency	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 3 - Back	-0.00281	0.00000	-0.00271	-0.00049	-0.00001	0.00000	-0.00001	0.00007	-0.00008	0.00093 (D0)	-0.00100 (D0)	0.00032 (F0)	-0.00034 (F0)	0.00105 (P0)	-0.00113 (P0)	0.00056 (R1)	-0.00060 (R1)	0.00071 (S0)	-0.00076 (S0)	0.00077 (E1)	-0.00082 (E1)

* Live Load values are per girder and do not include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Rotations due to User Defined Loads in Interval 17: Open to Traffic

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 3 - Back	0.00008	0.00003	0.00000

Prestress and Time-Dependent Rotations

	Pre-tensioning (rad)	Creep (rad)
Pier 2 - Ahead	0.00765	0.00643
Abutment 3 - Back	-0.00765	-0.00643

Corresponding Live Load Bearing Reactions and Rotations

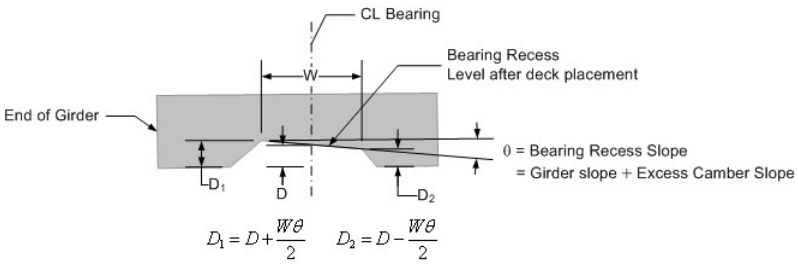
	* Reactions				* Rotations			
	R_{Max} (kip)	θ (rad)	R_{Min} (kip)	θ (rad)	θ_{Max} (rad)	R (kip)	θ_{Min} (rad)	R (kip)
Abutment 3	66.48	0.00054	-7.65	0.00027	0.00148	29.09	-0.00048	12.12

* Live Load values are per girder and do not include impact.

Bearing Recess Geometry

	Girder Slope (ft/ft)	Excess Camber Slope (ft/ft)	Bearing Recess Slope (ft/ft)	* W Recess Length	D Recess Height	D_1	D_2
Abutment 3	-0.000	-0.009	-0.009	8"	0"	0"	0"

* W is maximum of input bearing length and recess length



Lifting Check Details

Details for Check for Lifting In Casting Yard [5.5.4.3][5.9.2.3.1]

Lifting analysis disabled in Project Criteria. No analysis performed.

Hauling Check Details

Details for Check for Hauling to Bridge Site [5.5.4.3][5.9.2.3.1]

Hauling analysis disabled in Project Criteria. No analysis performed.

Details Report

For

Span 1 Girder L

March 15, 2021 8:12:37 am

PGSuper™ (x64)

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Version 5.0.3 - Built on Jul 9 2020



Project Properties

Bridge Name	Belford over Happy Canyon Creek
Bridge ID	
Company	FHU
Engineer	J. Lynch
Job Number	115360
Comments	Belford Ave over Happy Canyon Creek. Updated design for full width and current design codes.
File	C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

Configuration

Configuration Name: WSDOT
Configuration Source: ftp://ftp.wsdot.wa.gov/public/bridge/Software/PGSuper/Version_5.0.0/WSDOT.pgz
Configuration Date Stamp: September 25, 2020 2:10:27 pm

Library	Entry	Source
Girders	BT-42 CDOT	Project Library
Traffic Barriers	Parker Rail	Project Library
Project Criteria	CDOT based on AASHTO LRFD Bridge Design Specification, Eighth Edition 2017	Project Library
Vehicular Live Load	CDOT Permit	Project Library
Vehicular Live Load	OL1	Master Library
Vehicular Live Load	OL2	Master Library
Load Rating Criteria	WSDOT based on The Manual for Bridge Evaluation, Second Edition 2011, with 2011-2016 interim provisions	Master Library
Haul Trucks	HT40-72	Master Library

Analysis Controls

Structural Analysis Method: Simple Spans made Continuous
Section Properties: Gross
Losses: Approximate lump sum estimate per AASHTO LRFD 5.9.3.3

Notes

Symbol	Definition
L_r	Span Length of Girder at Release
L_l	Span Length of Girder during Lifting
L_{st}	Span Length of Girder during Storage
L_h	Span Length of Girder during Hauling
L_e	Span Length of Girder after Erection
L_s	Length of Span
Debond	Point where bond begins for a debonded strand
PSXFR	Point of prestress transfer
FoS	Face of Support
ST	Section Transitions
STLF	Section Transitions, Left Face
STRF	Section Transitions, Right Face
SDCR	Start of Deck Casting Region
EDCR	End of Deck Casting Region
Diaphragm	Location of a precast or cast in place diaphragm
Bar Cutoff	End of a reinforcing bar in the girder
Deck Bar Cutoff	End of a reinforcing bar in the deck
CS	Critical Section for Shear
SZB	Stirrup Zone Boundary
H	H from end of girder or face of support
1.5H	1.5H from end of girder or face of support
HP	Harp Point
Pick Point	Support point where girder is lifted from form
Bunk Point	Point where girder is supported during transportation

Status Items

Level	Description
Warning	Span 1, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 1, Girder L: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder L: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)

Alignment

Alignment Details

Direction: N 49° 48' 33.38" E
Ref. Point: 0+00.00 (E (X) 0.000, N (Y) 0.000)

Horizontal Curve Data

Curve Parameters	Curve 1
Back Tangent Bearing	N 49° 48' 33.38" E
Forward Tangent Bearing	S 24° 47' 12.62" E
PC Station	81+65.50
PI Station	91+76.34
PT Station	95+82.03
Delta (Δ_{cc})	105° 24' 14.00" R
Degree Curvature (DC)	7° 26' 27.64"
Radius (R)	770.000 ft
Tangent (T)	1010.841 ft
Length (L)	1416.527 ft
Chord (C)	1225.061 ft
External (E)	500.708 ft
Mid Ordinate (MO)	303.410 ft
Curve Points (x,y)	
PC	5269.475 ft, 6237.629 ft
PI	5921.805 ft, 7009.810 ft
PT	5004.089 ft, 7433.599 ft
Center of Circular Curve (CCC)	4681.272 ft, 6734.536 ft

Profile Details

Station: 0+00.00
Elevation: 0.000 ft
Grade: 0%

Roadway Cross Sections

Each Roadway Cross Section Template contains 3 segments per section.
Ridge Point #1 is the controlling ridge point. It defines the slope sign convention and coincides with the horizontal alignment, profile grade, and superelevation pivot location.

Template	Station	Segment 1	Segment 2		Segment 3
		Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Slope (ft/ft)
1	0+00.00	-0.02	0.000	0	-0.02

Bridge Description

General Bridge Information

Number of Spans	2
Girder Type	BT-42 CDOT

Concrete Properties

Element	Type	f'_{ci} (KSI)	E_{ci} (KSI)	f'_c (KSI)	E_c (KSI)	w_w (kip/ft^3)	w_c (kip/ft^3)	D_{agg} (in)	f_{ct} (KSI)	E_c		Creep		Shrinkage		λ
										K_1	K_2	K_1	K_2	K_1	K_2	
Girder L	Normal Weight Concrete	6.000	4557.295	8.000	5011.145	0.163	0.145	0.750	N/A	1	1	1	1	1	1	1
Deck	Normal Weight Concrete	-	-	4.500	4144.550	0.150	0.145	0.750	N/A	1	1	1	1	1	1	1

$$E_c = 120{,}000 K_1 K_2 w_c^{2.0} f_c'^{0.33}$$

* = Modulus of elasticity was input

Pier Layout

	Station	Bearing	Skew Angle	Boundary Condition
Abutment 1	93+85.19	N 73° 56' 01.00" E	23° 22' 01.32" R	Hinge
Pier 2	94+64.04	N 73° 56' 01.00" E	17° 29' 59.26" R	Continuous after deck placement
Abutment 3	95+42.78	N 73° 56' 01.00" E	11° 38' 26.68" R	Hinge

Pier Diaphragms

	Diaphragm - Back				Diaphragm - Ahead			
	Height (in)	Width (in)	Loading	Location(*) (in)	Height (in)	Width (in)	Loading	Location(*) (in)
Abutment 1					Compute	Compute	Apply load at centerline bearing	N/A
Pier 2	Compute	Compute	Apply load at centerline bearing	N/A	Compute	Compute	Apply load at centerline bearing	N/A
Abutment 3	Compute	Compute	Apply load at centerline bearing	N/A				

(*) Distance from Abutment/Pier Line to Centroid of Diaphragm

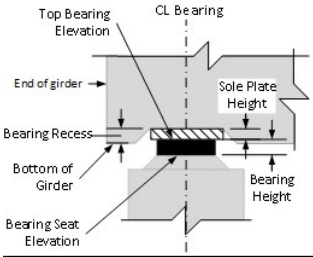
Pier Connections

	Back				Ahead			
	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure
Abutment 1					18.000	FA-NA	5.000	FCLB-AG
Pier 2	10.000	FP-NP	5.000	FCLB-AG	10.000	FP-NP	5.000	FCLB-AG
Abutment 3	18.000	FA-NA	5.000	FCLB-AG				

Bearing Offset Measure
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

End Distance Measure
FCLB-AG = Measured From CL Bearing along Girder
FCLB-NCLB = Measured From and Normal to CL Bearing
FCLB-NCLB = Measured From and Normal to CL Bearing
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

Bearing Details



Location	Shape	# of Bearings	Spacing (in)	Length or Diameter (in)	Width (in)	Height (in)	Recess Height (in)	Recess Length (in)	Sole Plate Height (in)
Abutment 1 - Ahead	Rectangular	1	N/A	8.000	12.000	0.000	0.000	0.000	0.000

Spans

Span	# Girders	Start of Span		End of Span	
		Girder Spacing	Datum	Girder Spacing	Datum
1	12	Between A & F : 8.323 ft Between F & G : 9.368 ft Between G & L : 8.393 ft	4	Between A & F : 8.323 ft Between F & G : 7.519 ft Between G & L : 8.393 ft	4
2	12	Between A & F : 8.080 ft Between F & G : 8.784 ft Between G & L : 8.113 ft	4	Between A & F : 8.080 ft Between F & G : 7.525 ft Between G & L : 8.113 ft	4

Girder Spacing Datum:
(1) Measured normal to the alignment at the abutment/pier line
(2) Measured normal to the alignment at the centerline of bearing
(3) Measured at and along the abutment/pier line
(4) Measured at and along the centerline of bearing

Girder spacing is measured at the work point elevation, which is at top centerline of girder.
Girder orientation is set plumb

Span 1, Girder L

Girder Type	BT-42 CDOT
Slab Offset ("A" Dimension) at Abutment 1	11.000 in
Slab Offset ("A" Dimension) at Pier 2	11.000 in
Strand Fill Type	Sequence of Straight/Harped Strands
Type of Adjustable Web Strands	Harped
Number of Straight Strands	18 8 extended at left end 8 extended at right end
Straight Strand P_{jack}	790.97 kip
Number of Harped Strands	10
Harped Strand P_{jack}	439.43 kip
Total Number of Permanent Strands	28
Distance from top of girder to top-most harped strand at ends of girder	4.000 in
Distance from bottom of girder to lowest harped strand at harp point	2.000 in
Specified Release Strength f'_{ci}	6.000 KSI
Specified 28 day Strength f'_c	8.000 KSI
Prestressing Strand (Permanent)	0.600 in Dia. Grade 270 Low Relaxation

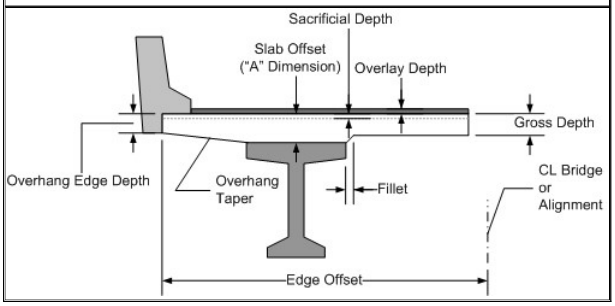
Deck Geometry

Deck Type
Composite cast-in-place deck
Cross Section
Gross Depth = 8.000 in
Left Overhang Edge Depth = 8.000 in
Left Overhang Taper = Taper overhang to bottom of girder top flange
Right Overhang Edge Depth = 8.000 in
Right Overhang Taper = Taper overhang to bottom of girder top flange
Fillet = 1.000 in
Slab Offset ("A" Dimension) = 11.000 in

Plan (Edge of Deck)

Station	Measured From	Left Offset (ft)	Right Offset (ft)
0+00.00	Bridge Line	47.000	47.000

Wearing Surface
Wearing Surface: Overlay
Overlay Weight = 0.037 KSF



Deck Reinforcement
Reinforcement: AASHTO M31 (A615) - Grade 60
Top Mat Cover: 2.000 in
Bottom Mat Cover: 1.000 in
Primary Reinforcement - Longitudinal reinforcement running the full length of the bridge

Mat	Bars		Lump Sum (in^2/ft)
Top	#9 @ 6.000	AND	0.000
Bottom	None @ 18.000	AND	0.000

Supplemental Reinforcement - Negative moment reinforcement at continuous piers

Pier	Mat	A_s (in^2/ft)	Bar	Spacing (in)	Left Cutoff (ft)	Right Cutoff (ft)
2	Top	0.000	#9	6.000	22.000	22.000

Analysis Intervals

Interval	Description	Start Event	End Event	Start (day)	Middle (day)	End (day)	Duration (day)
1	Tension strand, cast girder, strand relaxation, and concrete curing	1	1	0	0.5	1	1
2	Prestress Release	1	1	1	1	1	0
3	Lift girders	1	1	1	1	1	0
4	Place girders into storage	1	1	1	1	1	0
5	Time Step	1	2	1	14.5	28	27
6	Haul Girders	2	2	28	28	28	0
7	Erect Girders	2	2	28	28	28	0
8	Time Step	2	3	28	44.5	61	33
9	Install Intermediate Diaphragms	3	3	61	61	61	0
10	Time Step	3	4	61	61.5	62	1
11	Cast Deck, Apply User Defined Loads	4	4	62	62	62	0
12	Deck curing	4	4	62	62	62	0
13	Composite deck	4	4	62	62	62	0
14	Time Step	4	5	62	62.5	63	1
15	Apply User Defined Loads, Install Railing System and Overlay	5	5	63	63	63	0
16	Time Step	5	6	63	63.5	64	1
17	Open to Traffic	6	6	64	64	64	0

Span Lengths

C-C Pier = Abutment/Pier Line to Abutment/Pier Line length measured along the girder
C-C Bearing = Centerline bearing to centerline bearing length measured along the girder centerline
Girder Length, Plan = End to end length of the girder projected into a horizontal plane
Girder Length, Along Grade = End to end length of girder measured along grade of the girder (slope adjusted) = $L_g\sqrt{1+grade^2}$

C-C Pier (ft)	C-C Bearing (ft)	Girder Length		Grade (ft/ft)	End Distance	
		Plan (ft)	Along Grade (ft)		Start (ft)	End (ft)
79.131	76.631	77.464	77.464	-0.0002	0.417	0.417

Section Properties

Left Traffic Barrier Area = 2145.000 in^2
Left Traffic Barrier I_{yy} = 298512.8 in^4
Left Traffic Barrier Y_b = 12.798 in
Left Exterior Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Left Exterior Traffic Barrier to Left Edge of Deck = 9.000 in
Left Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Left Sidewalk to Left Edge of Deck = 69.000 in
Left Sidewalk Actual Width = 120.000 in
Left Sidewalk Face Depth = 11.000 in
Left Sidewalk Back Depth = 15.750 in
Left Sidewalk Weight = 1.672 kip/ft

Right Traffic Barrier Area = 2145.000 in^2
Right Traffic Barrier I_{yy} = 298512.8 in^4
Right Traffic Barrier Y_b = 12.798 in
Right Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Right Exterior Traffic Barrier to Right Edge of Deck = 9.000 in
Right Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Right Sidewalk to Right Edge of Deck = 69.000 in
Right Sidewalk Actual Width = 120.000 in
Right Sidewalk Face Depth = 11.000 in
Right Sidewalk Back Depth = 15.750 in
Right Sidewalk Weight = 1.672 kip/ft

Deck E_c = 4144.550 KSI

Bending Stiffness of Entire Bridge Section at center of Span 1
EI_{xx} = 2.13e+10 kip-in^2 (used to compute Live Load Deflections per LRFD 3.6.1.3.2)
EI_{yy} = 8.13e+12 kip-in^2
EI_{xy} = -1.96e+09 kip-in^2

Section Properties

	Girder
Area (in^2)	654.000
I_x (in^4)	153070.0
I_y (in^4)	42346.5
d (girder depth) (in)	42.000
Y_{tg} (in)	20.850
Y_{bg} (in)	21.150
Y_{td} (in)	-
Y_{bd} (in)	-
S_{tg} (in^3)	7341.4
S_{bg} (in^3)	7237.4
$S_{td} = n(I_x/Y_{td})$ (in^3)	-

	Girder
$S_{bd} = n(I_x/Y_{bd})$ (in^3)	-
Q_{deck} (in^3)	-
Effective Flange Width (in)	-
k_t (in) (Top kern point)	11.066
k_b (in) (Bottom kern point)	11.225
Perimeter (in)	195.230
Span/Depth Ratio	22
Weight (kip/ft)	0.740
Total Weight (kip)	57.35

Interval 17 : Open to Traffic

Location from Left Support (ft)	Area (in^2)	Depth (in)	I_x (in^4)	X_{lg} (in)	X_{rg} (in)	Y_{tg} (in)	Y_{bg} (in)	Y_{td} (in)	Y_{bd} (in)	S_{tg} (in^3)	S_{bg} (in^3)	S_{td} (in^3)	S_{bd} (in^3)	Q_{deck} (in^3)	Effective Flange Width (in)	Assumed Haunch Depth (in)
(STRF) -0.417	1311.535	51.000	372065.3	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.6	8396.0	94.003	1.000
0.000	1311.535	51.000	372065.3	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.6	8396.0	94.003	1.000
($0.0L_e$) 0.000	1311.535	51.000	372065.3	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.6	8396.0	94.003	1.000
(FoS) 0.333	1311.535	51.000	372065.3	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.6	8396.0	94.003	1.000
(SZB) 1.337	1311.536	51.000	372065.3	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.7	8396.0	94.003	1.000
(Bar Develop.) 1.705	1311.536	51.000	372065.3	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.7	8396.0	94.003	1.000
(PSXFR) 2.583	1311.536	51.000	372065.4	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.7	8396.0	94.003	1.000
(Bar Develop.) 2.765	1311.536	51.000	372065.4	47.001	47.001	8.012	33.988	17.012	8.012	46437.0	10947.0	26443.4	56146.7	8396.0	94.003	1.000
(H) 3.833	1311.536	51.000	372065.4	47.001	47.001	8.012	33.988	17.012	8.012	46437.1	10947.0	26443.4	56146.7	8396.0	94.003	1.000
(SZB) 5.003	1311.536	51.000	372065.5	47.001	47.001	8.012	33.988	17.012	8.012	46437.1	10947.0	26443.4	56146.7	8396.0	94.003	1.000
(1.5H) 5.583	1311.536	51.000	372065.5	47.001	47.001	8.012	33.988	17.012	8.012	46437.1	10947.0	26443.4	56146.7	8396.0	94.003	1.000
($0.1L_e$) 7.663	1311.537	51.000	372065.5	47.001	47.001	8.012	33.988	17.012	8.012	46437.1	10947.0	26443.4	56146.8	8396.0	94.003	1.000
(SZB) 10.503	1311.537	51.000	372065.6	47.001	47.001	8.012	33.988	17.012	8.012	46437.2	10947.0	26443.4	56146.8	8396.0	94.003	1.000
($0.2L_e$) 15.326	1311.538	51.000	372065.8	47.002	47.002	8.012	33.988	17.012	8.012	46437.2	10947.0	26443.4	56146.9	8396.0	94.003	1.000
(SZB) 18.753	1311.539	51.000	372065.9	47.002	47.002	8.012	33.988	17.012	8.012	46437.3	10947.1	26443.5	56147.0	8396.0	94.003	1.000
($0.3L_e$) 22.989	1305.117	51.000	370939.0	46.516	46.516	8.076	33.924	17.076	8.076	45929.6	10934.5	26264.5	55533.1	8354.1	93.033	1.000
(SZB) 29.753	1290.474	51.000	368328.7	45.410	45.410	8.225	33.775	17.225	8.225	44783.6	10905.2	25855.0	54147.6	8257.1	90.820	1.000
(HP) 30.569	1289.044	51.000	368070.7	45.302	45.302	8.239	33.761	17.239	8.239	44672.6	10902.3	25815.0	54013.3	8247.5	90.603	1.000
($0.4L_e$) 30.652	1288.902	51.000	368045.1	45.291	45.291	8.241	33.759	17.241	8.241	44661.6	10902.1	25811.0	54000.0	8246.5	90.582	1.000
($0.5L_e$) 38.315	1279.102	51.000	366261.4	44.550	44.550	8.342	33.658	17.342	8.342	43904.6	10881.9	25535.6	53084.7	8180.2	89.101	1.000
($0.6L_e$) 45.979	1275.717	51.000	365639.3	44.295	44.295	8.378	33.622	17.378	8.378	43644.9	10874.9	25440.3	52770.7	8157.0	88.589	1.000
(HP) 46.062	1275.716	51.000	365639.0	44.294	44.294	8.378	33.622	17.378	8.378	43644.8	10874.9	25440.3	52770.5	8157.0	88.589	1.000
(SZB) 46.878	1275.741	51.000	365643.7	44.296	44.296	8.377	33.623	17.377	8.377	43646.7	10874.9	25441.0	52772.9	8157.2	88.593	1.000
($0.7L_e$) 53.642	1278.751	51.000	366197.1	44.524	44.524	8.346	33.654	17.346	8.346	43877.7	10881.2	25525.8	53052.2	8177.8	89.048	1.000
(Deck Bar Cutoff) 55.043	1280.000	51.000	366426.1	44.618	44.618	8.333	33.667	17.333	8.333	43973.7	10883.8	25560.9	53168.3	8186.3	89.237	1.000
(SZB) 57.878	1283.183	51.000	367007.4	44.859	44.859	8.300	33.700	17.300	8.300	44219.0	10890.4	25650.4	53464.8	8207.9	89.718	1.000
($0.8L_e$) 61.305	1288.201	51.000	367918.4	45.238	45.238	8.248	33.752	17.248	8.248	44607.2	10900.6	25791.3	53934.3	8241.8	90.476	1.000
(SZB) 66.128	1297.440	51.000	369577.5	45.936	45.936	8.154	33.846	17.154	8.154	45326.8	10919.3	26050.1	54804.2	8303.5	91.872	1.000
($0.9L_e$) 68.968	1304.066	51.000	370753.5	46.437	46.437	8.087	33.913	17.087	8.087	45846.8	10932.4	26235.2	55433.0	8347.2	92.874	1.000
(1.5H) 71.048	1309.477	51.000	371705.3	46.846	46.846	8.033	33.967	17.033	8.033	46274.0	10943.0	26386.1	55949.5	8382.6	93.692	1.000
(SZB) 71.628	1311.072	51.000	371984.4	46.966	46.966	8.017	33.983	17.017	8.017	46400.3	10946.1	26430.5	56102.3	8393.0	93.933	1.000
(H) 72.798	1311.549	51.000	372067.7	47.002	47.002	8.012	33.988	17.012	8.012	46438.1	10947.1	26443.8	56148.0	8396.1	94.005	1.000
(Bar Develop.) 73.866	1311.550	51.000	372067.8	47.002	47.002	8.012	33.988	17.012	8.012	46438.1	10947.1	26443.8	56148.0	8396.1	94.005	1.000
(PSXFR) 74.048	1311.550	51.000	372067.8	47.002	47.002	8.012	33.988	17.012	8.012	46438.1	10947.1	26443.8	56148.0	8396.1	94.005	1.000
(Bar Develop.) 74.926	1311.550	51.000	372067.8	47.002	47.002	8.012	33.988	17.012	8.012	46438.2	10947.1	26443.8	56148.0	8396.1	94.005	1.000
(SZB) 75.294	1311.550	51.000	372067.8	47.002	47.002	8.012	33.988	17.012	8.012	46438.2	10947.1	26443.8	56148.0	8396.1	94.005	1.000
(FoS) 76.298	1311.550	51.000	372067.9	47.002	47.002	8.012	33.988	17.012	8.012	46438.2	10947.1	26443.8	56148.1	8396.1	94.005	1.000
($1.0L_e$) 76.631	1311.550	51.000	372067.9	47.002	47.002	8.012	33.988	17.012	8.012	46438.2	10947.1	26443.8	56148.1	8396.1	94.005	1.000
76.631	1311.550	51.000	372067.9	47.002	47.002	8.012	33.988	17.012	8.012	46438.2	10947.1	26443.8	56148.1	8396.1	94.005	1.000
(STLF) 77.048	1311.550	51.000	372067.9	47.002	47.002	8.012	33.988	17.012	8.012	46438.2	10947.1	26443.8	56148.1	8396.1	94.005	1.000

User Defined Loads

Locations are measured from left support.
Point loads were not defined for this girder

Distributed Loads

Event	Load Case	Start Location	End Location	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Event 5: Final without Live Load	DW	0.00 %	100.00 %	0.040	0.040	Utility Load
Event 4: Cast Deck	DC	0.00 %	100.00 %	0.022	0.022	SIP Forms

Moment loads were not defined for this girder

Moments, Shears, and Reactions

Load Responses - Casting Yard

At Release

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF, $0.0L_r$) 0.000	0.00	28.67	0.000
(PSXFR) 3.000	82.69	26.45	-0.106
($0.1L_r$) 7.746	199.90	22.94	-0.270
($0.2L_r$) 15.493	355.38	17.20	-0.511
($0.3L_r$) 23.239	466.44	11.47	-0.699
(HP, $0.4L_r$) 30.986	533.07	5.73	-0.819
($0.5L_r$) 38.732	555.28	0.00	-0.860
(HP, $0.6L_r$) 46.479	533.07	-5.73	-0.819

During Storage

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF) -0.417	0.00	0.00	0.014
($0.0L_{st}$) 0.000	-0.06	-0.31 28.36	0.000
(PSXFR) 2.583	70.74	26.45	-0.089
($0.1L_{st}$) 7.663	195.56	22.69	-0.258
($0.2L_{st}$) 15.326	347.71	17.02	-0.489
($0.3L_{st}$) 22.989	456.39	11.35	-0.669
(HP) 30.569	521.13	5.73	-0.783
($0.4L_{st}$) 30.652	521.60	5.67	-0.784

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.7L_r$) 54.225	466.44	-11.47	-0.699
($0.8L_r$) 61.971	355.38	-17.20	-0.511
($0.9L_r$) 69.718	199.90	-22.94	-0.270
(PSXFR) 74.464	82.69	-26.45	-0.106
(STLF, $1.0L_r$) 77.464	0.00	-28.67	0.000

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.5L_{st}$) 38.315	543.34	0.00	-0.823
($0.6L_{st}$) 45.979	521.60	-5.67	-0.784
(HP) 46.062	521.13	-5.73	-0.783
($0.7L_{st}$) 53.642	456.39	-11.35	-0.669
($0.8L_{st}$) 61.305	347.71	-17.02	-0.489
($0.9L_{st}$) 68.968	195.56	-22.69	-0.258
(PSXFR) 74.048	70.74	-26.45	-0.089
($1.0L_{st}$) 76.631	-0.06	-28.36 0.31	0.000
(STLF) 77.048	0.00	0.00	0.014

Responses from Externally Applied Loads at the Bridge Site

Moments

Location from Left Support (ft)	Girder (kip-ft)	Diaphragm (kip-ft)	Slab (kip-ft)	Haunch (kip-ft)	Sidewalk (kip-ft)	Railing System (kip-ft)	Overlay (kip-ft)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
(PSXFR) 2.583	70.80	0.00	83.55	12.14	20.01	8.38	16.28	8.96	-1.32	254.48 (D0)	-30.18 (D0)	145.22 (F0)	-16.31 (F0)	315.22 (P0)	-37.00 (P0)
($0.1L_e$) 7.663	195.62	0.00	228.69	33.44	53.94	22.58	43.87	24.50	-3.91	684.17 (D0)	-89.53 (D0)	383.07 (F0)	-48.38 (F0)	835.07 (P0)	-109.77 (P0)
($0.2L_e$) 15.326	347.78	0.00	401.57	59.22	91.52	38.32	74.43	42.76	-7.83	1158.88 (D0)	-179.07 (D0)	627.53 (F0)	-96.75 (F0)	1395.39 (P0)	-219.53 (P0)
($0.3L_e$) 22.989	456.46	0.00	521.71	77.50	112.74	47.20	91.69	54.78	-11.74	1434.70 (D0)	-268.60 (D0)	780.62 (F0)	-145.13 (F0)	1731.40 (P0)	-329.30 (P0)
($0.4L_e$) 30.652	521.66	0.00	591.49	88.42	117.59	49.23	95.63	60.56	-15.66	1562.73 (D0)	-358.14 (D0)	825.81 (F0)	-193.50 (F0)	1875.02 (P0)	-439.06 (P0)
($0.5L_e$) 38.315	543.40	0.00	612.60	92.05	106.08	44.41	86.27	60.10	-19.57	1537.40 (D0)	-447.67 (D0)	780.87 (F0)	-241.88 (F0)	1879.21 (P0)	-548.83 (P0)
($0.6L_e$) 45.979	521.66	0.00	586.05	88.42	78.21	32.74	63.60	53.41	-23.49	1388.81 (D0)	-537.20 (D0)	744.26 (F0)	-290.26 (F0)	1660.69 (P0)	-658.60 (P0)
($0.7L_e$) 53.642	456.46	0.00	512.18	77.50	33.97	14.22	27.63	40.47	-27.40	1088.70 (D0)	-626.74 (D0)	598.51 (F0)	-338.63 (F0)	1283.02 (P0)	-768.36 (P0)
($0.8L_e$) 61.305	347.78	0.00	390.67	59.22	-26.63	-11.15	-21.66	21.29	-31.31	669.40 (D0)	-716.27 (D0)	363.30 (F0)	-387.01 (F0)	751.83 (P0)	-878.13 (P0)
($0.9L_e$) 68.968	195.62	0.00	220.51	33.44	-103.59	-43.37	-84.25	4.85	-44.21	271.29 (D1)	-937.35 (D2)	62.15 (F0)	-435.39 (F0)	53.17 (P0)	-1021.99 (P0)
(PSXFR) 74.048	70.80	0.00	80.10	12.14	-163.63	-68.51	-133.08	0.70	-62.93	79.49 (D0)	-1319.84 (D2)	0.00 (F0)	-467.45 (F0)	0.00 (P0)	-1420.60 (P0)
($1.0L_e$) 76.631	0.00	0.00	0.00	0.00	-196.92	-82.45	-160.16	0.04	-74.96	19.34 (D0)	-1529.14 (D2)	0.00 (F0)	-483.76 (F0)	0.00 (P0)	-1627.34 (P0)
76.631	0.00	0.00	0.00	0.00	-196.92	-82.45	-160.16	0.04	-74.96	19.34 (D0)	-1529.14 (D2)	0.00 (F0)	-483.76 (F0)	0.00 (P0)	-1627.34 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.
(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Moment due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip-ft)	User DW (kip-ft)	User LL+IM (kip-ft)
0.000	0.00	0.00	0.00
($0.0L_e$) 0.000	0.00	0.00	0.00
(PSXFR) 2.583	2.10	0.00	0.00
($0.1L_e$) 7.663	5.81	0.00	0.00
($0.2L_e$) 15.326	10.33	0.00	0.00
($0.3L_e$) 22.989	13.56	0.00	0.00
($0.4L_e$) 30.652	15.50	0.00	0.00
($0.5L_e$) 38.315	16.15	0.00	0.00
($0.6L_e$) 45.979	15.50	0.00	0.00
($0.7L_e$) 53.642	13.56	0.00	0.00
($0.8L_e$) 61.305	10.33	0.00	0.00
($0.9L_e$) 68.968	5.81	0.00	0.00
(PSXFR) 74.048	2.10	0.00	0.00
($1.0L_e$) 76.631	-0.00	0.00	0.00
76.631	-0.00	0.00	0.00

Shears

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
($0.0L_e$) 0.000	28.67 28.36	3.48 0.00	34.06 33.64	4.93 4.87	8.22 8.11	3.44 3.39	6.59	3.60	-0.51	103.25 (D0)	-11.68 (D0)	59.42 (F0)	-6.31 (F0)	128.77 (P0)	-14.32 (P0)
($0.1L_e$) 7.663	22.69	0.00	26.13	3.86	5.97	2.50	4.86	2.84	-0.56	87.13 (D0)	-11.99 (D0)	49.99 (F0)	-6.31 (F0)	108.97 (P0)	-14.32 (P0)

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.2L_e$) 15.326	17.02	0.00	19.06	2.87	3.84	1.61	3.12	2.18	-0.71	71.92 (D0)	-18.49 (D1)	40.95 (F0)	-9.02 (F0)	89.90 (P0)	-15.73 (P0)
($0.3L_e$) 22.989	11.35	0.00	12.35	1.90	1.70	0.71	1.38	1.61	-0.96	57.75 (D0)	-27.95 (D1)	32.44 (F0)	-13.40 (F0)	71.80 (P0)	-26.17 (P0)
($0.4L_e$) 30.652	5.67	0.00	5.90	0.95	-0.43	-0.18	-0.35	1.14	-1.30	44.73 (D0)	-40.01 (D0)	24.57 (F0)	-18.01 (F0)	54.91 (P0)	-38.22 (P0)
($0.5L_e$) 38.315	0.00	0.00	-0.37	-0.00	-2.57	-1.08	-2.09	0.76	-1.74	32.98 (D0)	-53.60 (D0)	17.47 (F0)	-26.55 (F0)	37.93 (P0)	-60.95 (P0)
($0.6L_e$) 45.979	-5.67	0.00	-6.55	-0.95	-4.70	-1.97	-3.83	0.47	-2.26	22.61 (D0)	-67.18 (D0)	11.24 (F0)	-35.06 (F0)	16.03 (P0)	-83.67 (P0)
($0.7L_e$) 53.642	-11.35	0.00	-12.73	-1.90	-6.84	-2.86	-5.56	0.25	-2.86	14.52 (D1)	-80.57 (D0)	5.97 (F0)	-43.98 (F0)	2.04 (P0)	-104.24 (P0)
($0.8L_e$) 61.305	-17.02	0.00	-19.00	-2.87	-8.98	-3.76	-7.30	0.11	-3.53	8.35 (D1)	-93.61 (D0)	1.67 (F0)	-52.34 (F0)	0.00 (P0)	-122.59 (P0)
($0.9L_e$) 68.968	-22.69	0.00	-25.45	-3.86	-11.11	-4.65	-9.04	0.03	-4.26	3.35 (D1)	-106.08 (D0)	0.00 (F0)	-60.03 (F0)	0.00 (P0)	-138.53 (P0)
($1.0L_e$) 76.631	-28.36 -28.67	0.00 -2.50	-32.16 -32.53	-4.87 -4.93	-13.25	-5.55	-10.77	0.00	-5.05	0.25 (D0)	-117.77 (D0)	0.00 (F0)	-66.92 (F0)	0.00 (P0)	-152.01 (P0)
76.631	0.00	0.00	0.00	0.00	-13.25	-5.55	-10.77	0.00	-5.05	0.25 (D0)	-117.77 (D0)	0.00 (F0)	-66.92 (F0)	0.00 (P0)	-152.01 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Shears due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip)	User DW (kip)	User LL+IM (kip)
0.000	0.00	0.00	0.00
($0.0L_e$) 0.000	0.84	0.00	0.00
($0.1L_e$) 7.663	0.67	0.00	0.00
($0.2L_e$) 15.326	0.51	0.00	0.00
($0.3L_e$) 22.989	0.34	0.00	0.00
($0.4L_e$) 30.652	0.17	0.00	0.00
($0.5L_e$) 38.315	-0.00	0.00	0.00
($0.6L_e$) 45.979	-0.17	0.00	0.00
($0.7L_e$) 53.642	-0.34	0.00	0.00
($0.8L_e$) 61.305	-0.51	0.00	0.00
($0.9L_e$) 68.968	-0.67	0.00	0.00
($1.0L_e$) 76.631	-0.84	0.00	0.00
76.631	0.01	0.00	0.00

Girder Line Pier Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1	28.67	3.48	34.06	4.93	8.22	3.44	6.59	3.60	-0.51	103.25 (D0)	-11.68 (D0)	59.42 (F0)	-6.31 (F0)	128.77 (P0)	-14.32 (P0)
Pier 2	57.29	0.00	66.17	9.85	26.97	11.29	21.75	10.28	0.00	171.56 (D2)	0.00 (D0)	77.41 (F0)	0.00 (F0)	214.04 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	28.67	3.48	34.06	4.93	8.22	3.44	6.59	3.60	-0.51	103.25 (D0)	-11.68 (D0)	59.42 (F0)	-6.31 (F0)	128.77 (P0)	-14.32 (P0)
Pier 2 - Back	28.67	0.00	32.53	4.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Line Pier Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1	0.84	0.00	0.00

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Pier 2	1.71	0.00	0.00

Girder Bearing Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1 - Ahead	0.84	0.00	0.00

Deflections

Location from Left Support (ft)	Girder (in)	Diaphragm (in)	Slab (in)	Haunch (in)	Sidewalk (in)	Railing System (in)	Overlay (in)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
(0.1L_e) 7.663	-0.258	0.000	-0.268	-0.040	-0.019	-0.008	-0.015	0.004	-0.011	0.084 (D0)	-0.255 (D0)	0.045 (F0)	-0.136 (F0)	0.103 (P0)	-0.315 (P0)
(0.2L_e) 15.326	-0.489	0.000	-0.506	-0.076	-0.035	-0.015	-0.029	0.007	-0.020	0.162 (D0)	-0.481 (D0)	0.088 (F0)	-0.256 (F0)	0.199 (P0)	-0.596 (P0)
(0.3L_e) 22.989	-0.669	0.000	-0.691	-0.103	-0.046	-0.019	-0.038	0.010	-0.028	0.231 (D0)	-0.655 (D0)	0.125 (F0)	-0.346 (F0)	0.283 (P0)	-0.808 (P0)
(0.4L_e) 30.652	-0.784	0.000	-0.808	-0.121	-0.051	-0.021	-0.042	0.012	-0.032	0.285 (D0)	-0.755 (D0)	0.154 (F0)	-0.396 (F0)	0.349 (P0)	-0.929 (P0)
(0.5L_e) 38.315	-0.823	0.000	-0.847	-0.127	-0.050	-0.021	-0.040	0.014	-0.033	0.319 (D0)	-0.775 (D0)	0.172 (F0)	-0.405 (F0)	0.391 (P0)	-0.954 (P0)
(0.6L_e) 45.979	-0.784	0.000	-0.806	-0.121	-0.043	-0.018	-0.035	0.014	-0.031	0.328 (D0)	-0.716 (D0)	0.177 (F0)	-0.378 (F0)	0.403 (P0)	-0.881 (P0)
(0.7L_e) 53.642	-0.669	0.000	-0.687	-0.103	-0.031	-0.013	-0.025	0.013	-0.025	0.308 (D0)	-0.589 (D0)	0.166 (F0)	-0.314 (F0)	0.378 (P0)	-0.724 (P0)
(0.8L_e) 61.305	-0.489	0.000	-0.502	-0.076	-0.018	-0.007	-0.014	0.011	-0.018	0.253 (D0)	-0.413 (D0)	0.137 (F0)	-0.221 (F0)	0.310 (P0)	-0.507 (P0)
(0.9L_e) 68.968	-0.258	0.000	-0.265	-0.040	-0.006	-0.003	-0.005	0.007	-0.009	0.158 (D0)	-0.212 (D0)	0.086 (F0)	-0.114 (F0)	0.194 (P0)	-0.260 (P0)
(1.0L_e) 76.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.020 (D0)	0.010 (F0)	-0.011 (F0)	0.024 (P0)	-0.025 (P0)
76.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.020 (D0)	0.010 (F0)	-0.011 (F0)	0.024 (P0)	-0.025 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Deflections due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000
(0.1L_e) 7.663	-0.007	0.000	0.000
(0.2L_e) 15.326	-0.013	0.000	0.000
(0.3L_e) 22.989	-0.018	0.000	0.000
(0.4L_e) 30.652	-0.021	0.000	0.000
(0.5L_e) 38.315	-0.022	0.000	0.000
(0.6L_e) 45.979	-0.021	0.000	0.000
(0.7L_e) 53.642	-0.018	0.000	0.000
(0.8L_e) 61.305	-0.013	0.000	0.000
(0.9L_e) 68.968	-0.007	0.000	0.000
(1.0L_e) 76.631	0.000	0.000	0.000
76.631	0.000	0.000	0.000

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 1 - Ahead	-0.00286	0.00000	-0.00297	-0.00044	-0.00021	-0.00009	-0.00017	0.00004	-0.00012	0.00092 (D0)	-0.00282 (D0)	0.00050 (F0)	-0.00151 (F0)	0.00113 (P0)	-0.00349 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Rotations due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 1 - Ahead	-0.00008	0.00000	0.00000

Deflections For The LRFD Optional Deflection Live Load (LRFD 3.6.1.3.2)

Location from Left Support (ft)	D1 (in)	D2 (in)	D Controlling (in)
0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000
(0.1L_e) 7.663	-0.074	-0.044	-0.074
(0.2L_e) 15.326	-0.141	-0.084	-0.141
(0.3L_e) 22.989	-0.192	-0.114	-0.192
(0.4L_e) 30.652	-0.221	-0.131	-0.221
(0.5L_e) 38.315	-0.227	-0.134	-0.227
(0.6L_e) 45.979	-0.209	-0.125	-0.209
(0.7L_e) 53.642	-0.172	-0.103	-0.172
(0.8L_e) 61.305	-0.120	-0.072	-0.120
(0.9L_e) 68.968	-0.061	-0.037	-0.061
(1.0L_e) 76.631	-0.006	-0.004	-0.006
76.631	-0.006	-0.004	-0.006

D1 = LRFD Design truck without lane load and including impact
D2 = 0.25*(Design truck) + lane load, including impact
D(Controlling) = Max(D1, D2)
EI = Bridge EI / Number of Girders
Live Load Distribution Factor = (Multiple Presence Factor)(Number of Lanes)/(Number of Girders)

Combined Results - Interval 2: Prestress Release

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF, 0.0L_r) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.750	21.30	0.00	21.30	0.00	21.30
(SZB) 1.753	49.13	0.00	49.13	0.00	49.13
(Bar Develop.) 2.121	59.16	0.00	59.16	0.00	59.16
(PSXFR) 3.000	82.69	0.00	82.69	0.00	82.69
(Bar Develop.) 3.182	87.49	0.00	87.49	0.00	87.49
(H) 4.250	115.17	0.00	115.17	0.00	115.17
(SZB) 5.419	144.52	0.00	144.52	0.00	144.52
(1.5H) 6.000	158.71	0.00	158.71	0.00	158.71
(0.1L_r) 7.746	199.90	0.00	199.90	0.00	199.90
(SZB) 10.919	268.96	0.00	268.96	0.00	268.96
(0.2L_r) 15.493	355.38	0.00	355.38	0.00	355.38
(SZB) 19.169	413.63	0.00	413.63	0.00	413.63
(0.3L_r) 23.239	466.44	0.00	466.44	0.00	466.44
(SZB) 30.169	528.14	0.00	528.14	0.00	528.14
(HP, 0.4L_r) 30.986	533.07	0.00	533.07	0.00	533.07
(0.5L_r) 38.732	555.28	0.00	555.28	0.00	555.28
(HP, 0.6L_r) 46.479	533.07	0.00	533.07	0.00	533.07
(SZB) 47.295	528.14	0.00	528.14	0.00	528.14
(0.7L_r) 54.225	466.44	0.00	466.44	0.00	466.44
(Deck Bar Cutoff) 55.460	451.71	0.00	451.71	0.00	451.71
(SZB) 58.295	413.63	0.00	413.63	0.00	413.63
(0.8L_r) 61.971	355.38	0.00	355.38	0.00	355.38
(SZB) 66.545	268.96	0.00	268.96	0.00	268.96
(0.9L_r) 69.718	199.90	0.00	199.90	0.00	199.90
(1.5H) 71.464	158.71	0.00	158.71	0.00	158.71
(SZB) 72.045	144.52	0.00	144.52	0.00	144.52
(H) 73.214	115.17	0.00	115.17	0.00	115.17
(Bar Develop.) 74.282	87.49	0.00	87.49	0.00	87.49
(PSXFR) 74.464	82.69	0.00	82.69	0.00	82.69
(Bar Develop.) 75.343	59.16	0.00	59.16	0.00	59.16
(SZB) 75.711	49.13	0.00	49.13	0.00	49.13
(FoS) 76.714	21.30	0.00	21.30	0.00	21.30
(STLF, 1.0L_r) 77.464	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF, 0.0L_r) 0.000	28.67	0.00	28.67	0.00	28.67
(FoS) 0.750	28.12	0.00	28.12	0.00	28.12
(SZB) 1.753	27.38	0.00	27.38	0.00	27.38
(Bar Develop.) 2.121	27.10	0.00	27.10	0.00	27.10
(PSXFR) 3.000	26.45	0.00	26.45	0.00	26.45
(Bar Develop.) 3.182	26.32	0.00	26.32	0.00	26.32
(H) 4.250	25.53	0.00	25.53	0.00	25.53
(SZB) 5.419	24.66	0.00	24.66	0.00	24.66
(1.5H) 6.000	24.23	0.00	24.23	0.00	24.23
(0.1L_r) 7.746	22.94	0.00	22.94	0.00	22.94
(SZB) 10.919	20.59	0.00	20.59	0.00	20.59
(0.2L_r) 15.493	17.20	0.00	17.20	0.00	17.20
(SZB) 19.169	14.48	0.00	14.48	0.00	14.48
	11.47	0.00	11.47	0.00	11.47

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
($0.3L_t$) 23.239					
(SZB) 30.169	6.34	0.00	6.34	0.00	6.34
(HP, $0.4L_t$) 30.986	5.73	0.00	5.73	0.00	5.73
($0.5L_t$) 38.732	0.00	0.00	0.00	0.00	0.00
(HP, $0.6L_t$) 46.479	-5.73	0.00	-5.73	0.00	-5.73
(SZB) 47.295	-6.34	0.00	-6.34	0.00	-6.34
($0.7L_t$) 54.225	-11.47	0.00	-11.47	0.00	-11.47
(Deck Bar Cutoff) 55.460	-12.38	0.00	-12.38	0.00	-12.38
(SZB) 58.295	-14.48	0.00	-14.48	0.00	-14.48
($0.8L_t$) 61.971	-17.20	0.00	-17.20	0.00	-17.20
(SZB) 66.545	-20.59	0.00	-20.59	0.00	-20.59
($0.9L_t$) 69.718	-22.94	0.00	-22.94	0.00	-22.94
(1.5H) 71.464	-24.23	0.00	-24.23	0.00	-24.23
(SZB) 72.045	-24.66	0.00	-24.66	0.00	-24.66
(H) 73.214	-25.53	0.00	-25.53	0.00	-25.53
(Bar Develop.) 74.282	-26.32	0.00	-26.32	0.00	-26.32
(PSXFR) 74.464	-26.45	0.00	-26.45	0.00	-26.45
(Bar Develop.) 75.343	-27.10	0.00	-27.10	0.00	-27.10
(SZB) 75.711	-27.38	0.00	-27.38	0.00	-27.38
(FoS) 76.714	-28.12	0.00	-28.12	0.00	-28.12
(STLF, $1.0L_t$) 77.464	-28.67	0.00	-28.67	0.00	-28.67

Combined Results - Interval 11: Cast Deck, Apply User Defined Loads

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)	Service I (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	13.05	0.00	22.47	0.00	22.47
(SZB) 1.337	51.56	0.00	88.82	0.00	88.82
(Bar Develop.) 1.705	65.40	0.00	112.68	0.00	112.68
(PSXFR) 2.583	97.80	0.00	168.60	0.00	168.60
(Bar Develop.) 2.765	104.40	0.00	180.00	0.00	180.00
(H) 3.833	142.37	0.00	245.66	0.00	245.66
(SZB) 5.003	182.45	0.00	315.08	0.00	315.08
(1.5H) 5.583	201.78	0.00	348.61	0.00	348.61
($0.1L_e$) 7.663	267.94	0.00	463.57	0.00	463.57
(SZB) 10.503	350.60	0.00	607.67	0.00	607.67
($0.2L_e$) 15.326	471.12	0.00	818.90	0.00	818.90
(SZB) 18.753	541.90	0.00	943.65	0.00	943.65
($0.3L_e$) 22.989	612.78	0.00	1069.23	0.00	1069.23
(SZB) 29.753	688.70	0.00	1204.96	0.00	1204.96
(HP) 30.569	694.82	0.00	1216.01	0.00	1216.01
($0.4L_e$) 30.652	695.41	0.00	1217.08	0.00	1217.08
($0.5L_e$) 38.315	720.79	0.00	1264.19	0.00	1264.19
($0.6L_e$) 45.979	689.97	0.00	1211.63	0.00	1211.63
(HP) 46.062	689.32	0.00	1210.51	0.00	1210.51
(SZB) 46.878	682.68	0.00	1198.94	0.00	1198.94
($0.7L_e$) 53.642	603.24	0.00	1059.70	0.00	1059.70
(Deck Bar Cutoff) 55.043	581.31	0.00	1021.13	0.00	1021.13
(SZB) 57.878	531.19	0.00	932.93	0.00	932.93
($0.8L_e$) 61.305	460.22	0.00	808.00	0.00	808.00
(SZB) 66.128	340.84	0.00	597.92	0.00	597.92
($0.9L_e$) 68.968	259.76	0.00	455.39	0.00	455.39
(1.5H) 71.048	195.22	0.00	342.05	0.00	342.05
(SZB) 71.628	176.42	0.00	309.05	0.00	309.05
(H) 72.798	137.50	0.00	240.79	0.00	240.79
(Bar Develop.) 73.866	100.72	0.00	176.33	0.00	176.33
(PSXFR) 74.048	94.34	0.00	165.15	0.00	165.15
(Bar Develop.) 74.926	63.03	0.00	110.31	0.00	110.31
(SZB) 75.294	49.68	0.00	86.93	0.00	86.93
(FoS) 76.298	12.56	0.00	21.98	0.00	21.98
($1.0L_e$) 76.631	-0.00	0.00	-0.00	0.00	-0.00
76.631	-0.00	0.00	-0.00	0.00	-0.00
(STLF) 77.048	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00
($0.0L_e$) 0.000	39.84 39.36	0.00	71.99 67.72	0.00	71.99 67.72
(FoS) 0.333	38.97	0.00	67.09	0.00	67.09
(SZB) 1.337	37.80	0.00	65.18	0.00	65.18
(Bar Develop.) 1.705	37.38	0.00	64.48	0.00	64.48
(PSXFR) 2.583	36.37	0.00	62.82	0.00	62.82
(Bar Develop.) 2.765	36.16	0.00	62.48	0.00	62.48
(H) 3.833	34.94	0.00	60.47	0.00	60.47

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
(SZB) 5.003	33.62	0.00	58.28	0.00	58.28
(1.5H) 5.583	32.97	0.00	57.20	0.00	57.20
($0.1L_e$) 7.663	30.66	0.00	53.35	0.00	53.35
(SZB) 10.503	27.56	0.00	48.15	0.00	48.15
($0.2L_e$) 15.326	22.44	0.00	39.46	0.00	39.46
(SZB) 18.753	18.89	0.00	33.37	0.00	33.37
($0.3L_e$) 22.989	14.59	0.00	25.93	0.00	25.93
(SZB) 29.753	7.89	0.00	14.23	0.00	14.23
(HP) 30.569	7.10	0.00	12.83	0.00	12.83
($0.4L_e$) 30.652	7.02	0.00	12.69	0.00	12.69
($0.5L_e$) 38.315	-0.37	0.00	-0.37	0.00	-0.37
($0.6L_e$) 45.979	-7.67	0.00	-13.34	0.00	-13.34
(HP) 46.062	-7.75	0.00	-13.48	0.00	-13.48
(SZB) 46.878	-8.52	0.00	-14.86	0.00	-14.86
($0.7L_e$) 53.642	-14.97	0.00	-26.32	0.00	-26.32
(Deck Bar Cutoff) 55.043	-16.32	0.00	-28.70	0.00	-28.70
(SZB) 57.878	-19.05	0.00	-33.53	0.00	-33.53
($0.8L_e$) 61.305	-22.38	0.00	-39.40	0.00	-39.40
(SZB) 66.128	-27.13	0.00	-47.72	0.00	-47.72
($0.9L_e$) 68.968	-29.98	0.00	-52.67	0.00	-52.67
(1.5H) 71.048	-32.09	0.00	-56.32	0.00	-56.32
(SZB) 71.628	-32.68	0.00	-57.34	0.00	-57.34
(H) 72.798	-33.88	0.00	-59.41	0.00	-59.41
(Bar Develop.) 73.866	-34.99	0.00	-61.30	0.00	-61.30
(PSXFR) 74.048	-35.17	0.00	-61.63	0.00	-61.63
(Bar Develop.) 74.926	-36.09	0.00	-63.19	0.00	-63.19
(SZB) 75.294	-36.47	0.00	-63.85	0.00	-63.85
(FoS) 76.298	-37.52	0.00	-65.64	0.00	-65.64
($1.0L_e$) 76.631	-37.87 -40.80	0.00	-66.24 -69.48	0.00	-66.24 -69.48
76.631	0.01	0.00	0.01	0.00	0.01
(STLF) 77.048	0.01	0.00	0.01	0.00	0.01

Girder Line Pier Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Abutment 1	39.84	0.00	71.99	0.00
Pier 2	82.69	0.00	139.98	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Abutment 1 - Ahead	39.84	0.00	71.99	0.00
Pier 2 - Back	40.82	0.00	69.49	0.00

Combined Results - Interval 17: Open to Traffic

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	0.00	0.00
(FoS) 0.333	0.00	0.00	26.28	2.57
(SZB) 1.337	0.00	0.00	103.84	10.13
(Bar Develop.) 1.705	0.00	0.00	131.71	12.84
(PSXFR) 2.583	0.00	0.00	197.00	19.15
(Bar Develop.) 2.765	0.00	0.00	210.30	20.43
(H) 3.833	0.00	0.00	286.84	27.78
(SZB) 5.003	0.00	0.00	367.67	35.47
(1.5H) 5.583	0.00	0.00	406.67	39.15
($0.1L_s$) 7.752	0.00	0.00	545.61	52.12
(SZB) 10.503	0.00	0.00	706.66	66.76
($0.2L_s$) 15.505	0.00	0.00	956.72	88.22
(SZB) 18.753	0.00	0.00	1089.81	98.58
($0.3L_s$) 23.257	0.00	0.00	1236.69	108.30
(SZB) 29.753	0.00	0.00	1372.18	112.78
(HP) 30.569	0.00	0.00	1382.88	112.55
($0.4L_s$) 31.009	0.00	0.00	1388.07	112.35
($0.5L_s$) 38.762	0.00	0.00	1412.69	100.38
(HP) 46.062	0.00	0.00	1320.90	74.45
($0.6L_s$) 46.514	0.00	0.00	1311.56	72.38
(SZB) 46.878	0.00	0.00	1303.73	70.67
($0.7L_s$) 54.267	0.00	0.00	1084.97	28.36
(Deck Bar Cutoff) 55.043	0.00	0.00	1055.33	23.06
(SZB) 57.878	0.00	0.00	936.46	2.38
($0.8L_s$) 62.019	0.00	0.00	732.44	-31.69
(SZB) 66.128	0.00	0.00	494.12	-70.01
($0.9L_s$) 69.771	0.00	0.00	252.74	-107.75
(1.5H) 71.048	0.00	0.00	161.45	-121.81
(SZB) 71.628	0.00	0.00	118.75	-128.35
(H) 72.798	0.00	0.00	30.56	-141.80

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(Bar Develop.) 73.866	0.00	0.00	-52.58	-154.39
(PSXFR) 74.048	0.00	0.00	-66.99	-156.57
(Bar Develop.) 74.926	0.00	0.00	-137.59	-167.20
(SZB) 75.294	0.00	0.00	-167.67	-171.72
(FoS) 76.298	0.00	0.00	-251.15	-184.21
76.631	0.00	0.00	-279.37	-188.42
(STLF) 77.048	0.00	0.00	-287.23	-193.71
(1.0L_s) 77.524	0.00	0.00	-296.30	-199.78

Moment - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(0.0L_s) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	1.20	-0.17	25.35	-2.89	12.15	-1.30	31.59	-3.54	26.55	-3.06	12.15	-1.30	31.59	-3.54
(SZB) 1.337	4.72	-0.68	99.83	-11.57	47.67	-5.21	124.08	-14.19	104.55	-12.25	47.67	-5.21	124.08	-14.19
(Bar Develop.) 1.705	5.99	-0.87	126.46	-14.76	60.31	-6.65	157.03	-18.09	132.45	-15.63	60.31	-6.65	157.03	-18.09
(PSXFR) 2.583	8.96	-1.32	188.57	-22.37	89.67	-10.07	233.58	-27.42	197.53	-23.69	89.67	-10.07	233.58	-27.42
(Bar Develop.) 2.765	9.56	-1.41	201.17	-23.94	95.61	-10.78	249.06	-29.35	210.73	-25.35	95.61	-10.78	249.06	-29.35
(H) 3.833	13.04	-1.96	273.33	-33.19	129.43	-14.94	337.38	-40.69	286.37	-35.15	129.43	-14.94	337.38	-40.69
(SZB) 5.003	16.70	-2.56	348.83	-43.31	164.48	-19.50	429.10	-53.10	365.53	-45.87	164.48	-19.50	429.10	-53.10
(1.5H) 5.583	18.47	-2.85	384.96	-48.34	181.13	-21.77	472.78	-59.26	403.43	-51.19	181.13	-21.77	472.78	-59.26
(0.1L_s) 7.752	24.75	-3.96	511.96	-67.12	238.78	-30.22	624.71	-82.29	536.71	-71.08	238.78	-30.22	624.71	-82.29
(SZB) 10.503	31.99	-5.36	655.01	-90.93	302.21	-40.94	792.19	-111.48	687.00	-96.29	302.21	-40.94	792.19	-111.48
(0.2L_s) 15.505	43.11	-7.92	865.12	-134.24	390.06	-60.44	1042.09	-164.57	908.23	-142.16	390.06	-60.44	1042.09	-164.57
(SZB) 18.753	48.91	-9.58	967.80	-162.36	435.41	-73.10	1170.12	-199.04	1016.71	-171.94	435.41	-73.10	1170.12	-199.04
(0.3L_s) 23.257	55.09	-11.88	1068.26	-201.36	484.21	-90.66	1288.23	-246.86	1123.35	-213.24	484.21	-90.66	1288.23	-246.86
(SZB) 29.753	60.21	-15.20	1154.02	-257.59	510.25	-115.98	1376.81	-315.80	1214.22	-272.79	510.25	-115.98	1376.81	-315.80
(HP) 30.569	60.53	-15.61	1157.71	-264.66	510.00	-119.17	1388.36	-324.47	1218.24	-280.28	510.00	-119.17	1388.36	-324.47
(0.4L_s) 31.009	60.68	-15.84	1159.04	-268.47	509.60	-120.88	1393.65	-329.14	1219.72	-284.31	509.60	-120.88	1393.65	-329.14
(0.5L_s) 38.762	59.88	-19.80	1136.17	-335.59	482.91	-151.10	1387.25	-411.43	1196.05	-355.39	482.91	-151.10	1387.25	-411.43
(HP) 46.062	53.30	-23.53	1027.31	-398.80	458.95	-179.56	1228.28	-488.91	1080.61	-422.32	458.95	-179.56	1228.28	-488.91
(0.6L_s) 46.514	52.70	-23.76	1017.21	-402.71	455.35	-181.32	1215.39	-493.71	1069.92	-426.47	455.35	-181.32	1215.39	-493.71
(SZB) 46.878	52.21	-23.95	1008.81	-405.86	452.31	-182.74	1204.70	-497.58	1061.02	-429.81	452.31	-182.74	1204.70	-497.58
(0.7L_s) 54.267	39.14	-27.72	784.64	-469.83	359.64	-211.54	922.02	-576.00	823.78	-497.55	359.64	-211.54	922.02	-576.00
(Deck Bar Cutoff) 55.043	37.43	-28.12	757.00	-476.56	346.78	-214.57	885.67	-584.24	794.43	-504.67	346.78	-214.57	885.67	-584.24
(SZB) 57.878	30.64	-29.56	646.26	-501.87	295.56	-225.62	747.58	-615.28	676.90	-531.43	295.56	-225.62	747.58	-615.28
(0.8L_s) 62.019	19.19	-31.68	463.07	-537.77	208.71	-241.77	513.62	-659.29	482.25	-569.45	208.71	-241.77	513.62	-659.29
(SZB) 66.128	9.28	-37.04	294.34	-587.98	111.84	-257.78	234.96	-702.98	303.62	-625.02	111.84	-257.78	234.96	-702.98
(0.9L_s) 69.771	3.90	-46.69	175.54	-738.69	17.56	-271.99	0.00	-804.92	179.44	-785.38	17.56	-271.99	0.00	-804.92
(1.5H) 71.048	2.64	-51.02	136.37	-812.04	0.00	-276.96	0.00	-879.03	139.01	-863.06	0.00	-276.96	0.00	-879.03
(SZB) 71.628	2.15	-53.14	118.80	-843.12	0.00	-279.23	0.00	-912.86	120.95	-896.27	0.00	-279.23	0.00	-912.86
(H) 72.798	1.34	-57.69	84.22	-906.81	0.00	-283.78	0.00	-981.14	85.56	-964.50	0.00	-283.78	0.00	-981.14
(Bar Develop.) 73.866	0.78	-62.15	62.22	-968.81	0.00	-287.95	0.00	-1043.60	63.00	-1030.96	0.00	-287.95	0.00	-1043.60
(PSXFR) 74.048	0.70	-62.93	58.90	-979.52	0.00	-288.66	0.00	-1054.29	59.60	-1042.45	0.00	-288.66	0.00	-1054.29
(Bar Develop.) 74.926	0.38	-66.85	43.22	-1031.65	0.00	-292.08	0.00	-1106.15	43.60	-1098.50	0.00	-292.08	0.00	-1106.15
(SZB) 75.294	0.28	-68.55	36.81	-1053.70	0.00	-293.52	0.00	-1127.93	37.09	-1122.25	0.00	-293.52	0.00	-1127.93
(FoS) 76.298	0.08	-73.33	19.83	-1114.46	0.00	-297.43	0.00	-1187.62	19.91	-1187.78	0.00	-297.43	0.00	-1187.62
76.631	0.04	-74.96	14.33	-1134.84	0.00	-298.73	0.00	-1207.72	14.38	-1209.81	0.00	-298.73	0.00	-1207.72
(STLF) 77.048	0.01	-77.05	7.58	-1160.47	0.00	-300.35	0.00	-1232.85	7.59	-1237.51	0.00	-300.35	0.00	-1232.85
(1.0L_s) 77.524	0.00	-79.47	0.00	-1190.00	0.00	-304.40	0.00	-1263.78	0.00	-1269.47	0.00	-304.40	0.00	-1263.78

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Moment, Mu

Location from Left Support (ft)	Design								
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II		
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(0.0L_s) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(FoS) 0.333	55.40	50.09	32.64	83.16	19.97	-0.25	79.35	20.55	0.33
(SZB) 1.337	218.52	197.61	128.48	327.95	78.59	-1.34	312.50	80.88	0.95
(Bar Develop.) 1.705	276.99	250.50	162.74	415.68	99.53	-1.88	395.88	102.45	1.04
(PSXFR) 2.583	413.67	374.17	242.58	620.64	148.29	-3.45	590.30	152.73	0.98
(Bar Develop.) 2.765	441.46	399.31	258.77	662.30	158.18	-3.83	629.75	162.92	0.92
(H) 3.833	600.98	543.71	351.45	901.36	214.70	-6.39	855.67	221.28	0.19
(SZB) 5.003	768.67	695.56	448.30	1152.46	273.69	-9.88	1092.08	282.28	-1.30
(1.5H) 5.583	849.25	768.57	494.60	1273.07	301.86	-11.89	1205.32	311.44	-2.31
(0.1L_s) 7.752	1134.44	1027.09	657.04	1699.43	400.54	-20.95	1603.54	413.84	-7.65
(SZB) 10.503	1460.42	1323.02	840.02	2185.72	510.87	-36.03	2052.92	528.90	-18.01
(0.2L_s) 15.505	1953.17	1771.53	1107.56	2917.64	669.62	-73.71	2735.05	696.22	-47.10
(SZB) 18.753	2205.10	2001.76	1247.31	3289.37	744.02	-105.26	3089.80	776.20	-73.08
(0.3L_s) 23.257	2468.33	2243.66	1398.81	3674.16	810.25	-158.26	3447.42	850.15	-118.35
(SZB) 29.753	2699.19	2456.34	1507.86	4009.29	830.89	-253.58	3743.09	881.94	-202.53
(HP) 30.569	2713.67	2470.02	1512.72	4029.35	827.27	-267.14	3771.71	879.72	-214.69
(0.4L_s) 31.009	2720.14	2476.20	1514.61	4038.13	824.74	-274.60	3785.04	877.95	-221.40

Location from Left Support (ft)	Design									
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II			
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
($0.5L_s$) 38.762	2709.11	2469.90	1480.89	4009.51	714.72	-422.75	3789.21	781.23	-356.24
(HP) 46.062	2475.96	2259.84	1386.10	3653.87	498.14	-591.32	3420.99	577.18	-512.28
($0.6L_s$) 46.514	2453.85	2239.87	1375.00	3620.37	481.12	-602.69	3388.80	560.94	-522.88
(SZB) 46.878	2435.42	2223.21	1365.66	3592.45	467.12	-611.92	3362.01	547.56	-531.49
($0.7L_s$) 54.267	1937.11	1772.35	1096.12	2840.36	124.19	-814.43	2643.48	217.31	-721.32
(Deck Bar Cutoff) 55.043	1872.82	1713.94	1059.38	2744.01	81.61	-837.41	2549.42	176.06	-742.96
(SZB) 57.878	1615.74	1480.36	912.77	2358.72	-85.64	-925.28	2183.38	13.74	-825.90
($0.8L_s$) 62.019	1183.01	1086.56	663.44	1738.90	-384.87	-1086.35	1588.34	-278.37	-979.85
(SZB) 66.128	727.73	667.01	379.81	1103.48	-754.09	-1292.22	889.34	-609.33	-1147.45
($0.9L_s$) 69.771	324.43	288.54	98.84	559.91	-1308.58	-1679.82	245.88	-1020.81	-1392.06
(1.5H) 71.048	178.65	150.84	19.82	365.90	-1547.78	-1855.62	122.64	-1224.10	-1531.95
(SZB) 71.628	111.34	87.16	-4.80	276.67	-1654.12	-1932.27	65.01	-1318.02	-1596.17
(H) 72.798	-25.67	-42.78	-55.62	95.77	-1873.06	-2089.77	-53.97	-1509.73	-1726.45
(Bar Develop.) 73.866	-143.97	-156.57	-103.49	-37.43	-2101.49	-2321.90	-147.68	-1706.17	-1926.58
(PSXFR) 74.048	-163.96	-175.88	-111.78	-57.76	-2142.88	-2349.31	-162.06	-1741.88	-1948.31
(Bar Develop.) 74.926	-261.20	-269.92	-152.40	-156.21	-2345.17	-2483.06	-232.52	-1916.10	-2053.99
(SZB) 75.294	-302.29	-309.71	-169.69	-197.60	-2431.10	-2539.76	-262.52	-1989.87	-2098.54
(FoS) 76.298	-415.45	-419.43	-217.68	-310.93	-2668.87	-2696.34	-345.77	-2193.54	-2221.01
76.631	-453.41	-456.29	-233.90	-348.74	-2749.01	-2749.00	-373.91	-2262.27	-2262.26
(STLF) 77.048	-473.35	-474.86	-240.47	-371.13	-2815.24	-2815.24	-384.41	-2313.95	-2313.95
($1.0L_s$) 77.524	-496.08	-496.08	-248.04	-396.53	-2891.62	-2891.62	-396.53	-2376.15	-2376.15

* Deck moment (Mu) is for negative moment deck design, and is from superimposed dead load and live load only.

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	0.00	0.00	83.66 79.22	7.76
(FoS) 0.333	0.00	0.00	78.46	7.67
(SZB) 1.337	0.00	0.00	76.15	7.40
(Bar Develop.) 1.705	0.00	0.00	75.31	7.30
(PSXFR) 2.583	0.00	0.00	73.30	7.07
(Bar Develop.) 2.765	0.00	0.00	72.88	7.02
(H) 3.833	0.00	0.00	70.45	6.73
(SZB) 5.003	0.00	0.00	67.81	6.42
(1.5H) 5.583	0.00	0.00	66.49	6.27
($0.1L_s$) 7.752	0.00	0.00	61.62	5.69
(SZB) 10.503	0.00	0.00	55.50	4.96
($0.2L_s$) 15.505	0.00	0.00	44.51	3.62
(SZB) 18.753	0.00	0.00	37.46	2.76
($0.3L_s$) 23.257	0.00	0.00	27.77	1.56
(SZB) 29.753	0.00	0.00	13.97	-0.18
(HP) 30.569	0.00	0.00	12.25	-0.39
($0.4L_s$) 31.009	0.00	0.00	11.32	-0.51
($0.5L_s$) 38.762	0.00	0.00	-4.95	-2.58
(HP) 46.062	0.00	0.00	-20.19	-4.52
($0.6L_s$) 46.514	0.00	0.00	-21.13	-4.64
(SZB) 46.878	0.00	0.00	-21.89	-4.74
($0.7L_s$) 54.267	0.00	0.00	-37.33	-6.71
(Deck Bar Cutoff) 55.043	0.00	0.00	-38.96	-6.92
(SZB) 57.878	0.00	0.00	-44.91	-7.67
($0.8L_s$) 62.019	0.00	0.00	-53.64	-8.78
(SZB) 66.128	0.00	0.00	-62.36	-9.87
($0.9L_s$) 69.771	0.00	0.00	-70.16	-10.85
(1.5H) 71.048	0.00	0.00	-72.90	-11.19
(SZB) 71.628	0.00	0.00	-74.16	-11.34
(H) 72.798	0.00	0.00	-76.69	-11.65
(Bar Develop.) 73.866	0.00	0.00	-79.00	-11.94
(PSXFR) 74.048	0.00	0.00	-79.40	-11.99
(Bar Develop.) 74.926	0.00	0.00	-81.31	-12.22
(SZB) 75.294	0.00	0.00	-82.11	-12.32
(FoS) 76.298	0.00	0.00	-84.30	-12.59
76.631	0.00	0.00	-18.78	-12.67
(STLF) 77.048	0.00	0.00	-18.95	-12.69
($1.0L_s$) 77.524	0.00	0.00	-19.15	-12.82

Shear - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	3.60	-0.51	76.51	-8.66	36.70	-3.90	95.42	-10.61	80.11	-9.17	36.70	-3.90	95.42	-10.61
(FoS) 0.333	3.57	-0.51	75.98	-8.66	36.44	-3.90	94.77	-10.61	79.54	-9.17	36.44	-3.90	94.77	-10.61
(SZB) 1.337	3.46	-0.51	74.38	-8.66	35.66	-3.90	92.83	-10.61	77.84	-9.18	35.66	-3.90	92.83	-10.61
(Bar Develop.) 1.705	3.43	-0.51	73.79	-8.67	35.38	-3.90	92.12	-10.61	77.22	-9.18	35.38	-3.90	92.12	-10.61
(PSXFR) 2.583	3.34	-0.52	72.41	-8.68	34.71	-3.90	90.42	-10.61	75.74	-9.20	34.71	-3.90	90.42	-10.61

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(Bar Develop.) 2.765	3.32	-0.52	72.12	-8.69	34.57	-3.90	90.07	-10.61	75.44	-9.20	34.57	-3.90	90.07	-10.61
(H) 3.833	3.21	-0.52	70.45	-8.71	33.76	-3.90	88.01	-10.61	73.66	-9.24	33.76	-3.90	88.01	-10.61
(SZB) 5.003	3.09	-0.53	68.64	-8.75	32.88	-3.90	85.78	-10.61	71.73	-9.29	32.88	-3.90	85.78	-10.61
(1.5H) 5.583	3.04	-0.54	67.74	-8.78	32.44	-3.90	84.68	-10.61	70.78	-9.31	32.44	-3.90	84.68	-10.61
($0.1L_s$) 7.752	2.83	-0.56	64.43	-8.89	30.80	-3.90	80.58	-10.61	67.26	-9.45	30.80	-3.90	80.58	-10.61
(SZB) 10.503	2.58	-0.61	60.30	-9.44	28.77	-3.90	75.43	-10.61	62.88	-10.04	28.77	-3.90	75.43	-10.61
($0.2L_s$) 15.505	2.16	-0.72	53.04	-13.86	25.16	-5.64	66.30	-11.84	55.20	-14.57	25.16	-5.64	66.30	-11.84
(SZB) 18.753	1.91	-0.81	48.50	-16.80	22.90	-6.79	60.51	-15.14	50.41	-17.61	22.90	-6.79	60.51	-15.14
($0.3L_s$) 23.257	1.59	-0.97	42.44	-20.96	19.85	-8.37	52.75	-19.66	44.03	-21.93	19.85	-8.37	52.75	-19.66
(SZB) 29.753	1.19	-1.26	34.24	-28.47	15.72	-10.58	42.11	-26.47	35.43	-29.73	15.72	-10.58	42.11	-26.47
(HP) 30.569	1.14	-1.30	33.24	-29.54	15.22	-11.06	40.82	-28.15	34.39	-30.84	15.22	-11.06	40.82	-28.15
($0.4L_s$) 31.009	1.12	-1.32	32.71	-30.11	14.96	-11.37	40.13	-29.05	33.83	-31.44	14.96	-11.37	40.13	-29.05
($0.5L_s$) 38.762	0.74	-1.77	23.98	-40.34	10.56	-16.71	27.34	-46.22	24.72	-42.10	10.56	-16.71	27.34	-46.22
(HP) 46.062	0.46	-2.26	16.90	-50.55	6.99	-22.00	11.84	-62.99	17.36	-52.81	6.99	-22.00	11.84	-62.99
($0.6L_s$) 46.514	0.45	-2.30	16.48	-51.18	6.79	-22.35	10.82	-63.99	16.93	-53.48	6.79	-22.35	10.82	-63.99
(SZB) 46.878	0.44	-2.32	16.16	-51.69	6.62	-22.64	10.00	-64.80	16.59	-54.02	6.62	-22.64	10.00	-64.80
($0.7L_s$) 54.267	0.24	-2.91	10.63	-62.14	3.54	-28.34	1.03	-80.55	10.87	-65.05	3.54	-28.34	1.03	-80.55
(Deck Bar Cutoff) 55.043	0.22	-2.97	10.14	-63.24	3.24	-28.93	0.41	-82.13	10.36	-66.21	3.24	-28.93	0.41	-82.13
(SZB) 57.878	0.16	-3.22	8.39	-67.25	2.21	-31.05	0.00	-87.81	8.56	-70.47	2.21	-31.05	0.00	-87.81
($0.8L_s$) 62.019	0.10	-3.59	6.04	-73.07	0.85	-34.10	0.00	-95.73	6.13	-76.66	0.85	-34.10	0.00	-95.73
(SZB) 66.128	0.05	-3.98	3.93	-78.80	0.00	-37.02	0.00	-103.17	3.98	-82.79	0.00	-37.02	0.00	-103.17
($0.9L_s$) 69.771	0.02	-4.34	2.26	-83.79	0.00	-39.54	0.00	-109.34	2.29	-88.14	0.00	-39.54	0.00	-109.34
(1.5H) 71.048	0.02	-4.47	1.73	-85.53	0.00	-40.39	0.00	-111.44	1.74	-90.00	0.00	-40.39	0.00	-111.44
(SZB) 71.628	0.01	-4.53	1.49	-86.31	0.00	-40.78	0.00	-112.38	1.50	-90.84	0.00	-40.78	0.00	-112.38
(H) 72.798	0.01	-4.65	1.15	-87.89	0.00	-41.55	0.00	-114.24	1.15	-92.54	0.00	-41.55	0.00	-114.24
(Bar Develop.) 73.866	0.00	-4.76	0.87	-89.32	0.00	-42.25	0.00	-115.89	0.87	-94.08	0.00	-42.25	0.00	-115.89
(PSXFR) 74.048	0.00	-4.78	0.82	-89.56	0.00	-42.37	0.00	-116.17	0.82	-94.34	0.00	-42.37	0.00	-116.17
(Bar Develop.) 74.926	0.00	-4.87	0.60	-90.73	0.00	-42.94	0.00	-117.48	0.60	-95.60	0.00	-42.94	0.00	-117.48
(SZB) 75.294	0.00	-4.91	0.51	-91.21	0.00	-43.18	0.00	-118.03	0.51	-96.12	0.00	-43.18	0.00	-118.03
(FoS) 76.298	0.00	-5.01	0.27	-92.53	0.00	-43.81	0.00	-119.50	0.27	-97.54	0.00	-43.81	0.00	-119.50
76.631	0.00	-5.05	0.20	-92.96	0.00	-44.02	0.00	-119.98	0.20	-98.01	0.00	-44.02	0.00	-119.98
(STLF) 77.048	0.00	-5.09	0.10	-93.50	0.00	-44.28	0.00	-120.59	0.10	-98.59	0.00	-44.28	0.00	-120.59
($1.0L_s$) 77.524	0.00	-5.12	0.00	-88.26	0.00	-41.84	0.00	-113.86	0.00	-93.37	0.00	-41.84	0.00	-113.86

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Shear, Vu

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
($0.0L_s$) 0.000	171.53 167.09	155.51 151.07	100.75 98.53	256.41 250.86	64.29 60.30	245.02 239.48	66.01 62.01
(FoS) 0.333	165.67	149.76	97.72	248.77	59.55	237.52	61.26
(SZB) 1.337	161.39	145.82	95.27	242.51	57.29	231.61	59.02
(Bar Develop.) 1.705	159.83	144.39	94.37	240.22	56.45	229.45	58.19
(PSXFR) 2.583	156.11	140.96	92.25	234.78	54.46	224.29	56.23
(Bar Develop.) 2.765	155.34	140.26	91.81	233.65	54.05	223.23	55.83
(H) 3.833	150.85	136.12	89.24	227.08	51.62	216.99	53.46
(SZB) 5.003	145.96	131.61	86.43	219.92	48.95	210.19	50.87
(1.5H) 5.583	143.54	129.39	85.04	216.39	47.62	206.84	49.59
($0.1L_s$) 7.752	134.58	121.12	79.86	203.27	42.62	194.35	44.83
(SZB) 10.503	123.34	110.76	73.39	186.85	35.60	178.64	38.85
($0.2L_s$) 15.505	103.33	92.29	61.80	157.67	16.91	150.57	26.43
(SZB) 18.753	90.62	80.54	54.46	139.17	4.69	132.64	15.07
($0.3L_s$) 23.257	73.36	64.56	44.44	114.11	-12.37	108.26	-0.53
(SZB) 29.753	49.22	42.14	30.48	79.35	-39.71	74.20	-23.42
(HP) 30.569	46.24	39.37	28.76	75.23	-43.53	70.17	-27.57
($0.4L_s$) 31.009	44.64	37.87	27.84	73.02	-45.59	67.99	-29.79
($0.5L_s$) 38.762	17.19	12.25	12.07	37.13	-83.73	30.78	-72.45
(HP) 46.062	-7.35	-10.83	-1.87	9.27	-124.44	-5.12	-117.06
($0.6L_s$) 46.514	-8.85	-12.23	-2.71	7.59	-126.97	-7.43	-119.78
(SZB) 46.878	-10.04	-13.36	-3.38	6.25	-129.01	-9.29	-121.96
($0.7L_s$) 54.267	-33.18	-35.35	-16.71	-18.94	-170.57	-36.56	-165.48
(Deck Bar Cutoff) 55.043	-35.52	-37.59	-18.08	-21.44	-174.95	-39.01	-169.96
(SZB) 57.878	-44.03	-45.74	-22.97	-30.43	-190.97	-45.41	-186.20
($0.8L_s$) 62.019	-56.28	-57.51	-29.94	-43.25	-214.38	-53.98	-209.45
(SZB) 66.128	-68.26	-69.05	-36.12	-55.58	-237.64	-62.55	-232.04
($0.9L_s$) 69.771	-78.72	-79.18	-40.50	-66.19	-258.20	-70.19	-251.58
(1.5H) 71.048	-82.35	-82.70	-42.05	-69.84	-265.40	-72.89	-258.35
(SZB) 71.628	-84.00	-84.30	-42.75	-71.48	-268.69	-74.11	-261.42
(H) 72.798	-87.18	-87.42	-44.17	-74.57	-275.28	-76.59	-267.56
(Bar Develop.) 73.866	-90.07	-90.24	-45.47	-77.34	-281.29	-78.86	-273.11
(PSXFR) 74.048	-90.56	-90.72	-45.69	-77.81	-282.32	-79.25	-274.05
(Bar Develop.) 74.926	-92.93	-93.05	-46.76	-80.07	-287.26	-81.12	-278.57
(SZB) 75.294	-93.92	-94.02	-47.21	-81.01	-289.33	-81.91	-280.45
(FoS) 76.298	-96.61	-96.67	-48.44	-83.57	-294.95	-84.05	-285.58

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
76.631	-31.25	-31.29	-15.73	-24.79	-214.00	-25.14	-204.46
(STLF) 77.048	-31.54	-31.56	-15.82	-25.12	-215.27	-25.31	-205.52
($1.0L_s$) 77.524	-31.97	-31.97	-15.98	-25.57	-206.57	-25.57	-196.88

Girder Line Pier Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
Abutment 1	0.00	0.00	83.66	7.76
Pier 2	0.00	0.00	178.24	25.62

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
Abutment 1 - Ahead	0.00	0.00	83.66	7.76	167.92

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.60	-0.51	76.51	-8.66	36.70	-3.90	95.42	-10.61	80.11	-9.17	36.70	-3.90	95.42	-10.61

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	167.92	152.62	100.75	250.10	65.18	245.02	66.01

Live Load Reactions Without Impact

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.60	-0.51	61.52	-7.08	31.91	-3.39	71.74	-7.98	65.12	-7.59	31.91	-3.39	71.74	-7.98

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Stresses

Product Load Stresses

At Release

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF, $0.0L_r$) 0.000	0.000	0.000
(PSXFR) 3.000	-0.135	0.137
($0.1L_r$) 7.746	-0.327	0.331
($0.2L_r$) 15.493	-0.581	0.589
($0.3L_r$) 23.239	-0.762	0.773
(HP, $0.4L_r$) 30.986	-0.871	0.884
($0.5L_r$) 38.732	-0.908	0.921
(HP, $0.6L_r$) 46.479	-0.871	0.884
($0.7L_r$) 54.225	-0.762	0.773
($0.8L_r$) 61.971	-0.581	0.589
($0.9L_r$) 69.718	-0.327	0.331
(PSXFR) 74.464	-0.135	0.137
(STLF, $1.0L_r$) 77.464	0.000	0.000

During Storage

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF) -0.417	0.000	0.000
($0.0L_{st}$) 0.000	0.000	-0.000
(PSXFR) 2.583	-0.116	0.117
($0.1L_{st}$) 7.663	-0.320	0.324
($0.2L_{st}$) 15.326	-0.568	0.577
($0.3L_{st}$) 22.989	-0.746	0.757
(HP) 30.569	-0.852	0.864
($0.4L_{st}$) 30.652	-0.853	0.865
($0.5L_{st}$) 38.315	-0.888	0.901
($0.6L_{st}$) 45.979	-0.853	0.865
(HP) 46.062	-0.852	0.864
($0.7L_{st}$) 53.642	-0.746	0.757
($0.8L_{st}$) 61.305	-0.568	0.577
($0.9L_{st}$) 68.968	-0.320	0.324
(PSXFR) 74.048	-0.116	0.117
($1.0L_{st}$) 76.631	0.000	-0.000
(STLF) 77.048	0.000	0.000

Girder Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_e$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.116 f_b = 0.117	f_t = 0.000 f_b = 0.000	f_t = -0.137 f_b = 0.139	f_t = -0.020 f_b = 0.020	f_t = -0.005 f_b = 0.022	f_t = -0.002 f_b = 0.009	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.008 f_b = 0.279	f_t = -0.066 f_b = -0.033	f_t = 0.004 f_b = 0.159	f_t = -0.038 f_b = -0.018	f_t = 0.010 f_b = 0.346	f_t = -0.081 f_b = -0.041
($0.1L_e$) 7.663	f_t = -0.320 f_b = 0.324	f_t = 0.000 f_b = 0.000	f_t = -0.374 f_b = 0.379	f_t = -0.055 f_b = 0.055	f_t = -0.014 f_b = 0.059	f_t = -0.006 f_b = 0.025	f_t = -0.011 f_b = 0.048	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.023 f_b = 0.750	f_t = -0.177 f_b = -0.098	f_t = 0.013 f_b = 0.420	f_t = -0.099 f_b = -0.053	f_t = 0.028 f_b = 0.915	f_t = -0.216 f_b = -0.120
($0.2L_e$) 15.326	f_t = -0.568	f_t = 0.000	f_t = -0.656	f_t = -0.097	f_t = -0.024	f_t = -0.010	f_t = -0.019	f_t = 0.002	f_t = -0.011	f_t = 0.046	f_t = -0.299	f_t = 0.025	f_t = -0.162	f_t = 0.057	f_t = -0.361

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.577	f_b = 0.000	f_b = 0.666	f_b = 0.098	f_b = 0.100	f_b = 0.042	f_b = 0.082	f_b = 0.047	f_b = -0.009	f_b = 1.270	f_b = -0.196	f_b = 0.688	f_b = -0.106	f_b = 1.530	f_b = -0.241
(0.3L$_e$) 22.989	f_t = -0.746	f_t = 0.000	f_t = -0.853	f_t = -0.127	f_t = -0.029	f_t = -0.012	f_t = -0.024	f_t = 0.003	f_t = -0.014	f_t = 0.070	f_t = -0.375	f_t = 0.038	f_t = -0.204	f_t = 0.086	f_t = -0.452
	f_b = 0.757	f_b = 0.000	f_b = 0.865	f_b = 0.129	f_b = 0.124	f_b = 0.052	f_b = 0.101	f_b = 0.060	f_b = -0.013	f_b = 1.574	f_b = -0.295	f_b = 0.857	f_b = -0.159	f_b = 1.900	f_b = -0.361
(HP) 30.569	f_t = -0.852	f_t = 0.000	f_t = -0.966	f_t = -0.144	f_t = -0.032	f_t = -0.013	f_t = -0.026	f_t = 0.004	f_t = -0.016	f_t = 0.096	f_t = -0.420	f_t = 0.052	f_t = -0.222	f_t = 0.118	f_t = -0.503
	f_b = 0.864	f_b = 0.000	f_b = 0.980	f_b = 0.146	f_b = 0.129	f_b = 0.054	f_b = 0.105	f_b = 0.067	f_b = -0.017	f_b = 1.720	f_b = -0.393	f_b = 0.909	f_b = -0.212	f_b = 2.062	f_b = -0.482
(0.4L$_e$) 30.652	f_t = -0.853	f_t = 0.000	f_t = -0.967	f_t = -0.145	f_t = -0.032	f_t = -0.013	f_t = -0.026	f_t = 0.004	f_t = -0.016	f_t = 0.096	f_t = -0.420	f_t = 0.052	f_t = -0.222	f_t = 0.118	f_t = -0.504
	f_b = 0.865	f_b = 0.000	f_b = 0.981	f_b = 0.147	f_b = 0.129	f_b = 0.054	f_b = 0.105	f_b = 0.067	f_b = -0.017	f_b = 1.720	f_b = -0.394	f_b = 0.909	f_b = -0.213	f_b = 2.064	f_b = -0.483
(0.5L$_e$) 38.315	f_t = -0.888	f_t = 0.000	f_t = -1.001	f_t = -0.150	f_t = -0.029	f_t = -0.012	f_t = -0.024	f_t = 0.005	f_t = -0.016	f_t = 0.122	f_t = -0.420	f_t = 0.066	f_t = -0.213	f_t = 0.150	f_t = -0.514
	f_b = 0.901	f_b = 0.000	f_b = 1.016	f_b = 0.153	f_b = 0.117	f_b = 0.049	f_b = 0.095	f_b = 0.066	f_b = -0.022	f_b = 1.695	f_b = -0.494	f_b = 0.861	f_b = -0.267	f_b = 2.072	f_b = -0.605
(0.6L$_e$) 45.979	f_t = -0.853	f_t = 0.000	f_t = -0.958	f_t = -0.145	f_t = -0.022	f_t = -0.009	f_t = -0.017	f_t = 0.006	f_t = -0.015	f_t = 0.148	f_t = -0.382	f_t = 0.080	f_t = -0.205	f_t = 0.181	f_t = -0.457
	f_b = 0.865	f_b = 0.000	f_b = 0.972	f_b = 0.147	f_b = 0.086	f_b = 0.036	f_b = 0.070	f_b = 0.059	f_b = -0.026	f_b = 1.532	f_b = -0.593	f_b = 0.821	f_b = -0.320	f_b = 1.833	f_b = -0.727
(HP) 46.062	f_t = -0.852	f_t = 0.000	f_t = -0.957	f_t = -0.144	f_t = -0.021	f_t = -0.009	f_t = -0.017	f_t = 0.006	f_t = -0.015	f_t = 0.148	f_t = -0.381	f_t = 0.080	f_t = -0.204	f_t = 0.181	f_t = -0.456
	f_b = 0.864	f_b = 0.000	f_b = 0.971	f_b = 0.146	f_b = 0.086	f_b = 0.036	f_b = 0.070	f_b = 0.059	f_b = -0.026	f_b = 1.530	f_b = -0.594	f_b = 0.820	f_b = -0.321	f_b = 1.829	f_b = -0.728
(0.7L$_e$) 53.642	f_t = -0.746	f_t = 0.000	f_t = -0.837	f_t = -0.127	f_t = -0.009	f_t = -0.004	f_t = -0.008	f_t = 0.007	f_t = -0.011	f_t = 0.171	f_t = -0.298	f_t = 0.093	f_t = -0.164	f_t = 0.210	f_t = -0.351
	f_b = 0.757	f_b = 0.000	f_b = 0.849	f_b = 0.129	f_b = 0.037	f_b = 0.016	f_b = 0.030	f_b = 0.045	f_b = -0.030	f_b = 1.201	f_b = -0.691	f_b = 0.660	f_b = -0.373	f_b = 1.415	f_b = -0.847
(0.8L$_e$) 61.305	f_t = -0.568	f_t = 0.000	f_t = -0.639	f_t = -0.097	f_t = 0.007	f_t = 0.003	f_t = 0.006	f_t = 0.008	f_t = -0.006	f_t = 0.193	f_t = -0.180	f_t = 0.104	f_t = -0.098	f_t = 0.236	f_t = -0.202
	f_b = 0.577	f_b = 0.000	f_b = 0.648	f_b = 0.098	f_b = -0.029	f_b = -0.012	f_b = -0.024	f_b = 0.023	f_b = -0.034	f_b = 0.737	f_b = -0.789	f_b = 0.400	f_b = -0.426	f_b = 0.828	f_b = -0.967
(0.9L$_e$) 68.968	f_t = -0.320	f_t = 0.000	f_t = -0.360	f_t = -0.055	f_t = 0.027	f_t = 0.011	f_t = 0.022	f_t = 0.012	f_t = -0.001	f_t = 0.245	f_t = -0.071	f_t = 0.114	f_t = -0.016	f_t = 0.267	f_t = -0.014
	f_b = 0.324	f_b = 0.000	f_b = 0.366	f_b = 0.055	f_b = -0.114	f_b = -0.048	f_b = -0.092	f_b = 0.005	f_b = -0.049	f_b = 0.298	f_b = -1.029	f_b = 0.068	f_b = -0.478	f_b = 0.058	f_b = -1.122
(PSXFR) 74.048	f_t = -0.116	f_t = 0.000	f_t = -0.131	f_t = -0.020	f_t = 0.042	f_t = 0.018	f_t = 0.034	f_t = 0.016	f_t = -0.000	f_t = 0.341	f_t = -0.021	f_t = 0.121	f_t = 0.000	f_t = 0.367	f_t = 0.000
	f_b = 0.117	f_b = 0.000	f_b = 0.133	f_b = 0.020	f_b = -0.179	f_b = -0.075	f_b = -0.146	f_b = 0.001	f_b = -0.069	f_b = 0.087	f_b = -1.447	f_b = 0.000	f_b = -0.512	f_b = 0.000	f_b = -1.557
(1.0L$_e$) 76.631	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.051	f_t = 0.021	f_t = 0.041	f_t = 0.019	f_t = -0.000	f_t = 0.395	f_t = -0.005	f_t = 0.125	f_t = 0.000	f_t = 0.421	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.216	f_b = -0.090	f_b = -0.176	f_b = 0.000	f_b = -0.082	f_b = 0.021	f_b = -1.676	f_b = 0.000	f_b = -0.530	f_b = 0.000	f_b = -1.784
76.631	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.051	f_t = 0.021	f_t = 0.041	f_t = 0.019	f_t = -0.000	f_t = 0.395	f_t = -0.005	f_t = 0.125	f_t = 0.000	f_t = 0.421	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.216	f_b = -0.090	f_b = -0.176	f_b = 0.000	f_b = -0.082	f_b = 0.021	f_b = -1.676	f_b = 0.000	f_b = -0.530	f_b = 0.000	f_b = -1.784
(STLF) 77.048	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.052	f_t = 0.022	f_t = 0.043	f_t = 0.020	f_t = 0.000	f_t = 0.404	f_t = -0.003	f_t = 0.126	f_t = 0.000	f_t = 0.429	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.222	f_b = -0.093	f_b = -0.180	f_b = 0.000	f_b = -0.084	f_b = 0.011	f_b = -1.714	f_b = 0.000	f_b = -0.533	f_b = 0.000	f_b = -1.821

* Live Load values are per lane and include impact.

Deck Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(0.0L$_e$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(PSXFR) 2.583	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.009	f_t = -0.004	f_t = -0.007	f_t = 0.001	f_t = -0.004	f_t = 0.014	f_t = -0.115	f_t = 0.007	f_t = -0.066	f_t = 0.017	f_t = -0.143
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.004	f_b = -0.002	f_b = -0.003	f_b = 0.000	f_b = -0.002	f_b = 0.006	f_b = -0.054	f_b = 0.003	f_b = -0.031	f_b = 0.008	f_b = -0.067
(0.1L$_e$) 7.663	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.024	f_t = -0.010	f_t = -0.020	f_t = 0.002	f_t = -0.011	f_t = 0.041	f_t = -0.310	f_t = 0.022	f_t = -0.174	f_t = 0.050	f_t = -0.379
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.012	f_b = -0.005	f_b = -0.009	f_b = 0.001	f_b = -0.005	f_b = 0.019	f_b = -0.146	f_b = 0.010	f_b = -0.082	f_b = 0.023	f_b = -0.178
(0.2L$_e$) 15.326	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.042	f_t = -0.017	f_t = -0.034	f_t = 0.004	f_t = -0.019	f_t = 0.081	f_t = -0.526	f_t = 0.044	f_t = -0.285	f_t = 0.100	f_t = -0.633
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.020	f_b = -0.008	f_b = -0.016	f_b = 0.002	f_b = -0.009	f_b = 0.038	f_b = -0.248	f_b = 0.021	f_b = -0.134	f_b = 0.047	f_b = -0.298
(0.3L$_e$) 22.989	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.052	f_t = -0.022	f_t = -0.042	f_t = 0.005	f_t = -0.025	f_t = 0.123	f_t = -0.655	f_t = 0.066	f_t = -0.357	f_t = 0.150	f_t = -0.791
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.020	f_b = 0.003	f_b = -0.012	f_b = 0.058	f_b = -0.310	f_b = 0.031	f_b = -0.169	f_b = 0.071	f_b = -0.374
(HP) 30.569	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.055	f_t = -0.023	f_t = -0.044	f_t = 0.007	f_t = -0.028	f_t = 0.166	f_t = -0.726	f_t = 0.090	f_t = -0.384	f_t = 0.204	f_t = -0.871
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.026	f_b = -0.011	f_b = -0.021	f_b = 0.003	f_b = -0.013	f_b = 0.079	f_b = -0.347	f_b = 0.043	f_b = -0.183	f_b = 0.097	f_b = -0.416
(0.4L$_e$) 30.652	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.055	f_t = -0.023	f_t = -0.044	f_t = 0.007	f_t = -0.028	f_t = 0.167	f_t = -0.727	f_t = 0.090	f_t = -0.384	f_t = 0.204	f_t = -0.872
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.026	f_b = -0.011	f_b = -0.021	f_b = 0.003	f_b = -0.013	f_b = 0.080	f_b = -0.347	f_b = 0.043	f_b = -0.184	f_b = 0.098	f_b = -0.417
(0.5L$_e$) 38.315	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.050	f_t = -0.021	f_t = -0.041	f_t = 0.009	f_t = -0.028	f_t = 0.210	f_t = -0.722	f_t = 0.114	f_t = -0.367	f_t = 0.258	f_t = -0.883
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.020	f_b = 0.004	f_b = -0.014	f_b = 0.101	f_b = -0.348	f_b = 0.055	f_b = -0.177	f_b = 0.124	f_b = -0.425
(0.6L$_e$) 45.979	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.037	f_t = -0.015	f_t = -0.030	f_t = 0.011	f_t = -0.025	f_t = 0.253	f_t = -0.655	f_t = 0.137	f_t = -0.351	f_t = 0.311	f_t = -0.783
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.018	f_b = -0.007	f_b = -0.014	f_b = 0.005	f_b = -0.012	f_b = 0.122	f_b = -0.316	f_b = 0.066	f_b = -0.169	f_b = 0.150	f_b = -0.378
(HP) 46.062	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.037	f_t = -0.015	f_t = -0.030	f_t = 0.011	f_t = -0.025	f_t = 0.254	f_t = -0.654	f_t = 0.137	f_t = -0.351	f_t = 0.311	f_t = -0.782
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.018	f_b = -0.007	f_b = -0.014	f_b = 0.005	f_b = -0.012	f_b = 0.122	f_b = -0.315	f_b = 0.066	f_b = -0.169	f_b = 0.150	f_b = -0.377
(0.7L$_e$) 53.642	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.016	f_t = -0.007	f_t = -0.013	f_t = 0.013	f_t = -0.019	f_t = 0.295	f_t = -0.512	f_t = 0.159	f_t = -0.281	f_t = 0.361	f_t = -0.603
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.008	f_b = -0.003	f_b = -0.006	f_b = 0.006	f_b = -0.009	f_b = 0.142	f_b = -0.246	f_b = 0.077	f_b = -0.135	f_b = 0.174	f_b = -0.290
(0.8L$_e$) 61.305	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.012	f_t = 0.005	f_t = 0.010	f_t = 0.015	f_t = -0.010	f_t = 0.333	f_t = -0.311	f_t = 0.180	f_t = -0.169	f_t = 0.409	f_t = -0.350
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.006	f_b = 0.002	f_b = 0.005	f_b = 0.007	f_b = -0.005	f_b = 0.159	f_b = -0.149	f_b = 0.086	f_b = -0.081	f_b = 0.195	f_b = -0.167
(0.9L$_e$) 68.968	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.047	f_t = 0.020	f_t = 0.039	f_t = 0.020	f_t = -0.002	f_t = 0.429	f_t = -0.124	f_t = 0.199	f_t = -0.028	f_t = 0.467	f_t = -0.024
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.010	f_b = -0.001	f_b = 0.203	f_b = -0.059	f_b = 0.094	f_b = -0.013	f_b = 0.221	f_b = -0.012
(PSXFR) 74.048	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.074	f_t = 0.031	f_t = 0.060	f_t = 0.029	f_t = -0.000	f_t = 0.599	f_t = -0.036	f_t = 0.212	f_t = 0.000	f_t = 0.645	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.035	f_b = 0.015	f_b = 0.028	f_b = 0.013	f_b = -0.000	f_b = 0.282	f_b = -0.017	f_b = 0.100	f_b = 0.000	f_b = 0.304	f_b = 0.000
(1.0L$_e$) 76.631	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.089	f_t = 0.037	f_t = 0.073	f_t = 0.034	f_t = -0.000	f_t = 0.694	f_t = -0.009	f_t = 0.220	f_t = 0.000	f_t = 0.738	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.018	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.327	f_b = -0.004	f_b = 0.103	f_b = 0.000	f_b = 0.348	f_b = 0.000
76.631	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.089	f_t = 0.037	f_t = 0.073	f_t = 0.034	f_t = -0.000	f_t = 0.694	f_t = -0.009	f_t = 0.220	f_t = 0.000	f_t = 0.738	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.018	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.327	f_b = -0.004	f_b = 0.103	f_b = 0.000	f_b = 0.348	f_b = 0.000
(STLF) 77.048	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.092	f_t = 0.038	f_t = 0.075	f_t = 0.035	f_t = 0.000	f_t = 0.710	f_t = -0.005	f_t = 0.221	f_t = 0.000	f_t = 0.754	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.018	f_b = 0.035	f_b = 0.016	f_b = 0.000	f_b = 0.334	f_b = -0.002	f_b = 0.104	f_b = 0.000	f_b = 0.355	f_b = 0.000

* Live Load values are per lane and include impact.

Girder Stresses due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.663	f_t = -0.010 f_b = 0.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
15.326	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
22.989	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
30.652	f_t = -0.025 f_b = 0.026	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
38.315	f_t = -0.026 f_b = 0.027	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
45.979	f_t = -0.025 f_b = 0.026	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
53.642	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
61.305	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
68.968	f_t = -0.009 f_b = 0.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.663	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = 0.008	f_t = 0.000 f_b = 0.000
15.326	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.014	f_t = 0.000 f_b = 0.000
22.989	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
30.652	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = 0.019	f_t = 0.000 f_b = 0.000
38.315	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.017	f_t = 0.000 f_b = 0.000
45.979	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.012	f_t = 0.000 f_b = 0.000
53.642	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = 0.005	f_t = 0.000 f_b = 0.000
61.305	f_t = 0.000 f_b = 0.000	f_t = 0.001 f_b = -0.004	f_t = 0.000 f_b = 0.000
68.968	f_t = 0.000 f_b = 0.000	f_t = 0.004 f_b = -0.016	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000

Deck Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L$_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
7.663	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.000 f_b = 0.000
15.326	f_t = 0.000 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.000
22.989	f_t = 0.000	f_t = -0.007	f_t = 0.000

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
	f_b = 0.000	f_b = -0.003	f_b = 0.000
30.652	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
38.315	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
45.979	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = -0.003	f_t = 0.000 f_b = 0.000
53.642	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.000 f_b = 0.000
61.305	f_t = 0.000 f_b = 0.000	f_t = 0.002 f_b = 0.001	f_t = 0.000 f_b = 0.000
68.968	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = 0.003	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 2: Prestress Release

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF, 0.0L_T) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.750	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.753	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.121	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000
(PSXFR) 3.000	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.182	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000
(H) 4.250	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000
(SZB) 5.419	f_t = -0.236 f_b = 0.240	f_t = 0.000 f_b = 0.000	f_t = -0.236 f_b = 0.240	f_t = 0.000 f_b = 0.000
(1.5H) 6.000	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000
(0.1L_T) 7.746	f_t = -0.327 f_b = 0.331	f_t = 0.000 f_b = 0.000	f_t = -0.327 f_b = 0.331	f_t = 0.000 f_b = 0.000
(SZB) 10.919	f_t = -0.440 f_b = 0.446	f_t = 0.000 f_b = 0.000	f_t = -0.440 f_b = 0.446	f_t = 0.000 f_b = 0.000
(0.2L_T) 15.493	f_t = -0.581 f_b = 0.589	f_t = 0.000 f_b = 0.000	f_t = -0.581 f_b = 0.589	f_t = 0.000 f_b = 0.000
(SZB) 19.169	f_t = -0.676 f_b = 0.686	f_t = 0.000 f_b = 0.000	f_t = -0.676 f_b = 0.686	f_t = 0.000 f_b = 0.000
(0.3L_T) 23.239	f_t = -0.762 f_b = 0.773	f_t = 0.000 f_b = 0.000	f_t = -0.762 f_b = 0.773	f_t = 0.000 f_b = 0.000
(SZB) 30.169	f_t = -0.863 f_b = 0.876	f_t = 0.000 f_b = 0.000	f_t = -0.863 f_b = 0.876	f_t = 0.000 f_b = 0.000
(HP, 0.4L_T) 30.986	f_t = -0.871 f_b = 0.884	f_t = 0.000 f_b = 0.000	f_t = -0.871 f_b = 0.884	f_t = 0.000 f_b = 0.000
(0.5L_T) 38.732	f_t = -0.908 f_b = 0.921	f_t = 0.000 f_b = 0.000	f_t = -0.908 f_b = 0.921	f_t = 0.000 f_b = 0.000
(HP, 0.6L_T) 46.479	f_t = -0.871 f_b = 0.884	f_t = 0.000 f_b = 0.000	f_t = -0.871 f_b = 0.884	f_t = 0.000 f_b = 0.000
(SZB) 47.295	f_t = -0.863 f_b = 0.876	f_t = 0.000 f_b = 0.000	f_t = -0.863 f_b = 0.876	f_t = 0.000 f_b = 0.000
(0.7L_T) 54.225	f_t = -0.762 f_b = 0.773	f_t = 0.000 f_b = 0.000	f_t = -0.762 f_b = 0.773	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 55.460	f_t = -0.738 f_b = 0.749	f_t = 0.000 f_b = 0.000	f_t = -0.738 f_b = 0.749	f_t = 0.000 f_b = 0.000
(SZB) 58.295	f_t = -0.676 f_b = 0.686	f_t = 0.000 f_b = 0.000	f_t = -0.676 f_b = 0.686	f_t = 0.000 f_b = 0.000
(0.8L_T) 61.971	f_t = -0.581 f_b = 0.589	f_t = 0.000 f_b = 0.000	f_t = -0.581 f_b = 0.589	f_t = 0.000 f_b = 0.000
(SZB) 66.545	f_t = -0.440 f_b = 0.446	f_t = 0.000 f_b = 0.000	f_t = -0.440 f_b = 0.446	f_t = 0.000 f_b = 0.000
(0.9L_T) 69.718	f_t = -0.327 f_b = 0.331	f_t = 0.000 f_b = 0.000	f_t = -0.327 f_b = 0.331	f_t = 0.000 f_b = 0.000
(1.5H) 71.464	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000
(SZB) 72.045				

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_t = -0.236 f_b = 0.240	f_t = 0.000 f_b = 0.000	f_t = -0.236 f_b = 0.240	f_t = 0.000 f_b = 0.000
(H) 73.214	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.282	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000
(PSXFR) 74.464	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000
(Bar Develop.) 75.343	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000
(SZB) 75.711	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(FoS) 76.714	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(STLF, 1.0L_t) 77.464	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 11: Cast Deck, Apply User Defined Loads

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.021 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = -0.037 f_b = 0.037	f_t = 0.000 f_b = 0.000
(SZB) 1.337	f_t = -0.084 f_b = 0.085	f_t = 0.000 f_b = 0.000	f_t = -0.145 f_b = 0.147	f_t = 0.000 f_b = 0.000
(Bar Develop.) 1.705	f_t = -0.107 f_b = 0.108	f_t = 0.000 f_b = 0.000	f_t = -0.184 f_b = 0.187	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.160 f_b = 0.162	f_t = 0.000 f_b = 0.000	f_t = -0.276 f_b = 0.280	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.765	f_t = -0.171 f_b = 0.173	f_t = 0.000 f_b = 0.000	f_t = -0.294 f_b = 0.298	f_t = 0.000 f_b = 0.000
(H) 3.833	f_t = -0.233 f_b = 0.236	f_t = 0.000 f_b = 0.000	f_t = -0.402 f_b = 0.407	f_t = 0.000 f_b = 0.000
(SZB) 5.003	f_t = -0.298 f_b = 0.303	f_t = 0.000 f_b = 0.000	f_t = -0.515 f_b = 0.522	f_t = 0.000 f_b = 0.000
(1.5H) 5.583	f_t = -0.330 f_b = 0.335	f_t = 0.000 f_b = 0.000	f_t = -0.570 f_b = 0.578	f_t = 0.000 f_b = 0.000
(0.1L_e) 7.663	f_t = -0.438 f_b = 0.444	f_t = 0.000 f_b = 0.000	f_t = -0.758 f_b = 0.769	f_t = 0.000 f_b = 0.000
(SZB) 10.503	f_t = -0.573 f_b = 0.581	f_t = 0.000 f_b = 0.000	f_t = -0.993 f_b = 1.008	f_t = 0.000 f_b = 0.000
(0.2L_e) 15.326	f_t = -0.770 f_b = 0.781	f_t = 0.000 f_b = 0.000	f_t = -1.339 f_b = 1.358	f_t = 0.000 f_b = 0.000
(SZB) 18.753	f_t = -0.886 f_b = 0.898	f_t = 0.000 f_b = 0.000	f_t = -1.542 f_b = 1.565	f_t = 0.000 f_b = 0.000
(0.3L_e) 22.989	f_t = -1.002 f_b = 1.016	f_t = 0.000 f_b = 0.000	f_t = -1.748 f_b = 1.773	f_t = 0.000 f_b = 0.000
(SZB) 29.753	f_t = -1.126 f_b = 1.142	f_t = 0.000 f_b = 0.000	f_t = -1.970 f_b = 1.998	f_t = 0.000 f_b = 0.000
(HP) 30.569	f_t = -1.136 f_b = 1.152	f_t = 0.000 f_b = 0.000	f_t = -1.988 f_b = 2.016	f_t = 0.000 f_b = 0.000
(0.4L_e) 30.652	f_t = -1.137 f_b = 1.153	f_t = 0.000 f_b = 0.000	f_t = -1.989 f_b = 2.018	f_t = 0.000 f_b = 0.000
(0.5L_e) 38.315	f_t = -1.178 f_b = 1.195	f_t = 0.000 f_b = 0.000	f_t = -2.066 f_b = 2.096	f_t = 0.000 f_b = 0.000
(0.6L_e) 45.979	f_t = -1.128 f_b = 1.144	f_t = 0.000 f_b = 0.000	f_t = -1.980 f_b = 2.009	f_t = 0.000 f_b = 0.000
(HP) 46.062	f_t = -1.127 f_b = 1.143	f_t = 0.000 f_b = 0.000	f_t = -1.979 f_b = 2.007	f_t = 0.000 f_b = 0.000
(SZB) 46.878	f_t = -1.116 f_b = 1.132	f_t = 0.000 f_b = 0.000	f_t = -1.960 f_b = 1.988	f_t = 0.000 f_b = 0.000
(0.7L_e) 53.642	f_t = -0.986 f_b = 1.000	f_t = 0.000 f_b = 0.000	f_t = -1.732 f_b = 1.757	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 55.043	f_t = -0.950 f_b = 0.964	f_t = 0.000 f_b = 0.000	f_t = -1.669 f_b = 1.693	f_t = 0.000 f_b = 0.000
(SZB) 57.878	f_t = -0.868 f_b = 0.881	f_t = 0.000 f_b = 0.000	f_t = -1.525 f_b = 1.547	f_t = 0.000 f_b = 0.000
(0.8L_e) 61.305	f_t = -0.752	f_t = 0.000	f_t = -1.321	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.763	f_b = 0.000	f_b = 1.340	f_b = 0.000
(SZB) 66.128	f_t = -0.557 f_b = 0.565	f_t = 0.000 f_b = 0.000	f_t = -0.977 f_b = 0.991	f_t = 0.000 f_b = 0.000
(0.9L_e) 68.968	f_t = -0.425 f_b = 0.431	f_t = 0.000 f_b = 0.000	f_t = -0.744 f_b = 0.755	f_t = 0.000 f_b = 0.000
(1.5H) 71.048	f_t = -0.319 f_b = 0.324	f_t = 0.000 f_b = 0.000	f_t = -0.559 f_b = 0.567	f_t = 0.000 f_b = 0.000
(SZB) 71.628	f_t = -0.288 f_b = 0.293	f_t = 0.000 f_b = 0.000	f_t = -0.505 f_b = 0.512	f_t = 0.000 f_b = 0.000
(H) 72.798	f_t = -0.225 f_b = 0.228	f_t = 0.000 f_b = 0.000	f_t = -0.394 f_b = 0.399	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.866	f_t = -0.165 f_b = 0.167	f_t = 0.000 f_b = 0.000	f_t = -0.288 f_b = 0.292	f_t = 0.000 f_b = 0.000
(PSXFR) 74.048	f_t = -0.154 f_b = 0.156	f_t = 0.000 f_b = 0.000	f_t = -0.270 f_b = 0.274	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.926	f_t = -0.103 f_b = 0.105	f_t = 0.000 f_b = 0.000	f_t = -0.180 f_b = 0.183	f_t = 0.000 f_b = 0.000
(SZB) 75.294	f_t = -0.081 f_b = 0.082	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.144	f_t = 0.000 f_b = 0.000
(FoS) 76.298	f_t = -0.021 f_b = 0.021	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = 0.036	f_t = 0.000 f_b = 0.000
(1.0L_e) 76.631	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 17: Open to Traffic

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.038 f_b = 0.041	f_t = -0.001 f_b = 0.003
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.149 f_b = 0.164	f_t = -0.003 f_b = 0.011
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.189 f_b = 0.208	f_t = -0.003 f_b = 0.014
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.283 f_b = 0.311	f_t = -0.005 f_b = 0.021
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.302 f_b = 0.332	f_t = -0.005 f_b = 0.022
(H) 3.833	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.412 f_b = 0.452	f_t = -0.007 f_b = 0.030
(SZB) 5.003	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.529 f_b = 0.580	f_t = -0.009 f_b = 0.039
(1.5H) 5.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.585 f_b = 0.642	f_t = -0.010 f_b = 0.043
(0.1L_s) 7.752	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.785 f_b = 0.861	f_t = -0.013 f_b = 0.057
(SZB) 10.503	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.019 f_b = 1.116	f_t = -0.017 f_b = 0.073
(0.2L_s) 15.505	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.384 f_b = 1.513	f_t = -0.023 f_b = 0.097
(SZB) 18.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.580 f_b = 1.725	f_t = -0.025 f_b = 0.108
(0.3L_s) 23.257	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.801 f_b = 1.960	f_t = -0.028 f_b = 0.119
(SZB) 29.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.014 f_b = 2.182	f_t = -0.030 f_b = 0.124
(HP) 30.569	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.032 f_b = 2.200	f_t = -0.030 f_b = 0.124
(0.4L_s) 31.009	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.041 f_b = 2.209	f_t = -0.030 f_b = 0.124
(0.5L_s) 38.762	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.107 f_b = 2.260	f_t = -0.027 f_b = 0.111
(HP) 46.062	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.009 f_b = 2.129	f_t = -0.020 f_b = 0.082

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
($0.6L_s$) 46.514	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.998 f_b = 2.115	f_t = -0.020 f_b = 0.080
(SZB) 46.878	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.989 f_b = 2.104	f_t = -0.019 f_b = 0.078
($0.7L_s$) 54.267	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.716 f_b = 1.776	f_t = -0.008 f_b = 0.031
(Deck Bar Cutoff) 55.043	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.678 f_b = 1.731	f_t = -0.006 f_b = 0.025
(SZB) 57.878	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.526 f_b = 1.551	f_t = -0.001 f_b = 0.003
($0.8L_s$) 62.019	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.261 f_b = 1.241	f_t = 0.009 f_b = -0.035
(SZB) 66.128	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.950 f_b = 0.877	f_t = 0.019 f_b = -0.077
($0.9L_s$) 69.771	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.633 f_b = 0.509	f_t = 0.028 f_b = -0.118
(1.5H) 71.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.512 f_b = 0.369	f_t = 0.032 f_b = -0.134
(SZB) 71.628	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.456 f_b = 0.304	f_t = 0.033 f_b = -0.141
(H) 72.798	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.339 f_b = 0.169	f_t = 0.037 f_b = -0.155
(Bar Develop.) 73.866	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.229 f_b = 0.041	f_t = 0.040 f_b = -0.169
(PSXFR) 74.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.210 f_b = 0.019	f_t = 0.040 f_b = -0.172
(Bar Develop.) 74.926	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.116 f_b = -0.089	f_t = 0.043 f_b = -0.183
(SZB) 75.294	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.076 f_b = -0.135	f_t = 0.044 f_b = -0.188
(FoS) 76.298	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.035 f_b = -0.263	f_t = 0.048 f_b = -0.202
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.072 f_b = -0.306	f_t = 0.049 f_b = -0.207
(STLF) 77.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.074 f_b = -0.315	f_t = 0.050 f_b = -0.212
($1.0L_s$) 77.524	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.063 f_b = -0.269	f_t = 0.043 f_b = -0.181

Girder Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.001	f_t = -0.000 f_b = -0.000	f_t = 0.001 f_b = 0.028	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.013	f_t = -0.003 f_b = -0.001	f_t = 0.001 f_b = 0.029	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.013	f_t = -0.003 f_b = -0.001
(SZB) 1.337	f_t = 0.000 f_b = 0.005	f_t = -0.001 f_b = -0.001	f_t = 0.003 f_b = 0.109	f_t = -0.026 f_b = -0.013	f_t = 0.001 f_b = 0.052	f_t = -0.012 f_b = -0.006	f_t = 0.003 f_b = 0.115	f_t = -0.027 f_b = -0.013	f_t = 0.001 f_b = 0.052	f_t = -0.012 f_b = -0.006
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.007	f_t = -0.002 f_b = -0.001	f_t = 0.004 f_b = 0.139	f_t = -0.033 f_b = -0.016	f_t = 0.002 f_b = 0.066	f_t = -0.016 f_b = -0.007	f_t = 0.004 f_b = 0.145	f_t = -0.034 f_b = -0.017	f_t = 0.002 f_b = 0.066	f_t = -0.016 f_b = -0.007
(PSXFR) 2.583	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.006 f_b = 0.207	f_t = -0.049 f_b = -0.025	f_t = 0.003 f_b = 0.098	f_t = -0.023 f_b = -0.011	f_t = 0.006 f_b = 0.217	f_t = -0.051 f_b = -0.026	f_t = 0.003 f_b = 0.098	f_t = -0.023 f_b = -0.011
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.002	f_t = 0.006 f_b = 0.221	f_t = -0.052 f_b = -0.026	f_t = 0.003 f_b = 0.105	f_t = -0.025 f_b = -0.012	f_t = 0.007 f_b = 0.231	f_t = -0.054 f_b = -0.028	f_t = 0.003 f_b = 0.105	f_t = -0.025 f_b = -0.012
(H) 3.833	f_t = 0.001 f_b = 0.014	f_t = -0.003 f_b = -0.002	f_t = 0.009 f_b = 0.300	f_t = -0.071 f_b = -0.036	f_t = 0.004 f_b = 0.142	f_t = -0.033 f_b = -0.016	f_t = 0.009 f_b = 0.314	f_t = -0.074 f_b = -0.039	f_t = 0.004 f_b = 0.142	f_t = -0.033 f_b = -0.016
(SZB) 5.003	f_t = 0.001 f_b = 0.018	f_t = -0.004 f_b = -0.003	f_t = 0.011 f_b = 0.382	f_t = -0.090 f_b = -0.047	f_t = 0.005 f_b = 0.180	f_t = -0.043 f_b = -0.021	f_t = 0.012 f_b = 0.401	f_t = -0.094 f_b = -0.050	f_t = 0.005 f_b = 0.180	f_t = -0.043 f_b = -0.021
(1.5H) 5.583	f_t = 0.001 f_b = 0.020	f_t = -0.005 f_b = -0.003	f_t = 0.012 f_b = 0.422	f_t = -0.099 f_b = -0.053	f_t = 0.006 f_b = 0.199	f_t = -0.047 f_b = -0.024	f_t = 0.013 f_b = 0.442	f_t = -0.104 f_b = -0.056	f_t = 0.006 f_b = 0.199	f_t = -0.047 f_b = -0.024
($0.1L_s$) 7.752	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.017 f_b = 0.561	f_t = -0.132 f_b = -0.074	f_t = 0.008 f_b = 0.262	f_t = -0.062 f_b = -0.033	f_t = 0.018 f_b = 0.588	f_t = -0.139 f_b = -0.078	f_t = 0.008 f_b = 0.262	f_t = -0.062 f_b = -0.033
(SZB) 10.503	f_t = 0.001 f_b = 0.035	f_t = -0.008 f_b = -0.006	f_t = 0.023 f_b = 0.718	f_t = -0.169 f_b = -0.100	f_t = 0.011 f_b = 0.331	f_t = -0.078 f_b = -0.045	f_t = 0.025 f_b = 0.753	f_t = -0.178 f_b = -0.106	f_t = 0.011 f_b = 0.331	f_t = -0.078 f_b = -0.045
($0.2L_s$) 15.505	f_t = 0.002 f_b = 0.047	f_t = -0.011 f_b = -0.009	f_t = 0.035 f_b = 0.948	f_t = -0.224 f_b = -0.147	f_t = 0.016 f_b = 0.428	f_t = -0.101 f_b = -0.066	f_t = 0.037 f_b = 0.996	f_t = -0.235 f_b = -0.156	f_t = 0.016 f_b = 0.428	f_t = -0.101 f_b = -0.066
(SZB) 18.753	f_t = 0.002 f_b = 0.054	f_t = -0.013 f_b = -0.011	f_t = 0.042 f_b = 1.061	f_t = -0.250 f_b = -0.178	f_t = 0.019 f_b = 0.477	f_t = -0.113 f_b = -0.080	f_t = 0.044 f_b = 1.114	f_t = -0.263 f_b = -0.188	f_t = 0.019 f_b = 0.477	f_t = -0.113 f_b = -0.080
($0.3L_s$) 23.257	f_t = 0.003	f_t = -0.014	f_t = 0.053	f_t = -0.279	f_t = 0.024	f_t = -0.127	f_t = 0.056	f_t = -0.294	f_t = 0.024	f_t = -0.127

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.060	f_b = -0.013	f_b = 1.172	f_b = -0.221	f_b = 0.531	f_b = -0.100	f_b = 1.233	f_b = -0.234	f_b = 0.531	f_b = -0.100
(SZB) 29.753	f_t = 0.004 f_b = 0.066	f_t = -0.016 f_b = -0.017	f_t = 0.069 f_b = 1.270	f_t = -0.309 f_b = -0.283	f_t = 0.031 f_b = 0.561	f_t = -0.137 f_b = -0.128	f_t = 0.073 f_b = 1.336	f_t = -0.325 f_b = -0.300	f_t = 0.031 f_b = 0.561	f_t = -0.137 f_b = -0.128
(HP) 30.569	f_t = 0.004 f_b = 0.067	f_t = -0.016 f_b = -0.017	f_t = 0.071 f_b = 1.274	f_t = -0.311 f_b = -0.291	f_t = 0.032 f_b = 0.561	f_t = -0.137 f_b = -0.131	f_t = 0.075 f_b = 1.341	f_t = -0.327 f_b = -0.308	f_t = 0.032 f_b = 0.561	f_t = -0.137 f_b = -0.131
(0.4L_s) 31.009	f_t = 0.004 f_b = 0.067	f_t = -0.016 f_b = -0.017	f_t = 0.072 f_b = 1.276	f_t = -0.312 f_b = -0.296	f_t = 0.033 f_b = 0.561	f_t = -0.137 f_b = -0.133	f_t = 0.076 f_b = 1.343	f_t = -0.328 f_b = -0.313	f_t = 0.033 f_b = 0.561	f_t = -0.137 f_b = -0.133
(0.5L_s) 38.762	f_t = 0.005 f_b = 0.066	f_t = -0.016 f_b = -0.022	f_t = 0.092 f_b = 1.253	f_t = -0.311 f_b = -0.370	f_t = 0.041 f_b = 0.533	f_t = -0.132 f_b = -0.167	f_t = 0.097 f_b = 1.319	f_t = -0.327 f_b = -0.392	f_t = 0.041 f_b = 0.533	f_t = -0.132 f_b = -0.167
(HP) 46.062	f_t = 0.006 f_b = 0.059	f_t = -0.015 f_b = -0.026	f_t = 0.110 f_b = 1.134	f_t = -0.282 f_b = -0.440	f_t = 0.049 f_b = 0.506	f_t = -0.126 f_b = -0.198	f_t = 0.116 f_b = 1.192	f_t = -0.297 f_b = -0.466	f_t = 0.049 f_b = 0.506	f_t = -0.126 f_b = -0.198
(0.6L_s) 46.514	f_t = 0.007 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.111 f_b = 1.122	f_t = -0.280 f_b = -0.444	f_t = 0.050 f_b = 0.502	f_t = -0.125 f_b = -0.200	f_t = 0.117 f_b = 1.181	f_t = -0.294 f_b = -0.471	f_t = 0.050 f_b = 0.502	f_t = -0.125 f_b = -0.200
(SZB) 46.878	f_t = 0.007 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.112 f_b = 1.113	f_t = -0.277 f_b = -0.448	f_t = 0.050 f_b = 0.499	f_t = -0.124 f_b = -0.202	f_t = 0.118 f_b = 1.171	f_t = -0.292 f_b = -0.474	f_t = 0.050 f_b = 0.499	f_t = -0.124 f_b = -0.202
(0.7L_s) 54.267	f_t = 0.008 f_b = 0.043	f_t = -0.011 f_b = -0.031	f_t = 0.128 f_b = 0.865	f_t = -0.214 f_b = -0.518	f_t = 0.058 f_b = 0.397	f_t = -0.098 f_b = -0.233	f_t = 0.136 f_b = 0.908	f_t = -0.225 f_b = -0.549	f_t = 0.058 f_b = 0.397	f_t = -0.098 f_b = -0.233
(Deck Bar Cutoff) 55.043	f_t = 0.008 f_b = 0.041	f_t = -0.010 f_b = -0.031	f_t = 0.130 f_b = 0.835	f_t = -0.207 f_b = -0.525	f_t = 0.059 f_b = 0.382	f_t = -0.095 f_b = -0.237	f_t = 0.138 f_b = 0.876	f_t = -0.217 f_b = -0.556	f_t = 0.059 f_b = 0.382	f_t = -0.095 f_b = -0.237
(SZB) 57.878	f_t = 0.008 f_b = 0.034	f_t = -0.008 f_b = -0.033	f_t = 0.136 f_b = 0.712	f_t = -0.175 f_b = -0.553	f_t = 0.061 f_b = 0.326	f_t = -0.080 f_b = -0.249	f_t = 0.144 f_b = 0.746	f_t = -0.184 f_b = -0.586	f_t = 0.061 f_b = 0.326	f_t = -0.080 f_b = -0.249
(0.8L_s) 62.019	f_t = 0.009 f_b = 0.021	f_t = -0.005 f_b = -0.035	f_t = 0.144 f_b = 0.510	f_t = -0.124 f_b = -0.592	f_t = 0.065 f_b = 0.230	f_t = -0.056 f_b = -0.266	f_t = 0.153 f_b = 0.531	f_t = -0.129 f_b = -0.627	f_t = 0.065 f_b = 0.230	f_t = -0.056 f_b = -0.266
(SZB) 66.128	f_t = 0.010 f_b = 0.010	f_t = -0.002 f_b = -0.041	f_t = 0.156 f_b = 0.323	f_t = -0.078 f_b = -0.646	f_t = 0.068 f_b = 0.123	f_t = -0.030 f_b = -0.283	f_t = 0.165 f_b = 0.334	f_t = -0.080 f_b = -0.687	f_t = 0.068 f_b = 0.123	f_t = -0.030 f_b = -0.283
(0.9L_s) 69.771	f_t = 0.012 f_b = 0.004	f_t = -0.001 f_b = -0.051	f_t = 0.193 f_b = 0.193	f_t = -0.046 f_b = -0.811	f_t = 0.071 f_b = 0.019	f_t = -0.005 f_b = -0.298	f_t = 0.205 f_b = 0.197	f_t = -0.047 f_b = -0.862	f_t = 0.071 f_b = 0.019	f_t = -0.005 f_b = -0.298
(1.5H) 71.048	f_t = 0.013 f_b = 0.003	f_t = -0.001 f_b = -0.056	f_t = 0.211 f_b = 0.150	f_t = -0.035 f_b = -0.890	f_t = 0.072 f_b = 0.000	f_t = 0.000 f_b = -0.304	f_t = 0.224 f_b = 0.152	f_t = -0.036 f_b = -0.946	f_t = 0.072 f_b = 0.000	f_t = 0.000 f_b = -0.304
(SZB) 71.628	f_t = 0.014 f_b = 0.002	f_t = -0.001 f_b = -0.058	f_t = 0.218 f_b = 0.130	f_t = -0.031 f_b = -0.924	f_t = 0.072 f_b = 0.000	f_t = 0.000 f_b = -0.306	f_t = 0.232 f_b = 0.133	f_t = -0.031 f_b = -0.983	f_t = 0.072 f_b = 0.000	f_t = 0.000 f_b = -0.306
(H) 72.798	f_t = 0.015 f_b = 0.001	f_t = -0.000 f_b = -0.063	f_t = 0.234 f_b = 0.092	f_t = -0.022 f_b = -0.994	f_t = 0.073 f_b = 0.000	f_t = 0.000 f_b = -0.311	f_t = 0.249 f_b = 0.094	f_t = -0.022 f_b = -1.057	f_t = 0.073 f_b = 0.000	f_t = 0.000 f_b = -0.311
(Bar Develop.) 73.866	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.250 f_b = 0.068	f_t = -0.016 f_b = -1.062	f_t = 0.074 f_b = 0.000	f_t = 0.000 f_b = -0.316	f_t = 0.266 f_b = 0.069	f_t = -0.016 f_b = -1.130	f_t = 0.074 f_b = 0.000	f_t = 0.000 f_b = -0.316
(PSXFR) 74.048	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.069	f_t = 0.253 f_b = 0.065	f_t = -0.015 f_b = -1.074	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.316	f_t = 0.269 f_b = 0.065	f_t = -0.015 f_b = -1.143	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.316
(Bar Develop.) 74.926	f_t = 0.017 f_b = 0.000	f_t = -0.000 f_b = -0.073	f_t = 0.267 f_b = 0.047	f_t = -0.011 f_b = -1.131	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.320	f_t = 0.284 f_b = 0.048	f_t = -0.011 f_b = -1.204	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.320
(SZB) 75.294	f_t = 0.018 f_b = 0.000	f_t = -0.000 f_b = -0.075	f_t = 0.272 f_b = 0.040	f_t = -0.010 f_b = -1.155	f_t = 0.076 f_b = 0.000	f_t = 0.000 f_b = -0.322	f_t = 0.290 f_b = 0.041	f_t = -0.010 f_b = -1.230	f_t = 0.076 f_b = 0.000	f_t = 0.000 f_b = -0.322
(FoS) 76.298	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.080	f_t = 0.288 f_b = 0.022	f_t = -0.005 f_b = -1.222	f_t = 0.077 f_b = 0.000	f_t = 0.000 f_b = -0.326	f_t = 0.307 f_b = 0.022	f_t = -0.005 f_b = -1.302	f_t = 0.077 f_b = 0.000	f_t = 0.000 f_b = -0.326
76.631	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.293 f_b = 0.016	f_t = -0.004 f_b = -1.244	f_t = 0.077 f_b = 0.000	f_t = 0.000 f_b = -0.327	f_t = 0.313 f_b = 0.016	f_t = -0.004 f_b = -1.326	f_t = 0.077 f_b = 0.000	f_t = 0.000 f_b = -0.327
(STLF) 77.048	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.084	f_t = 0.300 f_b = 0.008	f_t = -0.002 f_b = -1.272	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.329	f_t = 0.320 f_b = 0.008	f_t = -0.002 f_b = -1.357	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.329
(1.0L_s) 77.524	f_t = 0.017 f_b = 0.000	f_t = 0.000 f_b = -0.072	f_t = 0.254 f_b = 0.000	f_t = 0.000 f_b = -1.079	f_t = 0.065 f_b = 0.000	f_t = 0.000 f_b = -0.276	f_t = 0.271 f_b = 0.000	f_t = 0.000 f_b = -1.151	f_t = 0.065 f_b = 0.000	f_t = 0.000 f_b = -0.276

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Girder Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.038 f_b = 0.073	f_t = -0.045 f_b = 0.041	f_t = -0.038 f_b = 0.068	f_t = -0.044 f_b = 0.042	f_t = -0.019 f_b = 0.042	f_t = -0.024 f_b = 0.020
(SZB) 1.337	f_t = -0.149 f_b = 0.289	f_t = -0.179 f_b = 0.161	f_t = -0.149 f_b = 0.267	f_t = -0.173 f_b = 0.164	f_t = -0.074 f_b = 0.166	f_t = -0.094 f_b = 0.079
(Bar Develop.) 1.705	f_t = -0.188 f_b = 0.367	f_t = -0.227 f_b = 0.205	f_t = -0.189 f_b = 0.338	f_t = -0.220 f_b = 0.208	f_t = -0.094 f_b = 0.210	f_t = -0.120 f_b = 0.100
(PSXFR) 2.583	f_t = -0.282 f_b = 0.548	f_t = -0.339 f_b = 0.306	f_t = -0.283 f_b = 0.505	f_t = -0.329 f_b = 0.311	f_t = -0.140 f_b = 0.313	f_t = -0.179 f_b = 0.149
(Bar Develop.) 2.765	f_t = -0.301 f_b = 0.585	f_t = -0.362 f_b = 0.326	f_t = -0.302 f_b = 0.539	f_t = -0.351 f_b = 0.332	f_t = -0.149 f_b = 0.334	f_t = -0.191 f_b = 0.159
(H) 3.833	f_t = -0.410 f_b = 0.797	f_t = -0.493 f_b = 0.444	f_t = -0.412 f_b = 0.734	f_t = -0.479 f_b = 0.452	f_t = -0.204 f_b = 0.454	f_t = -0.260 f_b = 0.217

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 5.003	f_t = -0.526 f_b = 1.020	f_t = -0.632 f_b = 0.569	f_t = -0.528 f_b = 0.939	f_t = -0.613 f_b = 0.579	f_t = -0.261 f_b = 0.580	f_t = -0.333 f_b = 0.277
(1.5H) 5.583	f_t = -0.582 f_b = 1.127	f_t = -0.699 f_b = 0.628	f_t = -0.584 f_b = 1.038	f_t = -0.678 f_b = 0.640	f_t = -0.289 f_b = 0.640	f_t = -0.368 f_b = 0.307
($0.1L_s$) 7.752	f_t = -0.781 f_b = 1.507	f_t = -0.938 f_b = 0.840	f_t = -0.784 f_b = 1.389	f_t = -0.910 f_b = 0.856	f_t = -0.388 f_b = 0.852	f_t = -0.492 f_b = 0.409
(SZB) 10.503	f_t = -1.011 f_b = 1.942	f_t = -1.214 f_b = 1.084	f_t = -1.016 f_b = 1.792	f_t = -1.178 f_b = 1.105	f_t = -0.502 f_b = 1.092	f_t = -0.635 f_b = 0.527
($0.2L_s$) 15.505	f_t = -1.370 f_b = 2.605	f_t = -1.641 f_b = 1.454	f_t = -1.377 f_b = 2.406	f_t = -1.594 f_b = 1.485	f_t = -0.680 f_b = 1.446	f_t = -0.854 f_b = 0.705
(SZB) 18.753	f_t = -1.561 f_b = 2.947	f_t = -1.868 f_b = 1.644	f_t = -1.570 f_b = 2.725	f_t = -1.816 f_b = 1.682	f_t = -0.775 f_b = 1.632	f_t = -0.972 f_b = 0.796
($0.3L_s$) 23.257	f_t = -1.774 f_b = 3.312	f_t = -2.123 f_b = 1.845	f_t = -1.785 f_b = 3.066	f_t = -2.064 f_b = 1.892	f_t = -0.879 f_b = 1.837	f_t = -1.105 f_b = 0.890
(SZB) 29.753	f_t = -1.972 f_b = 3.642	f_t = -2.370 f_b = 2.006	f_t = -1.986 f_b = 3.375	f_t = -2.305 f_b = 2.066	f_t = -0.976 f_b = 1.995	f_t = -1.227 f_b = 0.962
(HP) 30.569	f_t = -1.987 f_b = 3.665	f_t = -2.390 f_b = 2.015	f_t = -2.002 f_b = 3.396	f_t = -2.324 f_b = 2.077	f_t = -0.983 f_b = 2.004	f_t = -1.237 f_b = 0.965
($0.4L_s$) 31.009	f_t = -1.995 f_b = 3.675	f_t = -2.400 f_b = 2.019	f_t = -2.010 f_b = 3.407	f_t = -2.334 f_b = 2.082	f_t = -0.987 f_b = 2.008	f_t = -1.241 f_b = 0.967
($0.5L_s$) 38.762	f_t = -2.037 f_b = 3.689	f_t = -2.461 f_b = 1.978	f_t = -2.056 f_b = 3.426	f_t = -2.396 f_b = 2.057	f_t = -1.005 f_b = 1.984	f_t = -1.265 f_b = 0.935
(HP) 46.062	f_t = -1.913 f_b = 3.403	f_t = -2.327 f_b = 1.745	f_t = -1.937 f_b = 3.165	f_t = -2.267 f_b = 1.838	f_t = -0.941 f_b = 1.865	f_t = -1.204 f_b = 0.808
($0.6L_s$) 46.514	f_t = -1.901 f_b = 3.376	f_t = -2.312 f_b = 1.724	f_t = -1.924 f_b = 3.139	f_t = -2.253 f_b = 1.819	f_t = -0.934 f_b = 1.851	f_t = -1.197 f_b = 0.797
(SZB) 46.878	f_t = -1.890 f_b = 3.352	f_t = -2.300 f_b = 1.707	f_t = -1.913 f_b = 3.118	f_t = -2.241 f_b = 1.802	f_t = -0.929 f_b = 1.839	f_t = -1.191 f_b = 0.788
($0.7L_s$) 54.267	f_t = -1.588 f_b = 2.715	f_t = -1.949 f_b = 1.258	f_t = -1.615 f_b = 2.534	f_t = -1.904 f_b = 1.368	f_t = -0.775 f_b = 1.498	f_t = -1.009 f_b = 0.554
(Deck Bar Cutoff) 55.043	f_t = -1.547 f_b = 2.632	f_t = -1.902 f_b = 1.200	f_t = -1.575 f_b = 2.457	f_t = -1.858 f_b = 1.311	f_t = -0.755 f_b = 1.452	f_t = -0.984 f_b = 0.523
(SZB) 57.878	f_t = -1.382 f_b = 2.299	f_t = -1.710 f_b = 0.968	f_t = -1.411 f_b = 2.150	f_t = -1.673 f_b = 1.085	f_t = -0.671 f_b = 1.265	f_t = -0.884 f_b = 0.404
($0.8L_s$) 62.019	f_t = -1.100 f_b = 1.737	f_t = -1.382 f_b = 0.579	f_t = -1.131 f_b = 1.630	f_t = -1.356 f_b = 0.704	f_t = -0.529 f_b = 0.947	f_t = -0.710 f_b = 0.204
(SZB) 66.128	f_t = -0.766 f_b = 1.134	f_t = -1.012 f_b = 0.113	f_t = -0.799 f_b = 1.067	f_t = -0.996 f_b = 0.251	f_t = -0.363 f_b = 0.585	f_t = -0.510 f_b = -0.025
($0.9L_s$) 69.771	f_t = -0.400 f_b = 0.587	f_t = -0.651 f_b = -0.471	f_t = -0.441 f_b = 0.548	f_t = -0.642 f_b = -0.299	f_t = -0.196 f_b = 0.224	f_t = -0.309 f_b = -0.252
(1.5H) 71.048	f_t = -0.257 f_b = 0.388	f_t = -0.517 f_b = -0.711	f_t = -0.302 f_b = 0.357	f_t = -0.510 f_b = -0.522	f_t = -0.133 f_b = 0.118	f_t = -0.240 f_b = -0.338
(SZB) 71.628	f_t = -0.191 f_b = 0.296	f_t = -0.454 f_b = -0.819	f_t = -0.237 f_b = 0.269	f_t = -0.448 f_b = -0.623	f_t = -0.103 f_b = 0.082	f_t = -0.211 f_b = -0.378
(H) 72.798	f_t = -0.053 f_b = 0.107	f_t = -0.325 f_b = -1.044	f_t = -0.103 f_b = 0.088	f_t = -0.320 f_b = -0.832	f_t = -0.041 f_b = 0.007	f_t = -0.151 f_b = -0.460
(Bar Develop.) 73.866	f_t = 0.077 f_b = -0.059	f_t = -0.205 f_b = -1.258	f_t = 0.024 f_b = -0.073	f_t = -0.202 f_b = -1.032	f_t = 0.017 f_b = -0.064	f_t = -0.095 f_b = -0.537
(PSXFR) 74.048	f_t = 0.100 f_b = -0.087	f_t = -0.185 f_b = -1.295	f_t = 0.046 f_b = -0.100	f_t = -0.182 f_b = -1.066	f_t = 0.027 f_b = -0.076	f_t = -0.085 f_b = -0.551
(Bar Develop.) 74.926	f_t = 0.211 f_b = -0.224	f_t = -0.084 f_b = -1.476	f_t = 0.154 f_b = -0.234	f_t = -0.082 f_b = -1.235	f_t = 0.077 f_b = -0.136	f_t = -0.037 f_b = -0.616
(SZB) 75.294	f_t = 0.258 f_b = -0.283	f_t = -0.042 f_b = -1.553	f_t = 0.200 f_b = -0.291	f_t = -0.040 f_b = -1.307	f_t = 0.098 f_b = -0.162	f_t = -0.016 f_b = -0.644
(FoS) 76.298	f_t = 0.389 f_b = -0.443	f_t = 0.077 f_b = -1.767	f_t = 0.328 f_b = -0.447	f_t = 0.078 f_b = -1.507	f_t = 0.156 f_b = -0.232	f_t = 0.041 f_b = -0.721
76.631	f_t = 0.434 f_b = -0.497	f_t = 0.117 f_b = -1.839	f_t = 0.371 f_b = -0.500	f_t = 0.118 f_b = -1.574	f_t = 0.176 f_b = -0.256	f_t = 0.060 f_b = -0.748
(STLF) 77.048	f_t = 0.444 f_b = -0.519	f_t = 0.122 f_b = -1.884	f_t = 0.380 f_b = -0.521	f_t = 0.123 f_b = -1.612	f_t = 0.179 f_b = -0.264	f_t = 0.062 f_b = -0.757
($1.0L_s$) 77.524	f_t = 0.377 f_b = -0.450	f_t = 0.106 f_b = -1.601	f_t = 0.323 f_b = -0.450	f_t = 0.106 f_b = -1.370	f_t = 0.151 f_b = -0.225	f_t = 0.053 f_b = -0.639

* Live Load values are per girder and include impact.

Deck Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000	f_t = 0.000	f_t = -0.002	f_t = -0.001

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = -0.001	f_b = -0.001
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = -0.005 f_b = -0.002
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.006 f_b = -0.003
(PSXFR) 2.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.013 f_b = -0.006	f_t = -0.009 f_b = -0.004
(Bar Develop.) 2.765	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.006	f_t = -0.009 f_b = -0.004
(H) 3.833	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(SZB) 5.003	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.024 f_b = -0.011	f_t = -0.016 f_b = -0.008
(1.5H) 5.583	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.026 f_b = -0.012	f_t = -0.018 f_b = -0.008
($0.1L_s$) 7.752	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = -0.017	f_t = -0.024 f_b = -0.011
(SZB) 10.503	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.045 f_b = -0.021	f_t = -0.030 f_b = -0.014
($0.2L_s$) 15.505	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.059 f_b = -0.028	f_t = -0.040 f_b = -0.019
(SZB) 18.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.066 f_b = -0.031	f_t = -0.045 f_b = -0.021
($0.3L_s$) 23.257	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.073 f_b = -0.035	f_t = -0.050 f_b = -0.023
(SZB) 29.753	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.078 f_b = -0.037	f_t = -0.052 f_b = -0.025
(HP) 30.569	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.078 f_b = -0.037	f_t = -0.052 f_b = -0.025
($0.4L_s$) 31.009	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.077 f_b = -0.037	f_t = -0.052 f_b = -0.025
($0.5L_s$) 38.762	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.070 f_b = -0.034	f_t = -0.047 f_b = -0.023
(HP) 46.062	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.052 f_b = -0.025	f_t = -0.035 f_b = -0.017
($0.6L_s$) 46.514	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.051 f_b = -0.024	f_t = -0.034 f_b = -0.016
(SZB) 46.878	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.049 f_b = -0.024	f_t = -0.033 f_b = -0.016
($0.7L_s$) 54.267	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.020 f_b = -0.010	f_t = -0.013 f_b = -0.006
(Deck Bar Cutoff) 55.043	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.016 f_b = -0.008	f_t = -0.011 f_b = -0.005
(SZB) 57.878	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
($0.8L_s$) 62.019	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.022 f_b = 0.010	f_t = 0.015 f_b = 0.007
(SZB) 66.128	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.048 f_b = 0.023	f_t = 0.032 f_b = 0.015
($0.9L_s$) 69.771	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = 0.034	f_t = 0.049 f_b = 0.023
(1.5H) 71.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.082 f_b = 0.039	f_t = 0.055 f_b = 0.026
(SZB) 71.628	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.086 f_b = 0.041	f_t = 0.058 f_b = 0.027
(H) 72.798	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.095 f_b = 0.045	f_t = 0.064 f_b = 0.030
(Bar Develop.) 73.866	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.104 f_b = 0.049	f_t = 0.070 f_b = 0.033
(PSXFR) 74.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.105 f_b = 0.050	f_t = 0.071 f_b = 0.033
(Bar Develop.) 74.926	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.112 f_b = 0.053	f_t = 0.076 f_b = 0.036
(SZB) 75.294	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.116 f_b = 0.054	f_t = 0.078 f_b = 0.037
(FoS) 76.298	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.124 f_b = 0.058	f_t = 0.084 f_b = 0.039
76.631	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.127 f_b = 0.060	f_t = 0.086 f_b = 0.040
(STLF) 77.048	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.130 f_b = 0.061	f_t = 0.088 f_b = 0.041
($1.0L_s$) 77.524	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.111 f_b = 0.052	f_t = 0.075 f_b = 0.035

Deck Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($0.0L_s$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = -0.000	f_t = 0.001 f_b = 0.001	f_t = -0.012 f_b = -0.005	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.001 f_b = 0.001	f_t = -0.012 f_b = -0.006	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003
(SZB) 1.337	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.002	f_t = -0.045 f_b = -0.021	f_t = 0.002 f_b = 0.001	f_t = -0.022 f_b = -0.010	f_t = 0.006 f_b = 0.003	f_t = -0.047 f_b = -0.022	f_t = 0.002 f_b = 0.001	f_t = -0.022 f_b = -0.010
(Bar Develop.) 1.705	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.001	f_t = 0.007 f_b = 0.003	f_t = -0.057 f_b = -0.027	f_t = 0.003 f_b = 0.001	f_t = -0.027 f_b = -0.013	f_t = 0.007 f_b = 0.003	f_t = -0.060 f_b = -0.028	f_t = 0.003 f_b = 0.001	f_t = -0.027 f_b = -0.013
(PSXFR) 2.583	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.010 f_b = 0.005	f_t = -0.086 f_b = -0.040	f_t = 0.005 f_b = 0.002	f_t = -0.041 f_b = -0.019	f_t = 0.011 f_b = 0.005	f_t = -0.090 f_b = -0.042	f_t = 0.005 f_b = 0.002	f_t = -0.041 f_b = -0.019
(Bar Develop.) 2.765	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.011 f_b = 0.005	f_t = -0.091 f_b = -0.043	f_t = 0.005 f_b = 0.002	f_t = -0.043 f_b = -0.020	f_t = 0.012 f_b = 0.005	f_t = -0.096 f_b = -0.045	f_t = 0.005 f_b = 0.002	f_t = -0.043 f_b = -0.020
(H) 3.833	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.015 f_b = 0.007	f_t = -0.124 f_b = -0.058	f_t = 0.007 f_b = 0.003	f_t = -0.059 f_b = -0.028	f_t = 0.016 f_b = 0.008	f_t = -0.130 f_b = -0.061	f_t = 0.007 f_b = 0.003	f_t = -0.059 f_b = -0.028
(SZB) 5.003	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.020 f_b = 0.009	f_t = -0.158 f_b = -0.075	f_t = 0.009 f_b = 0.004	f_t = -0.075 f_b = -0.035	f_t = 0.021 f_b = 0.010	f_t = -0.166 f_b = -0.078	f_t = 0.009 f_b = 0.004	f_t = -0.075 f_b = -0.035
(1.5H) 5.583	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.022 f_b = 0.010	f_t = -0.175 f_b = -0.082	f_t = 0.010 f_b = 0.005	f_t = -0.082 f_b = -0.039	f_t = 0.023 f_b = 0.011	f_t = -0.183 f_b = -0.086	f_t = 0.010 f_b = 0.005	f_t = -0.082 f_b = -0.039
($0.1L_s$) 7.752	f_t = 0.002 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.030 f_b = 0.014	f_t = -0.232 f_b = -0.109	f_t = 0.014 f_b = 0.006	f_t = -0.108 f_b = -0.051	f_t = 0.032 f_b = 0.015	f_t = -0.244 f_b = -0.115	f_t = 0.014 f_b = 0.006	f_t = -0.108 f_b = -0.051
(SZB) 10.503	f_t = 0.002 f_b = 0.001	f_t = -0.015 f_b = -0.007	f_t = 0.041 f_b = 0.019	f_t = -0.297 f_b = -0.140	f_t = 0.019 f_b = 0.009	f_t = -0.137 f_b = -0.065	f_t = 0.044 f_b = 0.021	f_t = -0.312 f_b = -0.147	f_t = 0.019 f_b = 0.009	f_t = -0.137 f_b = -0.065
($0.2L_s$) 15.505	f_t = 0.004 f_b = 0.002	f_t = -0.020 f_b = -0.009	f_t = 0.061 f_b = 0.029	f_t = -0.393 f_b = -0.185	f_t = 0.027 f_b = 0.013	f_t = -0.177 f_b = -0.083	f_t = 0.065 f_b = 0.030	f_t = -0.412 f_b = -0.194	f_t = 0.027 f_b = 0.013	f_t = -0.177 f_b = -0.083
(SZB) 18.753	f_t = 0.004 f_b = 0.002	f_t = -0.022 f_b = -0.010	f_t = 0.074 f_b = 0.035	f_t = -0.439 f_b = -0.207	f_t = 0.033 f_b = 0.016	f_t = -0.198 f_b = -0.093	f_t = 0.078 f_b = 0.037	f_t = -0.461 f_b = -0.217	f_t = 0.033 f_b = 0.016	f_t = -0.198 f_b = -0.093
($0.3L_s$) 23.257	f_t = 0.005 f_b = 0.003	f_t = -0.025 f_b = -0.012	f_t = 0.092 f_b = 0.044	f_t = -0.488 f_b = -0.231	f_t = 0.041 f_b = 0.020	f_t = -0.221 f_b = -0.105	f_t = 0.097 f_b = 0.046	f_t = -0.514 f_b = -0.243	f_t = 0.041 f_b = 0.020	f_t = -0.221 f_b = -0.105
(SZB) 29.753	f_t = 0.007 f_b = 0.003	f_t = -0.028 f_b = -0.013	f_t = 0.120 f_b = 0.057	f_t = -0.536 f_b = -0.256	f_t = 0.054 f_b = 0.026	f_t = -0.237 f_b = -0.113	f_t = 0.127 f_b = 0.060	f_t = -0.564 f_b = -0.269	f_t = 0.054 f_b = 0.026	f_t = -0.237 f_b = -0.113
(HP) 30.569	f_t = 0.007 f_b = 0.003	f_t = -0.028 f_b = -0.013	f_t = 0.123 f_b = 0.059	f_t = -0.538 f_b = -0.257	f_t = 0.055 f_b = 0.026	f_t = -0.237 f_b = -0.113	f_t = 0.130 f_b = 0.062	f_t = -0.566 f_b = -0.271	f_t = 0.055 f_b = 0.026	f_t = -0.237 f_b = -0.113
($0.4L_s$) 31.009	f_t = 0.007 f_b = 0.004	f_t = -0.028 f_b = -0.013	f_t = 0.125 f_b = 0.060	f_t = -0.539 f_b = -0.258	f_t = 0.056 f_b = 0.027	f_t = -0.237 f_b = -0.113	f_t = 0.132 f_b = 0.063	f_t = -0.567 f_b = -0.271	f_t = 0.056 f_b = 0.027	f_t = -0.237 f_b = -0.113
($0.5L_s$) 38.762	f_t = 0.009 f_b = 0.004	f_t = -0.028 f_b = -0.014	f_t = 0.158 f_b = 0.076	f_t = -0.534 f_b = -0.257	f_t = 0.071 f_b = 0.034	f_t = -0.227 f_b = -0.109	f_t = 0.167 f_b = 0.080	f_t = -0.562 f_b = -0.271	f_t = 0.071 f_b = 0.034	f_t = -0.227 f_b = -0.109
(HP) 46.062	f_t = 0.011 f_b = 0.005	f_t = -0.025 f_b = -0.012	f_t = 0.188 f_b = 0.091	f_t = -0.485 f_b = -0.234	f_t = 0.085 f_b = 0.041	f_t = -0.216 f_b = -0.104	f_t = 0.199 f_b = 0.096	f_t = -0.510 f_b = -0.246	f_t = 0.085 f_b = 0.041	f_t = -0.216 f_b = -0.104
($0.6L_s$) 46.514	f_t = 0.011 f_b = 0.005	f_t = -0.025 f_b = -0.012	f_t = 0.190 f_b = 0.092	f_t = -0.480 f_b = -0.231	f_t = 0.086 f_b = 0.041	f_t = -0.215 f_b = -0.104	f_t = 0.201 f_b = 0.097	f_t = -0.505 f_b = -0.243	f_t = 0.086 f_b = 0.041	f_t = -0.215 f_b = -0.104
(SZB) 46.878	f_t = 0.011 f_b = 0.005	f_t = -0.025 f_b = -0.012	f_t = 0.191 f_b = 0.092	f_t = -0.476 f_b = -0.229	f_t = 0.086 f_b = 0.042	f_t = -0.213 f_b = -0.103	f_t = 0.203 f_b = 0.098	f_t = -0.500 f_b = -0.241	f_t = 0.086 f_b = 0.042	f_t = -0.213 f_b = -0.103
($0.7L_s$) 54.267	f_t = 0.013 f_b = 0.006	f_t = -0.018 f_b = -0.009	f_t = 0.221 f_b = 0.106	f_t = -0.369 f_b = -0.177	f_t = 0.099 f_b = 0.048	f_t = -0.169 f_b = -0.081	f_t = 0.234 f_b = 0.112	f_t = -0.387 f_b = -0.186	f_t = 0.099 f_b = 0.048	f_t = -0.169 f_b = -0.081
(Deck Bar Cutoff) 55.043	f_t = 0.013 f_b = 0.006	f_t = -0.018 f_b = -0.008	f_t = 0.224 f_b = 0.108	f_t = -0.355 f_b = -0.171	f_t = 0.101 f_b = 0.048	f_t = -0.163 f_b = -0.078	f_t = 0.237 f_b = 0.114	f_t = -0.373 f_b = -0.179	f_t = 0.101 f_b = 0.048	f_t = -0.163 f_b = -0.078
(SZB) 57.878	f_t = 0.014 f_b = 0.007	f_t = -0.014 f_b = -0.007	f_t = 0.235 f_b = 0.113	f_t = -0.302 f_b = -0.145	f_t = 0.106 f_b = 0.051	f_t = -0.138 f_b = -0.066	f_t = 0.249 f_b = 0.119	f_t = -0.317 f_b = -0.152	f_t = 0.106 f_b = 0.051	f_t = -0.138 f_b = -0.066
($0.8L_s$) 62.019	f_t = 0.015 f_b = 0.007	f_t = -0.009 f_b = -0.004	f_t = 0.250 f_b = 0.119	f_t = -0.215 f_b = -0.103	f_t = 0.112 f_b = 0.054	f_t = -0.097 f_b = -0.046	f_t = 0.265 f_b = 0.126	f_t = -0.224 f_b = -0.107	f_t = 0.112 f_b = 0.054	f_t = -0.097 f_b = -0.046
(SZB) 66.128	f_t = 0.017 f_b = 0.008	f_t = -0.004 f_b = -0.002	f_t = 0.271 f_b = 0.129	f_t = -0.136 f_b = -0.064	f_t = 0.119 f_b = 0.056	f_t = -0.052 f_b = -0.024	f_t = 0.288 f_b = 0.137	f_t = -0.140 f_b = -0.066	f_t = 0.119 f_b = 0.056	f_t = -0.052 f_b = -0.024
($0.9L_s$) 69.771	f_t = 0.021 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.337 f_b = 0.159	f_t = -0.080 f_b = -0.038	f_t = 0.124 f_b = 0.059	f_t = -0.008 f_b = -0.004	f_t = 0.358 f_b = 0.169	f_t = -0.082 f_b = -0.039	f_t = 0.124 f_b = 0.059	f_t = -0.008 f_b = -0.004
(1.5H) 71.048	f_t = 0.023 f_b = 0.011	f_t = -0.001 f_b = -0.001	f_t = 0.369 f_b = 0.174	f_t = -0.062 f_b = -0.029	f_t = 0.126 f_b = 0.059	f_t = 0.000 f_b = 0.000	f_t = 0.393 f_b = 0.185	f_t = -0.063 f_b = -0.030	f_t = 0.126 f_b = 0.059	f_t = 0.000 f_b = 0.000
(SZB) 71.628	f_t = 0.024 f_b = 0.011	f_t = -0.001 f_b = -0.000	f_t = 0.383 f_b = 0.180	f_t = -0.054 f_b = -0.025	f_t = 0.127 f_b = 0.060	f_t = 0.000 f_b = 0.000	f_t = 0.407 f_b = 0.192	f_t = -0.055 f_b = -0.026	f_t = 0.127 f_b = 0.060	f_t = 0.000 f_b = 0.000
(H) 72.798	f_t = 0.026 f_b = 0.012	f_t = -0.001 f_b = -0.000	f_t = 0.412 f_b = 0.194	f_t = -0.038 f_b = -0.018	f_t = 0.129 f_b = 0.061	f_t = 0.000 f_b = 0.000	f_t = 0.438 f_b = 0.206	f_t = -0.039 f_b = -0.018	f_t = 0.129 f_b = 0.061	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.866	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.440 f_b = 0.207	f_t = -0.028 f_b = -0.013	f_t = 0.131 f_b = 0.062	f_t = 0.000 f_b = 0.000	f_t = 0.468 f_b = 0.220	f_t = -0.029 f_b = -0.013	f_t = 0.131 f_b = 0.062	f_t = 0.000 f_b = 0.000
(PSXFR) 74.048	f_t = 0.029 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.444 f_b = 0.209	f_t = -0.027 f_b = -0.013	f_t = 0.131 f_b = 0.062	f_t = 0.000 f_b = 0.000	f_t = 0.473 f_b = 0.223	f_t = -0.027 f_b = -0.013	f_t = 0.131 f_b = 0.062	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.926	f_t = 0.030 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.468 f_b = 0.220	f_t = -0.020 f_b = -0.009	f_t = 0.133 f_b = 0.062	f_t = 0.000 f_b = 0.000	f_t = 0.498 f_b = 0.235	f_t = -0.020 f_b = -0.009	f_t = 0.133 f_b = 0.062	f_t = 0.000 f_b = 0.000
(SZB) 75.294	f_t = 0.031 f_b = 0.015	f_t = -0.000 f_b = -0.000	f_t = 0.478 f_b = 0.225	f_t = -0.017 f_b = -0.008	f_t = 0.133 f_b = 0.063	f_t = 0.000 f_b = 0.000	f_t = 0.509 f_b = 0.240	f_t = -0.017 f_b = -0.008	f_t = 0.133 f_b = 0.063	f_t = 0.000 f_b = 0.000
(FoS) 76.298	f_t = 0.033	f_t = -0.000	f_t = 0.506	f_t = -0.009	f_t = 0.135	f_t = 0.000	f_t = 0.539	f_t = -0.009	f_t = 0.135	f_t = 0.000

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.016	f_b = -0.000	f_b = 0.238	f_b = -0.004	f_b = 0.064	f_b = 0.000	f_b = 0.254	f_b = -0.004	f_b = 0.064	f_b = 0.000
76.631	f_t = 0.034 f_b = 0.016	f_t = -0.000 f_b = 0.000	f_t = 0.515 f_b = 0.243	f_t = -0.007 f_b = -0.003	f_t = 0.136 f_b = 0.064	f_t = 0.000 f_b = 0.000	f_t = 0.549 f_b = 0.259	f_t = -0.007 f_b = -0.003	f_t = 0.136 f_b = 0.064	f_t = 0.000 f_b = 0.000
(STLF) 77.048	f_t = 0.035 f_b = 0.016	f_t = 0.000 f_b = 0.000	f_t = 0.527 f_b = 0.248	f_t = -0.003 f_b = -0.002	f_t = 0.136 f_b = 0.064	f_t = 0.000 f_b = 0.000	f_t = 0.562 f_b = 0.264	f_t = -0.003 f_b = -0.002	f_t = 0.136 f_b = 0.064	f_t = 0.000 f_b = 0.000
(1.0L_s) 77.524	f_t = 0.030 f_b = 0.014	f_t = 0.000 f_b = 0.000	f_t = 0.447 f_b = 0.210	f_t = 0.000 f_b = 0.000	f_t = 0.114 f_b = 0.054	f_t = 0.000 f_b = 0.000	f_t = 0.476 f_b = 0.224	f_t = 0.000 f_b = 0.000	f_t = 0.114 f_b = 0.054	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Deck Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.002 f_b = -0.001	f_t = -0.015 f_b = -0.007	f_t = -0.002 f_b = -0.001	f_t = -0.013 f_b = -0.006	f_t = -0.001 f_b = -0.000	f_t = -0.010 f_b = -0.005
(SZB) 1.337	f_t = -0.006 f_b = -0.003	f_t = -0.059 f_b = -0.028	f_t = -0.007 f_b = -0.003	f_t = -0.049 f_b = -0.023	f_t = -0.002 f_b = -0.001	f_t = -0.038 f_b = -0.018
(Bar Develop.) 1.705	f_t = -0.007 f_b = -0.003	f_t = -0.075 f_b = -0.035	f_t = -0.009 f_b = -0.004	f_t = -0.063 f_b = -0.029	f_t = -0.003 f_b = -0.001	f_t = -0.048 f_b = -0.023
(PSXFR) 2.583	f_t = -0.011 f_b = -0.005	f_t = -0.111 f_b = -0.052	f_t = -0.013 f_b = -0.006	f_t = -0.093 f_b = -0.044	f_t = -0.004 f_b = -0.002	f_t = -0.072 f_b = -0.034
(Bar Develop.) 2.765	f_t = -0.012 f_b = -0.005	f_t = -0.119 f_b = -0.056	f_t = -0.014 f_b = -0.007	f_t = -0.100 f_b = -0.047	f_t = -0.004 f_b = -0.002	f_t = -0.077 f_b = -0.036
(H) 3.833	f_t = -0.015 f_b = -0.007	f_t = -0.161 f_b = -0.076	f_t = -0.019 f_b = -0.009	f_t = -0.135 f_b = -0.064	f_t = -0.005 f_b = -0.003	f_t = -0.104 f_b = -0.049
(SZB) 5.003	f_t = -0.019 f_b = -0.009	f_t = -0.206 f_b = -0.097	f_t = -0.023 f_b = -0.011	f_t = -0.173 f_b = -0.081	f_t = -0.007 f_b = -0.003	f_t = -0.132 f_b = -0.062
(1.5H) 5.583	f_t = -0.021 f_b = -0.010	f_t = -0.227 f_b = -0.107	f_t = -0.026 f_b = -0.012	f_t = -0.191 f_b = -0.090	f_t = -0.007 f_b = -0.003	f_t = -0.145 f_b = -0.068
(0.1L_s) 7.752	f_t = -0.026 f_b = -0.012	f_t = -0.302 f_b = -0.142	f_t = -0.033 f_b = -0.016	f_t = -0.254 f_b = -0.119	f_t = -0.009 f_b = -0.004	f_t = -0.192 f_b = -0.090
(SZB) 10.503	f_t = -0.032 f_b = -0.015	f_t = -0.387 f_b = -0.182	f_t = -0.040 f_b = -0.019	f_t = -0.325 f_b = -0.153	f_t = -0.010 f_b = -0.005	f_t = -0.243 f_b = -0.115
(0.2L_s) 15.505	f_t = -0.035 f_b = -0.016	f_t = -0.512 f_b = -0.241	f_t = -0.048 f_b = -0.023	f_t = -0.429 f_b = -0.202	f_t = -0.009 f_b = -0.004	f_t = -0.315 f_b = -0.148
(SZB) 18.753	f_t = -0.033 f_b = -0.016	f_t = -0.572 f_b = -0.270	f_t = -0.049 f_b = -0.023	f_t = -0.480 f_b = -0.226	f_t = -0.006 f_b = -0.003	f_t = -0.352 f_b = -0.166
(0.3L_s) 23.257	f_t = -0.025 f_b = -0.012	f_t = -0.637 f_b = -0.301	f_t = -0.045 f_b = -0.021	f_t = -0.534 f_b = -0.253	f_t = 0.001 f_b = 0.000	f_t = -0.394 f_b = -0.186
(SZB) 29.753	f_t = -0.003 f_b = -0.002	f_t = -0.694 f_b = -0.331	f_t = -0.029 f_b = -0.014	f_t = -0.581 f_b = -0.277	f_t = 0.016 f_b = 0.008	f_t = -0.420 f_b = -0.201
(HP) 30.569	f_t = 0.000 f_b = 0.000	f_t = -0.696 f_b = -0.333	f_t = -0.026 f_b = -0.012	f_t = -0.583 f_b = -0.279	f_t = 0.018 f_b = 0.009	f_t = -0.421 f_b = -0.201
(0.4L_s) 31.009	f_t = 0.003 f_b = 0.001	f_t = -0.697 f_b = -0.333	f_t = -0.024 f_b = -0.011	f_t = -0.584 f_b = -0.279	f_t = 0.019 f_b = 0.009	f_t = -0.420 f_b = -0.201
(0.5L_s) 38.762	f_t = 0.050 f_b = 0.024	f_t = -0.679 f_b = -0.327	f_t = 0.017 f_b = 0.008	f_t = -0.567 f_b = -0.273	f_t = 0.048 f_b = 0.023	f_t = -0.399 f_b = -0.192
(HP) 46.062	f_t = 0.112 f_b = 0.054	f_t = -0.597 f_b = -0.288	f_t = 0.072 f_b = 0.035	f_t = -0.495 f_b = -0.239	f_t = 0.083 f_b = 0.040	f_t = -0.368 f_b = -0.178
(0.6L_s) 46.514	f_t = 0.116 f_b = 0.056	f_t = -0.589 f_b = -0.284	f_t = 0.076 f_b = 0.037	f_t = -0.488 f_b = -0.235	f_t = 0.086 f_b = 0.041	f_t = -0.365 f_b = -0.176
(SZB) 46.878	f_t = 0.120 f_b = 0.058	f_t = -0.583 f_b = -0.281	f_t = 0.079 f_b = 0.038	f_t = -0.483 f_b = -0.233	f_t = 0.088 f_b = 0.042	f_t = -0.361 f_b = -0.174
(0.7L_s) 54.267	f_t = 0.201 f_b = 0.097	f_t = -0.420 f_b = -0.202	f_t = 0.154 f_b = 0.074	f_t = -0.343 f_b = -0.165	f_t = 0.133 f_b = 0.064	f_t = -0.270 f_b = -0.130
(Deck Bar Cutoff) 55.043	f_t = 0.210 f_b = 0.101	f_t = -0.400 f_b = -0.192	f_t = 0.163 f_b = 0.078	f_t = -0.325 f_b = -0.156	f_t = 0.138 f_b = 0.066	f_t = -0.258 f_b = -0.124
(SZB) 57.878	f_t = 0.246 f_b = 0.118	f_t = -0.319 f_b = -0.153	f_t = 0.196 f_b = 0.094	f_t = -0.256 f_b = -0.123	f_t = 0.157 f_b = 0.075	f_t = -0.209 f_b = -0.100
(0.8L_s) 62.019	f_t = 0.301 f_b = 0.144	f_t = -0.188 f_b = -0.090	f_t = 0.248 f_b = 0.119	f_t = -0.143 f_b = -0.068	f_t = 0.187 f_b = 0.089	f_t = -0.127 f_b = -0.061
(SZB) 66.128	f_t = 0.368 f_b = 0.175	f_t = -0.060 f_b = -0.028	f_t = 0.310 f_b = 0.148	f_t = -0.032 f_b = -0.015	f_t = 0.218 f_b = 0.104	f_t = -0.037 f_b = -0.018
(0.9L_s) 69.771	f_t = 0.481 f_b = 0.227	f_t = 0.040 f_b = 0.019	f_t = 0.409 f_b = 0.193	f_t = 0.057 f_b = 0.027	f_t = 0.247 f_b = 0.117	f_t = 0.049 f_b = 0.023
(1.5H) 71.048	f_t = 0.530 f_b = 0.250	f_t = 0.074 f_b = 0.035	f_t = 0.452 f_b = 0.213	f_t = 0.087 f_b = 0.041	f_t = 0.258 f_b = 0.122	f_t = 0.069 f_b = 0.032

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 71.628	f_t = 0.552 f_b = 0.260	f_t = 0.090 f_b = 0.042	f_t = 0.470 f_b = 0.222	f_t = 0.101 f_b = 0.047	f_t = 0.262 f_b = 0.124	f_t = 0.072 f_b = 0.034
(H) 72.798	f_t = 0.597 f_b = 0.281	f_t = 0.121 f_b = 0.057	f_t = 0.510 f_b = 0.240	f_t = 0.129 f_b = 0.061	f_t = 0.273 f_b = 0.129	f_t = 0.080 f_b = 0.038
(Bar Develop.) 73.866	f_t = 0.642 f_b = 0.302	f_t = 0.145 f_b = 0.068	f_t = 0.548 f_b = 0.258	f_t = 0.151 f_b = 0.071	f_t = 0.283 f_b = 0.133	f_t = 0.087 f_b = 0.041
(PSXFR) 74.048	f_t = 0.649 f_b = 0.306	f_t = 0.149 f_b = 0.070	f_t = 0.555 f_b = 0.261	f_t = 0.155 f_b = 0.073	f_t = 0.285 f_b = 0.134	f_t = 0.088 f_b = 0.042
(Bar Develop.) 74.926	f_t = 0.687 f_b = 0.323	f_t = 0.169 f_b = 0.079	f_t = 0.587 f_b = 0.277	f_t = 0.173 f_b = 0.081	f_t = 0.293 f_b = 0.138	f_t = 0.094 f_b = 0.044
(SZB) 75.294	f_t = 0.703 f_b = 0.331	f_t = 0.177 f_b = 0.083	f_t = 0.601 f_b = 0.283	f_t = 0.180 f_b = 0.085	f_t = 0.297 f_b = 0.140	f_t = 0.097 f_b = 0.046
(FoS) 76.298	f_t = 0.747 f_b = 0.352	f_t = 0.199 f_b = 0.093	f_t = 0.639 f_b = 0.301	f_t = 0.200 f_b = 0.094	f_t = 0.306 f_b = 0.144	f_t = 0.104 f_b = 0.049
76.631	f_t = 0.761 f_b = 0.359	f_t = 0.206 f_b = 0.097	f_t = 0.651 f_b = 0.307	f_t = 0.207 f_b = 0.098	f_t = 0.309 f_b = 0.146	f_t = 0.106 f_b = 0.050
(STLF) 77.048	f_t = 0.780 f_b = 0.367	f_t = 0.215 f_b = 0.101	f_t = 0.668 f_b = 0.314	f_t = 0.215 f_b = 0.101	f_t = 0.314 f_b = 0.148	f_t = 0.109 f_b = 0.051
($1.0L_s$) 77.524	f_t = 0.663 f_b = 0.312	f_t = 0.186 f_b = 0.088	f_t = 0.567 f_b = 0.267	f_t = 0.186 f_b = 0.088	f_t = 0.264 f_b = 0.125	f_t = 0.093 f_b = 0.044

* Live Load values are per girder and include impact.

Stress due to Prestress

Span 1 Girder L

Girder Stresses

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STRF, $0.0L_r$) 0.000	(STRF) -0.417	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI
0.417	0.000	P_e (permanent) = 159.63 kip e_p = 7.141 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI
0.417	($0.0L_e$) 0.000	P_e (permanent) = 159.63 kip e_p = 7.141 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI
(PSXFR) 3.000	(PSXFR) 2.583	P_e (permanent) = 1147.56 kip e_p = 7.975 in f_t = -0.508 KSI f_b = -3.019 KSI	P_e (permanent) = 981.30 kip e_p = 7.975 in f_t = -0.434 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 982.41 kip e_p = 7.975 in f_t = -0.435 KSI f_b = -2.585 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				Service III P_e (permanent) = 982.41 kip e_p = 7.975 in f_t = -0.435 KSI f_b = -2.585 KSI (Fatigue I) P_e (permanent) = 982.41 kip e_p = 7.975 in f_t = -0.435 KSI f_b = -2.585 KSI
($0.1L_r$) 7.746	7.330	P_e (permanent) = 1143.92 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 982.19 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.792 KSI	Service I P_e (permanent) = 985.26 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI Service III P_e (permanent) = 985.26 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI (Fatigue I) P_e (permanent) = 985.26 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.801 KSI
8.080	($0.1L_e$) 7.663	P_e (permanent) = 1143.64 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.25 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.807 KSI	Service I P_e (permanent) = 985.46 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI Service III P_e (permanent) = 985.46 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI (Fatigue I) P_e (permanent) = 985.46 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.816 KSI
($0.2L_r$) 15.493	15.076	P_e (permanent) = 1136.41 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.623 KSI	P_e (permanent) = 983.18 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.134 KSI	Service I P_e (permanent) = 989.13 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.153 KSI Service III P_e (permanent) = 989.13 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.153 KSI (Fatigue I) P_e (permanent) = 989.13 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.153 KSI
15.743	($0.2L_e$) 15.326	P_e (permanent) = 1136.12 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.635 KSI	P_e (permanent) = 983.18 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.145 KSI	Service I P_e (permanent) = 989.22 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.165 KSI Service III P_e (permanent) = 989.22 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.165 KSI (Fatigue I) P_e (permanent) = 989.22 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.165 KSI
($0.3L_r$) 23.239	22.823	P_e (permanent) = 1126.27 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.980 KSI	P_e (permanent) = 981.89 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.469 KSI	Service I P_e (permanent) = 990.03 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.498 KSI Service III P_e (permanent) = 990.03 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 14.507 in f_t = 0.443 KSI f_b = -3.498 KSI (Fatigue I) P_e (permanent) = 990.03 kip e_p = 14.507 in f_t = 0.443 KSI f_b = -3.498 KSI
23.406	($0.3L_e$) 22.989	P_e (permanent) = 1126.02 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.987 KSI	P_e (permanent) = 981.82 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.477 KSI	Service I P_e (permanent) = 990.00 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.506 KSI Service III P_e (permanent) = 990.00 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.506 KSI (Fatigue I) P_e (permanent) = 990.00 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.506 KSI
(HP, $0.4L_t$) 30.986	(HP) 30.569	P_e (permanent) = 1112.84 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.317 KSI	P_e (permanent) = 976.48 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.788 KSI	Service I P_e (permanent) = 985.80 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.824 KSI Service III P_e (permanent) = 985.80 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.824 KSI (Fatigue I) P_e (permanent) = 985.80 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.824 KSI
31.069	($0.4L_e$) 30.652	P_e (permanent) = 1112.86 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.317 KSI	P_e (permanent) = 976.53 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.788 KSI	Service I P_e (permanent) = 985.85 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.824 KSI Service III P_e (permanent) = 985.85 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.824 KSI (Fatigue I) P_e (permanent) = 985.85 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.824 KSI
($0.5L_t$) 38.732	($0.5L_e$) 38.315	P_e (permanent) = 1113.83 kip e_p = 17.007 in f_t = 0.877 KSI f_b = -4.320 KSI	P_e (permanent) = 978.67 kip e_p = 17.007 in f_t = 0.771 KSI f_b = -3.796 KSI	Service I P_e (permanent) = 987.09 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI Service III P_e (permanent) = 987.09 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI (Fatigue I) P_e (permanent) = 987.09 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.829 KSI
46.395	($0.6L_e$) 45.979	P_e (permanent) = 1112.86 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.317 KSI	P_e (permanent) = 976.28 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.787 KSI	Service I P_e (permanent) = 982.49 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI Service III P_e (permanent) = 982.49 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				(Fatigue I) P_e (permanent) = 982.49 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI
(HP, 0.6L_r) 46.479	(HP) 46.062	P_e (permanent) = 1112.84 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.317 KSI	P_e (permanent) = 976.23 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.787 KSI	Service I P_e (permanent) = 982.41 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI Service III P_e (permanent) = 982.41 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI (Fatigue I) P_e (permanent) = 982.41 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI
54.058	(0.7L_e) 53.642	P_e (permanent) = 1126.02 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.987 KSI	P_e (permanent) = 981.44 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.475 KSI	Service I P_e (permanent) = 983.92 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.484 KSI Service III P_e (permanent) = 983.92 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.484 KSI (Fatigue I) P_e (permanent) = 983.92 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.484 KSI
(0.7L_r) 54.225	53.808	P_e (permanent) = 1126.27 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.980 KSI	P_e (permanent) = 981.51 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.468 KSI	Service I P_e (permanent) = 983.89 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.477 KSI Service III P_e (permanent) = 983.89 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.477 KSI (Fatigue I) P_e (permanent) = 983.89 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.477 KSI
61.721	(0.8L_e) 61.305	P_e (permanent) = 1136.12 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.635 KSI	P_e (permanent) = 982.82 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.144 KSI	Service I P_e (permanent) = 981.06 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.139 KSI Service III P_e (permanent) = 981.06 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.139 KSI (Fatigue I) P_e (permanent) = 981.06 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.139 KSI
(0.8L_r) 61.971	61.555	P_e (permanent) = 1136.41 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.623 KSI	P_e (permanent) = 982.82 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.133 KSI	Service I P_e (permanent) = 980.92 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.127 KSI Service III P_e (permanent) = 980.92 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.127 KSI (Fatigue I) P_e (permanent) = 980.92 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 12.007 in f_t = 0.104 KSI f_b = -3.127 KSI
69.384	($0.9L_e$) 68.968	P_e (permanent) = 1143.64 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.04 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.806 KSI	Service I P_e (permanent) = 975.88 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI Service III P_e (permanent) = 975.88 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI (Fatigue I) P_e (permanent) = 975.88 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI
($0.9L_r$) 69.718	69.301	P_e (permanent) = 1143.92 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 981.98 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.791 KSI	Service I P_e (permanent) = 975.63 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.773 KSI Service III P_e (permanent) = 975.63 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.773 KSI (Fatigue I) P_e (permanent) = 975.63 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.773 KSI
(PSXFR) 74.464	(PSXFR) 74.048	P_e (permanent) = 1147.56 kip e_p = 7.975 in f_t = -0.508 KSI f_b = -3.019 KSI	P_e (permanent) = 981.23 kip e_p = 7.975 in f_t = -0.434 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 972.21 kip e_p = 7.975 in f_t = -0.430 KSI f_b = -2.558 KSI Service III P_e (permanent) = 972.21 kip e_p = 7.975 in f_t = -0.430 KSI f_b = -2.558 KSI (Fatigue I) P_e (permanent) = 972.21 kip e_p = 7.975 in f_t = -0.430 KSI f_b = -2.558 KSI
77.048	($1.0L_e$) 76.631	P_e (permanent) = 159.63 kip e_p = 7.141 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.80 kip e_p = 7.141 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.80 kip e_p = 7.141 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.80 kip e_p = 7.141 in f_t = -0.075 KSI f_b = -0.339 KSI
77.048	76.631	P_e (permanent) = 159.63 kip e_p = 7.141 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.141 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.80 kip e_p = 7.141 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.80 kip e_p = 7.141 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.80 kip e_p = 7.141 in f_t = -0.075 KSI f_b = -0.339 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STLF, 1.0L_r) 77.464	(STLF) 77.048	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI

Prestressing Force and Strand Stresses

Straight strands: N_s = 18, P_{jack} = 790.97 kip, A_{ps} = 3.906 in^2

Harped strands: N_h = 10, P_{jack} = 439.43 kip, A_{ps} = 2.170 in^2

A_{ps} = 6.076 in^2

P_{jack} = 1230.39 kip

Prestress Transfer Length = 36.000 in

Effective Prestress at Mid-Span

Loss Stage	Permanent Strand			
	Effective Force (kip)	Time-Dependent Effects (KSI)	Instantaneous Effects (KSI)	f_{pe} (KSI)
At Jacking	1230.39	0.000	0.000	202.500
Before Prestress Transfer	1230.39	0.000	0.000	202.500
After Prestress Transfer	1113.83	0.000	19.183	183.317
At Lifting	1113.83	0.000	19.183	183.317
At Shipping	1067.05	7.700	19.183	175.617
After Erection	1067.05	7.700	19.183	175.617
After Deck Placement	978.67	27.711	13.717	161.072
After Superimposed Dead Loads	987.09	27.711	12.331	162.458
Final (permanent loads only)	987.09	27.711	12.331	162.458
Final with Live Load (Service I)	987.09	27.711	12.331	162.458
Final with Live Load (Service III)	987.09	27.711	12.331	162.458
Final with Live Load (Fatigue I)	987.09	27.711	12.331	162.458

Time-Dependent Effects = change in strand stress due to creep, shrinkage, and relaxation
Instantaneous Effects = change in strand stress due to elastic shortening and externally applied loads
$f_{pe} = f_{pj}$ - Time-Dependent Effects - Instantaneous Effects

Specification Check Summary

The Specification Check was Successful

Specification Checks

Specification: CDOT

Stress Limitations on Prestressing Tendons [5.9.2.2]

Strand Stresses

Loss Stage	Stress Limit (KSI)	Straight		Harped	
		Strand Stress (KSI)	Status (C/D)	Strand Stress (KSI)	Status (C/D)
At Jacking (f_{pj})	202.500	202.500	Pass (1.00)	202.500	Pass (1.00)
After All Losses and Elastic Gains including Live Load (f_{pe})	194.400	162.458	Pass (1.20)	162.458	Pass (1.20)

Required Concrete Strengths

Required f'_{ci} = 5.281 KSI ⇒ 5.300 KSI

Actual f'_{ci} = 6.000 KSI

Required f'_c = 6.421 KSI ⇒ 6.500 KSI

Actual f'_c = 8.000 KSI

Continuity [5.12.3.3.5]

	f_b (KSI)	Boundary Condition	Is Compressive?
Abut 1	0.000	Hinged	No
Pier 2	-1.135	Continuous	Yes
Abut 3	0.000	Hinged	No

f_b is the calcuated stress at the bottom of the continuity diaphragm for the combination of superimposed permanent loads and 50% live load
Continuous connections are fully effective.
Continuity is accounted for in Service and Strength Limit States.

Interval 2: Prestress Release : Service I Compression

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Compression Stresses [5.9.2.3.1a]

f'_{ci} = 6.000 KSI

Compression stress limit = -0.65f'_{ci} = -3.900 KSI

Concrete strength required to satisfy this requirement = 5.281 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
(STRF) -0.417	(STRF, 0.0L_r) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
										(∞)
(PSXFR) 2.583	(PSXFR) 3.000	-0.508	-3.019	-0.135	0.137	-0.643	-2.882	No	Yes	Pass (1.35)
7.330	($0.1L_t$) 7.746	-0.268	-3.252	-0.327	0.331	-0.595	-2.920	No	Yes	Pass (1.34)
15.076	($0.2L_t$) 15.493	0.121	-3.623	-0.581	0.589	-0.460	-3.034	No	Yes	Pass (1.29)
22.823	($0.3L_t$) 23.239	0.503	-3.980	-0.762	0.773	-0.259	-3.206	No	Yes	Pass (1.22)
(HP) 30.569	(HP, $0.4L_t$) 30.986	0.876	-4.317	-0.871	0.884	0.005	-3.433	No	Yes	Pass (1.14)
38.315	($0.5L_t$) 38.732	0.877	-4.320	-0.908	0.921	-0.030	-3.400	No	Yes	Pass (1.15)
(HP) 46.062	(HP, $0.6L_t$) 46.479	0.876	-4.317	-0.871	0.884	0.005	-3.433	No	Yes	Pass (1.14)
53.808	($0.7L_t$) 54.225	0.503	-3.980	-0.762	0.773	-0.259	-3.206	No	Yes	Pass (1.22)
61.555	($0.8L_t$) 61.971	0.121	-3.623	-0.581	0.589	-0.460	-3.034	No	Yes	Pass (1.29)
69.301	($0.9L_t$) 69.718	-0.268	-3.252	-0.327	0.331	-0.595	-2.920	No	Yes	Pass (1.34)
(PSXFR) 74.048	(PSXFR) 74.464	-0.508	-3.019	-0.135	0.137	-0.643	-2.882	No	Yes	Pass (1.35)
(STLF) 77.048	(STLF, $1.0L_t$) 77.464	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)

Interval 2: Prestress Release : Service I Tension

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Tension Stresses [5.9.2.3.1b]

f'_{ci} = 6.000 KSI

Tension stress limit in areas other than the precompressed tensile zone = $0.0948\lambda\sqrt{f'_{ci}}$ but not more than 0.200 KSI = 0.200 KSI

Tension stress limit in areas with sufficient bonded reinforcement = $0.2400\lambda\sqrt{f'_{ci}}$ = 0.588 KSI

Concrete strength required to satisfy this requirement = 5.281 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
(STRF) -0.417	(STRF, $0.0L_t$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)
(PSXFR) 2.583	(PSXFR) 3.000	-0.508	-3.019	-0.135	0.137	-0.643	-2.882	0.200	-	No	Yes	Pass (-)
7.330	($0.1L_t$) 7.746	-0.268	-3.252	-0.327	0.331	-0.595	-2.920	0.200	-	No	Yes	Pass (-)
15.076	($0.2L_t$) 15.493	0.121	-3.623	-0.581	0.589	-0.460	-3.034	0.200	-	No	Yes	Pass (-)
22.823	($0.3L_t$) 23.239	0.503	-3.980	-0.762	0.773	-0.259	-3.206	0.200	-	No	Yes	Pass (-)
(HP) 30.569	(HP, $0.4L_t$) 30.986	0.876	-4.317	-0.871	0.884	0.005	-3.433	0.200	-	No	Yes	Pass (10+)
38.315	($0.5L_t$) 38.732	0.877	-4.320	-0.908	0.921	-0.030	-3.400	0.200	-	No	Yes	Pass (-)
(HP) 46.062	(HP, $0.6L_t$) 46.479	0.876	-4.317	-0.871	0.884	0.005	-3.433	0.200	-	No	Yes	Pass (10+)
53.808	($0.7L_t$) 54.225	0.503	-3.980	-0.762	0.773	-0.259	-3.206	0.200	-	No	Yes	Pass (-)
61.555	($0.8L_t$) 61.971	0.121	-3.623	-0.581	0.589	-0.460	-3.034	0.200	-	No	Yes	Pass (-)
69.301	($0.9L_t$) 69.718	-0.268	-3.252	-0.327	0.331	-0.595	-2.920	0.200	-	No	Yes	Pass (-)
(PSXFR) 74.048	(PSXFR) 74.464	-0.508	-3.019	-0.135	0.137	-0.643	-2.882	0.200	-	No	Yes	Pass (-)
(STLF) 77.048	(STLF, $1.0L_t$) 77.464	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.45f'_c$ = -3.600 KSI

Concrete strength required to satisfy this requirement = 5.128 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.434	-2.582	-0.276	0.280	-0.710	-2.302	No	Yes	Pass (1.56)
($0.1L_s$) 7.752	-0.212	-2.811	-0.766	0.777	-0.977	-2.034	No	Yes	Pass (1.77)
($0.2L_s$) 15.505	0.123	-3.153	-1.350	1.369	-1.227	-1.784	No	Yes	Pass (2.02)
($0.3L_s$) 23.257	0.458	-3.488	-1.759	1.784	-1.301	-1.704	No	Yes	Pass (2.11)
(HP) 30.569	0.769	-3.788	-1.988	2.016	-1.219	-1.771	No	Yes	Pass (2.03)
($0.4L_s$) 31.009	0.769	-3.789	-1.997	2.025	-1.227	-1.763	No	Yes	Pass (2.04)

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.5L_s$) 38.762	0.771	-3.796	-2.066	2.096	-1.295	-1.701	No	Yes	Pass (2.12)
(HP) 46.062	0.769	-3.787	-1.979	2.007	-1.210	-1.780	No	Yes	Pass (2.02)
($0.6L_s$) 46.514	0.750	-3.769	-1.968	1.997	-1.219	-1.772	No	Yes	Pass (2.03)
($0.7L_s$) 54.267	0.419	-3.449	-1.705	1.729	-1.286	-1.719	No	Yes	Pass (2.09)
($0.8L_s$) 62.019	0.085	-3.113	-1.274	1.292	-1.189	-1.821	No	Yes	Pass (1.98)
($0.9L_s$) 69.771	-0.250	-2.771	-0.674	0.684	-0.924	-2.087	No	Yes	Pass (1.73)
(PSXFR) 74.048	-0.434	-2.582	-0.270	0.274	-0.704	-2.308	No	Yes	Pass (1.56)
76.631	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Tension

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]
f'_c = 8.000 KSI
Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI
Concrete strength required to satisfy this requirement = 5.128 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(PSXFR) 2.583	-0.434	-2.582	-0.276	0.280	-0.710	-2.302	-	0.537	No	Yes	Pass (-)
($0.1L_s$) 7.752	-0.212	-2.811	-0.766	0.777	-0.977	-2.034	-	0.537	No	Yes	Pass (-)
($0.2L_s$) 15.505	0.123	-3.153	-1.350	1.369	-1.227	-1.784	-	0.537	No	Yes	Pass (-)
($0.3L_s$) 23.257	0.458	-3.488	-1.759	1.784	-1.301	-1.704	-	0.537	No	Yes	Pass (-)
(HP) 30.569	0.769	-3.788	-1.988	2.016	-1.219	-1.771	-	0.537	No	Yes	Pass (-)
($0.4L_s$) 31.009	0.769	-3.789	-1.997	2.025	-1.227	-1.763	-	0.537	No	Yes	Pass (-)
($0.5L_s$) 38.762	0.771	-3.796	-2.066	2.096	-1.295	-1.701	-	0.537	No	Yes	Pass (-)
(HP) 46.062	0.769	-3.787	-1.979	2.007	-1.210	-1.780	-	0.537	No	Yes	Pass (-)
($0.6L_s$) 46.514	0.750	-3.769	-1.968	1.997	-1.219	-1.772	-	0.537	No	Yes	Pass (-)
($0.7L_s$) 54.267	0.419	-3.449	-1.705	1.729	-1.286	-1.719	-	0.537	No	Yes	Pass (-)
($0.8L_s$) 62.019	0.085	-3.113	-1.274	1.292	-1.189	-1.821	-	0.537	No	Yes	Pass (-)
($0.9L_s$) 69.771	-0.250	-2.771	-0.674	0.684	-0.924	-2.087	-	0.537	No	Yes	Pass (-)
(PSXFR) 74.048	-0.434	-2.582	-0.270	0.274	-0.704	-2.308	-	0.537	No	Yes	Pass (-)
76.631	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service I Compression without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = $-0.45f'_c$ = -3.600 KSI
Concrete strength required to satisfy this requirement = 6.421 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.435	-2.585	-0.290	0.330	-0.725	-2.254	No	Yes	Pass (1.60)
($0.1L_s$) 7.752	-0.212	-2.820	-0.805	0.914	-1.018	-1.906	No	Yes	Pass (1.89)
($0.2L_s$) 15.505	0.124	-3.173	-1.418	1.601	-1.294	-1.572	No	Yes	Pass (2.29)
($0.3L_s$) 23.257	0.461	-3.517	-1.844	2.066	-1.382	-1.451	No	Yes	Pass (2.48)
(HP) 30.569	0.776	-3.824	-2.079	2.307	-1.303	-1.517	No	Yes	Pass (2.37)
($0.4L_s$) 31.009	0.777	-3.825	-2.088	2.315	-1.311	-1.510	No	Yes	Pass (2.38)
($0.5L_s$) 38.762	0.777	-3.828	-2.150	2.349	-1.373	-1.480	No	Yes	Pass (2.43)
(HP) 46.062	0.774	-3.811	-2.044	2.185	-1.270	-1.626	No	Yes	Pass (2.21)
	0.754	-3.792	-2.032	2.169	-1.278	-1.623	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.6L_s$) 46.514									(2.22)
($0.7L_s$) 54.267	0.420	-3.456	-1.735	1.776	-1.315	-1.680	No	Yes	Pass (2.14)
($0.8L_s$) 62.019	0.084	-3.106	-1.258	1.171	-1.174	-1.935	No	Yes	Pass (1.86)
($0.9L_s$) 69.771	-0.248	-2.752	-0.605	0.339	-0.854	-2.413	No	Yes	Pass (1.49)
(PSXFR) 74.048	-0.430	-2.558	-0.170	-0.221	-0.600	-2.779	No	Yes	Pass (1.30)
76.631	-0.075	-0.339	0.121	-0.595	0.046	-0.934	No	Yes	Pass (3.85)

Interval 17: Open to Traffic : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = $-0.6f'_c$ = -4.800 KSI
Concrete strength required to satisfy this requirement = 6.421 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.435	-2.585	-0.339	0.306	-0.774	-2.279	No	Yes	Pass (2.11)
($0.1L_s$) 7.752	-0.212	-2.820	-0.938	0.840	-1.150	-1.980	No	Yes	Pass (2.42)
($0.2L_s$) 15.505	0.124	-3.173	-1.641	1.454	-1.517	-1.719	No	Yes	Pass (2.79)
($0.3L_s$) 23.257	0.461	-3.517	-2.123	1.845	-1.662	-1.672	No	Yes	Pass (2.87)
(HP) 30.569	0.776	-3.824	-2.390	2.015	-1.614	-1.809	No	Yes	Pass (2.65)
($0.4L_s$) 31.009	0.777	-3.825	-2.400	2.019	-1.623	-1.805	No	Yes	Pass (2.66)
($0.5L_s$) 38.762	0.777	-3.828	-2.461	1.978	-1.684	-1.850	No	Yes	Pass (2.59)
(HP) 46.062	0.774	-3.811	-2.327	1.745	-1.553	-2.066	No	Yes	Pass (2.32)
($0.6L_s$) 46.514	0.754	-3.792	-2.312	1.724	-1.558	-2.067	No	Yes	Pass (2.32)
($0.7L_s$) 54.267	0.420	-3.456	-1.949	1.258	-1.529	-2.198	No	Yes	Pass (2.18)
($0.8L_s$) 62.019	0.084	-3.106	-1.382	0.579	-1.298	-2.527	No	Yes	Pass (1.90)
($0.9L_s$) 69.771	-0.248	-2.752	-0.651	-0.471	-0.900	-3.223	No	Yes	Pass (1.49)
(PSXFR) 74.048	-0.430	-2.558	-0.185	-1.295	-0.615	-3.853	No	Yes	Pass (1.25)
76.631	-0.075	-0.339	0.117	-1.839	0.042	-2.178	No	Yes	Pass (2.20)

Interval 17: Open to Traffic : Service I Tension without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]
f'_c = 8.000 KSI
Tension stress limit in the precompressed tensile zone = $0.0000\lambda\sqrt{f'_c}$ = 0.000 KSI
Concrete strength required to satisfy this requirement = 6.421 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
($0.0L_s$) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(PSXFR) 2.583	-0.435	-2.585	-0.288	0.341	-0.722	-2.243	No	Yes	Pass (-)
($0.1L_s$) 7.752	-0.212	-2.820	-0.798	0.945	-1.010	-1.875	No	Yes	Pass (-)
($0.2L_s$) 15.505	0.124	-3.173	-1.405	1.657	-1.281	-1.516	No	Yes	Pass (-)
($0.3L_s$) 23.257	0.461	-3.517	-1.826	2.140	-1.365	-1.377	No	Yes	Pass (-)
(HP) 30.569	0.776	-3.824	-2.059	2.390	-1.282	-1.433	No	Yes	Pass (-)
($0.4L_s$) 31.009	0.777	-3.825	-2.067	2.399	-1.291	-1.426	No	Yes	Pass (-)
($0.5L_s$) 38.762	0.777	-3.828	-2.129	2.436	-1.351	-1.392	No	Yes	Pass (-)
(HP) 46.062	0.774	-3.811	-2.023	2.270	-1.249	-1.541	No	Yes	Pass (-)
($0.6L_s$) 46.514	0.754	-3.792	-2.011	2.253	-1.257	-1.539	No	Yes	Pass (-)
($0.7L_s$) 54.267	0.420	-3.456	-1.716	1.850	-1.296	-1.606	No	Yes	Pass (-)
($0.8L_s$) 62.019	0.084	-3.106	-1.244	1.227	-1.160	-1.879	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
									(-)
(0.9L_s) 69.771	-0.248	-2.752	-0.592	0.395	-0.841	-2.357	No	Yes	Pass (-)
(PSXFR) 74.048	-0.430	-2.558	-0.153	-0.152	-0.584	-2.709	No	Yes	Pass (-)
76.631	-0.075	-0.339	0.140	-0.513	0.065	-0.852	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service III Tension

Service III
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Location from Left Support (ft)	Pre-tension		Service III		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(0.0L_s) 0.000	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
(PSXFR) 2.583	-0.435	-2.585	-0.283	0.505	-0.718	-2.080	No	Yes	Pass (-)
(0.1L_s) 7.752	-0.212	-2.820	-0.784	1.389	-0.997	-1.431	No	Yes	Pass (-)
(0.2L_s) 15.505	0.124	-3.173	-1.377	2.406	-1.253	-0.767	No	Yes	Pass (-)
(0.3L_s) 23.257	0.461	-3.517	-1.785	3.066	-1.323	-0.451	No	Yes	Pass (-)
(HP) 30.569	0.776	-3.824	-2.002	3.396	-1.226	-0.427	No	Yes	Pass (-)
(0.4L_s) 31.009	0.777	-3.825	-2.010	3.407	-1.234	-0.418	No	Yes	Pass (-)
(0.5L_s) 38.762	0.777	-3.828	-2.056	3.426	-1.279	-0.403	No	Yes	Pass (-)
(HP) 46.062	0.774	-3.811	-1.937	3.165	-1.163	-0.646	No	Yes	Pass (-)
(0.6L_s) 46.514	0.754	-3.792	-1.924	3.139	-1.170	-0.652	No	Yes	Pass (-)
(0.7L_s) 54.267	0.420	-3.456	-1.615	2.534	-1.195	-0.923	No	Yes	Pass (-)
(0.8L_s) 62.019	0.084	-3.106	-1.131	1.630	-1.046	-1.476	No	Yes	Pass (-)
(0.9L_s) 69.771	-0.248	-2.752	-0.441	0.548	-0.689	-2.204	No	Yes	Pass (-)
(PSXFR) 74.048	-0.430	-2.558	0.046	-0.100	-0.384	-2.658	No	Yes	Pass (-)
76.631	-0.075	-0.339	0.371	-0.500	0.296	-0.839	No	Yes	Pass (-)

Interval 17: Open to Traffic : Fatigue I Compression

Fatigue I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.4f'_c$ = -3.200 KSI

Concrete strength required to satisfy this requirement = 4.574 KSI

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.000	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)
(0.0L_s) 0.000	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)
(PSXFR) 2.583	-0.435	-2.585	-0.179	0.149	-0.396	-1.143	No	Yes	Pass (2.80)
(0.1L_s) 7.752	-0.212	-2.820	-0.492	0.409	-0.598	-1.001	No	Yes	Pass (3.20)
(0.2L_s) 15.505	0.124	-3.173	-0.854	0.705	-0.793	-0.881	No	Yes	Pass (3.63)
(0.3L_s) 23.257	0.461	-3.517	-1.105	0.890	-0.874	-0.868	No	Yes	Pass (3.66)
(HP) 30.569	0.776	-3.824	-1.237	0.965	-0.849	-0.947	No	Yes	Pass (3.38)
(0.4L_s) 31.009	0.777	-3.825	-1.241	0.967	-0.853	-0.946	No	Yes	Pass (3.38)
(0.5L_s) 38.762	0.777	-3.828	-1.265	0.935	-0.876	-0.979	No	Yes	Pass (3.27)
(HP) 46.062	0.774	-3.811	-1.204	0.808	-0.817	-1.097	No	Yes	Pass (2.92)
(0.6L_s) 46.514	0.754	-3.792	-1.197	0.797	-0.820	-1.099	No	Yes	Pass (2.91)
(0.7L_s) 54.267	0.420	-3.456	-1.009	0.554	-0.799	-1.175	No	Yes	Pass (2.72)
(0.8L_s) 62.019	0.084	-3.106	-0.710	0.204	-0.668	-1.349	No	Yes	Pass (2.37)
(0.9L_s) 69.771	-0.248	-2.752	-0.309	-0.252	-0.433	-1.628	No	Yes	Pass (1.97)
(PSXFR) 74.048	-0.430	-2.558	-0.085	-0.551	-0.300	-1.830	No	Yes	Pass (1.75)

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
76.631	-0.075	-0.339	0.060	-0.748	0.023	-0.917	No	Yes	Pass (3.49)

Principal Tensile Stresses in Webs

LRFD 5.9.2.3.3 - Principal Tensile Stresses in Webs limitations are not applicable.

Ultimate Moment Capacity

Positive Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	2143.15	0.00	Pass (∞)	Pass (∞)
(0.1L_s) 7.752	1699.43	4501.60	2260.24	Pass (1.99)	Pass (2.65)
(0.2L_s) 15.505	2917.64	5417.37	3751.32	Pass (1.44)	Pass (1.86)
(0.3L_s) 23.257	3674.16	5768.89	3964.97	Pass (1.45)	Pass (1.57)
(0.4L_s) 31.009	4038.13	6090.25	4190.20	Pass (1.45)	Pass (1.51)
(0.5L_s) 38.762	4009.51	6083.11	4167.18	Pass (1.46)	Pass (1.52)
(0.6L_s) 46.514	3620.37	6060.29	4158.96	Pass (1.46)	Pass (1.67)
(0.7L_s) 54.267	2840.36	5706.85	3777.68	Pass (1.51)	Pass (2.01)
(0.8L_s) 62.019	1738.90	5360.09	2312.74	Pass (2.32)	Pass (3.08)
(0.9L_s) 69.771	559.91	4359.65	744.68	Pass (5.85)	Pass (7.79)
(1.0L_s) 77.524	-396.53	1891.00	-527.38	Pass (-)	Pass (-)

Positive Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	2143.15	0.00	Pass (∞)	Pass (∞)
(0.1L_s) 7.752	1603.54	4501.60	2260.24	Pass (1.99)	Pass (2.81)
(0.2L_s) 15.505	2735.05	5417.37	3751.32	Pass (1.44)	Pass (1.98)
(0.3L_s) 23.257	3447.42	5768.89	3964.97	Pass (1.45)	Pass (1.67)
(0.4L_s) 31.009	3785.04	6090.25	4190.20	Pass (1.45)	Pass (1.61)
(0.5L_s) 38.762	3789.21	6083.11	4167.18	Pass (1.46)	Pass (1.61)
(0.6L_s) 46.514	3388.80	6060.29	4158.96	Pass (1.46)	Pass (1.79)
(0.7L_s) 54.267	2643.48	5706.85	3777.68	Pass (1.51)	Pass (2.16)
(0.8L_s) 62.019	1588.34	5360.09	2312.74	Pass (2.32)	Pass (3.37)
(0.9L_s) 69.771	245.88	4359.65	744.68	Pass (5.85)	Pass (10+)
(1.0L_s) 77.524	-396.53	1891.00	-527.38	Pass (-)	Pass (-)

Negative Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)
(FoS) 0.333	-0.25	-3485.79	0.43	Pass (-)	Pass (10+)
(0.1L_s) 7.752	-20.95	-3426.91	-27.87	Pass (10+)	Pass (10+)
(0.2L_s) 15.505	-73.71	-3378.16	-98.03	Pass (10+)	Pass (10+)
(0.3L_s) 23.257	-158.26	-3341.84	-210.48	Pass (10+)	Pass (10+)
(0.4L_s) 31.009	-274.60	-3318.98	-365.22	Pass (9.09)	Pass (10+)
(0.5L_s) 38.762	-422.75	-3114.97	-562.26	Pass (5.54)	Pass (7.37)
(0.6L_s) 46.514	-602.69	-3122.24	-801.58	Pass (3.90)	Pass (5.18)
(0.7L_s) 54.267	-814.43	-3144.07	-1083.20	Pass (2.90)	Pass (3.86)
(Deck Bar Cutoff) 55.043	-837.41	-3147.00	-1113.75	Pass (2.83)	Pass (3.76)
(0.8L_s) 62.019	-1086.35	-5712.23	-1168.71	Pass (4.89)	Pass (5.26)

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.9L_s) 69.771	-1679.82	-6469.51	-1189.84	Pass (5.44)	Pass (3.85)
(FoS) 76.298	-2696.34	-6578.39	-1196.71	Pass (5.50)	Pass (2.44)
(1.0L_s) 77.524	-2891.62	-3963.17	-1196.71	Pass (3.31)	Pass (1.37)

Negative Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
(0.0L_s) 0.000	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)
(FoS) 0.333	0.33	-3485.79	0.43	Pass (-)	Pass (-)
(0.1L_s) 7.752	-7.65	-3426.91	-27.87	Pass (10+)	Pass (10+)
(0.2L_s) 15.505	-47.10	-3378.16	-98.03	Pass (10+)	Pass (10+)
(0.3L_s) 23.257	-118.35	-3341.84	-210.48	Pass (10+)	Pass (10+)
(0.4L_s) 31.009	-221.40	-3318.98	-365.22	Pass (9.09)	Pass (10+)
(0.5L_s) 38.762	-356.24	-3114.97	-562.26	Pass (5.54)	Pass (8.74)
(0.6L_s) 46.514	-522.88	-3122.24	-801.58	Pass (3.90)	Pass (5.97)
(0.7L_s) 54.267	-721.32	-3144.07	-1083.20	Pass (2.90)	Pass (4.36)
(Deck Bar Cutoff) 55.043	-742.96	-3147.00	-1113.75	Pass (2.83)	Pass (4.24)
(0.8L_s) 62.019	-979.85	-5712.23	-1168.71	Pass (4.89)	Pass (5.83)
(0.9L_s) 69.771	-1392.06	-6469.51	-1189.84	Pass (5.44)	Pass (4.65)
(FoS) 76.298	-2221.01	-6578.39	-1196.71	Pass (5.50)	Pass (2.96)
(1.0L_s) 77.524	-2376.15	-3963.17	-1196.71	Pass (3.31)	Pass (1.67)

Ultimate Shear Capacity

Ultimate Shears for Strength I Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(CS) 3.924	Yes	Yes	226.52	569.18	Pass (2.51)
(SZB) 5.003	Yes	Yes	219.92	416.91	Pass (1.90)
(1.5H) 5.583	Yes	Yes	216.39	420.07	Pass (1.94)
(0.1L_s) 7.752	Yes	Yes	203.27	404.05	Pass (1.99)
(SZB) 10.503	Yes	Yes	186.85	305.72	Pass (1.64)
(0.2L_s) 15.505	Yes	Yes	157.67	312.15	Pass (1.98)
(SZB) 18.753	Yes	Yes	139.17	271.01	Pass (1.95)
(0.3L_s) 23.257	Yes	Yes	114.11	276.56	Pass (2.42)
(SZB) 29.753	Yes	Yes	79.35	239.99	Pass (3.02)
(HP) 30.569	Yes	Yes	75.23	241.47	Pass (3.21)
(0.4L_s) 31.009	Yes	Yes	73.02	210.36	Pass (2.88)
(0.5L_s) 38.762	Yes	Yes	83.73	208.06	Pass (2.48)
(HP) 46.062	Yes	Yes	124.44	243.76	Pass (1.96)
(0.6L_s) 46.514	Yes	Yes	126.97	243.23	Pass (1.92)
(SZB) 46.878	Yes	Yes	129.01	242.82	Pass (1.88)
(0.7L_s) 54.267	Yes	Yes	170.57	283.66	Pass (1.66)
(Deck Bar Cutoff) 55.043	Yes	Yes	174.95	283.26	Pass (1.62)
(SZB) 57.878	Yes	Yes	190.97	282.59	Pass (1.48)
(0.8L_s) 62.019	Yes	Yes	214.38	327.65	Pass (1.53)
(SZB) 66.128	Yes	Yes	237.64	323.00	Pass (1.36)
(0.9L_s) 69.771	Yes	Yes	258.20	406.75	Pass (1.58)
(1.5H) 71.048	Yes	Yes	265.40	400.16	Pass (1.51)
(SZB) 71.628	Yes	Yes	268.69	404.52	Pass (1.51)
(CS) 72.510	Yes	Yes	273.66	540.20	Pass

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
					(1.97)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Ultimate Shears for Strength II Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(SZB) 5.003	Yes	Yes	210.19	418.82	Pass (1.99)
(1.5H) 5.583	Yes	Yes	206.84	422.17	Pass (2.04)
(0.1L_s) 7.752	Yes	Yes	194.35	406.59	Pass (2.09)
(SZB) 10.503	Yes	Yes	178.64	308.54	Pass (1.73)
(0.2L_s) 15.505	Yes	Yes	150.57	315.77	Pass (2.10)
(SZB) 18.753	Yes	Yes	132.64	274.53	Pass (2.07)
(0.3L_s) 23.257	Yes	Yes	108.26	280.36	Pass (2.59)
(SZB) 29.753	Yes	Yes	74.20	244.10	Pass (3.29)
(HP) 30.569	No	Yes	70.17	245.46	Pass (3.50)
(0.4L_s) 31.009	Yes	Yes	67.99	220.13	Pass (3.24)
(0.5L_s) 38.762	Yes	Yes	72.45	219.56	Pass (3.03)
(HP) 46.062	Yes	Yes	117.06	247.65	Pass (2.12)
(0.6L_s) 46.514	Yes	Yes	119.78	247.09	Pass (2.06)
(SZB) 46.878	Yes	Yes	121.96	246.66	Pass (2.02)
(0.7L_s) 54.267	Yes	Yes	165.48	287.36	Pass (1.74)
(Deck Bar Cutoff) 55.043	Yes	Yes	169.96	286.96	Pass (1.69)
(SZB) 57.878	Yes	Yes	186.20	286.13	Pass (1.54)
(0.8L_s) 62.019	Yes	Yes	209.45	331.23	Pass (1.58)
(SZB) 66.128	Yes	Yes	232.04	328.06	Pass (1.41)
(0.9L_s) 69.771	Yes	Yes	251.58	415.40	Pass (1.65)
(1.5H) 71.048	Yes	Yes	258.35	409.29	Pass (1.58)
(SZB) 71.628	Yes	Yes	261.42	414.22	Pass (1.58)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Longitudinal Reinforcement for Shear Check - Strength I [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 0.333	423.03	182.50	5.7.3.5-2	Pass (2.32)
(SZB) 1.337	584.97	182.50	5.7.3.5-2	Pass (3.21)
(Bar Develop.) 1.705	644.17	182.50	5.7.3.5-2	Pass (3.53)
(Bar Develop.) 2.765	778.91	182.50	5.7.3.5-2	Pass (4.27)
(H) 3.833	810.64	182.50	5.7.3.5-2	Pass (4.44)
(CS) 3.924	813.33	437.85	5.7.3.5-1	Pass (1.86)
(SZB) 5.003	845.44	507.51	5.7.3.5-1	Pass (1.67)
(1.5H) 5.583	955.89	539.28	5.7.3.5-1	Pass (1.77)
(0.1L_s) 7.752	1128.02	666.19	5.7.3.5-1	Pass (1.69)
(SZB) 10.503	1337.79	829.16	5.7.3.5-1	Pass (1.61)
(0.2L_s) 15.505	1653.22	988.72	5.7.3.5-1	Pass (1.67)
(SZB) 18.753	1656.60	1062.53	5.7.3.5-1	Pass (1.56)
(0.3L_s) 23.257	1660.57	1108.88	5.7.3.5-1	Pass (1.50)
(SZB) 29.753	1663.83	1117.64	5.7.3.5-1	Pass (1.49)

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(HP) 30.569	1664.09	1112.74	5.7.3.5-1	Pass (1.50)
(0.4L_s) 31.009	1664.08	1159.95	5.7.3.5-1	Pass (1.43)
(0.5L_s) 38.762	1663.80	1163.70	5.7.3.5-1	Pass (1.43)
(HP) 46.062	1663.69	1090.68	5.7.3.5-1	Pass (1.53)
(0.6L_s) 46.514	1663.52	1090.23	5.7.3.5-1	Pass (1.53)
(SZB) 46.878	1663.38	1089.59	5.7.3.5-1	Pass (1.53)
(0.7L_s) 54.267	1658.03	971.45	5.7.3.5-1	Pass (1.71)
(Deck Bar Cutoff) 55.043	1657.31	958.15	5.7.3.5-1	Pass (1.73)
(SZB) 57.878	1654.72	897.72	5.7.3.5-1	Pass (1.84)
(0.8L_s) 62.019	1650.89	739.57	5.7.3.5-1	Pass (2.23)
(SZB) 66.128	1337.06	601.41	5.7.3.5-1	Pass (2.22)
(0.9L_s) 69.771	2020.80	589.61	5.7.3.5-1	Pass (3.43)
(1.5H) 71.048	2020.80	663.70	5.7.3.5-1	Pass (3.04)
(SZB) 71.628	2020.80	698.71	5.7.3.5-1	Pass (2.89)
(CS) 72.510	2020.80	749.22	5.7.3.5-1	Pass (2.70)
(H) 72.798	2020.80	764.83	5.7.3.5-1	Pass (2.64)
(Bar Develop.) 73.866	2020.80	830.28	5.7.3.5-1	Pass (2.43)
(Bar Develop.) 74.926	2003.20	899.81	5.7.3.5-1	Pass (2.23)
(SZB) 75.294	1988.77	924.24	5.7.3.5-1	Pass (2.15)
(FoS) 76.298	1949.42	991.60	5.7.3.5-1	Pass (1.97)

Longitudinal Reinforcement for Shear Check - Strength II [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 0.333	423.03	172.54	5.7.3.5-2	Pass (2.45)
(SZB) 1.337	584.97	172.54	5.7.3.5-2	Pass (3.39)
(Bar Develop.) 1.705	644.17	172.54	5.7.3.5-2	Pass (3.73)
(Bar Develop.) 2.765	778.91	172.54	5.7.3.5-2	Pass (4.51)
(H) 3.833	810.64	172.54	5.7.3.5-2	Pass (4.70)
(SZB) 5.003	845.44	480.55	5.7.3.5-1	Pass (1.76)
(1.5H) 5.583	955.89	510.35	5.7.3.5-1	Pass (1.87)
(0.1L_s) 7.752	1128.02	628.87	5.7.3.5-1	Pass (1.79)
(SZB) 10.503	1337.79	771.60	5.7.3.5-1	Pass (1.73)
(0.2L_s) 15.505	1653.22	927.09	5.7.3.5-1	Pass (1.78)
(SZB) 18.753	1656.60	992.13	5.7.3.5-1	Pass (1.67)
(0.3L_s) 23.257	1660.57	1038.99	5.7.3.5-1	Pass (1.60)
(SZB) 29.753	1663.83	1040.54	5.7.3.5-1	Pass (1.60)
(HP) 30.569	1664.09	1038.40	5.7.3.5-1	Pass (1.60)
(0.4L_s) 31.009	1664.08	1087.74	5.7.3.5-1	Pass (1.53)
(0.5L_s) 38.762	1663.80	1094.34	5.7.3.5-1	Pass (1.52)
(HP) 46.062	1663.69	1012.97	5.7.3.5-1	Pass (1.64)
(0.6L_s) 46.514	1663.52	1013.08	5.7.3.5-1	Pass (1.64)
(SZB) 46.878	1663.38	1012.90	5.7.3.5-1	Pass (1.64)
(0.7L_s) 54.267	1658.03	904.76	5.7.3.5-1	Pass (1.83)
(Deck Bar Cutoff) 55.043	1657.31	892.05	5.7.3.5-1	Pass (1.86)
(SZB) 57.878	1654.72	836.60	5.7.3.5-1	Pass (1.98)
(0.8L_s) 62.019	1650.89	683.76	5.7.3.5-1	Pass

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
				(2.41)
(SZB) 66.128	1337.06	524.39	5.7.3.5-1	Pass (2.55)
(0.9L_s) 69.771	2020.80	500.59	5.7.3.5-1	Pass (4.04)
(1.5H) 71.048	2020.80	564.31	5.7.3.5-1	Pass (3.58)
(SZB) 71.628	2020.80	595.67	5.7.3.5-1	Pass (3.39)
(H) 72.798	2020.80	653.98	5.7.3.5-1	Pass (3.09)
(Bar Develop.) 73.866	2020.80	710.34	5.7.3.5-1	Pass (2.84)
(Bar Develop.) 74.926	2003.20	770.32	5.7.3.5-1	Pass (2.60)
(SZB) 75.294	1988.77	791.32	5.7.3.5-1	Pass (2.51)
(FoS) 76.298	1949.42	849.09	5.7.3.5-1	Pass (2.30)

Horizontal Interface Shears/Length for Strength I Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.000	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.629	Pass (2.33)
(0.0L_s) 0.000	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.629	Pass (2.33)
(FoS) 0.333	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.627	Pass (2.33)
(SZB) 1.337	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.622	Pass (2.33)
(Bar Develop.) 1.705	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.620	Pass (2.33)
(Bar Develop.) 2.765	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.615	Pass (2.33)
(H) 3.833	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.610	Pass (2.32)
(CS) 3.924	12.000	48.000	Pass	0.220	0.000	Pass	61.340	142.609	Pass (2.32)
(SZB) 5.003	12.000	48.000	Pass	0.220	0.000	Pass	59.553	142.604	Pass (2.39)
(1.5H) 5.583	12.000	48.000	Pass	0.220	0.000	Pass	58.596	142.602	Pass (2.43)
(0.1L_s) 7.752	12.000	48.000	Pass	0.220	0.000	Pass	55.045	142.592	Pass (2.59)
(SZB) 10.503	9.000	48.000	Pass	0.293	0.000	Pass	50.598	146.541	Pass (2.90)
(0.2L_s) 15.505	9.000	48.000	Pass	0.293	0.000	Pass	42.695	146.522	Pass (3.43)
(SZB) 18.753	12.000	48.000	Pass	0.220	0.000	Pass	37.687	142.552	Pass (3.78)
(0.3L_s) 23.257	12.000	48.000	Pass	0.220	0.000	Pass	30.833	142.539	Pass (4.62)
(SZB) 29.753	18.000	48.000	Pass	0.147	0.000	Pass	21.345	138.565	Pass (6.49)
(HP) 30.569	18.000	48.000	Pass	0.147	0.000	Pass	20.229	138.564	Pass (6.85)
(0.4L_s) 31.009	18.000	48.000	Pass	0.147	0.000	Pass	19.630	138.563	Pass (7.06)
(0.5L_s) 38.762	18.000	48.000	Pass	0.147	0.000	Pass	22.439	138.553	Pass (6.17)
(HP) 46.062	18.000	48.000	Pass	0.147	0.000	Pass	33.315	138.550	Pass (4.16)
(0.6L_s) 46.514	18.000	48.000	Pass	0.147	0.000	Pass	33.991	138.550	Pass (4.08)
(SZB) 46.878	18.000	48.000	Pass	0.147	0.000	Pass	34.537	138.550	Pass (4.01)
(0.7L_s) 54.267	12.000	48.000	Pass	0.220	0.000	Pass	45.717	142.514	Pass (3.12)
(Deck Bar Cutoff) 55.043	12.000	48.000	Pass	0.220	0.000	Pass	46.901	142.514	Pass (3.04)
(SZB) 57.878	12.000	48.000	Pass	0.220	0.000	Pass	51.252	142.518	Pass (2.78)
(0.8L_s) 62.019	9.000	48.000	Pass	0.293	0.000	Pass	57.651	146.484	Pass (2.54)
(SZB) 66.128	9.000	48.000	Pass	0.293	0.000	Pass	64.071	146.492	Pass (2.29)
(0.9L_s) 69.771	12.000	48.000	Pass	0.220	0.000	Pass	69.803	142.541	Pass (2.04)
(1.5H) 71.048	12.000	48.000	Pass	0.220	0.000	Pass	71.824	142.544	Pass (1.98)
(SZB) 71.628	12.000	48.000	Pass	0.220	0.000	Pass	72.747	142.546	Pass (1.96)
(CS) 72.510	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.549	Pass (1.92)
(H) 72.798	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.549	Pass (1.92)
(Bar Develop.) 73.866	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.553	Pass (1.92)
(Bar Develop.) 74.926	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.556	Pass (1.92)
(SZB) 75.294	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.557	Pass (1.92)
(FoS) 76.298	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.560	Pass

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
									(1.92)
76.631	12.000	48.000	Pass	0.220	0.000	Pass	74.106	142.562	Pass (1.92)

Horizontal Interface Shears/Length for Strength II Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.000	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.629	Pass (2.43)
(0.0L_s) 0.000	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.629	Pass (2.43)
(FoS) 0.333	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.627	Pass (2.43)
(SZB) 1.337	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.622	Pass (2.43)
(Bar Develop.) 1.705	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.620	Pass (2.43)
(Bar Develop.) 2.765	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.615	Pass (2.43)
(H) 3.833	12.000	48.000	Pass	0.220	0.000	Pass	58.615	142.610	Pass (2.43)
(SZB) 5.003	12.000	48.000	Pass	0.220	0.000	Pass	56.917	142.604	Pass (2.51)
(1.5H) 5.583	12.000	48.000	Pass	0.220	0.000	Pass	56.009	142.602	Pass (2.55)
(0.1L_s) 7.752	12.000	48.000	Pass	0.220	0.000	Pass	52.629	142.592	Pass (2.71)
(SZB) 10.503	9.000	48.000	Pass	0.293	0.000	Pass	48.374	146.541	Pass (3.03)
(0.2L_s) 15.505	9.000	48.000	Pass	0.293	0.000	Pass	40.774	146.522	Pass (3.59)
(SZB) 18.753	12.000	48.000	Pass	0.220	0.000	Pass	35.918	142.552	Pass (3.97)
(0.3L_s) 23.257	12.000	48.000	Pass	0.220	0.000	Pass	29.253	142.539	Pass (4.87)
(SZB) 29.753	18.000	48.000	Pass	0.147	0.000	Pass	19.961	138.565	Pass (6.94)
(HP) 30.569	18.000	48.000	Pass	0.147	0.000	Pass	18.867	138.564	Pass (7.34)
(0.4L_s) 31.009	18.000	48.000	Pass	0.147	0.000	Pass	18.278	138.563	Pass (7.58)
(0.5L_s) 38.762	18.000	48.000	Pass	0.147	0.000	Pass	19.414	138.553	Pass (7.14)
(HP) 46.062	18.000	48.000	Pass	0.147	0.000	Pass	31.338	138.550	Pass (4.42)
(0.6L_s) 46.514	18.000	48.000	Pass	0.147	0.000	Pass	32.065	138.550	Pass (4.32)
(SZB) 46.878	18.000	48.000	Pass	0.147	0.000	Pass	32.650	138.550	Pass (4.24)
(0.7L_s) 54.267	12.000	48.000	Pass	0.220	0.000	Pass	44.352	142.514	Pass (3.21)
(Deck Bar Cutoff) 55.043	12.000	48.000	Pass	0.220	0.000	Pass	45.565	142.514	Pass (3.13)
(SZB) 57.878	12.000	48.000	Pass	0.220	0.000	Pass	49.971	142.518	Pass (2.85)
(0.8L_s) 62.019	9.000	48.000	Pass	0.293	0.000	Pass	56.326	146.484	Pass (2.60)
(SZB) 66.128	9.000	48.000	Pass	0.293	0.000	Pass	62.561	146.492	Pass (2.34)
(0.9L_s) 69.771	12.000	48.000	Pass	0.220	0.000	Pass	68.013	142.541	Pass (2.10)
(1.5H) 71.048	12.000	48.000	Pass	0.220	0.000	Pass	69.915	142.544	Pass (2.04)
(SZB) 71.628	12.000	48.000	Pass	0.220	0.000	Pass	70.780	142.546	Pass (2.01)
(H) 72.798	12.000	48.000	Pass	0.220	0.000	Pass	72.046	142.549	Pass (1.98)
(Bar Develop.) 73.866	12.000	48.000	Pass	0.220	0.000	Pass	72.046	142.553	Pass (1.98)
(Bar Develop.) 74.926	12.000	48.000	Pass	0.220	0.000	Pass	72.046	142.556	Pass (1.98)
(SZB) 75.294	12.000	48.000	Pass	0.220	0.000	Pass	72.046	142.557	Pass (1.98)
(FoS) 76.298	12.000	48.000	Pass	0.220	0.000	Pass	72.046	142.560	Pass (1.98)
76.631	12.000	48.000	Pass	0.220	0.000	Pass	72.046	142.562	Pass (1.98)

Live Load Deflection Check [2.5.2.6.2]
Allowable deflection span ratio = L/800
Allowable maximum deflection = ± 1.163 in
Minimum live load deflection along girder = -0.227 in
Maximum live load deflection along girder = 0.095 in
Status = Pass

Constructability Checks

Girder Dimensions Detailing Check [5.12.3.2.2]

Dimension	Minimum (in)	Actual (in)	Status
Top Flange Thickness	2.000	3.500	Pass
Web Thickness	5.000	7.000	Pass
Bottom Flange Thickness	5.000	6.500	Pass

Stirrup Detailing Check: Strength I [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.000	#4	3.000	18.000	1.500	1.600	0.000	Pass
($0.0L_s$) 0.000	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 0.333	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 1.337	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 1.705	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.765	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 3.833	#4	4.000	18.000	1.500	1.200	0.125	Pass
(CS) 3.924	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.003	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 5.583	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.752	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 10.503	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.505	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 18.753	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.257	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 29.753	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 30.569	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 31.009	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.762	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.062	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.514	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 46.878	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 54.267	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 55.043	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 57.878	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 62.019	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.128	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.771	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.048	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 71.628	#4	6.000	18.000	1.500	0.800	0.125	Pass
(CS) 72.510	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 72.798	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 73.866	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.926	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 75.294	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 76.298	#4	3.000	18.000	1.500	1.600	0.125	Pass
76.631	#4	3.000	18.000	1.500	1.600	0.125	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Stirrup Detailing Check: Strength II [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.000	#4	3.000	18.000	1.500	1.600	0.000	Pass
($0.0L_s$) 0.000	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 0.333	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 1.337	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 1.705	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.765	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 3.833	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.003	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 5.583	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.752	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 10.503	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.505	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 18.753	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.257	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 29.753	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 30.569	#4	18.000	18.000	1.500	0.267	0.000	Pass
($0.4L_s$) 31.009	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.762	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.062	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.514	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 46.878	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 54.267	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 55.043	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 57.878	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 62.019	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.128	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.771	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.048	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 71.628	#4	6.000	18.000	1.500	0.800	0.125	Pass
(H) 72.798	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 73.866	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.926	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 75.294	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 76.298	#4	3.000	18.000	1.500	1.600	0.125	Pass
76.631	#4	3.000	18.000	1.500	1.600	0.125	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Hold Down Force

Hold Down Force (kip/strand)	Hold Down Force Limit (kip/strand)	Status
3.30	4.00	Pass

Haunch Geometry Checks

Note: Specification Checks for Haunch Geometry are Disabled in the Project Criteria. All Status values will be reported as N/A.

Slab Offset ("A" Dimension)

This table compares the input slab offset to the rounded computed slab offset required to have the least haunch depth be equal to the Fillet dimension. A failed status indicates that the top of the girder will encroach into the deck slab and the Slab Offset dimension should be refined.

Span	Girder	Provided (in)	Required (in)	Status	Notes
1	L	11.000	12.000	N/A	

Minimum Fillet Depth

This table compares the provided Fillet dimension to the minimum Fillet dimension specified in the girder library. A failed status indicates that the Fillet dimension is too small.

Span	Girder	Provided (in)	Required (in)	Status
1	L	1.000	1.000	N/A

Camber

	Camber (in)
Screed Camber, C at mid-span	1.114
Lower Bound Camber at 60 days, 50% of D_{60}	1.668
Average Camber at 60 days, 75% of D_{60}	2.502
Upper Bound Camber at 60 days, D_{60}	3.336

Bridge Description Details

Span 1 Girder L

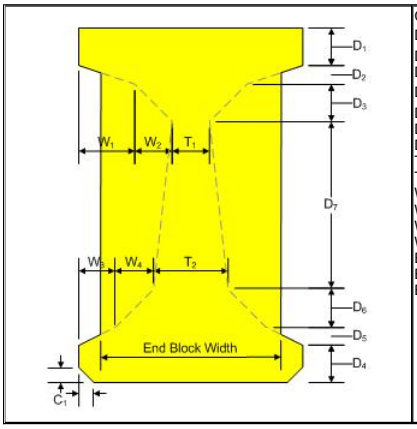
Deck and Roadway Widths

Location from Left Support (ft)	Station	Deck Width (ft)	Exterior Curb-Curb Width (ft)	Interior Curb-Curb Width (ft)	Overlay Toe-Toe Width (ft)
0.000	93+67.60	94.000	91.000	74.000	74.000
(0.0L_s) 0.000	93+67.60	94.000	91.000	74.000	74.000
(0.1L_s) 7.752	93+75.79	94.000	91.000	74.000	74.000
(0.2L_s) 15.505	93+83.99	94.000	91.000	74.000	74.000
(0.3L_s) 23.257	93+92.20	94.000	91.000	74.000	74.000
(0.4L_s) 31.009	94+00.41	94.000	91.000	74.000	74.000
(0.5L_s) 38.762	94+08.62	94.000	91.000	74.000	74.000
(0.6L_s) 46.514	94+16.84	94.000	91.000	74.000	74.000
(0.7L_s) 54.267	94+25.06	94.000	91.000	74.000	74.000
(0.8L_s) 62.019	94+33.27	94.000	91.000	74.000	74.000
(0.9L_s) 69.771	94+41.48	94.000	91.000	74.000	74.000
76.631	94+48.74	94.000	91.000	74.000	74.000
(1.0L_s) 77.524	94+49.69	94.000	91.000	74.000	74.000

Intermediate Diaphragms

No intermediate diaphragms defined

BT-42 CDOT Dimensions



C1 = 0.000 in (0")
D1 = 3.500 in (3 1/2")
D2 = 2.000 in (2")
D3 = 2.000 in (2")
D4 = 6.500 in (6 1/2")
D5 = 6.000 in (6")
D6 = 0.000 in (0")
D7 = 22.000 in (1'-10")
T1 = 7.000 in (7")
T2 = 7.000 in (7")
W1 = 16.000 in (1'-4")
W2 = 2.000 in (2")
W3 = 10.000 in (10")
W4 = 0.000 in (0")
EndBlockWidth = 0.000 in (0")
EndBlockLength = 0.000 ft (0")
EndBlockTransition = 0.000 ft (0")

Strand Locations

X = 0 is at CL Girder, Y = 0 is at Top of Girder

Straight Strands

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
1	-3.000	-40.000	-3.000	-40.000	•	•
2	3.000	-40.000	3.000	-40.000	•	•
3	-5.000	-40.000	-5.000	-40.000	•	•
4	5.000	-40.000	5.000	-40.000	•	•
5	-7.000	-40.000	-7.000	-40.000	•	•
6	7.000	-40.000	7.000	-40.000	•	•
7	-9.000	-40.000	-9.000	-40.000	•	•

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
8	9.000	-40.000	9.000	-40.000	•	•
9	-3.000	-38.000	-3.000	-38.000		
10	3.000	-38.000	3.000	-38.000		
11	-5.000	-38.000	-5.000	-38.000		
12	5.000	-38.000	5.000	-38.000		
13	-7.000	-38.000	-7.000	-38.000		
14	7.000	-38.000	7.000	-38.000		
15	-9.000	-38.000	-9.000	-38.000		
16	9.000	-38.000	9.000	-38.000		
17	-11.000	-38.000	-11.000	-38.000		
18	11.000	-38.000	11.000	-38.000		

No Temporary Strands in Girder

Harped Strand Locations at Ends of Girder

Strand	X (in)	Y (in)
1	-1.000	-12.000
2	1.000	-12.000
3	-1.000	-10.000
4	1.000	-10.000
5	-1.000	-8.000
6	1.000	-8.000
7	-1.000	-6.000
8	1.000	-6.000
9	-1.000	-4.000
10	1.000	-4.000

Harped Strand Locations at Harping Points

Strand	X (in)	Y (in)
1	-1.000	-40.000
2	1.000	-40.000
3	-1.000	-38.000
4	1.000	-38.000
5	-1.000	-36.000
6	1.000	-36.000
7	-1.000	-34.000
8	1.000	-34.000
9	-1.000	-32.000
10	1.000	-32.000

Strand Eccentricity

Strand Eccentricity: Interval 2 Prestress Release

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	18.069	-12.820	7.037	13.2796	13.2796
0.417	0.000	18.070	-12.442	7.173	13.2796	13.2796
0.417	(0.0L_e) 0.000	18.070	-12.442	7.173	13.2796	13.2796
(FoS) 0.750	(FoS) 0.333	18.071	-12.140	7.281	13.2796	13.2796
(SZB) 1.753	(SZB) 1.337	18.074	-11.230	7.608	13.2796	13.2796
(Bar Develop.) 2.121	(Bar Develop.) 1.705	18.075	-10.897	7.728	13.2796	13.2796
(PSXFR) 3.000	(PSXFR) 2.583	18.078	-10.100	8.014	13.2796	13.2796
(Bar Develop.) 3.182	(Bar Develop.) 2.765	18.078	-9.935	8.074	13.2796	13.2796
(H) 4.250	(H) 3.833	18.082	-8.967	8.422	13.2796	13.2796
(CS) 4.340	(CS) 3.924	18.082	-8.885	8.451	13.2796	13.2796
(SZB) 5.419	(SZB) 5.003	18.085	-7.907	8.802	13.2796	13.2796
(1.5H) 6.000	(1.5H) 5.583	18.087	-7.380	8.992	13.2796	13.2796
(0.1L_t) 7.746	7.330	18.092	-5.797	9.561	13.2796	13.2796
8.080	(0.1L_e) 7.663	18.093	-5.494	9.669	13.2796	13.2796
(SZB) 10.919	(SZB) 10.503	18.102	-2.920	10.594	13.2796	13.2796
(0.2L_t) 15.493	15.076	18.116	1.227	12.084	13.2796	13.2796
15.743	(0.2L_e) 15.326	18.117	1.454	12.166	13.2796	13.2796
(SZB) 19.169	(SZB) 18.753	18.127	4.560	13.282	13.2796	13.2796
(0.3L_t) 23.239	22.823	18.139	8.250	14.608	13.2796	13.2796
23.406	(0.3L_e) 22.989	18.140	8.402	14.662	13.2796	13.2796
(SZB) 30.169	(SZB) 29.753	18.160	14.534	16.865	13.2796	13.2796
(HP, 0.4L_t) 30.986	(HP) 30.569	18.163	15.274	17.131	13.2796	13.2796
31.069	(0.4L_e) 30.652	18.163	15.274	17.131	∞	∞
(0.5L_t) 38.732	(0.5L_e) 38.315	18.163	15.274	17.131	∞	∞
46.395	(0.6L_e) 45.979	18.163	15.274	17.131	∞	∞
(HP, 0.6L_t) 46.479	(HP) 46.062	18.163	15.274	17.131	13.2796	13.2796
(SZB) 47.295	(SZB) 46.878	18.160	14.534	16.865	13.2796	13.2796
54.058	(0.7L_e) 53.642	18.140	8.402	14.662	13.2796	13.2796
(0.7L_t) 54.225	53.808	18.139	8.250	14.608	13.2796	13.2796
(Deck Bar Cutoff) 55.460	(Deck Bar Cutoff) 55.043	18.136	7.131	14.205	13.2796	13.2796
(SZB) 58.295	(SZB) 57.878	18.127	4.560	13.282	13.2796	13.2796
61.721	(0.8L_e) 61.305	18.117	1.454	12.166	13.2796	13.2796
(0.8L_t) 61.971	61.555	18.116	1.227	12.084	13.2796	13.2796
(SZB) 66.545	(SZB) 66.128	18.102	-2.920	10.594	13.2796	13.2796
69.384	(0.9L_e) 68.968	18.093	-5.494	9.669	13.2796	13.2796
(0.9L_t) 69.718	69.301	18.092	-5.797	9.561	13.2796	13.2796
(1.5H) 71.464	(1.5H) 71.048	18.087	-7.380	8.992	13.2796	13.2796
(SZB) 72.045	(SZB) 71.628	18.085	-7.907	8.802	13.2796	13.2796
(CS) 72.927	(CS) 72.510	18.083	-8.706	8.515	13.2796	13.2796
(H) 73.214	(H) 72.798	18.082	-8.967	8.422	13.2796	13.2796
(Bar Develop.) 74.282	(Bar Develop.) 73.866	18.078	-9.935	8.074	13.2796	13.2796
(PSXFR) 74.464	(PSXFR) 74.048	18.078	-10.100	8.014	13.2796	13.2796
(Bar Develop.) 75.343	(Bar Develop.) 74.926	18.075	-10.897	7.728	13.2796	13.2796
(SZB) 75.711	(SZB) 75.294	18.074	-11.230	7.608	13.2796	13.2796
(FoS) 76.714	(FoS) 76.298	18.071	-12.140	7.281	13.2796	13.2796

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
77.048	($1.0L_e$) 76.631	18.070	-12.442	7.173	13.2796	13.2796
77.048	76.631	18.070	-12.442	7.173	13.2796	13.2796
(STLF, $1.0L_t$) 77.464	(STLF) 77.048	18.069	-12.820	7.037	13.2796	13.2796

Eccentricities are based on the gross non-composite girder section
Eccentricities measured from neutral axis of non-composite section based on material properties at time of prestress release
Positive e_y values indicate strands are below the centroid

Debonding Criteria
Maximum number of debonded strands = 25% of total number of strands
Maximum number of debonded strands per row = 40% of strands in any row
Maximum number of debonded strands per section. The greater of 4 strands or 40% of strands debonded at any section
Maximum distance between debond sections = 3.000 ft

Deflection Multipliers
The factors below are multiplied by the specified load case's deflections when computing deflections and excess camber

Load Cases	Factor
Erection (Girder, Prestress)	1.000
Creep	1.000
Diaphragm, Construction, Shear key	1.000
Deck Panels	1.000
Slab, User Defined Loads at Cast Deck, Apply User Defined Loads	1.000
Haunch	1.000
Railing System (Traffic Barrier, Sidewalks), Overlay, User Defined Loads at Apply User Defined Loads, Install Railing System and Overlay	1.000

Transverse Reinforcement Stirrup Zones

Primary Bars

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Vertical Legs	# Legs Extended into Deck*	Confinement Bar Size
1	0.000	1.750	#4	3.000	2	0	(None)
2	1.750	5.416	#4	4.000	2	0	(None)
3	5.416	10.916	#4	6.000	2	0	(None)
4	10.916	19.166	#4	9.000	2	0	(None)
5	19.166	30.166	#4	12.000	2	0	(None)
6	30.166	47.298	#4	18.000	2	0	(None)
7	47.298	58.298	#4	12.000	2	0	(None)
8	58.298	66.548	#4	9.000	2	0	(None)
9	66.548	72.048	#4	6.000	2	0	(None)
10	72.048	75.714	#4	4.000	2	0	(None)
11	75.714	77.464	#4	3.000	2	0	(None)

* Bars add to horizontal interface shear capacity

Additional Bars for Horizontal Interface Shear Capacity

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Legs
1	0.000	10.917	#3	12.000	2
2	10.917	19.167	#3	9.000	2
3	19.167	30.167	#3	12.000	2
4	30.167	47.297	#3	18.000	2
5	47.297	58.297	#3	12.000	2
6	58.297	66.547	#3	9.000	2
7	66.547	77.464	#3	12.000	2

Additional Splitting Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)	# of Legs
0.500	#6	4.000	2

Additional Bottom Flange Confinement Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)
6.500	#3	4.000

Longitudinal Rebar Locations
Bar start and end locations measured from left end of girder

Row	Bar Start (ft)	Bar End (ft)	Girder Face	Cover (in)	Bar Size	# of Bars	Spacing (in)
1	0.000	77.464	Top	2.375	#4	4	6.000
2	0.000	77.464	Bottom	2.500	#4	2	24.000
3	0.000	77.464	Top	2.375	#6	2	36.000

Materials

Permanent Strands

Name	Grade 270 Low Relaxation 0.6"
Type	Low Relaxation
f_{pu}	270.000 KSI
f_{py}	243.000 KSI
E_{ps}	28500.000 KSI
A_{ps}	0.217 in^2

Deck Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Transverse Reinforcing Material (Stirrups, Confinement, and Horizontal Interface Shear Bars)

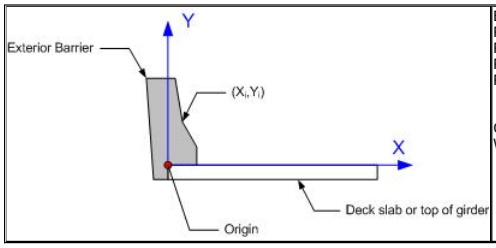
Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Longitudinal Girder Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

f_u	90.000 KSI	f_u	90.000 KSI	f_u	90.000 KSI

Parker Rail Dimensions



Barrier Points
Point 1= (0.000 in, 0.000 in)
Point 2= (0.000 in, 30.000 in)
Point 3= (18.000 in, 30.000 in)
Point 4= (18.000 in, 0.000 in)

Curb Offset = 0.000 in
Weight = 0.700 kip/ft/barrier

Project Criteria

Name: CDOT
Description: AASHTO LRFD Bridge Design Spec, 8th Ed. 2017, US Units, CDOT stress requirements
Based on: AASHTO LRFD Bridge Design Specification, Eighth Edition 2017 - US Units
Section Properties: Gross
Effective Flange Width computed in accordance with LRFD 4.6.2.6

Load Modifiers		Environmental		Structural Analysis
Ductility - η_D	1	Exposure Condition	Normal	Simple Spans Made Continuous
Importance - η_I	1	Relative Humidity	55%	
Redundancy - η_R	1			

Casting Yard Criteria

Max. Strand slope is not checked
Permissible hold down force per strand = 4.00 kip
The hold down force includes 0.00 % friction
Max. girder weight in casting yard is not checked
Girder was cured using Normal method
1 day of steam or radiant heat curing is equal to 7 days of normal curing

Concrete Stress Limits - Service I (5.9.2.3.1)
- Compressive Stress = -3.900 KSI
- Tensile Stress (w/o mild rebar) = 0.200 KSI
- Tensile Stress (w/ mild rebar) = 0.588 KSI
Splitting checks (5.9.4.4.1) are disabled.
Confinement checks (5.9.4.4.2) are disabled.

Temporary Strand Removal Criteria

Compression Stress Limits
- Service I = -5.200 KSI
Tension Stress Limits
- Service I (w/o mild rebar) = 0.537 KSI
- Service I (w/ mild rebar) = 0.679 KSI

Deck and Diaphragm Placement Stage Criteria

Compression Stress Limits
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.537 KSI

Final without Live Load Criteria

Railing system weight is distributed to 6 nearest girders
Compression Stress Limits (5.9.2.3.2a)
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.000 KSI

Effective Flange Width computed in accordance with LRFD 4.6.2.6

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1

Final with Live Load Stage Criteria

Compression Stress Limits (5.9.2.3.2a)
- Service I (permanent + live load) = -4.800 KSI
Tension Stress Limits (5.9.2.3.2b)
- Service III = 0.000 KSI
Allowable Compressive Concrete Stresses (5.5.3.1)
- Fatigue I = -3.200 KSI
LL Distribution factors are calculated in accordance with LRFD 4.6.2.2
Haunch Geometry check is disabled.

Moment Capacity Criteria

Modulus of rupture = 0.679 KSI

Shear Capacity Criteria

Shear capacity computed in accordance with LRFD 5.7.3.4.2 (General method)
Modulus of rupture = 0.566 KSI
Maximum Spacing of Transverse Reinforcement (LRFD 5.7.2.6)
Eqn 5.7.2.6-1: If $v_u < 0.125f'_c$ then $S_{max} = 0.8d_v \leq 18.000$ in
Eqn 5.7.2.6-2: If $v_u \geq 0.125f'_c$ then $S_{max} = 0.4d_v \leq 12.000$ in
Longitudinal reinforcement requirements computed in accordance with LRFD 5.7.3.5
Shear stress at girder/deck interface computed using the classical shear flow formula: $V_{ui} = (V_u Q)/(Ib)$
Maximum spacing of interface shear connectors (LRFD 5.7.4.5): 48.000 in, or the depth of the member.
Interface shear compressive force normal to shear plane, Pc, for use in LRFD Eq 5.7.4.3-3 is computed from the deck weight.

Haunch And Assumed Excess Camber Criteria

Haunch dead load is computed assuming that the top of the girder is flat (Zero assumed excess camber)
Composite section properties and capacities are computed assuming a Constant Haunch Depth equal to the Fillet value

Creep Criteria

Creep is calculated in accordance with LRFD (5.4.2.3.2)
# of hours from stressing to prestress transfer : 24
# of days from prestress transfer until removal of temporary strands / diaphram casting : 1 Min, 1 Max
# of days from prestress transfer until slab-girder continuity is achieved : 60 Min, 60 Max

Variability between upper and lower bound camber : 50

Losses Criteria

Losses calculated per Approximate Lump Sum Method in accordance with AASHTO LRFD 5.9.3.3
Assumed time at shipping = 10 day
Contribution to Elastic Gains
Slab = 100%

Haunch = 100%
Diaphragms = 100%
User DC (Before Deck Placement) = 100%
User DW (Before Deck Placement) = 100%
Railing System = 100%
Overlay = 100%
User DC (After Deck Placement) = 100%
User DW (After Deck Placement) = 100%

Stress Limits for Prestressing Tendons

Stress Limit at Jacking
- Stress Relieved Strand = $0.7f_{pu}$
- Low Relaxation Strand = $0.75f_{pu}$

Stress Limit at service limit state after all losses
- Stress Relieved Strand = $0.8f_{py}$
- Low Relaxation Strand = $0.8f_{py}$

Deflection Criteria
Live Load Deflection Limit: $L_{span}/800$

Loading Details

Uniform Loads Applied Along the Entire Girder

Load Type	w (kip/ft)
Girder	0.740
Sidewalk	0.279
Traffic Barrier	0.117
Pedestrian Live Load	0.106

Slab Load Applied Along Girder
Tributary width used to compute slab load is measured from top CL girder
Slab load is approximated with linear load segments applied along the length of the girder. Segments located outside of bearings are applied as point loads/moments at bearings.
Unit weight of Slab material is 0.150 kip/ft^3
Haunch weight includes effects of roadway geometry, and is measured along the centerline of the girder, but does not include a reduction for camber.

Location From Left Bearing (ft)	Casting Region	Main Slab Weight (kip/ft)	Assumed Haunch Depth (in)	Haunch Weight (kip/ft)	Total Slab Weight (kip/ft)
-0.417	1	1.016	3.005	0.135	1.151
0.000	1	1.013	3.000	0.134	1.147
7.663	1	0.948	2.913	0.130	1.079
15.326	1	0.896	2.845	0.127	1.024
22.989	1	0.856	2.797	0.125	0.981
30.652	1	0.827	2.767	0.124	0.951
38.315	1	0.810	2.758	0.124	0.933
45.979	1	0.804	2.767	0.124	0.928
53.642	1	0.809	2.796	0.125	0.935
61.305	1	0.827	2.845	0.127	0.954
68.968	1	0.855	2.913	0.130	0.986
76.631	1	0.896	3.000	0.134	1.030
76.631	1	0.896	3.000	0.134	1.030
77.048	1	0.898	3.005	0.135	1.033

Slab Cantilever Loads

Location	Main Slab		Haunch	
	Point Load (kip)	Point Moment (kip-ft)	Point Load (kip)	Point Moment (kip-ft)
Back Bearing	0.42	0.00	0.06	0.00
Ahead Bearing	0.37	0.00	0.06	0.00

Slab Haunch Load Details

Location From Left Bearing (ft)	Station	Offset (ft)	Casting Region	Top Slab Elevation (ft)	Girder Chord Elevation (ft)	Top Girder Elevation (ft)	Slab Thickness (in)	Assumed Haunch Depth (in)	Haunch Load (kip/ft)
-0.417	93+67.16	42.041 R	1	-0.841	-1.758	-1.758	8.000	3.005	0.135
0.000	93+67.60	42.068 R	1	-0.841	-1.758	-1.758	8.000	3.000	0.134
7.663	93+75.70	42.514 R	1	-0.850	-1.760	-1.760	8.000	2.913	0.130
15.326	93+83.80	42.879 R	1	-0.858	-1.761	-1.761	8.000	2.845	0.127
22.989	93+91.91	43.164 R	1	-0.863	-1.763	-1.763	8.000	2.797	0.125
30.652	94+00.03	43.368 R	1	-0.867	-1.765	-1.765	8.000	2.767	0.124
38.315	94+08.15	43.492 R	1	-0.870	-1.766	-1.766	8.000	2.758	0.124
45.979	94+16.27	43.534 R	1	-0.871	-1.768	-1.768	8.000	2.767	0.124
53.642	94+24.39	43.496 R	1	-0.870	-1.770	-1.770	8.000	2.796	0.125
61.305	94+32.51	43.377 R	1	-0.868	-1.771	-1.771	8.000	2.845	0.127
68.968	94+40.63	43.177 R	1	-0.864	-1.773	-1.773	8.000	2.913	0.130
76.631	94+48.74	42.897 R	1	-0.858	-1.775	-1.775	8.000	3.000	0.134
76.631	94+48.74	42.897 R	1	-0.858	-1.775	-1.775	8.000	3.000	0.134
77.048	94+49.18	42.879 R	1	-0.858	-1.775	-1.775	8.000	3.005	0.135

Overlay
Overlay load is uniform along entire girder length.

Load Type	W_{cc} (ft)	w (kip/ft)
Overlay Weight	74.000	0.227

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1
W_{cc} is the curb to curb width

Distribution of Uniform Barrier, Sidewalk, and Pedestrian Loads to Girder

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Left Ext. Barrier	0.700	0.000	0.000
Left Sidewalk	1.672	0.000	0.000
Left Pedestrian Live	0.637	0.000	0.000
Right Sidewalk	1.672	0.167	0.279
Right Ext. Barrier	0.700	0.167	0.117

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Right Pedestrian Live	0.637	0.167	0.106

Span 1

Pier Diaphragm Loads

Pier	Location	P (kip)	Moment Arm (ft)	M (kip-ft)
1	Ahead Bearing	3.48	0.000	0.00
2	Back Bearing	2.50	0.000	0.00
	Ahead Bearing	2.45	0.000	0.00

User Defined Loads

Point loads were not defined for this girder

Distributed Loads

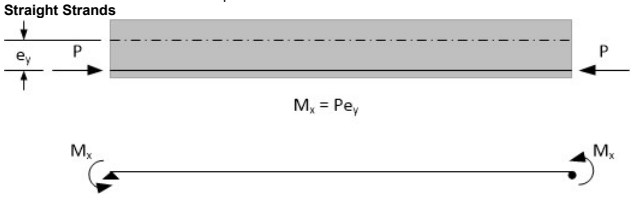
Interval	Load Case	Start Location (ft)	End Location (ft)	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Interval 11: Cast Deck, Apply User Defined Loads	DC	0.000	77.524	0.022	0.022	SIP Forms
Interval 15: Apply User Defined Loads, Install Railing System and Overlay	DW	0.000	77.524	0.040	0.040	Utility Load

Moment loads were not defined for this girder

Equivalent Pretension Loading

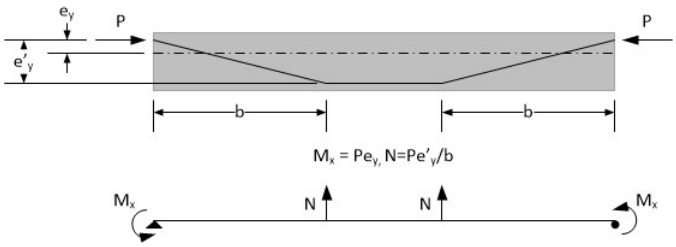
These loads are used to determine girder deflections due to pretension forces
Loads and eccentricities shown in positive directions

Straight Strands



M_x = (716.04 kip)(18.039 in) = 1076.37 kip-ft at 0.000 ft
M_x = (-716.04 kip)(18.039 in) = -1076.37 kip-ft at 77.464 ft

Harped Strands



M_x = (397.80 kip)(-12.850 in) = -425.98 kip-ft at 0.000 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.80 kip)(28.000 in)/(30.986 ft) = 29.96 kip at 30.986 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.80 kip)(28.000 in)/(30.986 ft) = 29.96 kip at 46.479 ft
M_x = (-397.80 kip)(-12.850 in) = 425.98 kip-ft at 77.464 ft

Live Loads

The following live loads were applied to the design (Service and Strength I) limit states:
HL-93

The following live loads were applied to the fatigue (Fatigue I) limit states:
Fatigue

The following live loads were applied to the permit (Strength II) limit states:
CDOT Permit

Limit State Load Factors

Limit State	γ_{DC}	γ_{DW}	γ_{LL}
Service I	1.00	1.00	1.00
Service III	1.00	1.00	0.80
Fatigue I	0.50	0.50	1.50
Strength I	1.25/ 0.90	1.50/ 0.65	1.75
Strength II	1.25/ 0.90	1.50/ 0.65	1.35

Live Load Details

Live Loads used for Design

The following live loads were applied to the design (Service and Strength I) limit states:
AASHTO LRFD 3.6.1.2: HL-93 Design Vehicular Live Load
Pedestrian live load was applied concurrently with vehicular live loads.

Live Loads Used for Fatigue Limit States

The following live loads were applied to the Fatigue I limit state:
AASHTO LRFD 3.6.1.4: Fatigue Vehicular Live Load
Pedestrian live load was not applied.

Live Loads Used for Design Permit Limit State

The following live loads were applied to the design permit (Strength II) limit state:
User-defined vehicular live load: CDOT Permit
Configuration: Truck applied only (no lane)
Usage: Use for all actions at all locations

Axle	Weight (kip)	Spacing (ft)
1	27.00	
2	25.00	14.000
3	25.00	4.000
4	25.00	12.000

Axle	Weight (kip)	Spacing (ft)
5	25.00	4.000
6	21.70	35.000
7	21.70	4.000
8	21.70	4.000

Pedestrian live load was not applied.

Transfer and Development Length Details

Transfer Length [5.9.4.3.1]

$l_t = 60d_b$
$d_b = 0.600$ in
$l_t = 36.000$ in

Development Length [5.9.4.3.2]

$$l_d \geq \kappa\left(f_{ps} - \frac{2}{3}f_{pe}\right)d_b$$

$$\frac{f_{px}}{f_{ps}} = \begin{cases} \dfrac{f_{pe}l_{px}}{f_{ps}l_t} \; for \; l_{px} < l_t \\ \dfrac{f_{pe} + \dfrac{(l_{px} - l_t)}{(l_d - l_t)}(f_{ps} - f_{pe})}{f_{ps}} \; for \; l_t < l_{px} \leq l_d \\ 1.0 \; for \; l_d < l_{px} \end{cases}$$

f_{px}/f_{ps} = Development Length Reduction Factor (See LRFD Eqn. 5.9.4.3.2-2 and -3)

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
0.000	93.259	22.423	0.600	75.178	5.000	0.033	93.259	22.423	0.600	93.973	5.000	0.033
($0.0L_e$) 0.000	93.259	22.423	0.600	75.178	5.000	0.033	93.259	22.423	0.600	93.973	5.000	0.033
(FoS) 0.333	106.131	40.369	0.600	76.049	9.000	0.095	106.131	40.369	0.600	95.062	9.000	0.095
(SZB) 1.337	144.683	94.424	0.600	78.464	21.039	0.381	144.683	94.424	0.600	98.080	21.039	0.381
(Bar Develop.) 1.705	158.774	114.270	0.600	79.291	25.456	0.509	158.774	114.270	0.600	99.113	25.456	0.509
(PSXFR) 2.583	191.887	161.686	0.600	80.732	36.000	0.843	191.887	161.686	0.600	100.915	36.000	0.843
(Bar Develop.) 2.765	193.269	161.704	0.600	82.048	38.184	0.844	193.269	161.704	0.600	102.560	38.184	0.842
(H) 3.833	201.393	161.809	0.600	89.780	51.000	0.858	201.393	161.809	0.600	112.224	51.000	0.842
(CS) 3.924	202.082	161.818	0.600	90.435	52.085	0.860	202.082	161.818	0.600	113.044	52.085	0.842
(SZB) 5.003	210.302	161.925	0.600	98.258	65.031	0.877	210.302	161.925	0.600	122.822	65.031	0.847
(1.5H) 5.583	214.722	161.983	0.600	102.464	72.000	0.887	214.722	161.983	0.600	128.080	72.000	0.850
($0.1L_e$) 7.663	230.575	162.189	0.600	117.551	96.957	0.925	230.575	162.189	0.600	146.939	96.957	0.866
(SZB) 10.503	252.263	162.452	0.600	138.203	131.031	0.975	252.263	162.452	0.600	172.754	131.031	0.891
($0.2L_e$) 15.326	268.109	162.808	0.600	153.188	188.914	1.000	268.109	162.808	0.600	191.485	188.914	0.994
(SZB) 18.753	268.697	162.947	0.600	153.663	230.031	1.000	268.697	162.947	0.600	192.079	230.031	1.000
($0.3L_e$) 22.989	269.320	162.937	0.600	154.267	280.871	1.000	269.320	162.937	0.600	192.834	280.871	1.000
(SZB) 29.753	269.887	162.369	0.600	155.176	362.031	1.000	269.887	162.369	0.600	193.970	362.031	1.000
(HP) 30.569	269.930	162.245	0.600	155.296	371.828	1.000	269.930	162.245	0.600	194.120	371.828	1.000
($0.4L_e$) 30.652	269.930	162.253	0.600	155.290	372.828	1.000	269.930	162.253	0.600	194.113	372.828	1.000
($0.5L_e$) 38.315	269.884	162.458	0.600	155.116	464.785	1.000	269.884	162.458	0.600	193.895	464.785	1.000
($0.6L_e$) 45.979	269.864	161.700	0.600	155.581	372.828	1.000	269.864	161.700	0.600	194.477	372.828	1.000
(HP) 46.062	269.864	161.686	0.600	155.590	371.828	1.000	269.864	161.686	0.600	194.487	371.828	1.000
(SZB) 46.878	269.812	161.757	0.600	155.495	362.031	1.000	269.812	161.757	0.600	194.368	362.031	1.000
($0.7L_e$) 53.642	269.026	161.935	0.600	154.626	280.871	1.000	269.026	161.935	0.600	193.283	280.871	1.000
(Deck Bar Cutoff) 55.043	268.814	161.893	0.600	154.450	264.048	1.000	268.814	161.893	0.600	193.062	264.048	1.000
(SZB) 57.878	268.387	161.743	0.600	154.136	230.031	1.000	268.387	161.743	0.600	192.670	230.031	1.000
($0.8L_e$) 61.305	267.867	161.465	0.600	153.815	188.914	1.000	267.867	161.465	0.600	192.268	188.914	0.991
(SZB) 66.128	252.124	160.951	0.600	139.030	131.031	0.972	252.124	160.951	0.600	173.788	131.031	0.888
($0.9L_e$) 68.968	230.497	160.612	0.600	118.485	96.957	0.921	230.497	160.612	0.600	148.106	96.957	0.862
(1.5H) 71.048	214.691	160.360	0.600	103.473	72.000	0.882	214.691	160.360	0.600	129.341	72.000	0.845
(SZB) 71.628	210.285	160.291	0.600	99.288	65.031	0.871	210.285	160.291	0.600	124.110	65.031	0.841
(CS) 72.510	203.569	160.186	0.600	92.907	54.448	0.856	203.569	160.186	0.600	116.134	54.448	0.836
(H) 72.798	201.381	160.152	0.600	90.828	51.000	0.851	201.381	160.152	0.600	113.535	51.000	0.835
(Bar Develop.) 73.866	193.258	160.029	0.600	83.109	38.184	0.836	193.258	160.029	0.600	103.886	38.184	0.834
(PSXFR) 74.048	191.875	160.009	0.600	81.795	36.000	0.834	191.875	160.009	0.600	102.244	36.000	0.834
(Bar Develop.) 74.926	158.770	113.074	0.600	80.052	25.456	0.504	158.770	113.074	0.600	100.065	25.456	0.504
(SZB) 75.294	144.681	93.433	0.600	79.097	21.039	0.377	144.681	93.433	0.600	98.871	21.039	0.377
(FoS) 76.298	106.131	39.941	0.600	76.323	9.000	0.094	106.131	39.941	0.600	95.404	9.000	0.094
($1.0L_e$) 76.631	93.259	22.185	0.600	75.330	5.000	0.033	93.259	22.185	0.600	94.163	5.000	0.033
76.631	93.259	22.185	0.600	75.330	5.000	0.033	93.259	22.185	0.600	94.163	5.000	0.033

Development Length of Longitudinal Rebar [5.10.8.2.1]

$$\ell_d = \ell_{db}\left(\frac{\lambda_{rl} \times \lambda_{cf} \times \lambda_{rc} \times \lambda_{er}}{\lambda}\right)$$

$$where \; \ell_{db} = 2.4d_b\frac{f_y}{\sqrt{f'_c}}$$

$$and \; \lambda_{cf} = \lambda_{rc} = \lambda_{er} = 1.0$$

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#4	0.200	0.500	60.000	8.000	1.000	1.000	1.000	25.456
#6	0.440	0.750	60.000	8.000	1.000	1.000	1.000	38.184

Development Length of Longitudinal Rebar [5.10.8.2.1] in Deck Slab

Full-length deck bars are considered to be developed along entire length of girder.
Partial-length longitudinal rebar specified using A_s are considered to be developed along entire specified bar length.

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#9	1.000	1.128	60.000	4.500	1.000	1.000	1.000	76.571

Prestress Loss Details

Approximate Estimate of Time-Dependent Losses [5.9.3.3]

Elastic Shortening - LRFD 5.9.3.2.3a

$$f_{cgp}(Permanent\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_p}{I_g} - \frac{M_g e_p}{I_g}$$

$$f_{cgp}(Temporary\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_t}{I_g} - \frac{M_g e_t}{I_g}$$

$$\Delta f_{pES} = \frac{E_p}{E_{ci}} f_{cgp}$$

A_g = 654.000 in^2
I_g = 153070.0 in^4
E_p = 28500.000 KSI
E_{ci} = 4557.295 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	1149.59	7.007	0.00	7.007	2.127	13.299
0.417	0.417	0.000(0.0L_e) 0.000	1149.32	7.141	11.88	7.141	2.134	13.343
(FoS) 0.750	(FoS) 0.333	1149.10	7.249	21.30	7.249	2.139	13.379
(SZB) 1.753	(SZB) 1.337	1148.43	7.573	49.13	7.573	2.157	13.490
(Bar Develop.) 2.121	(Bar Develop.) 1.705	1148.17	7.692	59.16	7.692	2.164	13.531
(PSXFR) 3.000	(PSXFR) 2.583	1147.56	7.975	82.69	7.975	2.180	13.632
(Bar Develop.) 3.182	(Bar Develop.) 2.765	1147.43	8.034	87.49	8.034	2.183	13.653
(H) 4.250	(H) 3.833	1146.66	8.379	115.17	8.379	2.204	13.780
(CS) 4.340	(CS) 3.924	1146.59	8.408	117.48	8.408	2.205	13.791
(SZB) 5.419	(SZB) 5.003	1145.78	8.756	144.52	8.756	2.227	13.925
(1.5H) 6.000	(1.5H) 5.583	1145.33	8.943	158.71	8.943	2.238	13.999
(0.1L_t) 7.746	7.330	1143.92	9.507	199.90	9.507	2.276	14.231
8.080	(0.1L_e) 7.663	1143.64	9.615	207.51	9.615	2.283	14.277
8.169	7.752	1143.57	9.643	209.53	9.643	2.285	14.289
(SZB) 10.919	(SZB) 10.503	1141.11	10.531	268.96	10.531	2.350	14.693
(0.2L_t) 15.493	15.076	1136.41	12.007	355.38	12.007	2.473	15.468
15.743	(0.2L_e) 15.326	1136.12	12.088	359.66	12.088	2.481	15.515
15.921	15.505	1135.92	12.145	362.69	12.145	2.486	15.548
(SZB) 19.169	(SZB) 18.753	1131.97	13.193	413.63	13.193	2.590	16.199
(0.3L_t) 23.239	22.823	1126.27	14.507	466.44	14.507	2.740	17.136
23.406	(0.3L_e) 22.989	1126.02	14.561	468.34	14.561	2.747	17.178
23.674	23.257	1125.61	14.647	471.35	14.647	2.758	17.245
(SZB) 30.169	(SZB) 29.753	1114.43	16.744	528.14	16.744	3.052	19.085
(HP, 0.4L_t) 30.986	(HP) 30.569	1112.84	17.007	533.07	17.007	3.094	19.347
31.069	(0.4L_e) 30.652	1112.86	17.007	533.55	17.007	3.093	19.343
31.426	31.009	1112.95	17.007	535.53	17.007	3.091	19.329
(0.5L_t) 38.732	(0.5L_e) 38.315	1113.83	17.007	555.28	17.007	3.067	19.183
39.179	38.762	1113.83	17.007	555.21	17.007	3.068	19.183
46.395	(0.6L_e) 45.979	1112.86	17.007	533.55	17.007	3.093	19.343
(HP, 0.6L_t) 46.479	(HP) 46.062	1112.84	17.007	533.07	17.007	3.094	19.347
46.931	46.514	1113.72	16.861	530.40	16.861	3.070	19.201
(SZB) 47.295	(SZB) 46.878	1114.43	16.744	528.14	16.744	3.052	19.085
54.058	(0.7L_e) 53.642	1126.02	14.561	468.34	14.561	2.747	17.178
(0.7L_t) 54.225	53.808	1126.27	14.507	466.44	14.507	2.740	17.136
54.683	54.267	1126.96	14.359	461.10	14.359	2.722	17.023
(Deck Bar Cutoff) 55.460	(Deck Bar Cutoff) 55.043	1128.09	14.108	451.71	14.108	2.692	16.836
(SZB) 58.295	(SZB) 57.878	1131.97	13.193	413.63	13.193	2.590	16.199
61.721	(0.8L_e) 61.305	1136.12	12.088	359.66	12.088	2.481	15.515
(0.8L_t) 61.971	61.555	1136.41	12.007	355.38	12.007	2.473	15.468
62.436	62.019	1136.92	11.857	347.31	11.857	2.460	15.383
(SZB) 66.545	(SZB) 66.128	1141.11	10.531	268.96	10.531	2.350	14.693
69.384	(0.9L_e) 68.968	1143.64	9.615	207.51	9.615	2.283	14.277
(0.9L_t) 69.718	69.301	1143.92	9.507	199.90	9.507	2.276	14.231
70.188	69.771	1144.31	9.355	189.03	9.355	2.265	14.167
(1.5H) 71.464	(1.5H) 71.048	1145.33	8.943	158.71	8.943	2.238	13.999
(SZB) 72.045	(SZB) 71.628	1145.78	8.756	144.52	8.756	2.227	13.925
(CS) 72.927	(CS) 72.510	1146.45	8.471	122.48	8.471	2.209	13.815
(H) 73.214	(H) 72.798	1146.66	8.379	115.17	8.379	2.204	13.780
(Bar Develop.) 74.282	(Bar Develop.) 73.866	1147.43	8.034	87.49	8.034	2.183	13.653
(PSXFR) 74.464	(PSXFR) 74.048	1147.56	7.975	82.69	7.975	2.180	13.632
(Bar Develop.) 75.343	(Bar Develop.) 74.926	1148.17	7.692	59.16	7.692	2.164	13.531
(SZB) 75.711	(SZB) 75.294	1148.43	7.573	49.13	7.573	2.157	13.490
(FoS) 76.714	(FoS) 76.298	1149.10	7.249	21.30	7.249	2.139	13.379
77.048	77.048	(1.0L_e) 76.631	76.631	1149.32	7.141	11.88	7.141	2.134	13.343
(STLF, 1.0L_t) 77.464	(STLF) 77.048	1149.59	7.007	0.00	7.007	2.127	13.299

P is the prestressing force after transfer : $P = A_{ps}(f_{pj} - \Delta f_{pES})$

A_{ps} = area of prestressing strands
e_p = eccentricty of permanent prestressing strands
e_{ps} = eccentricty of all prestressing strands

Approximate Lump Sum Estimate of Time Dependent Losses at Hauling

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 3\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 3\gamma_h\gamma_{st} + \frac{\Delta f_{pR}}{4}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLTH} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	7.700

Losses at Hauling

$\Delta f_{pH} = \Delta f_{pES} + \Delta f_{pLTH}$

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
(STRF, 0.0L$_t$) 0.000	(STRF) -0.417	13.299	7.700	20.999
0.417 0.417	0.000(0.0L$_e$) 0.000	13.343	7.700	21.044
(FoS) 0.750	(FoS) 0.333	13.379	7.700	21.080
(SZB) 1.753	(SZB) 1.337	13.490	7.700	21.190
(Bar Develop.) 2.121	(Bar Develop.) 1.705	13.531	7.700	21.232
(PSXFR) 3.000	(PSXFR) 2.583	13.632	7.700	21.332
(Bar Develop.) 3.182	(Bar Develop.) 2.765	13.653	7.700	21.354
(H) 4.250	(H) 3.833	13.780	7.700	21.481
(CS) 4.340	(CS) 3.924	13.791	7.700	21.492
(SZB) 5.419	(SZB) 5.003	13.925	7.700	21.625
(1.5H) 6.000	(1.5H) 5.583	13.999	7.700	21.699
(0.1L$_t$) 7.746	7.330	14.231	7.700	21.931
8.080	(0.1L$_e$) 7.663	14.277	7.700	21.977
8.169	7.752	14.289	7.700	21.990
(SZB) 10.919	(SZB) 10.503	14.693	7.700	22.394
(0.2L$_t$) 15.493	15.076	15.468	7.700	23.168
15.743	(0.2L$_e$) 15.326	15.515	7.700	23.215
15.921	15.505	15.548	7.700	23.248
(SZB) 19.169	(SZB) 18.753	16.199	7.700	23.899
(0.3L$_t$) 23.239	22.823	17.136	7.700	24.836
23.406	(0.3L$_e$) 22.989	17.178	7.700	24.878
23.674	23.257	17.245	7.700	24.945
(SZB) 30.169	(SZB) 29.753	19.085	7.700	26.786
(HP, 0.4L$_t$) 30.986	(HP) 30.569	19.347	7.700	27.047
31.069	(0.4L$_e$) 30.652	19.343	7.700	27.044
31.426	31.009	19.329	7.700	27.029
(0.5L$_t$) 38.732	(0.5L$_e$) 38.315	19.183	7.700	26.883
39.179	38.762	19.183	7.700	26.884
46.395	(0.6L$_e$) 45.979	19.343	7.700	27.044
(HP, 0.6L$_t$) 46.479	(HP) 46.062	19.347	7.700	27.047
46.931	46.514	19.201	7.700	26.901
(SZB) 47.295	(SZB) 46.878	19.085	7.700	26.786
54.058	(0.7L$_e$) 53.642	17.178	7.700	24.878
(0.7L$_t$) 54.225	53.808	17.136	7.700	24.836
54.683	54.267	17.023	7.700	24.724
(Deck Bar Cutoff) 55.460	(Deck Bar Cutoff) 55.043	16.836	7.700	24.537
(SZB) 58.295	(SZB) 57.878	16.199	7.700	23.899
61.721	(0.8L$_e$) 61.305	15.515	7.700	23.215
(0.8L$_t$) 61.971	61.555	15.468	7.700	23.168
62.436	62.019	15.383	7.700	23.083
(SZB) 66.545	(SZB) 66.128	14.693	7.700	22.394
69.384	(0.9L$_e$) 68.968	14.277	7.700	21.977
(0.9L$_t$) 69.718	69.301	14.231	7.700	21.931
70.188	69.771	14.167	7.700	21.867
(1.5H) 71.464	(1.5H) 71.048	13.999	7.700	21.699
(SZB) 72.045	(SZB) 71.628	13.925	7.700	21.625
(CS) 72.927	(CS) 72.510	13.815	7.700	21.516
(H) 73.214	(H) 72.798	13.780	7.700	21.481
(Bar Develop.) 74.282	(Bar Develop.) 73.866	13.653	7.700	21.354
(PSXFR) 74.464	(PSXFR) 74.048	13.632	7.700	21.332
(Bar Develop.) 75.343	(Bar Develop.) 74.926	13.531	7.700	21.232
(SZB) 75.711	(SZB) 75.294	13.490	7.700	21.190
(FoS) 76.714	(FoS) 76.298	13.379	7.700	21.080
77.048 77.048	(1.0L$_e$) 76.631 76.631	13.343	7.700	21.044
(STLF, 1.0L$_t$) 77.464	(STLF) 77.048	13.299	7.700	20.999

Approximate Lump Sum Estimate of Time Dependent Losses

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 10\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 12\gamma_h\gamma_{st} + \Delta f_{pR}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	27.711

Elastic Gain Due to Additional Dead Load

Change in strand stress due to loads applied to the non-composite girder

$$M_{adl} = K_s M_{slab} + K_h M_{haunch} + K_d M_{diaphragm} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$M_{Diaphragm}$ includes shear key dead load if applicable

$$\Delta f'_{cd} = \frac{M_{adl} e_p}{I_g}$$

$$\Delta f_{pED} = \frac{E_p}{E_c} \Delta f'_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

I_g = 153070.0 in^4

Slab: K_s = 1.00

Haunch: K_h = 1.00

Diaphragms: K_d = 1.00

User DC: K_{dc} = 1.00

User DW: K_{dw} = 1.00

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000
0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.141	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.141	0.000	0.000
(FoS) 0.333	11.16	1.62	0.00	0.28	0.00	13.05	7.249	0.007	0.042
(SZB) 1.337	44.06	6.40	0.00	1.11	0.00	51.56	7.573	0.031	0.174
(Bar Develop.) 1.705	55.88	8.11	0.00	1.40	0.00	65.40	7.692	0.039	0.224
(PSXFR) 2.583	83.55	12.14	0.00	2.10	0.00	97.80	7.975	0.061	0.348
(Bar Develop.) 2.765	89.18	12.97	0.00	2.25	0.00	104.40	8.034	0.066	0.374
(H) 3.833	121.59	17.70	0.00	3.07	0.00	142.37	8.379	0.094	0.532
(CS) 3.924	124.29	18.10	0.00	3.14	0.00	145.52	8.408	0.096	0.546
(SZB) 5.003	155.79	22.71	0.00	3.94	0.00	182.45	8.756	0.125	0.712
(1.5H) 5.583	172.29	25.13	0.00	4.36	0.00	201.78	8.943	0.141	0.805
7.330	219.93	32.15	0.00	5.59	0.00	257.66	9.507	0.192	1.092
($0.1L_e$) 7.663	228.69	33.44	0.00	5.81	0.00	267.94	9.615	0.202	1.149
7.752	231.02	33.79	0.00	5.87	0.00	270.68	9.643	0.205	1.164
(SZB) 10.503	299.08	43.88	0.00	7.64	0.00	350.60	10.531	0.289	1.646
15.076	396.78	58.50	0.00	10.21	0.00	465.48	12.007	0.438	2.492
($0.2L_e$) 15.326	401.57	59.22	0.00	10.33	0.00	471.12	12.088	0.446	2.539
15.505	404.96	59.73	0.00	10.42	0.00	475.11	12.145	0.452	2.573
(SZB) 18.753	461.65	68.31	0.00	11.94	0.00	541.90	13.193	0.560	3.188
22.823	519.64	77.18	0.00	13.51	0.00	610.33	14.507	0.694	3.948
($0.3L_e$) 22.989	521.71	77.50	0.00	13.56	0.00	612.78	14.561	0.699	3.978
23.257	524.99	78.01	0.00	13.65	0.00	616.65	14.647	0.708	4.027
(SZB) 29.753	585.84	87.52	0.00	15.34	0.00	688.70	16.744	0.904	5.141
(HP) 30.569	590.99	88.34	0.00	15.49	0.00	694.82	17.007	0.926	5.269
($0.4L_e$) 30.652	591.49	88.42	0.00	15.50	0.00	695.41	17.007	0.927	5.273
31.009	593.54	88.75	0.00	15.56	0.00	697.85	17.007	0.930	5.292
($0.5L_e$) 38.315	612.60	92.05	0.00	16.15	0.00	720.79	17.007	0.961	5.466
38.762	612.35	92.04	0.00	16.14	0.00	720.53	17.007	0.961	5.464
($0.6L_e$) 45.979	586.05	88.42	0.00	15.50	0.00	689.97	17.007	0.920	5.232
(HP) 46.062	585.50	88.34	0.00	15.49	0.00	689.32	17.007	0.919	5.227
46.514	582.42	87.89	0.00	15.41	0.00	685.72	16.861	0.906	5.155
(SZB) 46.878	579.82	87.52	0.00	15.34	0.00	682.68	16.744	0.896	5.096
($0.7L_e$) 53.642	512.18	77.50	0.00	13.56	0.00	603.24	14.561	0.689	3.916
53.808	510.05	77.18	0.00	13.51	0.00	600.73	14.507	0.683	3.886
54.267	504.06	76.29	0.00	13.35	0.00	593.70	14.359	0.668	3.801
(Deck Bar Cutoff) 55.043	493.53	74.71	0.00	13.07	0.00	581.31	14.108	0.643	3.657
(SZB) 57.878	450.94	68.31	0.00	11.94	0.00	531.19	13.193	0.549	3.125
($0.8L_e$) 61.305	390.67	59.22	0.00	10.33	0.00	460.22	12.088	0.436	2.480
61.555	385.89	58.50	0.00	10.20	0.00	454.60	12.007	0.428	2.434
62.019	376.89	57.14	0.00	9.97	0.00	443.99	11.857	0.413	2.347
(SZB) 66.128	289.33	43.88	0.00	7.64	0.00	340.84	10.531	0.281	1.600
($0.9L_e$) 68.968	220.51	33.44	0.00	5.81	0.00	259.76	9.615	0.196	1.114
69.301	211.98	32.15	0.00	5.58	0.00	249.71	9.507	0.186	1.058
69.771	199.78	30.30	0.00	5.26	0.00	235.34	9.355	0.173	0.982
(1.5H) 71.048	165.73	25.13	0.00	4.36	0.00	195.22	8.943	0.137	0.778
(SZB) 71.628	149.76	22.71	0.00	3.94	0.00	176.42	8.756	0.121	0.689
(CS) 72.510	124.96	18.95	0.00	3.28	0.00	147.19	8.471	0.098	0.556
(H) 72.798	116.73	17.70	0.00	3.07	0.00	137.50	8.379	0.090	0.514
(Bar Develop.) 73.866	85.51	12.97	0.00	2.24	0.00	100.72	8.034	0.063	0.361
(PSXFR) 74.048	80.10	12.14	0.00	2.10	0.00	94.34	7.975	0.059	0.335
(Bar Develop.) 74.926	53.52	8.11	0.00	1.40	0.00	63.03	7.692	0.038	0.216
(SZB) 75.294	42.18	6.40	0.00	1.10	0.00	49.68	7.573	0.029	0.168
(FoS) 76.298	10.67	1.62	0.00	0.28	0.00	12.56	7.249	0.007	0.041
($1.0L_e$) 76.631	0.00	0.00	0.00	-0.00	0.00	-0.00	7.141	0.000	-0.000
76.631	0.00	0.00	0.00	-0.00	0.00	-0.00	7.141	0.000	-0.000
(STLF) 77.048	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000

Elastic Gain Due to Superimposed Dead Load

Change in strand stress due to loads applied to the composite girder

$$M_{sidl} = K_r M_{railing\ system} + K_r M_{sidewalk} + K_o M_{overlay} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$$\Delta f''_{cd} = \frac{M_{sidl}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pSIDL} = \frac{E_p}{E_c} \Delta f''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

Railing System: K_r = 1.00
Overlay: K_o = 1.00
User DC: K_{dc} = 1.00
User DW: K_{dw} = 1.00

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	372065.3	33.988	21.150	0.000	0.000
0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.141	372065.3	33.988	21.150	0.000	0.000
(0.0L_e) 0.000	0.00	0.00	0.00	0.00	0.00	0.00	7.141	372065.3	33.988	21.150	0.000	0.000
(FoS) 0.333	2.69	1.12	2.19	0.00	0.39	6.38	7.249	372065.3	33.988	21.150	0.004	0.024
(SZB) 1.337	10.59	4.43	8.61	0.00	1.52	25.15	7.573	372065.3	33.988	21.150	0.017	0.094
(Bar Develop.) 1.705	13.41	5.62	10.91	0.00	1.93	31.87	7.692	372065.3	33.988	21.150	0.021	0.120
(PSXFR) 2.583	20.01	8.38	16.28	0.00	2.87	47.54	7.975	372065.4	33.988	21.150	0.032	0.181
(Bar Develop.) 2.765	21.35	8.94	17.37	0.00	3.07	50.72	8.034	372065.4	33.988	21.150	0.034	0.194
(H) 3.833	29.03	12.15	23.61	0.00	4.17	68.96	8.379	372065.4	33.988	21.150	0.047	0.268
(CS) 3.924	29.66	12.42	24.13	0.00	4.26	70.47	8.408	372065.4	33.988	21.150	0.048	0.275
(SZB) 5.003	37.07	15.52	30.15	0.00	5.32	88.06	8.756	372065.5	33.988	21.150	0.061	0.349
(1.5H) 5.583	40.92	17.13	33.28	0.00	5.87	97.21	8.943	372065.5	33.988	21.150	0.068	0.388
7.330	51.94	21.74	42.24	0.00	7.46	123.38	9.507	372065.5	33.988	21.150	0.089	0.506
(0.1L_e) 7.663	53.94	22.58	43.87	0.00	7.74	128.14	9.615	372065.5	33.988	21.150	0.093	0.528
7.752	54.47	22.81	44.30	0.00	7.82	129.40	9.643	372065.6	33.988	21.150	0.094	0.534
(SZB) 10.503	69.77	29.21	56.75	0.00	10.02	165.75	10.531	372065.6	33.988	21.150	0.125	0.711
15.076	90.55	37.91	73.65	0.00	13.00	215.11	12.007	372065.8	33.988	21.150	0.172	0.980
(0.2L_e) 15.326	91.52	38.32	74.43	0.00	13.14	217.41	12.088	372065.8	33.988	21.150	0.175	0.994
15.505	92.20	38.60	74.99	0.00	13.24	219.03	12.145	372065.8	33.988	21.150	0.176	1.004
(SZB) 18.753	103.03	43.14	83.79	0.00	14.79	244.75	13.193	372065.9	33.988	21.150	0.205	1.169
22.823	112.45	47.08	91.45	0.00	16.14	267.13	14.507	371013.7	33.928	21.150	0.236	1.341
(0.3L_e) 22.989	112.74	47.20	91.69	0.00	16.18	267.81	14.561	370939.0	33.924	21.150	0.237	1.347
23.257	113.18	47.39	92.05	0.00	16.25	268.87	14.647	370819.9	33.917	21.150	0.239	1.357
(SZB) 29.753	117.87	49.35	95.86	0.00	16.92	280.00	16.744	368328.7	33.775	21.150	0.268	1.524
(HP) 30.569	117.62	49.25	95.66	0.00	16.89	279.42	17.007	368070.7	33.761	21.150	0.270	1.535
(0.4L_e) 30.652	117.59	49.23	95.63	0.00	16.88	279.34	17.007	368045.1	33.759	21.150	0.270	1.534
31.009	117.42	49.16	95.49	0.00	16.86	278.93	17.007	367936.8	33.753	21.150	0.269	1.532
(0.5L_e) 38.315	106.08	44.41	86.27	0.00	15.23	251.99	17.007	366261.4	33.658	21.150	0.244	1.386
38.762	104.90	43.92	85.32	0.00	15.06	249.20	17.007	366193.0	33.654	21.150	0.241	1.371
(0.6L_e) 45.979	78.21	32.74	63.60	0.00	11.23	185.78	17.007	365639.3	33.622	21.150	0.180	1.022
(HP) 46.062	77.81	32.58	63.28	0.00	11.17	184.85	17.007	365639.0	33.622	21.150	0.179	1.017
46.514	75.64	31.67	61.52	0.00	10.86	179.70	16.861	365639.9	33.622	21.150	0.173	0.984
(SZB) 46.878	73.86	30.92	60.07	0.00	10.60	175.45	16.744	365643.7	33.623	21.150	0.168	0.957
(0.7L_e) 53.642	33.97	14.22	27.63	0.00	4.88	80.69	14.561	366197.1	33.654	21.150	0.072	0.407
53.808	32.83	13.74	26.70	0.00	4.71	77.98	14.507	366222.3	33.656	21.150	0.069	0.393
54.267	29.64	12.41	24.10	0.00	4.25	70.41	14.359	366294.4	33.660	21.150	0.062	0.352
(Deck Bar Cutoff) 55.043	24.11	10.09	19.60	0.00	3.46	57.26	14.108	366426.1	33.667	21.150	0.050	0.284
(SZB) 57.878	2.49	1.04	2.02	0.00	0.36	5.91	13.193	367007.4	33.700	21.150	0.005	0.028
(0.8L_e) 61.305	-26.63	-11.15	-21.66	0.00	-3.82	-63.26	12.088	367918.4	33.752	21.150	-0.051	-0.290
61.555	-28.88	-12.09	-23.49	0.00	-4.15	-68.61	12.007	367993.7	33.756	21.150	-0.055	-0.313
62.019	-33.11	-13.86	-26.93	0.00	-4.75	-78.66	11.857	368136.6	33.764	21.150	-0.063	-0.357
(SZB) 66.128	-73.17	-30.63	-59.51	0.00	-10.50	-173.81	10.531	369577.5	33.846	21.150	-0.131	-0.746
(0.9L_e) 68.968	-103.59	-43.37	-84.25	0.00	-14.87	-246.09	9.615	370753.5	33.913	21.150	-0.178	-1.014
69.301	-107.31	-44.93	-87.28	0.00	-15.40	-254.92	9.507	370900.9	33.922	21.150	-0.184	-1.045
69.771	-112.61	-47.15	-91.59	0.00	-16.17	-267.51	9.355	371112.3	33.934	21.150	-0.192	-1.089
(1.5H) 71.048	-127.30	-53.30	-103.54	0.00	-18.27	-302.41	8.943	371705.3	33.967	21.150	-0.212	-1.208
(SZB) 71.628	-134.14	-56.16	-109.10	0.00	-19.26	-318.65	8.756	371984.4	33.983	21.150	-0.222	-1.262
(CS) 72.510	-144.70	-60.58	-117.69	0.00	-20.77	-343.74	8.471	372067.7	33.988	21.150	-0.236	-1.344
(H) 72.798	-148.19	-62.04	-120.52	0.00	-21.27	-352.03	8.379	372067.7	33.988	21.150	-0.241	-1.370
(Bar Develop.) 73.866	-161.35	-67.56	-131.23	0.00	-23.16	-383.30	8.034	372067.8	33.988	21.150	-0.258	-1.467
(PSXFR) 74.048	-163.63	-68.51	-133.08	0.00	-23.49	-388.71	7.975	372067.8	33.988	21.150	-0.261	-1.484
(Bar Develop.) 74.926	-174.74	-73.16	-142.12	0.00	-25.08	-415.11	7.692	372067.8	33.988	21.150	-0.275	-1.563
(SZB) 75.294	-179.46	-75.14	-145.96	0.00	-25.76	-426.32	7.573	372067.8	33.988	21.150	-0.281	-1.596
(FoS) 76.298	-192.52	-80.60	-156.58	0.00	-27.64	-457.33	7.249	372067.9	33.988	21.150	-0.296	-1.685
(1.0L_e) 76.631	-196.92	-82.45	-160.16	0.00	-28.27	-467.79	7.141	372067.9	33.988	21.150	-0.301	-1.714
76.631	-196.92	-82.45	-160.16	0.00	-28.27	-467.79	7.141	372067.9	33.988	21.150	-0.301	-1.714
(STLF) 77.048	-202.46	-84.77	-164.64	0.00	-29.06	-480.94	7.007	372067.9	33.988	21.150	-0.308	-1.751

Elastic Gain Due to Live Load

Change in strand stress due to live load applied to the composite girder

$$\Delta f'''_{cd} = \frac{K_{llim} M_{llim}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pLL} = \frac{E_p}{E_c} \Delta f'''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

K_{llim} = 0.00

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(STRF) -0.417	0.00	0.00	7.007	372065.3	33.988	21.150	0.000	0.000	0.000	0.000
0.000	0.00	0.00	7.141	372065.3	33.988	21.150	0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	7.141	372065.3	33.988	21.150	0.000	0.000	0.000	0.000
(FoS) 0.333	0.00	0.00	7.249	372065.3	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 1.337	0.00	0.00	7.573	372065.3	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 1.705	0.00	0.00	7.692	372065.3	33.988	21.150	0.000	0.000	0.000	0.000
(PSXFR) 2.583	0.00	0.00	7.975	372065.4	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 2.765	0.00	0.00	8.034	372065.4	33.988	21.150	0.000	0.000	0.000	0.000
(H) 3.833	0.00	0.00	8.379	372065.4	33.988	21.150	0.000	0.000	0.000	0.000
(CS) 3.924	0.00	0.00	8.408	372065.4	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 5.003	0.00	0.00	8.756	372065.5	33.988	21.150	0.000	0.000	0.000	0.000
(1.5H) 5.583	0.00	0.00	8.943	372065.5	33.988	21.150	0.000	0.000	0.000	0.000
7.330	0.00	0.00	9.507	372065.5	33.988	21.150	0.000	0.000	0.000	0.000
($0.1L_e$) 7.663	0.00	0.00	9.615	372065.5	33.988	21.150	0.000	0.000	0.000	0.000
7.752	0.00	0.00	9.643	372065.6	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 10.503	0.00	0.00	10.531	372065.6	33.988	21.150	0.000	0.000	0.000	0.000
15.076	0.00	0.00	12.007	372065.8	33.988	21.150	0.000	0.000	0.000	0.000
($0.2L_e$) 15.326	0.00	0.00	12.088	372065.8	33.988	21.150	0.000	0.000	0.000	0.000
15.505	0.00	0.00	12.145	372065.8	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 18.753	0.00	0.00	13.193	372065.9	33.988	21.150	0.000	0.000	0.000	0.000
22.823	0.00	0.00	14.507	371013.7	33.928	21.150	0.000	0.000	0.000	0.000
($0.3L_e$) 22.989	0.00	0.00	14.561	370939.0	33.924	21.150	0.000	0.000	0.000	0.000
23.257	0.00	0.00	14.647	370819.9	33.917	21.150	0.000	0.000	0.000	0.000
(SZB) 29.753	0.00	0.00	16.744	368328.7	33.775	21.150	0.000	0.000	0.000	0.000
(HP) 30.569	0.00	0.00	17.007	368070.7	33.761	21.150	0.000	0.000	0.000	0.000
($0.4L_e$) 30.652	0.00	0.00	17.007	368045.1	33.759	21.150	0.000	0.000	0.000	0.000
31.009	0.00	0.00	17.007	367936.8	33.753	21.150	0.000	0.000	0.000	0.000
($0.5L_e$) 38.315	0.00	0.00	17.007	366261.4	33.658	21.150	0.000	0.000	0.000	0.000
38.762	0.00	0.00	17.007	366193.0	33.654	21.150	0.000	0.000	0.000	0.000
($0.6L_e$) 45.979	0.00	0.00	17.007	365639.3	33.622	21.150	0.000	0.000	0.000	0.000
(HP) 46.062	0.00	0.00	17.007	365639.0	33.622	21.150	0.000	0.000	0.000	0.000
46.514	0.00	0.00	16.861	365639.9	33.622	21.150	0.000	0.000	0.000	0.000
(SZB) 46.878	0.00	0.00	16.744	365643.7	33.623	21.150	0.000	0.000	0.000	0.000
($0.7L_e$) 53.642	0.00	0.00	14.561	366197.1	33.654	21.150	0.000	0.000	0.000	0.000
53.808	0.00	0.00	14.507	366222.3	33.656	21.150	0.000	0.000	0.000	0.000
54.267	0.00	0.00	14.359	366294.4	33.660	21.150	0.000	0.000	0.000	0.000
(Deck Bar Cutoff) 55.043	0.00	0.00	14.108	366426.1	33.667	21.150	0.000	0.000	0.000	0.000
(SZB) 57.878	0.00	0.00	13.193	367007.4	33.700	21.150	0.000	0.000	0.000	0.000
($0.8L_e$) 61.305	0.00	0.00	12.088	367918.4	33.752	21.150	0.000	0.000	0.000	0.000
61.555	0.00	0.00	12.007	367993.7	33.756	21.150	0.000	0.000	0.000	0.000
62.019	0.00	0.00	11.857	368136.6	33.764	21.150	0.000	0.000	0.000	0.000
(SZB) 66.128	0.00	0.00	10.531	369577.5	33.846	21.150	0.000	0.000	0.000	0.000
($0.9L_e$) 68.968	0.00	0.00	9.615	370753.5	33.913	21.150	0.000	0.000	0.000	0.000
69.301	0.00	0.00	9.507	370900.9	33.922	21.150	0.000	0.000	0.000	0.000
69.771	0.00	0.00	9.355	371112.3	33.934	21.150	0.000	0.000	0.000	0.000
(1.5H) 71.048	0.00	0.00	8.943	371705.3	33.967	21.150	0.000	0.000	0.000	0.000
(SZB) 71.628	0.00	0.00	8.756	371984.4	33.983	21.150	0.000	0.000	0.000	0.000
(CS) 72.510	0.00	0.00	8.471	372067.7	33.988	21.150	0.000	0.000	0.000	0.000
(H) 72.798	0.00	0.00	8.379	372067.7	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 73.866	0.00	0.00	8.034	372067.8	33.988	21.150	0.000	0.000	0.000	0.000
(PSXFR) 74.048	0.00	0.00	7.975	372067.8	33.988	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 74.926	0.00	0.00	7.692	372067.8	33.988	21.150	0.000	0.000	0.000	0.000
(SZB) 75.294	0.00	0.00	7.573	372067.8	33.988	21.150	0.000	0.000	0.000	0.000
(FoS) 76.298	0.00	0.00	7.249	372067.9	33.988	21.150	0.000	0.000	0.000	0.000
($1.0L_e$) 76.631	0.00	0.00	7.141	372067.9	33.988	21.150	0.000	0.000	0.000	0.000
76.631	0.00	0.00	7.141	372067.9	33.988	21.150	0.000	0.000	0.000	0.000
(STLF) 77.048	0.00	0.00	7.007	372067.9	33.988	21.150	0.000	0.000	0.000	0.000

Effective Prestress

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL}$

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL} + \Delta f_{pLL}$

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(STRF) -0.417	202.500	13.299	27.711	0.000	0.000	41.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	202.500	13.343	27.711	0.000	0.000	41.054	0.139	22.423	0.000	0.000	22.423	22.423	22.423
($0.0L_e$) 0.000	202.500	13.343	27.711	0.000	0.000	41.054	0.139	22.423	0.000	0.000	22.423	22.423	22.423
(FoS) 0.333	202.500	13.379	27.711	0.042	0.024	41.024	0.250	40.369	0.000	0.000	40.369	40.369	40.369
(SZB) 1.337	202.500	13.490	27.711	0.174	0.094	40.932	0.584	94.424	0.000	0.000	94.424	94.424	94.424
(Bar Develop.) 1.705	202.500	13.531	27.711	0.224	0.120	40.898	0.707	114.270	0.000	0.000	114.270	114.270	114.270
(PSXFR) 2.583	202.500	13.632	27.711	0.348	0.181	40.814	1.000	161.686	0.000	0.000	161.686	161.686	161.686
(Bar Develop.) 2.765	202.500	13.653	27.711	0.374	0.194	40.796	1.000	161.704	0.000	0.000	161.704	161.704	161.704
(H) 3.833	202.500	13.780	27.711	0.532	0.268	40.691	1.000	161.809	0.000	0.000	161.809	161.809	161.809
(CS) 3.924	202.500	13.791	27.711	0.546	0.275	40.682	1.000	161.818	0.000	0.000	161.818	161.818	161.818
(SZB) 5.003	202.500	13.925	27.711	0.712	0.349	40.575	1.000	161.925	0.000	0.000	161.925	161.925	161.925
(1.5H) 5.583	202.500	13.999	27.711	0.805	0.388	40.517	1.000	161.983	0.000	0.000	161.983	161.983	161.983
7.330	202.500	14.231	27.711	1.092	0.506	40.344	1.000	162.156	0.000	0.000	162.156	162.156	162.156
($0.1L_e$) 7.663	202.500	14.277	27.711	1.149	0.528	40.311	1.000	162.189	0.000	0.000	162.189	162.189	162.189
7.752	202.500	14.289	27.711	1.164	0.534	40.303	1.000	162.197	0.000	0.000	162.197	162.197	162.197

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(SZB) 10.503	202.500	14.693	27.711	1.646	0.711	40.048	1.000	162.452	0.000	0.000	162.452	162.452	162.452
15.076	202.500	15.468	27.711	2.492	0.980	39.707	1.000	162.793	0.000	0.000	162.793	162.793	162.793
(0.2L_e) 15.326	202.500	15.515	27.711	2.539	0.994	39.692	1.000	162.808	0.000	0.000	162.808	162.808	162.808
15.505	202.500	15.548	27.711	2.573	1.004	39.682	1.000	162.818	0.000	0.000	162.818	162.818	162.818
(SZB) 18.753	202.500	16.199	27.711	3.188	1.169	39.553	1.000	162.947	0.000	0.000	162.947	162.947	162.947
22.823	202.500	17.136	27.711	3.948	1.341	39.559	1.000	162.941	0.000	0.000	162.941	162.941	162.941
(0.3L_e) 22.989	202.500	17.178	27.711	3.978	1.347	39.563	1.000	162.937	0.000	0.000	162.937	162.937	162.937
23.257	202.500	17.245	27.711	4.027	1.357	39.572	1.000	162.928	0.000	0.000	162.928	162.928	162.928
(SZB) 29.753	202.500	19.085	27.711	5.141	1.524	40.131	1.000	162.369	0.000	0.000	162.369	162.369	162.369
(HP) 30.569	202.500	19.347	27.711	5.269	1.535	40.255	1.000	162.245	0.000	0.000	162.245	162.245	162.245
(0.4L_e) 30.652	202.500	19.343	27.711	5.273	1.534	40.247	1.000	162.253	0.000	0.000	162.253	162.253	162.253
31.009	202.500	19.329	27.711	5.292	1.532	40.216	1.000	162.284	0.000	0.000	162.284	162.284	162.284
(0.5L_e) 38.315	202.500	19.183	27.711	5.466	1.386	40.042	1.000	162.458	0.000	0.000	162.458	162.458	162.458
38.762	202.500	19.183	27.711	5.464	1.371	40.060	1.000	162.440	0.000	0.000	162.440	162.440	162.440
(0.6L_e) 45.979	202.500	19.343	27.711	5.232	1.022	40.800	1.000	161.700	0.000	0.000	161.700	161.700	161.700
(HP) 46.062	202.500	19.347	27.711	5.227	1.017	40.814	1.000	161.686	0.000	0.000	161.686	161.686	161.686
46.514	202.500	19.201	27.711	5.155	0.984	40.773	1.000	161.727	0.000	0.000	161.727	161.727	161.727
(SZB) 46.878	202.500	19.085	27.711	5.096	0.957	40.743	1.000	161.757	0.000	0.000	161.757	161.757	161.757
(0.7L_e) 53.642	202.500	17.178	27.711	3.916	0.407	40.565	1.000	161.935	0.000	0.000	161.935	161.935	161.935
53.808	202.500	17.136	27.711	3.886	0.393	40.569	1.000	161.931	0.000	0.000	161.931	161.931	161.931
54.267	202.500	17.023	27.711	3.801	0.352	40.581	1.000	161.919	0.000	0.000	161.919	161.919	161.919
(Deck Bar Cutoff) 55.043	202.500	16.836	27.711	3.657	0.284	40.607	1.000	161.893	0.000	0.000	161.893	161.893	161.893
(SZB) 57.878	202.500	16.199	27.711	3.125	0.028	40.757	1.000	161.743	0.000	0.000	161.743	161.743	161.743
(0.8L_e) 61.305	202.500	15.515	27.711	2.480	-0.290	41.035	1.000	161.465	0.000	0.000	161.465	161.465	161.465
61.555	202.500	15.468	27.711	2.434	-0.313	41.059	1.000	161.441	0.000	0.000	161.441	161.441	161.441
62.019	202.500	15.383	27.711	2.347	-0.357	41.104	1.000	161.396	0.000	0.000	161.396	161.396	161.396
(SZB) 66.128	202.500	14.693	27.711	1.600	-0.746	41.549	1.000	160.951	0.000	0.000	160.951	160.951	160.951
(0.9L_e) 68.968	202.500	14.277	27.711	1.114	-1.014	41.888	1.000	160.612	0.000	0.000	160.612	160.612	160.612
69.301	202.500	14.231	27.711	1.058	-1.045	41.928	1.000	160.572	0.000	0.000	160.572	160.572	160.572
69.771	202.500	14.167	27.711	0.982	-1.089	41.985	1.000	160.515	0.000	0.000	160.515	160.515	160.515
(1.5H) 71.048	202.500	13.999	27.711	0.778	-1.208	42.140	1.000	160.360	0.000	0.000	160.360	160.360	160.360
(SZB) 71.628	202.500	13.925	27.711	0.689	-1.262	42.209	1.000	160.291	0.000	0.000	160.291	160.291	160.291
(CS) 72.510	202.500	13.815	27.711	0.556	-1.344	42.314	1.000	160.186	0.000	0.000	160.186	160.186	160.186
(H) 72.798	202.500	13.780	27.711	0.514	-1.370	42.348	1.000	160.152	0.000	0.000	160.152	160.152	160.152
(Bar Develop.) 73.866	202.500	13.653	27.711	0.361	-1.467	42.471	1.000	160.029	0.000	0.000	160.029	160.029	160.029
(PSXFR) 74.048	202.500	13.632	27.711	0.335	-1.484	42.491	1.000	160.009	0.000	0.000	160.009	160.009	160.009
(Bar Develop.) 74.926	202.500	13.531	27.711	0.216	-1.563	42.589	0.707	113.074	0.000	0.000	113.074	113.074	113.074
(SZB) 75.294	202.500	13.490	27.711	0.168	-1.596	42.629	0.584	93.433	0.000	0.000	93.433	93.433	93.433
(FoS) 76.298	202.500	13.379	27.711	0.041	-1.685	42.735	0.250	39.941	0.000	0.000	39.941	39.941	39.941
(1.0L_e) 76.631	202.500	13.343	27.711	-0.000	-1.714	42.768	0.139	22.185	0.000	0.000	22.185	22.185	22.185
76.631	202.500	13.343	27.711	-0.000	-1.714	42.768	0.139	22.185	0.000	0.000	22.185	22.185	22.185
(STLF) 77.048	202.500	13.299	27.711	0.000	-1.751	42.760	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Prestress Loss

% Loss Initial = $(\Delta f_{pES})/f_{pj}$

% Loss Final (Time dependent losses only) = $(\Delta f_{pLT})/f_{pj}$

% Loss Total (Time dependent losses and instantaneous effects) = $(f_{pj} - f_{pe})/f_{pj}$

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(STRF) -0.417	13.299	100.0	27.711	100.0	41.010	0.000	100.0
0.000	13.343	87.0	27.711	88.0	41.054	22.423	88.9
(0.0L_e) 0.000	13.343	87.0	27.711	88.0	41.054	22.423	88.9
(FoS) 0.333	13.379	76.7	27.711	78.4	41.024	40.369	80.1
(SZB) 1.337	13.490	45.5	27.711	49.6	40.932	94.424	53.4
(Bar Develop.) 1.705	13.531	34.0	27.711	39.0	40.898	114.270	43.6
(PSXFR) 2.583	13.632	6.7	27.711	13.7	40.814	161.686	20.2
(Bar Develop.) 2.765	13.653	6.7	27.711	13.7	40.796	161.704	20.1
(H) 3.833	13.780	6.8	27.711	13.7	40.691	161.809	20.1
(CS) 3.924	13.791	6.8	27.711	13.7	40.682	161.818	20.1
(SZB) 5.003	13.925	6.9	27.711	13.7	40.575	161.925	20.0
(1.5H) 5.583	13.999	6.9	27.711	13.7	40.517	161.983	20.0
7.330	14.231	7.0	27.711	13.7	40.344	162.156	19.9
(0.1L_e) 7.663	14.277	7.1	27.711	13.7	40.311	162.189	19.9
7.752	14.289	7.1	27.711	13.7	40.303	162.197	19.9
(SZB) 10.503	14.693	7.3	27.711	13.7	40.048	162.452	19.8
15.076	15.468	7.6	27.711	13.7	39.707	162.793	19.6
(0.2L_e) 15.326	15.515	7.7	27.711	13.7	39.692	162.808	19.6
15.505	15.548	7.7	27.711	13.7	39.682	162.818	19.6
(SZB) 18.753	16.199	8.0	27.711	13.7	39.553	162.947	19.5
22.823	17.136	8.5	27.711	13.7	39.559	162.941	19.5
(0.3L_e) 22.989	17.178	8.5	27.711	13.7	39.563	162.937	19.5
23.257	17.245	8.5	27.711	13.7	39.572	162.928	19.5
(SZB) 29.753	19.085	9.4	27.711	13.7	40.131	162.369	19.8
(HP) 30.569	19.347	9.6	27.711	13.7	40.255	162.245	19.9
(0.4L_e) 30.652	19.343	9.6	27.711	13.7	40.247	162.253	19.9
31.009	19.329	9.5	27.711	13.7	40.216	162.284	19.9
(0.5L_e) 38.315	19.183	9.5	27.711	13.7	40.042	162.458	19.8
38.762	19.183	9.5	27.711	13.7	40.060	162.440	19.8
(0.6L_e) 45.979	19.343	9.6	27.711	13.7	40.800	161.700	20.1

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(HP) 46.062	19.347	9.6	27.711	13.7	40.814	161.686	20.2
46.514	19.201	9.5	27.711	13.7	40.773	161.727	20.1
(SZB) 46.878	19.085	9.4	27.711	13.7	40.743	161.757	20.1
($0.7L_e$) 53.642	17.178	8.5	27.711	13.7	40.565	161.935	20.0
53.808	17.136	8.5	27.711	13.7	40.569	161.931	20.0
54.267	17.023	8.4	27.711	13.7	40.581	161.919	20.0
(Deck Bar Cutoff) 55.043	16.836	8.3	27.711	13.7	40.607	161.893	20.1
(SZB) 57.878	16.199	8.0	27.711	13.7	40.757	161.743	20.1
($0.8L_e$) 61.305	15.515	7.7	27.711	13.7	41.035	161.465	20.3
61.555	15.468	7.6	27.711	13.7	41.059	161.441	20.3
62.019	15.383	7.6	27.711	13.7	41.104	161.396	20.3
(SZB) 66.128	14.693	7.3	27.711	13.7	41.549	160.951	20.5
($0.9L_e$) 68.968	14.277	7.1	27.711	13.7	41.888	160.612	20.7
69.301	14.231	7.0	27.711	13.7	41.928	160.572	20.7
69.771	14.167	7.0	27.711	13.7	41.985	160.515	20.7
(1.5H) 71.048	13.999	6.9	27.711	13.7	42.140	160.360	20.8
(SZB) 71.628	13.925	6.9	27.711	13.7	42.209	160.291	20.8
(CS) 72.510	13.815	6.8	27.711	13.7	42.314	160.186	20.9
(H) 72.798	13.780	6.8	27.711	13.7	42.348	160.152	20.9
(Bar Develop.) 73.866	13.653	6.7	27.711	13.7	42.471	160.029	21.0
(PSXFR) 74.048	13.632	6.7	27.711	13.7	42.491	160.009	21.0
(Bar Develop.) 74.926	13.531	34.0	27.711	39.0	42.589	113.074	44.2
(SZB) 75.294	13.490	45.5	27.711	49.6	42.629	93.433	53.9
(FoS) 76.298	13.379	76.7	27.711	78.4	42.735	39.941	80.3
($1.0L_e$) 76.631	13.343	87.0	27.711	88.0	42.768	22.185	89.0
76.631	13.343	87.0	27.711	88.0	42.768	22.185	89.0
(STLF) 77.048	13.299	100.0	27.711	100.0	42.760	0.000	100.0

Reinforcement Requirements for Tension Limits

Minimum amount of bonded reinforcement sufficent to resist the tensile force in the concrete [5.9.2.3][C5.9.2.3.1b]

Reinforcement required for tension stress limit, Interval 2 - Prestress Release, [C5.9.2.3.1b]

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
(STRF, $0.0L_r$) 0.000	0.000	0.000	0.000	0.000	0.00	0.000	-
(PSXFR) 3.000	12.066	-0.643	-2.882	0.000	0.00	0.000	-
($0.1L_r$) 7.746	10.736	-0.595	-2.920	0.000	0.00	0.000	-
($0.2L_r$) 15.493	7.505	-0.460	-3.034	0.000	0.00	0.000	-
($0.3L_r$) 23.239	3.691	-0.259	-3.206	0.000	0.00	0.000	-
(HP, $0.4L_r$) 30.986	-0.062	0.005	-3.433	2.653	0.01	0.000	0.000
($0.5L_r$) 38.732	0.380	-0.030	-3.400	0.000	0.00	0.000	-
(HP, $0.6L_r$) 46.479	-0.062	0.005	-3.433	2.653	0.01	0.000	0.000
($0.7L_r$) 54.225	3.691	-0.259	-3.206	0.000	0.00	0.000	-
($0.8L_r$) 61.971	7.505	-0.460	-3.034	0.000	0.00	0.000	-
($0.9L_r$) 69.718	10.736	-0.595	-2.920	0.000	0.00	0.000	-
(PSXFR) 74.464	12.066	-0.643	-2.882	0.000	0.00	0.000	-
(STLF, $1.0L_r$) 77.464	0.000	0.000	0.000	0.000	0.00	0.000	-

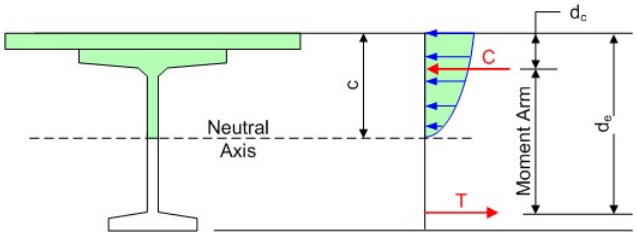
Y_{na}, the location of the neutral axis, is measured from the top of the non-composite girder

* to be considered sufficient, reinforcement must be fully developed and lie within the tension area of the section

** minimum area of sufficiently bonded reinforcement needed to use the alternative tensile stress limit

Moment Capacity Details

Positive Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(STRF) -0.417	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
0.000	1.420	0.710	46.096	48.811	48.000	0.098	22.423	0.787	93.259	1.000	45.386	566.64	566.64	2143.15
($0.0L_s$) 0.000	1.420	0.710	46.096	48.811	48.000	0.098	22.423	0.787	93.259	1.000	45.386	566.64	566.64	2143.15
(FoS) 0.333	1.616	0.808	44.455	48.683	48.000	0.086	40.369	1.416	106.131	1.000	43.647	644.85	644.85	2345.50
1.333	2.201	1.101	41.477	48.390	48.000	0.062	94.248	3.307	144.557	1.000	40.376	878.33	878.33	2955.30
(SZB) 1.337	2.203	1.102	41.470	48.389	48.000	0.062	94.424	3.313	144.683	1.000	40.368	879.09	879.09	2957.31
(Bar Develop.) 1.705	2.418	1.209	40.800	48.305	48.000	0.057	114.270	4.009	158.774	1.000	39.591	964.71	964.71	3182.85
(PSXFR) 2.583	3.318	1.405	39.748	48.141	48.000	0.040	161.686	5.673	191.887	1.000	38.343	1165.90	1165.90	3725.34
2.625	3.326	1.408	39.749	48.140	48.000	0.040	161.690	5.673	192.203	1.000	38.341	1167.83	1167.83	3731.33
(Bar Develop.) 2.765	3.354	1.417	39.753	48.135	48.000	0.040	161.704	5.674	193.269	1.000	38.336	1174.30	1174.30	3751.54

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(H) 3.833	3.555	1.487	39.802	48.102	48.000	0.038	161.809	5.678	201.393	1.000	38.315	1223.66	1223.66	3907.04
(CS) 3.924	3.571	1.493	39.807	48.099	48.000	0.037	161.818	5.678	202.082	1.000	38.314	1227.85	1227.85	3920.35
4.583	3.688	1.538	39.855	46.201	48.000	0.036	161.884	5.680	207.106	1.000	38.317	1258.38	1258.38	4018.05
(SZB) 5.003	3.760	1.568	39.891	46.200	48.000	0.035	161.925	5.682	210.302	1.000	38.323	1277.80	1277.80	4080.78
(1.5H) 5.583	3.866	1.614	39.949	46.201	48.000	0.034	161.983	5.684	214.722	1.000	38.336	1304.65	1304.65	4167.92
7.330	4.169	1.754	40.170	44.570	48.000	0.032	162.156	5.690	228.032	1.000	38.416	1385.52	1385.52	4435.53
7.663	4.224	1.781	40.219	44.589	48.000	0.031	162.189	5.691	230.575	1.000	38.438	1400.97	1400.97	4487.60
($0.1L_s$) 7.752	4.239	1.788	40.233	44.594	48.000	0.031	162.197	5.691	231.256	1.000	38.445	1405.11	1405.11	4501.60
8.730	4.396	1.867	40.391	44.657	48.000	0.030	162.291	5.694	238.717	1.000	38.524	1450.45	1450.45	4656.39
(SZB) 10.503	4.671	2.009	40.718	43.374	48.000	0.028	162.452	5.700	252.263	1.000	38.709	1532.75	1532.75	4944.31
11.330	4.795	2.075	40.887	42.161	48.000	0.027	162.523	5.703	258.588	1.000	38.813	1571.18	1571.18	5081.81
15.076	4.977	2.172	41.941	41.941	48.000	0.026	162.793	5.712	268.065	1.000	39.769	1628.77	1628.77	5397.85
15.326	4.978	2.173	42.019	42.019	48.000	0.026	162.808	5.713	268.109	1.000	39.846	1629.03	1629.03	5409.24
($0.2L_s$) 15.505	4.979	2.173	42.075	42.075	48.000	0.026	162.818	5.713	268.140	1.000	39.902	1629.22	1629.22	5417.37
16.126	4.981	2.174	42.269	42.269	48.000	0.026	162.850	5.714	268.247	1.000	40.094	1629.87	1629.87	5445.73
18.076	4.987	2.178	42.879	42.879	48.000	0.026	162.929	5.717	268.582	1.000	40.701	1631.90	1631.90	5535.07
(SZB) 18.753	4.989	2.179	43.092	43.092	48.000	0.026	162.947	5.717	268.697	1.000	40.913	1632.60	1632.60	5566.19
22.823	5.050	2.212	44.379	44.379	48.000	0.026	162.941	5.717	269.301	1.000	42.167	1636.27	1636.27	5749.75
22.989	5.054	2.214	44.432	44.432	48.000	0.025	162.937	5.717	269.320	1.000	42.218	1636.39	1636.39	5757.09
($0.3L_s$) 23.257	5.060	2.217	44.517	44.517	48.000	0.025	162.928	5.717	269.349	1.000	42.300	1636.57	1636.57	5768.89
23.523	5.066	2.221	44.602	44.602	48.000	0.025	162.918	5.716	269.379	1.000	42.381	1636.74	1636.74	5780.60
24.823	5.095	2.236	45.016	45.016	48.000	0.025	162.857	5.714	269.522	1.000	42.780	1637.62	1637.62	5838.10
(SZB) 29.753	5.188	2.287	46.596	46.596	48.000	0.025	162.369	5.697	269.887	1.000	44.309	1639.83	1639.83	6054.91
(HP) 30.569	5.202	2.295	46.859	46.859	48.000	0.025	162.245	5.693	269.930	1.000	44.564	1640.09	1640.09	6090.76
30.574	5.202	2.295	46.859	46.859	48.000	0.025	162.246	5.693	269.930	1.000	44.564	1640.09	1640.09	6090.76
30.652	5.203	2.295	46.859	46.859	48.000	0.025	162.253	5.693	269.930	1.000	44.563	1640.09	1640.09	6090.66
30.919	5.207	2.297	46.859	46.859	48.000	0.025	162.276	5.694	269.929	1.000	44.561	1640.09	1640.09	6090.36
($0.4L_s$) 31.009	5.208	2.298	46.859	46.859	48.000	0.025	162.284	5.694	269.928	1.000	44.561	1640.08	1640.08	6090.25
31.569	5.216	2.302	46.859	46.859	48.000	0.025	162.328	5.696	269.925	1.000	44.556	1640.07	1640.07	6089.60
38.315	5.288	2.342	46.859	46.859	48.000	0.024	162.458	5.700	269.884	1.000	44.518	1639.82	1639.82	6083.39
($0.5L_s$) 38.762	5.291	2.344	46.860	46.860	48.000	0.024	162.440	5.700	269.882	1.000	44.516	1639.80	1639.80	6083.11
45.062	5.317	2.358	46.860	46.860	48.000	0.024	161.841	5.679	269.865	1.000	44.502	1639.70	1639.70	6080.82
45.712	5.317	2.358	46.860	46.860	48.000	0.024	161.742	5.675	269.864	1.000	44.502	1639.69	1639.69	6080.76
45.979	5.317	2.358	46.860	46.860	48.000	0.024	161.700	5.674	269.864	1.000	44.502	1639.69	1639.69	6080.75
46.057	5.317	2.358	46.860	46.860	48.000	0.024	161.687	5.673	269.864	1.000	44.502	1639.69	1639.69	6080.75
(HP) 46.062	5.317	2.358	46.860	46.860	48.000	0.024	161.686	5.673	269.864	1.000	44.502	1639.69	1639.69	6080.75
($0.6L_s$) 46.514	5.317	2.358	46.715	46.715	48.000	0.024	161.727	5.675	269.835	1.000	44.357	1639.52	1639.52	6060.29
(SZB) 46.878	5.316	2.358	46.598	46.598	48.000	0.024	161.757	5.676	269.812	1.000	44.240	1639.38	1639.38	6043.85
51.808	5.291	2.344	45.021	45.021	48.000	0.024	161.952	5.683	269.298	1.000	42.678	1636.26	1636.26	5819.31
53.108	5.279	2.337	44.608	44.608	48.000	0.024	161.944	5.682	269.106	1.000	42.271	1635.09	1635.09	5759.72
53.642	5.274	2.334	44.439	44.439	48.000	0.024	161.935	5.682	269.026	1.000	42.105	1634.60	1634.60	5735.34
53.808	5.272	2.334	44.386	44.386	48.000	0.024	161.931	5.682	269.000	1.000	42.053	1634.45	1634.45	5727.74
($0.7L_s$) 54.267	5.268	2.331	44.241	44.241	48.000	0.024	161.919	5.681	268.931	1.000	41.910	1634.03	1634.03	5706.85
55.039	5.259	2.326	43.997	43.997	48.000	0.024	161.893	5.680	268.815	1.000	41.671	1633.32	1633.32	5671.77
(Deck Bar Cutoff) 55.043	5.259	2.326	43.995	43.995	48.000	0.024	161.893	5.680	268.814	1.000	41.669	1633.31	1633.31	5671.55
(SZB) 57.878	5.223	2.306	43.102	43.102	48.000	0.025	161.743	5.675	268.387	1.000	40.795	1630.72	1630.72	5543.80
58.555	5.213	2.301	42.889	42.889	48.000	0.025	161.696	5.674	268.285	1.000	40.588	1630.10	1630.10	5513.56
60.505	5.183	2.284	42.279	42.279	48.000	0.025	161.538	5.668	267.989	1.000	39.994	1628.30	1628.30	5426.89
61.305	5.169	2.277	42.029	42.029	48.000	0.025	161.465	5.665	267.867	1.000	39.752	1627.56	1627.56	5391.54
61.555	5.165	2.275	41.951	41.951	48.000	0.025	161.441	5.665	267.829	1.000	39.676	1627.33	1627.33	5380.52
($0.8L_s$) 62.019	5.157	2.270	41.806	41.806	48.000	0.025	161.396	5.663	267.758	1.000	39.536	1626.89	1626.89	5360.09
65.301	4.923	2.143	40.895	42.168	48.000	0.026	161.046	5.651	258.430	1.000	38.752	1570.22	1570.22	5070.82
(SZB) 66.128	4.783	2.068	40.726	43.379	48.000	0.027	160.951	5.647	252.124	1.000	38.657	1531.90	1531.90	4934.95
67.901	4.475	1.907	40.397	44.661	48.000	0.029	160.741	5.640	238.616	1.000	38.490	1449.83	1449.83	4650.32
68.968	4.282	1.810	40.224	44.592	48.000	0.031	160.612	5.636	230.497	1.000	38.415	1400.50	1400.50	4483.34
69.301	4.221	1.779	40.175	44.573	48.000	0.031	160.572	5.634	227.961	1.000	38.396	1385.09	1385.09	4431.81
($0.9L_s$) 69.771	4.132	1.736	40.109	44.548	48.000	0.032	160.515	5.632	224.385	1.000	38.373	1363.37	1363.37	4359.65
(1.5H) 71.048	3.882	1.621	39.952	46.201	48.000	0.034	160.360	5.627	214.691	1.000	38.331	1304.46	1304.46	4166.82
(SZB) 71.628	3.763	1.569	39.893	46.200	48.000	0.035	160.291	5.624	210.285	1.000	38.323	1277.69	1277.69	4080.47
72.048	3.688	1.538	39.856	46.201	48.000	0.036	160.241	5.622	207.093	1.000	38.318	1258.30	1258.30	4017.94
(CS) 72.510	3.606	1.506	39.821	48.093	48.000	0.037	160.186	5.621	203.569	1.000	38.315	1236.88	1236.88	3949.29
(H) 72.798	3.554	1.487	39.803	48.102	48.000	0.038	160.152	5.619	201.381	1.000	38.316	1223.59	1223.59	3906.94
(Bar Develop.) 73.866	3.353	1.417	39.754	48.135	48.000	0.040	160.029	5.615	193.258	1.000	38.338	1174.23	1174.23	3751.45
74.006	3.326	1.408	39.750	48.140	48.000	0.040	160.013	5.615	192.192	1.000	38.343	1167.76	1167.76	3731.24
(PSXFR) 74.048	3.317	1.405	39.749	48.141	48.000	0.040	160.009	5.614	191.875	1.000	38.344	1165.83	1165.83	3725.25
(Bar Develop.) 74.926	2.418	1.209	40.801	48.305	48.000	0.057	113.074	3.968	158.770	1.000	39.592	964.69	964.69	3182.82
(SZB) 75.294	2.203	1.101	41.470	48.389	48.000	0.062	93.433	3.278	144.681	1.000	40.369	879.08	879.08	2957.29
75.298	2.201	1.101	41.477	48.390	48.000	0.062	93.258	3.272	144.555	1.000	40.377	878.32	878.32	2955.28
(FoS) 76.298	1.616	0.808	44.455	48.683	48.000	0.086	39.941	1.401	106.131	1.000	43.647	644.85	644.85	2345.50
76.631	1.420	0.710	46.096	48.811	48.000	0.098	22.185	0.778	93.259	1.000	45.386	566.64	566.64	2143.15
76.631	1.420	0.710	46.096	48.811	48.000	0.098	22.185	0.778	93.259	1.000	45.386	566.64	566.64	2143.15
(STLF) 77.048	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
($1.0L_s$) 77.524	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00

* Used to compute d_v for shear. Depth to resultant tension force for strands in tension. See PCI Bridge Design Manual, 3rd Edition, MNL-133-11, §8.4.1.2

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.25(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 1.0$$

Positive Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STRF) -0.417	0.679	0.000	7237.4	10947.0	0.00	990.81
0.000	0.679	0.343	7237.4	10947.0	0.00	1334.76
(0.0L_s) 0.000	0.679	0.343	7237.4	10947.0	0.00	1334.76
(FoS) 0.333	0.679	0.621	7237.4	10947.0	22.47	1602.18
1.333	0.679	1.475	7237.4	10947.0	88.60	2425.24
(SZB) 1.337	0.679	1.478	7237.4	10947.0	88.82	2427.99
(Bar Develop.) 1.705	0.679	1.800	7237.4	10947.0	112.68	2738.82
(PSXFR) 2.583	0.679	2.585	7237.4	10947.0	168.60	3498.09
2.625	0.679	2.587	7237.4	10947.0	171.22	3498.64
(Bar Develop.) 2.765	0.679	2.593	7237.4	10947.0	180.00	3500.53
(H) 3.833	0.679	2.641	7237.4	10947.0	245.66	3515.55
(CS) 3.924	0.679	2.646	7237.4	10947.0	251.12	3516.88
4.583	0.679	2.676	7237.4	10947.0	290.48	3526.81
(SZB) 5.003	0.679	2.695	7237.4	10947.0	315.08	3533.35
(1.5H) 5.583	0.679	2.721	7237.4	10947.0	348.61	3542.71
7.330	0.679	2.801	7237.4	10947.0	445.68	3572.86
7.663	0.679	2.816	7237.4	10947.0	463.57	3578.95
(0.1L_s) 7.752	0.679	2.820	7237.4	10947.0	468.33	3580.60
8.730	0.679	2.865	7237.4	10947.0	519.43	3599.17
(SZB) 10.503	0.679	2.946	7237.4	10947.0	607.67	3635.11
11.330	0.679	2.983	7237.4	10947.0	646.88	3652.85
15.076	0.679	3.153	7237.4	10947.0	808.98	3740.55
15.326	0.679	3.165	7237.4	10947.0	818.90	3746.82
(0.2L_s) 15.505	0.679	3.173	7237.4	10947.0	825.92	3751.32
16.126	0.679	3.201	7237.4	10947.0	849.89	3767.18
18.076	0.679	3.288	7237.4	10947.1	920.67	3818.83
(SZB) 18.753	0.679	3.319	7237.4	10947.1	943.65	3837.39
22.823	0.679	3.498	7237.4	10935.3	1064.89	3952.34
22.989	0.679	3.506	7237.4	10934.5	1069.23	3957.17
(0.3L_s) 23.257	0.679	3.517	7237.4	10933.2	1076.12	3964.97
23.523	0.679	3.529	7237.4	10931.9	1082.82	3972.74
24.823	0.679	3.585	7237.4	10925.7	1113.85	4011.40
(SZB) 29.753	0.679	3.791	7237.4	10905.2	1204.96	4165.88
(HP) 30.569	0.679	3.824	7237.4	10902.3	1216.01	4192.49
30.574	0.679	3.824	7237.4	10902.3	1216.08	4192.46
30.652	0.679	3.824	7237.4	10902.1	1217.08	4192.05
30.919	0.679	3.825	7237.4	10901.1	1220.40	4190.66
(0.4L_s) 31.009	0.679	3.825	7237.4	10900.8	1221.50	4190.20
31.569	0.679	3.826	7237.4	10899.0	1227.99	4187.46
38.315	0.679	3.829	7237.4	10881.9	1264.19	4167.64
(0.5L_s) 38.762	0.679	3.828	7237.4	10881.1	1263.86	4167.18
45.062	0.679	3.814	7237.4	10875.0	1223.15	4171.94
45.712	0.679	3.812	7237.4	10874.9	1215.13	4173.62
45.979	0.679	3.811	7237.4	10874.9	1211.63	4174.37
46.057	0.679	3.811	7237.4	10874.9	1210.58	4174.60
(HP) 46.062	0.679	3.811	7237.4	10874.9	1210.51	4174.61
(0.6L_s) 46.514	0.679	3.792	7237.4	10874.9	1204.24	4158.96
(SZB) 46.878	0.679	3.777	7237.4	10874.9	1198.94	4146.44
51.808	0.679	3.565	7237.4	10878.5	1105.10	3983.43
53.108	0.679	3.508	7237.4	10880.3	1073.50	3942.77
53.642	0.679	3.484	7237.4	10881.2	1059.70	3926.40
53.808	0.679	3.477	7237.4	10881.5	1055.29	3921.32
(0.7L_s) 54.267	0.679	3.456	7237.4	10882.3	1042.92	3907.45
55.039	0.679	3.422	7237.4	10883.8	1021.28	3884.42
(Deck Bar Cutoff) 55.043	0.679	3.422	7237.4	10883.8	1021.13	3884.27
(SZB) 57.878	0.679	3.294	7237.4	10890.4	932.93	3803.34
58.555	0.679	3.264	7237.4	10892.2	909.86	3784.92
60.505	0.679	3.175	7237.4	10898.0	838.97	3733.87
61.305	0.679	3.139	7237.4	10900.6	808.00	3713.84
61.555	0.679	3.127	7237.4	10901.5	798.09	3707.69
(0.8L_s) 62.019	0.679	3.106	7237.4	10903.1	779.42	3696.42
65.301	0.679	2.956	7237.4	10915.7	636.80	3622.24
(SZB) 66.128	0.679	2.918	7237.4	10919.3	597.92	3605.13
67.901	0.679	2.837	7237.4	10927.3	510.57	3570.72
68.968	0.679	2.789	7237.4	10932.4	455.39	3551.54
69.301	0.679	2.773	7237.4	10934.1	437.73	3545.79
(0.9L_s) 69.771	0.679	2.752	7237.4	10936.4	412.50	3537.87
(1.5H) 71.048	0.679	2.694	7237.4	10943.0	342.05	3517.55
(SZB) 71.628	0.679	2.667	7237.4	10946.1	309.05	3508.88
72.048	0.679	2.648	7237.4	10947.1	284.85	3502.46
(CS) 72.510	0.679	2.627	7237.4	10947.1	257.79	3495.27
(H) 72.798	0.679	2.614	7237.4	10947.1	240.79	3490.92
(Bar Develop.) 73.866	0.679	2.566	7237.4	10947.1	176.33	3475.47
74.006	0.679	2.560	7237.4	10947.1	167.71	3473.53
(PSXFR) 74.048	0.679	2.558	7237.4	10947.1	165.15	3472.95
(Bar Develop.) 74.926	0.679	1.781	7237.4	10947.1	110.31	2721.15
(SZB) 75.294	0.679	1.462	7237.4	10947.1	86.93	2413.40
75.298	0.679	1.459	7237.4	10947.1	86.72	2410.67
(FoS) 76.298	0.679	0.614	7237.4	10947.1	21.98	1595.84
76.631	0.679	0.339	7237.4	10947.1	-0.00	1331.12
76.631	0.679	0.339	7237.4	10947.1	-0.00	1331.12
(STLF) 77.048	0.679	0.000	7237.4	10947.1	0.00	990.82

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($1.0L_s$) 77.524	0.509	0.000	13236.0	13236.0	0.00	898.49

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, γ_3 = 1

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

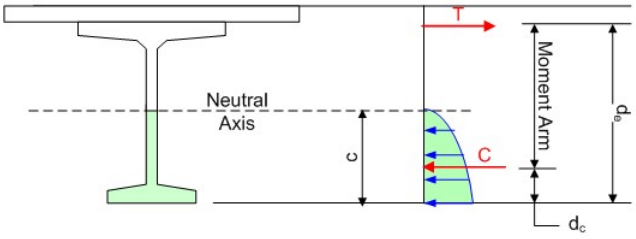
Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(STRF) -0.417	990.81	Strength II	0.00	0.00	0.00
0.000	1334.76	Strength II	0.00	0.00	0.00
($0.0L_s$) 0.000	1334.76	Strength II	0.00	0.00	0.00
(FoS) 0.333	1602.18	Strength I	83.16	110.61	110.61
1.333	2425.24	Strength I	327.17	435.13	435.13
(SZB) 1.337	2427.99	Strength I	327.95	436.18	436.18
(Bar Develop.) 1.705	2738.82	Strength I	415.68	552.85	552.85
(PSXFR) 2.583	3498.09	Strength I	620.64	825.45	825.45
2.625	3498.64	Strength I	630.20	838.17	838.17
(Bar Develop.) 2.765	3500.53	Strength I	662.30	880.86	880.86
(H) 3.833	3515.55	Strength I	901.36	1198.80	1198.80
(CS) 3.924	3516.88	Strength I	921.17	1225.16	1225.16
4.583	3526.81	Strength I	1063.69	1414.71	1414.71
(SZB) 5.003	3533.35	Strength I	1152.46	1532.77	1532.77
(1.5H) 5.583	3542.71	Strength I	1273.07	1693.18	1693.18
7.330	3572.86	Strength I	1619.34	2153.72	2153.72
7.663	3578.95	Strength I	1682.63	2237.89	2237.89
($0.1L_s$) 7.752	3580.60	Strength I	1699.43	2260.24	2260.24
8.730	3599.17	Strength I	1879.14	2499.25	2499.25
(SZB) 10.503	3635.11	Strength I	2185.72	2907.01	2907.01
11.330	3652.85	Strength I	2320.35	3086.06	3086.06
15.076	3740.55	Strength I	2862.65	3807.33	3740.55
15.326	3746.82	Strength I	2894.90	3850.22	3746.82
($0.2L_s$) 15.505	3751.32	Strength I	2917.64	3880.46	3751.32
16.126	3767.18	Strength I	2994.90	3983.22	3767.18
18.076	3818.83	Strength I	3218.43	4280.51	3818.83
(SZB) 18.753	3837.39	Strength I	3289.37	4374.87	3837.39
22.823	3952.34	Strength I	3642.81	4844.94	3952.34
22.989	3957.17	Strength I	3654.60	4860.62	3957.17
($0.3L_s$) 23.257	3964.97	Strength I	3674.16	4886.63	3964.97
23.523	3972.74	Strength I	3693.85	4912.82	3972.74
24.823	4011.40	Strength I	3782.81	5031.14	4011.40
(SZB) 29.753	4165.88	Strength I	4009.29	5332.35	4165.88
(HP) 30.569	4192.49	Strength I	4029.35	5359.03	4192.49
30.574	4192.46	Strength I	4029.45	5359.17	4192.46
30.652	4192.05	Strength I	4031.12	5361.39	4192.05
30.919	4190.66	Strength I	4036.44	5368.47	4190.66
($0.4L_s$) 31.009	4190.20	Strength I	4038.13	5370.71	4190.20
31.569	4187.46	Strength I	4047.64	5383.36	4187.46
38.315	4167.64	Strength I	4019.44	5345.86	4167.64
($0.5L_s$) 38.762	4167.18	Strength I	4009.51	5332.65	4167.18
45.062	4171.94	Strength I	3723.42	4952.15	4171.94
45.712	4173.62	Strength I	3678.82	4892.84	4173.62
45.979	4174.37	Strength I	3659.89	4867.65	4174.37
46.057	4174.60	Strength I	3654.23	4860.12	4174.60
(HP) 46.062	4174.61	Strength I	3653.87	4859.65	4174.61
($0.6L_s$) 46.514	4158.96	Strength I	3620.37	4815.09	4158.96
(SZB) 46.878	4146.44	Strength I	3592.45	4777.96	4146.44
51.808	3983.43	Strength I	3127.14	4159.10	3983.43
53.108	3942.77	Strength I	2979.30	3962.47	3942.77
53.642	3926.40	Strength I	2916.23	3878.59	3878.59
53.808	3921.32	Strength I	2896.14	3851.87	3851.87
($0.7L_s$) 54.267	3907.45	Strength I	2840.36	3777.68	3777.68
55.039	3884.42	Strength I	2744.63	3650.36	3650.36
(Deck Bar Cutoff) 55.043	3884.27	Strength I	2744.01	3649.53	3649.53
(SZB) 57.878	3803.34	Strength I	2358.72	3137.10	3137.10
58.555	3784.92	Strength I	2261.59	3007.92	3007.92
60.505	3733.87	Strength I	1974.55	2626.16	2626.16
61.305	3713.84	Strength I	1851.53	2462.54	2462.54
61.555	3707.69	Strength I	1812.46	2410.57	2410.57
($0.8L_s$) 62.019	3696.42	Strength I	1738.90	2312.74	2312.74
65.301	3622.24	Strength I	1224.83	1629.03	1629.03
(SZB) 66.128	3605.13	Strength I	1103.48	1467.63	1467.63
67.901	3570.72	Strength I	841.56	1119.28	1119.28

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
68.968	3551.54	Strength I	681.39	906.25	906.25
69.301	3545.79	Strength I	630.90	839.10	839.10
($0.9L_s$) 69.771	3537.87	Strength I	559.91	744.68	744.68
(1.5H) 71.048	3517.55	Strength I	365.90	486.64	486.64
(SZB) 71.628	3508.88	Strength I	276.67	367.97	367.97
72.048	3502.46	Strength I	211.95	281.89	281.89
(CS) 72.510	3495.27	Strength I	140.42	186.76	186.76
(H) 72.798	3490.92	Strength I	95.77	127.38	127.38
(Bar Develop.) 73.866	3475.47	Strength II	-147.68	-196.41	-196.41
74.006	3473.53	Strength II	-158.76	-211.15	-211.15
(PSXFR) 74.048	3472.95	Strength II	-162.06	-215.54	-215.54
(Bar Develop.) 74.926	2721.15	Strength II	-232.52	-309.25	-309.25
(SZB) 75.294	2413.40	Strength II	-262.52	-349.15	-349.15
75.298	2410.67	Strength II	-262.79	-349.51	-349.51
(FoS) 76.298	1595.84	Strength II	-345.77	-459.87	-459.87
76.631	1331.12	Strength II	-373.91	-497.29	-497.29
76.631	1331.12	Strength II	-373.91	-497.29	-497.29
(STLF) 77.048	990.82	Strength II	-384.41	-511.27	-511.27
($1.0L_s$) 77.524	898.49	Strength II	-396.53	-527.38	-527.38

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Negative Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(STRF) -0.417	6.339	2.545	51.052	51.052	0.021	0.900	48.507	960.00	960.00	-3880.53
0.000	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
($0.0L_s$) 0.000	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
(FoS) 0.333	6.341	2.545	50.959	50.959	0.021	0.900	48.414	960.00	960.00	-3873.10
1.333	6.343	2.545	50.838	50.838	0.021	0.900	48.293	960.00	960.00	-3863.44
(SZB) 1.337	6.343	2.545	50.838	50.838	0.021	0.900	48.293	960.00	960.00	-3863.41
(Bar Develop.) 1.705	6.344	2.545	50.794	50.794	0.021	0.900	48.249	960.00	960.00	-3859.92
(PSXFR) 2.583	6.346	2.545	50.692	50.692	0.021	0.900	48.147	960.00	960.00	-3851.75
2.625	6.346	2.545	50.687	50.687	0.021	0.900	48.142	960.00	960.00	-3851.36
(Bar Develop.) 2.765	6.346	2.545	50.671	50.671	0.021	0.900	48.126	960.00	960.00	-3850.08
(H) 3.833	6.349	2.545	50.551	50.551	0.021	0.900	48.006	960.00	960.00	-3840.47
(CS) 3.924	6.349	2.545	50.541	50.541	0.021	0.900	47.996	960.00	960.00	-3839.67
4.583	6.350	2.545	50.468	50.468	0.021	0.900	47.924	960.00	960.00	-3833.90
(SZB) 5.003	6.351	2.545	50.423	50.423	0.021	0.900	47.879	960.00	960.00	-3830.28
(1.5H) 5.583	6.352	2.545	50.361	50.361	0.021	0.900	47.817	960.00	960.00	-3825.35
7.330	6.356	2.544	50.182	50.182	0.021	0.900	47.638	960.00	960.00	-3811.03
7.663	6.356	2.544	50.149	50.149	0.021	0.900	47.605	960.00	960.00	-3808.38
($0.1L_s$) 7.752	6.357	2.544	50.140	50.140	0.021	0.900	47.596	960.00	960.00	-3807.67
8.730	6.358	2.544	50.045	50.045	0.021	0.900	47.501	960.00	960.00	-3800.08
(SZB) 10.503	6.362	2.544	49.880	49.880	0.021	0.900	47.336	960.00	960.00	-3786.87
11.330	6.363	2.544	49.806	49.806	0.020	0.900	47.262	960.00	960.00	-3780.96
15.076	6.369	2.544	49.496	49.496	0.020	0.900	46.952	960.00	960.00	-3756.15
15.326	6.369	2.544	49.477	49.477	0.020	0.900	46.933	960.00	960.00	-3754.61
($0.2L_s$) 15.505	6.370	2.544	49.463	49.463	0.020	0.900	46.919	960.00	960.00	-3753.51
16.126	6.370	2.544	49.416	49.416	0.020	0.900	46.872	960.00	960.00	-3749.77
18.076	6.373	2.544	49.276	49.276	0.020	0.900	46.732	960.00	960.00	-3738.58
(SZB) 18.753	6.374	2.544	49.230	49.230	0.020	0.900	46.686	960.00	960.00	-3734.90
22.823	6.379	2.544	48.982	48.982	0.020	0.900	46.438	960.00	960.00	-3715.04
22.989	6.379	2.544	48.973	48.973	0.020	0.900	46.429	960.00	960.00	-3714.31
($0.3L_s$) 23.257	6.379	2.544	48.959	48.959	0.020	0.900	46.414	960.00	960.00	-3713.16
23.523	6.379	2.544	48.944	48.944	0.020	0.900	46.400	960.00	960.00	-3712.03
24.823	6.381	2.544	48.879	48.879	0.020	0.900	46.334	960.00	960.00	-3706.75
(SZB) 29.753	6.384	2.544	48.679	48.679	0.020	0.900	46.134	960.00	960.00	-3690.76
(HP) 30.569	6.385	2.544	48.654	48.654	0.020	0.900	46.109	960.00	960.00	-3688.76
30.574	6.385	2.544	48.654	48.654	0.020	0.900	46.109	960.00	960.00	-3688.75
30.652	6.385	2.544	48.651	48.651	0.020	0.900	46.107	960.00	960.00	-3688.56
30.919	6.385	2.544	48.644	48.644	0.020	0.900	46.099	960.00	960.00	-3687.96
($0.4L_s$) 31.009	6.385	2.544	48.641	48.641	0.020	0.900	46.097	960.00	960.00	-3687.76
31.569	6.385	2.544	48.626	48.626	0.020	0.900	46.082	960.00	960.00	-3686.57
38.315	5.927	2.387	48.536	48.536	0.022	0.900	46.148	900.00	900.00	-3461.11
($0.5L_s$) 38.762	5.927	2.387	48.535	48.535	0.022	0.900	46.148	900.00	900.00	-3461.08
45.062	5.925	2.388	48.606	48.606	0.022	0.900	46.219	900.00	900.00	-3466.39
45.712	5.925	2.388	48.622	48.622	0.022	0.900	46.234	900.00	900.00	-3467.55
45.979	5.925	2.388	48.628	48.628	0.022	0.900	46.241	900.00	900.00	-3468.06

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
46.057	5.925	2.388	48.631	48.631	0.022	0.900	46.243	900.00	900.00	-3468.22
(HP) 46.062	5.925	2.388	48.631	48.631	0.022	0.900	46.243	900.00	900.00	-3468.23
($0.6L_s$) 46.514	5.925	2.388	48.643	48.643	0.022	0.900	46.255	900.00	900.00	-3469.15
(SZB) 46.878	5.924	2.388	48.653	48.653	0.022	0.900	46.266	900.00	900.00	-3469.94
51.808	5.921	2.388	48.842	48.842	0.022	0.900	46.454	900.00	900.00	-3484.05
53.108	5.919	2.388	48.906	48.906	0.022	0.900	46.518	900.00	900.00	-3488.81
53.642	5.919	2.388	48.933	48.933	0.022	0.900	46.545	900.00	900.00	-3490.89
53.808	5.919	2.388	48.942	48.942	0.022	0.900	46.554	900.00	900.00	-3491.55
($0.7L_s$) 54.267	5.918	2.388	48.967	48.967	0.022	0.900	46.579	900.00	900.00	-3493.41
55.039	5.917	2.388	49.010	49.010	0.022	0.900	46.622	900.00	900.00	-3496.65
(Deck Bar Cutoff) 55.043	5.917	2.388	49.011	49.011	0.022	0.900	46.622	900.00	900.00	-3496.67
(SZB) 57.878	6.499	2.587	49.186	49.186	0.020	0.900	46.599	976.25	976.25	-3790.98
58.555	7.264	2.866	49.232	49.232	0.017	0.900	46.365	1076.85	1076.85	-4160.69
60.505	10.370	3.971	49.371	49.371	0.011	0.900	45.400	1457.79	1457.79	-5515.32
61.305	11.590	4.309	49.432	49.432	0.010	0.900	45.122	1584.54	1584.54	-5958.18
61.555	12.007	4.418	49.451	49.451	0.009	0.900	45.033	1624.14	1624.14	-6094.97
($0.8L_s$) 62.019	12.846	4.624	49.488	49.488	0.009	0.900	44.863	1697.67	1697.67	-6346.93
65.301	16.057	5.270	49.765	49.765	0.006	0.900	44.495	1920.00	1920.00	-7119.15
(SZB) 66.128	16.057	5.271	49.840	49.840	0.006	0.900	44.570	1920.00	1920.00	-7131.16
67.901	16.058	5.271	50.009	50.009	0.006	0.900	44.738	1920.00	1920.00	-7158.11
68.968	16.058	5.271	50.116	50.116	0.006	0.900	44.845	1920.00	1920.00	-7175.13
69.301	16.058	5.271	50.150	50.150	0.006	0.900	44.879	1920.00	1920.00	-7180.57
($0.9L_s$) 69.771	16.058	5.272	50.199	50.199	0.006	0.900	44.927	1920.00	1920.00	-7188.35
(1.5H) 71.048	16.058	5.272	50.335	50.335	0.006	0.900	45.063	1920.00	1920.00	-7210.08
(SZB) 71.628	16.058	5.272	50.399	50.399	0.006	0.900	45.127	1920.00	1920.00	-7220.26
72.048	16.058	5.272	50.446	50.446	0.006	0.900	45.173	1920.00	1920.00	-7227.73
(CS) 72.510	16.058	5.272	50.498	50.498	0.006	0.900	45.226	1920.00	1920.00	-7236.10
(H) 72.798	16.058	5.273	50.531	50.531	0.006	0.900	45.258	1920.00	1920.00	-7241.35
(Bar Develop.) 73.866	16.059	5.273	50.656	50.656	0.006	0.900	45.383	1920.00	1920.00	-7261.31
74.006	16.059	5.273	50.673	50.673	0.006	0.900	45.400	1920.00	1920.00	-7263.99
(PSXFR) 74.048	16.059	5.273	50.678	50.678	0.006	0.900	45.405	1920.00	1920.00	-7264.78
(Bar Develop.) 74.926	16.059	5.273	50.785	50.785	0.006	0.900	45.511	1920.00	1920.00	-7281.81
(SZB) 75.294	16.059	5.273	50.830	50.830	0.006	0.900	45.557	1920.00	1920.00	-7289.08
75.298	16.059	5.273	50.831	50.831	0.006	0.900	45.557	1920.00	1920.00	-7289.14
(FoS) 76.298	16.059	5.274	50.957	50.957	0.007	0.900	45.683	1920.00	1920.00	-7309.32
76.631	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.19
76.631	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.19
(STLF) 77.048	16.059	5.274	51.055	51.055	0.007	0.900	45.780	1920.00	1920.00	-7324.88
($1.0L_s$) 77.524	32.950	9.458	51.011	51.011	0.002	0.750	41.553	1526.02	1526.02	-5284.23

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.15(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 0.9$$

Negative Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STRF) -0.417	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
0.000	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
($0.0L_s$) 0.000	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(FoS) 0.333	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
1.333	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(SZB) 1.337	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(Bar Develop.) 1.705	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(PSXFR) 2.583	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
2.625	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(Bar Develop.) 2.765	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(H) 3.833	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(CS) 3.924	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
4.583	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(SZB) 5.003	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(1.5H) 5.583	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
7.330	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
7.663	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
($0.1L_s$) 7.752	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
8.730	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
(SZB) 10.503	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
11.330	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
15.076	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
15.326	0.509	0.000	-26443.4	-26443.4	0.00	-1196.69
($0.2L_s$) 15.505	0.509	0.000	-26443.5	-26443.5	0.00	-1196.69
16.126	0.509	0.000	-26443.5	-26443.5	0.00	-1196.69
18.076	0.509	0.000	-26443.5	-26443.5	0.00	-1196.69
(SZB) 18.753	0.509	0.000	-26443.5	-26443.5	0.00	-1196.69
22.823	0.509	0.000	-26276.3	-26276.3	0.00	-1189.13
22.989	0.509	0.000	-26264.5	-26264.5	0.00	-1188.60
($0.3L_s$) 23.257	0.509	0.000	-26245.7	-26245.7	0.00	-1187.74
23.523	0.509	0.000	-26227.2	-26227.2	0.00	-1186.91
24.823	0.509	0.000	-26139.9	-26139.9	0.00	-1182.96
(SZB) 29.753	0.509	0.000	-25855.0	-25855.0	0.00	-1170.07

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(HP) 30.569	0.509	0.000	-25815.0	-25815.0	0.00	-1168.25
30.574	0.509	0.000	-25814.7	-25814.7	0.00	-1168.24
30.652	0.509	0.000	-25811.0	-25811.0	0.00	-1168.07
30.919	0.509	0.000	-25798.4	-25798.4	0.00	-1167.50
($0.4L_s$) 31.009	0.509	0.000	-25794.2	-25794.2	0.00	-1167.31
31.569	0.509	0.000	-25768.6	-25768.6	0.00	-1166.15
38.315	0.509	0.000	-25535.6	-25535.6	0.00	-1155.61
($0.5L_s$) 38.762	0.509	0.000	-25525.1	-25525.1	0.00	-1155.13
45.062	0.509	0.000	-25442.2	-25442.2	0.00	-1151.38
45.712	0.509	0.000	-25440.6	-25440.6	0.00	-1151.31
45.979	0.509	0.000	-25440.3	-25440.3	0.00	-1151.30
46.057	0.509	0.000	-25440.3	-25440.3	0.00	-1151.30
(HP) 46.062	0.509	0.000	-25440.3	-25440.3	0.00	-1151.30
($0.6L_s$) 46.514	0.509	0.000	-25440.4	-25440.4	0.00	-1151.30
(SZB) 46.878	0.509	0.000	-25441.0	-25441.0	0.00	-1151.33
51.808	0.509	0.000	-25488.9	-25488.9	0.00	-1153.49
53.108	0.509	0.000	-25514.0	-25514.0	0.00	-1154.63
53.642	0.509	0.000	-25525.8	-25525.8	0.00	-1155.16
53.808	0.509	0.000	-25529.6	-25529.6	0.00	-1155.34
($0.7L_s$) 54.267	0.509	0.000	-25540.7	-25540.7	0.00	-1155.84
55.039	0.509	0.000	-25560.8	-25560.8	0.00	-1156.75
(Deck Bar Cutoff) 55.043	0.509	0.000	-25560.9	-25560.9	0.00	-1156.75
(SZB) 57.878	0.509	0.000	-25650.4	-25650.4	0.00	-1160.80
58.555	0.509	0.000	-25675.4	-25675.4	0.00	-1161.93
60.505	0.509	0.000	-25755.2	-25755.2	0.00	-1165.55
61.305	0.509	0.000	-25791.3	-25791.3	0.00	-1167.18
61.555	0.509	0.000	-25803.0	-25803.0	0.00	-1167.71
($0.8L_s$) 62.019	0.509	0.000	-25825.2	-25825.2	0.00	-1168.71
65.301	0.509	0.000	-26000.7	-26000.7	0.00	-1176.66
(SZB) 66.128	0.509	0.000	-26050.1	-26050.1	0.00	-1178.89
67.901	0.509	0.000	-26162.8	-26162.8	0.00	-1183.99
68.968	0.509	0.000	-26235.2	-26235.2	0.00	-1187.27
69.301	0.509	0.000	-26258.5	-26258.5	0.00	-1188.32
($0.9L_s$) 69.771	0.509	0.000	-26292.0	-26292.0	0.00	-1189.84
(1.5H) 71.048	0.509	0.000	-26386.1	-26386.1	0.00	-1194.10
(SZB) 71.628	0.509	0.000	-26430.5	-26430.5	0.00	-1196.11
72.048	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(CS) 72.510	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(H) 72.798	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(Bar Develop.) 73.866	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
74.006	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(PSXFR) 74.048	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(Bar Develop.) 74.926	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(SZB) 75.294	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
75.298	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(FoS) 76.298	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
76.631	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
76.631	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
(STLF) 77.048	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71
($1.0L_s$) 77.524	0.509	0.000	-26443.8	-26443.8	0.00	-1196.71

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, γ_3 = 0.67

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

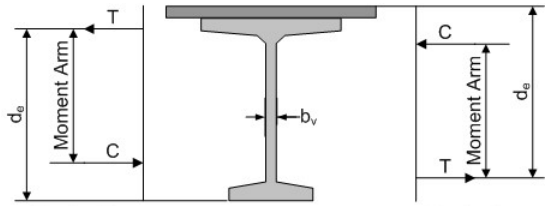
Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(STRF) -0.417	-1196.69	Strength II	0.00	0.00	0.00
0.000	-1196.69	Strength II	0.00	0.00	0.00
($0.0L_s$) 0.000	-1196.69	Strength II	0.00	0.00	0.00
(FoS) 0.333	-1196.69	Strength II	0.33	0.43	0.43
1.333	-1196.69	Strength I	-1.34	-1.78	-1.78
(SZB) 1.337	-1196.69	Strength I	-1.34	-1.79	-1.79
(Bar Develop.) 1.705	-1196.69	Strength I	-1.88	-2.50	-2.50
(PSXFR) 2.583	-1196.69	Strength I	-3.45	-4.59	-4.59
2.625	-1196.69	Strength I	-3.53	-4.70	-4.70
(Bar Develop.) 2.765	-1196.69	Strength I	-3.83	-5.09	-5.09
(H) 3.833	-1196.69	Strength I	-6.39	-8.49	-8.49
(CS) 3.924	-1196.69	Strength I	-6.63	-8.82	-8.82
4.583	-1196.69	Strength I	-8.55	-11.37	-11.37
(SZB) 5.003	-1196.69	Strength I	-9.88	-13.14	-13.14
(1.5H) 5.583	-1196.69	Strength I	-11.89	-15.81	-15.81

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
7.330	-1196.69	Strength I	-18.99	-25.26	-25.26
7.663	-1196.69	Strength I	-20.53	-27.31	-27.31
($0.1L_s$) 7.752	-1196.69	Strength I	-20.95	-27.87	-27.87
8.730	-1196.69	Strength I	-25.85	-34.39	-34.39
(SZB) 10.503	-1196.69	Strength I	-36.03	-47.92	-47.92
11.330	-1196.69	Strength I	-41.35	-54.99	-54.99
15.076	-1196.69	Strength I	-69.96	-93.05	-93.05
15.326	-1196.69	Strength I	-72.13	-95.94	-95.94
($0.2L_s$) 15.505	-1196.69	Strength I	-73.71	-98.03	-98.03
16.126	-1196.69	Strength I	-79.31	-105.49	-105.49
18.076	-1196.69	Strength I	-98.23	-130.64	-130.64
(SZB) 18.753	-1196.69	Strength I	-105.26	-139.99	-139.99
22.823	-1189.13	Strength I	-152.68	-203.06	-203.06
22.989	-1188.60	Strength I	-154.81	-205.89	-205.89
($0.3L_s$) 23.257	-1187.74	Strength I	-158.26	-210.48	-210.48
23.523	-1186.91	Strength I	-161.72	-215.08	-215.08
24.823	-1182.96	Strength I	-179.19	-238.32	-238.32
(SZB) 29.753	-1170.07	Strength I	-253.58	-337.26	-337.26
(HP) 30.569	-1168.25	Strength I	-267.14	-355.30	-355.30
30.574	-1168.24	Strength I	-267.22	-355.41	-355.41
30.652	-1168.07	Strength I	-268.55	-357.17	-357.17
30.919	-1167.50	Strength I	-273.06	-363.17	-363.17
($0.4L_s$) 31.009	-1167.31	Strength I	-274.60	-365.22	-365.22
31.569	-1166.15	Strength I	-284.23	-378.03	-378.03
38.315	-1155.61	Strength I	-413.36	-549.76	-549.76
($0.5L_s$) 38.762	-1155.13	Strength I	-422.75	-562.26	-562.26
45.062	-1151.38	Strength I	-566.56	-753.53	-753.53
45.712	-1151.31	Strength I	-582.59	-774.85	-774.85
45.979	-1151.30	Strength I	-589.24	-783.68	-783.68
46.057	-1151.30	Strength I	-591.20	-786.29	-786.29
(HP) 46.062	-1151.30	Strength I	-591.32	-786.46	-786.46
($0.6L_s$) 46.514	-1151.30	Strength I	-602.69	-801.58	-801.58
(SZB) 46.878	-1151.33	Strength I	-611.92	-813.86	-813.86
51.808	-1153.49	Strength I	-743.85	-989.32	-989.32
53.108	-1154.63	Strength I	-780.78	-1038.43	-1038.43
53.642	-1155.16	Strength I	-796.19	-1058.93	-1058.93
53.808	-1155.34	Strength I	-801.03	-1065.37	-1065.37
($0.7L_s$) 54.267	-1155.84	Strength I	-814.43	-1083.20	-1083.20
55.039	-1156.75	Strength I	-837.26	-1113.56	-1113.56
(Deck Bar Cutoff) 55.043	-1156.75	Strength I	-837.41	-1113.75	-1113.75
(SZB) 57.878	-1160.80	Strength I	-925.28	-1230.63	-1160.80
58.555	-1161.93	Strength I	-949.02	-1262.19	-1161.93
60.505	-1165.55	Strength I	-1025.20	-1363.52	-1165.55
61.305	-1167.18	Strength I	-1057.29	-1406.19	-1167.18
61.555	-1167.71	Strength I	-1067.42	-1419.66	-1167.71
($0.8L_s$) 62.019	-1168.71	Strength I	-1086.35	-1444.84	-1168.71
65.301	-1176.66	Strength I	-1245.02	-1655.87	-1176.66
(SZB) 66.128	-1178.89	Strength I	-1292.22	-1718.65	-1178.89
67.901	-1183.99	Strength I	-1451.92	-1931.05	-1183.99
68.968	-1187.27	Strength I	-1575.71	-2095.69	-1187.27
69.301	-1188.32	Strength I	-1618.63	-2152.78	-1188.32
($0.9L_s$) 69.771	-1189.84	Strength I	-1679.82	-2234.16	-1189.84
(1.5H) 71.048	-1194.10	Strength I	-1855.62	-2467.98	-1194.10
(SZB) 71.628	-1196.11	Strength I	-1932.27	-2569.91	-1196.11
72.048	-1196.71	Strength I	-1988.25	-2644.37	-1196.71
(CS) 72.510	-1196.71	Strength I	-2050.67	-2727.39	-1196.71
(H) 72.798	-1196.71	Strength I	-2089.77	-2779.40	-1196.71
(Bar Develop.) 73.866	-1196.71	Strength I	-2321.90	-3088.13	-1196.71
74.006	-1196.71	Strength I	-2343.03	-3116.23	-1196.71
(PSXFR) 74.048	-1196.71	Strength I	-2349.31	-3124.59	-1196.71
(Bar Develop.) 74.926	-1196.71	Strength I	-2483.06	-3302.47	-1196.71
(SZB) 75.294	-1196.71	Strength I	-2539.76	-3377.89	-1196.71
75.298	-1196.71	Strength I	-2540.27	-3378.56	-1196.71
(FoS) 76.298	-1196.71	Strength I	-2696.34	-3586.14	-1196.71
76.631	-1196.71	Strength I	-2749.00	-3656.18	-1196.71
76.631	-1196.71	Strength I	-2749.00	-3656.18	-1196.71
(STLF) 77.048	-1196.71	Strength I	-2815.24	-3744.27	-1196.71
($1.0L_s$) 77.524	-1196.71	Strength I	-2891.62	-3845.86	-1196.71

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Shear Capacity Details

Effective Shear Dimensions for Strength I [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 3.924	7.000	48.099	51.000	43.289	36.720	38.314	43.289	Bottom
4.583	7.000	46.201	51.000	41.581	36.720	38.317	41.581	Bottom
(SZB) 5.003	7.000	46.200	51.000	41.580	36.720	38.323	41.580	Bottom
(1.5H) 5.583	7.000	46.201	51.000	41.581	36.720	38.336	41.581	Bottom
7.330	7.000	44.570	51.000	40.113	36.720	38.416	40.113	Bottom
7.663	7.000	44.589	51.000	40.130	36.720	38.438	40.130	Bottom
($0.1L_s$) 7.752	7.000	44.594	51.000	40.135	36.720	38.445	40.135	Bottom
8.730	7.000	44.657	51.000	40.192	36.720	38.524	40.192	Bottom
(SZB) 10.503	7.000	43.374	51.000	39.036	36.720	38.709	39.036	Bottom
11.330	7.000	42.161	51.000	37.945	36.720	38.813	38.813	Bottom
15.076	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
15.326	7.000	42.019	51.000	37.817	36.720	39.846	39.846	Bottom
($0.2L_s$) 15.505	7.000	42.075	51.000	37.867	36.720	39.902	39.902	Bottom
16.126	7.000	42.269	51.000	38.042	36.720	40.094	40.094	Bottom
18.076	7.000	42.879	51.000	38.591	36.720	40.701	40.701	Bottom
(SZB) 18.753	7.000	43.092	51.000	38.783	36.720	40.913	40.913	Bottom
22.823	7.000	44.379	51.000	39.941	36.720	42.167	42.167	Bottom
22.989	7.000	44.432	51.000	39.989	36.720	42.218	42.218	Bottom
($0.3L_s$) 23.257	7.000	44.517	51.000	40.066	36.720	42.300	42.300	Bottom
23.523	7.000	44.602	51.000	40.142	36.720	42.381	42.381	Bottom
24.823	7.000	45.016	51.000	40.515	36.720	42.780	42.780	Bottom
(SZB) 29.753	7.000	46.596	51.000	41.937	36.720	44.309	44.309	Bottom
(HP) 30.569	7.000	46.859	51.000	42.173	36.720	44.564	44.564	Bottom
30.574	7.000	46.859	51.000	42.173	36.720	44.564	44.564	Bottom
30.652	7.000	46.859	51.000	42.173	36.720	44.563	44.563	Bottom
30.919	7.000	46.859	51.000	42.173	36.720	44.561	44.561	Bottom
($0.4L_s$) 31.009	7.000	46.859	51.000	42.173	36.720	44.561	44.561	Bottom
31.569	7.000	46.859	51.000	42.173	36.720	44.556	44.556	Bottom
38.315	7.000	46.859	51.000	42.174	36.720	44.518	44.518	Bottom
($0.5L_s$) 38.762	7.000	46.860	51.000	42.174	36.720	44.516	44.516	Bottom
45.062	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
45.712	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
45.979	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
46.057	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
(HP) 46.062	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
($0.6L_s$) 46.514	7.000	46.715	51.000	42.043	36.720	44.357	44.357	Bottom
(SZB) 46.878	7.000	46.598	51.000	41.938	36.720	44.240	44.240	Bottom
51.808	7.000	45.021	51.000	40.519	36.720	42.678	42.678	Bottom
53.108	7.000	44.608	51.000	40.147	36.720	42.271	42.271	Bottom
53.642	7.000	44.439	51.000	39.995	36.720	42.105	42.105	Bottom
53.808	7.000	44.386	51.000	39.948	36.720	42.053	42.053	Bottom
($0.7L_s$) 54.267	7.000	44.241	51.000	39.817	36.720	41.910	41.910	Bottom
55.039	7.000	43.997	51.000	39.597	36.720	41.671	41.671	Bottom
(Deck Bar Cutoff) 55.043	7.000	43.995	51.000	39.596	36.720	41.669	41.669	Bottom
(SZB) 57.878	7.000	43.102	51.000	38.791	36.720	40.795	40.795	Bottom
58.555	7.000	42.889	51.000	38.600	36.720	40.588	40.588	Bottom
60.505	7.000	42.279	51.000	38.051	36.720	39.994	39.994	Bottom
61.305	7.000	42.029	51.000	37.826	36.720	39.752	39.752	Bottom
61.555	7.000	41.951	51.000	37.756	36.720	39.676	39.676	Bottom
($0.8L_s$) 62.019	7.000	41.806	51.000	37.626	36.720	39.536	39.536	Bottom
65.301	7.000	42.168	51.000	37.951	36.720	38.752	38.752	Bottom
(SZB) 66.128	7.000	43.379	51.000	39.041	36.720	38.657	39.041	Bottom
67.901	7.000	50.009	51.000	45.008	36.720	44.738	45.008	Top
68.968	7.000	50.116	51.000	45.104	36.720	44.845	45.104	Top
69.301	7.000	50.150	51.000	45.135	36.720	44.879	45.135	Top
($0.9L_s$) 69.771	7.000	50.199	51.000	45.179	36.720	44.927	45.179	Top
(1.5H) 71.048	7.000	50.335	51.000	45.301	36.720	45.063	45.301	Top
(SZB) 71.628	7.000	50.399	51.000	45.359	36.720	45.127	45.359	Top
72.048	7.000	50.446	51.000	45.401	36.720	45.173	45.401	Top
(CS) 72.510	7.000	50.498	51.000	45.448	36.720	45.226	45.448	Top

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength I

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 3.924	0.9	226.52	26.37	43.289	7.000	0.744
4.583	0.9	222.48	26.38	41.581	7.000	0.759
(SZB) 5.003	0.9	219.92	26.39	41.580	7.000	0.749
(1.5H) 5.583	0.9	216.39	26.39	41.581	7.000	0.735
7.330	0.9	205.82	26.42	40.113	7.000	0.720
7.663	0.9	203.81	26.43	40.130	7.000	0.712
($0.1L_s$) 7.752	0.9	203.27	26.43	40.135	7.000	0.710
8.730	0.9	197.41	26.44	40.192	7.000	0.686
(SZB) 10.503	0.9	186.85	26.47	39.036	7.000	0.663
11.330	0.9	181.97	26.48	38.813	7.000	0.647
15.076	0.9	160.14	26.53	39.769	7.000	0.544
15.326	0.9	158.70	26.53	39.846	7.000	0.537
($0.2L_s$) 15.505	0.9	157.67	26.53	39.902	7.000	0.532
16.126	0.9	154.10	26.54	40.094	7.000	0.516
18.076	0.9	142.99	26.55	40.701	7.000	0.464
(SZB) 18.753	0.9	139.17	26.55	40.913	7.000	0.447
22.823	0.9	116.51	26.55	42.167	7.000	0.349
22.989	0.9	115.59	26.55	42.218	7.000	0.345
($0.3L_s$) 23.257	0.9	114.11	26.55	42.300	7.000	0.339
23.523	0.9	112.65	26.55	42.381	7.000	0.332
24.823	0.9	105.54	26.54	42.780	7.000	0.303
(SZB) 29.753	0.9	79.35	26.46	44.309	7.000	0.199
(HP) 30.569	0.9	75.23	26.44	44.564	7.000	0.183
30.574	0.9	75.21	0.00	44.564	7.000	0.268
30.652	0.9	74.81	0.00	44.563	7.000	0.266
30.919	0.9	73.48	0.00	44.561	7.000	0.262
($0.4L_s$) 31.009	0.9	73.02	0.00	44.561	7.000	0.260
31.569	0.9	70.23	0.00	44.556	7.000	0.250
38.315	0.9	81.26	0.00	44.518	7.000	0.290
($0.5L_s$) 38.762	0.9	83.73	0.00	44.516	7.000	0.299
45.062	0.9	118.85	0.00	44.502	7.000	0.424
45.712	0.9	122.49	0.00	44.502	7.000	0.437
45.979	0.9	123.98	0.00	44.502	7.000	0.442
46.057	0.9	124.42	0.00	44.502	7.000	0.444
(HP) 46.062	0.9	124.44	26.35	44.502	7.000	0.359
($0.6L_s$) 46.514	0.9	126.97	26.35	44.357	7.000	0.369
(SZB) 46.878	0.9	129.01	26.36	44.240	7.000	0.378
51.808	0.9	156.73	26.39	42.678	7.000	0.495
53.108	0.9	164.06	26.39	42.271	7.000	0.527
53.642	0.9	167.06	26.39	42.105	7.000	0.540
53.808	0.9	167.99	26.39	42.053	7.000	0.544
($0.7L_s$) 54.267	0.9	170.57	26.38	41.910	7.000	0.556
55.039	0.9	174.92	26.38	41.671	7.000	0.576
(Deck Bar Cutoff) 55.043	0.9	174.95	26.38	41.669	7.000	0.576
(SZB) 57.878	0.9	190.97	26.36	40.795	7.000	0.651
58.555	0.9	194.81	26.35	40.588	7.000	0.669
60.505	0.9	205.84	26.32	39.994	7.000	0.723
61.305	0.9	210.35	26.31	39.752	7.000	0.745
61.555	0.9	211.76	26.31	39.676	7.000	0.752
($0.8L_s$) 62.019	0.9	214.38	26.30	39.536	7.000	0.766
65.301	0.9	232.95	26.24	38.752	7.000	0.857
(SZB) 66.128	0.9	237.64	26.23	39.041	7.000	0.870
67.901	0.9	247.66	26.19	45.008	7.000	0.790
68.968	0.9	253.68	26.17	45.104	7.000	0.810
69.301	0.9	255.56	26.16	45.135	7.000	0.816
($0.9L_s$) 69.771	0.9	258.20	26.16	45.179	7.000	0.824
(1.5H) 71.048	0.9	265.40	26.13	45.301	7.000	0.848
(SZB) 71.628	0.9	268.69	26.12	45.359	7.000	0.858
72.048	0.9	271.05	26.11	45.401	7.000	0.865
(CS) 72.510	0.9	273.66	26.10	45.448	7.000	0.874

f_{po} - Strength I

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength I

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps} + E_c A_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 3.924	921.17	226.52	26.37	200.15	43.289	0.400	29000.000	3.601	28500.000	365.000	5011.145	-0.116
4.583	1063.69	222.48	26.38	196.10	41.581	0.400	29000.000	3.624	28500.000	365.000	5011.145	-0.0936
(SZB) 5.003	1152.46	219.92	26.39	193.54	41.580	0.400	29000.000	3.640	28500.000	365.000	5011.145	-0.0832
(1.5H) 5.583	1273.07	216.39	26.39	189.99	41.581	0.400	29000.000	4.047	28500.000	365.000	5011.145	-0.106
7.330	1619.34	205.82	26.42	179.40	40.113	0.400	29000.000	4.528	28500.000	365.000	5011.145	-0.0975

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
7.663	1682.63	203.81	26.43	177.38	40.130	0.400	29000.000	4.546	28500.000	365.000	5011.145	-0.0907
($0.1L_s$) 7.752	1699.43	203.27	26.43	176.84	40.135	0.400	29000.000	4.551	28500.000	365.000	5011.145	-0.0889
8.730	1879.14	197.41	26.44	170.96	40.192	0.400	29000.000	4.605	28500.000	365.000	5011.145	-0.0701
(SZB) 10.503	2185.72	186.85	26.47	160.38	39.036	0.400	29000.000	5.121	28500.000	365.000	5011.145	-0.0683
11.330	2320.35	181.97	26.48	155.49	38.813	0.400	29000.000	5.169	28500.000	365.000	5011.145	-0.0523
15.076	2862.65	160.14	26.53	133.61	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.075
15.326	2894.90	158.70	26.53	132.17	39.846	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0717
($0.2L_s$) 15.505	2917.64	157.67	26.53	131.14	39.902	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0694
16.126	2994.90	154.10	26.54	127.56	40.094	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0618
18.076	3218.43	142.99	26.55	116.44	40.701	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0412
(SZB) 18.753	3289.37	139.17	26.55	112.62	40.913	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0352
22.823	3642.81	116.51	26.55	89.95	42.167	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0108
22.989	3654.60	115.59	26.55	89.04	42.218	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0102
($0.3L_s$) 23.257	3674.16	114.11	26.55	87.56	42.300	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00918
23.523	3693.85	112.65	26.55	86.10	42.381	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00813
24.823	3782.81	105.54	26.54	79.01	42.780	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0041
(SZB) 29.753	4009.29	79.35	26.46	52.89	44.309	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00479
(HP) 30.569	4029.35	75.23	26.44	48.80	44.564	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00723
30.574	4029.45	75.21	0.00	75.21	44.564	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0643
30.652	4031.12	74.81	0.00	74.81	44.563	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0647
30.919	4036.44	73.48	0.00	73.48	44.561	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0655
($0.4L_s$) 31.009	4038.13	73.02	0.00	73.02	44.561	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0656
31.569	4047.64	70.23	0.00	70.23	44.556	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0649
38.315	4019.44	81.26	0.00	81.26	44.518	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0885
($0.5L_s$) 38.762	4009.51	83.73	0.00	83.73	44.516	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0877
45.062	3723.42	118.85	0.00	118.85	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0127
45.712	3678.82	122.49	0.00	122.49	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0168
45.979	3659.89	123.98	0.00	123.98	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0186
46.057	3654.23	124.42	0.00	124.42	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0192
(HP) 46.062	3653.87	124.44	26.35	98.10	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0323
($0.6L_s$) 46.514	3620.37	126.97	26.35	100.62	44.357	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0339
(SZB) 46.878	3592.45	129.01	26.36	102.65	44.240	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0354
51.808	3127.14	156.73	26.39	130.34	42.678	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0689
53.108	2979.30	164.06	26.39	137.67	42.271	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0819
53.642	2916.23	167.06	26.39	140.67	42.105	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0877
53.808	2896.14	167.99	26.39	141.61	42.053	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0895
($0.7L_s$) 54.267	2840.36	170.57	26.38	144.19	41.910	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0948
55.039	2744.63	174.92	26.38	148.54	41.671	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.104
(Deck Bar Cutoff) 55.043	2744.01	174.95	26.38	148.57	41.669	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.104
(SZB) 57.878	2358.72	190.97	26.36	164.62	40.795	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.144
58.555	2261.59	194.81	26.35	168.46	40.588	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.155
60.505	1974.55	205.84	26.32	179.52	39.994	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.187
61.305	1851.53	210.35	26.31	184.04	39.752	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.201
61.555	1812.46	211.76	26.31	185.45	39.676	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.206
($0.8L_s$) 62.019	1738.90	214.38	26.30	188.08	39.536	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.215
65.301	1224.83	232.95	26.24	206.71	38.752	0.400	29000.000	5.159	28500.000	365.000	5011.145	-0.196
(SZB) 66.128	1103.48	237.64	26.23	211.42	39.041	0.400	29000.000	5.111	28500.000	365.000	5011.145	-0.209
67.901	992.40	247.66	26.19	221.47	45.008	33.680	29000.000	1.225	28500.000	936.473	5011.145	0.252
68.968	1165.86	253.68	26.17	227.51	45.104	33.680	29000.000	1.199	28500.000	939.066	5011.145	0.308
69.301	1224.67	255.56	26.16	229.39	45.135	33.680	29000.000	1.191	28500.000	939.901	5011.145	0.326
($0.9L_s$) 69.771	1308.58	258.20	26.16	232.05	45.179	33.680	29000.000	1.573	28500.000	941.101	5011.145	0.276
(1.5H) 71.048	1547.78	265.40	26.13	239.27	45.301	33.680	29000.000	1.531	28500.000	944.477	5011.145	0.353
(SZB) 71.628	1654.12	268.69	26.12	242.57	45.359	33.680	29000.000	1.891	28500.000	946.072	5011.145	0.313
72.048	1731.89	271.05	26.11	244.94	45.401	33.680	29000.000	1.875	28500.000	946.549	5011.145	0.338
(CS) 72.510	1818.66	273.66	26.10	247.56	45.448	33.680	29000.000	1.857	28500.000	946.549	5011.145	0.366

Shear Parameter Summary - Strength I [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 3.924	Yes	1	---	---	0.0929	-0.116	5.26	28.59
4.583	Yes	1	---	---	0.0948	-0.0936	5.16	28.67
(SZB) 5.003	Yes	1	---	---	0.0936	-0.0832	5.12	28.71
(1.5H) 5.583	Yes	1	---	---	0.0919	-0.106	5.21	28.63
7.330	Yes	1	---	---	0.09	-0.0975	5.18	28.66
7.663	Yes	1	---	---	0.089	-0.0907	5.15	28.68
($0.1L_s$) 7.752	Yes	1	---	---	0.0887	-0.0889	5.14	28.69
8.730	Yes	1	---	---	0.0857	-0.0701	5.07	28.75
(SZB) 10.503	Yes	1	---	---	0.0829	-0.0683	5.06	28.76
11.330	Yes	1	---	---	0.0808	-0.0523	5	28.82
15.076	Yes	1	---	---	0.068	-0.075	5.09	28.74
15.326	Yes	1	---	---	0.0671	-0.0717	5.07	28.75

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(0.2L_s) 15.505	Yes	1	---	---	0.0665	-0.0694	5.06	28.76
16.126	Yes	1	---	---	0.0644	-0.0618	5.03	28.78
18.076	Yes	1	---	---	0.0581	-0.0412	4.95	28.86
(SZB) 18.753	Yes	1	---	---	0.0559	-0.0352	4.93	28.88
22.823	Yes	1	---	---	0.0436	-0.0108	4.84	28.96
22.989	Yes	1	---	---	0.0431	-0.0102	4.84	28.96
(0.3L_s) 23.257	Yes	1	---	---	0.0423	-0.00918	4.83	28.97
23.523	Yes	1	---	---	0.0416	-0.00813	4.83	28.97
24.823	Yes	1	---	---	0.0379	-0.0041	4.81	28.99
(SZB) 29.753	Yes	1	---	---	0.0249	-0.00479	4.82	28.98
(HP) 30.569	Yes	1	---	---	0.0229	-0.00723	4.83	28.97
30.574	Yes	1	---	---	0.0335	0.0643	4.58	29.23
30.652	Yes	1	---	---	0.0333	0.0647	4.58	29.23
30.919	Yes	1	---	---	0.0327	0.0655	4.58	29.23
(0.4L_s) 31.009	Yes	1	---	---	0.0325	0.0656	4.58	29.23
31.569	Yes	1	---	---	0.0313	0.0649	4.58	29.23
38.315	Yes	1	---	---	0.0362	0.0885	4.5	29.31
(0.5L_s) 38.762	Yes	1	---	---	0.0373	0.0877	4.5	29.31
45.062	Yes	1	---	---	0.053	-0.0127	4.85	28.96
45.712	Yes	1	---	---	0.0546	-0.0168	4.86	28.94
45.979	Yes	1	---	---	0.0553	-0.0186	4.87	28.93
46.057	Yes	1	---	---	0.0555	-0.0192	4.87	28.93
(HP) 46.062	Yes	1	---	---	0.0449	-0.0323	4.92	28.89
(0.6L_s) 46.514	Yes	1	---	---	0.0462	-0.0339	4.93	28.88
(SZB) 46.878	Yes	1	---	---	0.0472	-0.0354	4.93	28.88
51.808	Yes	1	---	---	0.0618	-0.0689	5.06	28.76
53.108	Yes	1	---	---	0.0659	-0.0819	5.11	28.71
53.642	Yes	1	---	---	0.0675	-0.0877	5.14	28.69
53.808	Yes	1	---	---	0.0681	-0.0895	5.15	28.69
(0.7L_s) 54.267	Yes	1	---	---	0.0695	-0.0948	5.17	28.67
55.039	Yes	1	---	---	0.072	-0.104	5.21	28.64
(Deck Bar Cutoff) 55.043	Yes	1	---	---	0.072	-0.104	5.21	28.64
(SZB) 57.878	Yes	1	---	---	0.0813	-0.144	5.38	28.50
58.555	Yes	1	---	---	0.0836	-0.155	5.43	28.46
60.505	Yes	1	---	---	0.0904	-0.187	5.58	28.35
61.305	Yes	1	---	---	0.0932	-0.201	5.65	28.30
61.555	Yes	1	---	---	0.0941	-0.206	5.68	28.28
(0.8L_s) 62.019	Yes	1	---	---	0.0957	-0.215	5.72	28.25
65.301	Yes	1	---	---	0.107	-0.196	5.63	28.31
(SZB) 66.128	Yes	1	---	---	0.109	-0.209	5.69	28.27
67.901	Yes	1	---	---	0.0988	0.252	4.04	29.88
68.968	Yes	1	---	---	0.101	0.308	3.9	30.08
69.301	Yes	1	---	---	0.102	0.326	3.86	30.14
(0.9L_s) 69.771	Yes	1	---	---	0.103	0.276	3.98	29.97
(1.5H) 71.048	Yes	1	---	---	0.106	0.353	3.8	30.23
(SZB) 71.628	Yes	1	---	---	0.107	0.313	3.89	30.10
72.048	Yes	1	---	---	0.108	0.338	3.83	30.18
(CS) 72.510	Yes	1	---	---	0.109	0.366	3.77	30.28

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength I

$$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 3.924	5.26	8.000	-	7.000	43.289	142.37
4.583	5.16	8.000	-	7.000	41.581	134.30
(SZB) 5.003	5.12	8.000	-	7.000	41.580	133.18
(1.5H) 5.583	5.21	8.000	-	7.000	41.581	135.66
7.330	5.18	8.000	-	7.000	40.113	129.96
7.663	5.15	8.000	-	7.000	40.130	129.31
(0.1L_s) 7.752	5.14	8.000	-	7.000	40.135	129.14
8.730	5.07	8.000	-	7.000	40.192	127.40
(SZB) 10.503	5.06	8.000	-	7.000	39.036	123.56
11.330	5	8.000	-	7.000	38.813	121.32
15.076	5.09	8.000	-	7.000	39.769	126.55
15.326	5.07	8.000	-	7.000	39.846	126.46
(0.2L_s) 15.505	5.06	8.000	-	7.000	39.902	126.41
16.126	5.03	8.000	-	7.000	40.094	126.26
18.076	4.95	8.000	-	7.000	40.701	126.13
(SZB) 18.753	4.93	8.000	-	7.000	40.913	126.20
22.823	4.84	8.000	-	7.000	42.167	127.67
22.989	4.84	8.000	-	7.000	42.218	127.76
(0.3L_s) 23.257	4.83	8.000	-	7.000	42.300	127.91
23.523	4.83	8.000	-	7.000	42.381	128.06
24.823	4.81	8.000	-	7.000	42.780	128.87
(SZB) 29.753	4.82	8.000	-	7.000	44.309	133.54
(HP) 30.569	4.83	8.000	-	7.000	44.564	134.56
30.574	4.58	8.000	-	7.000	44.564	127.67
30.652	4.58	8.000	-	7.000	44.563	127.64

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
30.919	4.58	8.000	-	7.000	44.561	127.56
(0.4L_s) 31.009	4.58	8.000	-	7.000	44.561	127.55
31.569	4.58	8.000	-	7.000	44.556	127.60
38.315	4.5	8.000	-	7.000	44.518	125.37
(0.5L_s) 38.762	4.5	8.000	-	7.000	44.516	125.44
45.062	4.85	8.000	-	7.000	44.502	134.93
45.712	4.86	8.000	-	7.000	44.502	135.35
45.979	4.87	8.000	-	7.000	44.502	135.54
46.057	4.87	8.000	-	7.000	44.502	135.59
(HP) 46.062	4.92	8.000	-	7.000	44.502	136.96
(0.6L_s) 46.514	4.93	8.000	-	7.000	44.357	136.69
(SZB) 46.878	4.93	8.000	-	7.000	44.240	136.48
51.808	5.06	8.000	-	7.000	42.678	135.15
53.108	5.11	8.000	-	7.000	42.271	135.25
53.642	5.14	8.000	-	7.000	42.105	135.34
53.808	5.15	8.000	-	7.000	42.053	135.38
(0.7L_s) 54.267	5.17	8.000	-	7.000	41.910	135.49
55.039	5.21	8.000	-	7.000	41.671	135.73
(Deck Bar Cutoff) 55.043	5.21	8.000	-	7.000	41.669	135.73
(SZB) 57.878	5.38	8.000	-	7.000	40.795	137.34
58.555	5.43	8.000	-	7.000	40.588	137.87
60.505	5.58	8.000	-	7.000	39.994	139.69
61.305	5.65	8.000	-	7.000	39.752	140.61
61.555	5.68	8.000	-	7.000	39.676	140.92
(0.8L_s) 62.019	5.72	8.000	-	7.000	39.536	141.53
65.301	5.63	8.000	-	7.000	38.752	136.40
(SZB) 66.128	5.69	8.000	-	7.000	39.041	139.05
67.901	4.04	8.000	-	7.000	45.008	113.70
68.968	3.9	8.000	-	7.000	45.104	110.05
69.301	3.86	8.000	-	7.000	45.135	108.89
(0.9L_s) 69.771	3.98	8.000	-	7.000	45.179	112.38
(1.5H) 71.048	3.8	8.000	-	7.000	45.301	107.59
(SZB) 71.628	3.89	8.000	-	7.000	45.359	110.30
72.048	3.83	8.000	-	7.000	45.401	108.76
(CS) 72.510	3.77	8.000	-	7.000	45.448	107.10

Shear Resistance Provided By Shear Reinforcement - Strength I

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 3.924	60.000	0.400	4.000	1.200	43.289	28.59	90.00	476.50
4.583	60.000	0.400	4.000	1.200	41.581	28.67	90.00	456.21
(SZB) 5.003	60.000	0.400	6.000	0.800	41.580	28.71	90.00	303.68
(1.5H) 5.583	60.000	0.400	6.000	0.800	41.581	28.63	90.00	304.69
7.330	60.000	0.400	6.000	0.800	40.113	28.66	90.00	293.57
7.663	60.000	0.400	6.000	0.800	40.130	28.68	90.00	293.41
(0.1L_s) 7.752	60.000	0.400	6.000	0.800	40.135	28.69	90.00	293.37
8.730	60.000	0.400	6.000	0.800	40.192	28.75	90.00	292.98
(SZB) 10.503	60.000	0.400	9.000	0.533	39.036	28.76	90.00	189.66
11.330	60.000	0.400	9.000	0.533	38.813	28.82	90.00	188.14
15.076	60.000	0.400	9.000	0.533	39.769	28.74	90.00	193.40
15.326	60.000	0.400	9.000	0.533	39.846	28.75	90.00	193.69
(0.2L_s) 15.505	60.000	0.400	9.000	0.533	39.902	28.76	90.00	193.89
16.126	60.000	0.400	9.000	0.533	40.094	28.78	90.00	194.62
18.076	60.000	0.400	9.000	0.533	40.701	28.86	90.00	196.97
(SZB) 18.753	60.000	0.400	12.000	0.400	40.913	28.88	90.00	148.37
22.823	60.000	0.400	12.000	0.400	42.167	28.96	90.00	152.38
22.989	60.000	0.400	12.000	0.400	42.218	28.96	90.00	152.55
(0.3L_s) 23.257	60.000	0.400	12.000	0.400	42.300	28.97	90.00	152.82
23.523	60.000	0.400	12.000	0.400	42.381	28.97	90.00	153.09
24.823	60.000	0.400	12.000	0.400	42.780	28.99	90.00	154.45
(SZB) 29.753	60.000	0.400	18.000	0.267	44.309	28.98	90.00	106.65
(HP) 30.569	60.000	0.400	18.000	0.267	44.564	28.97	90.00	107.31
30.574	60.000	0.400	18.000	0.267	44.564	29.23	90.00	106.21
30.652	60.000	0.400	18.000	0.267	44.563	29.23	90.00	106.20
30.919	60.000	0.400	18.000	0.267	44.561	29.23	90.00	106.18
(0.4L_s) 31.009	60.000	0.400	18.000	0.267	44.561	29.23	90.00	106.18
31.569	60.000	0.400	18.000	0.267	44.556	29.23	90.00	106.18
38.315	60.000	0.400	18.000	0.267	44.518	29.31	90.00	105.73
(0.5L_s) 38.762	60.000	0.400	18.000	0.267	44.516	29.31	90.00	105.74
45.062	60.000	0.400	18.000	0.267	44.502	28.96	90.00	107.24
45.712	60.000	0.400	18.000	0.267	44.502	28.94	90.00	107.30
45.979	60.000	0.400	18.000	0.267	44.502	28.93	90.00	107.33
46.057	60.000	0.400	18.000	0.267	44.502	28.93	90.00	107.34
(HP) 46.062	60.000	0.400	18.000	0.267	44.502	28.89	90.00	107.54
(0.6L_s) 46.514	60.000	0.400	18.000	0.267	44.357	28.88	90.00	107.22
(SZB) 46.878	60.000	0.400	18.000	0.267	44.240	28.88	90.00	106.96
51.808	60.000	0.400	12.000	0.400	42.678	28.76	90.00	155.53
53.108	60.000	0.400	12.000	0.400	42.271	28.71	90.00	154.33

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
53.642	60.000	0.400	12.000	0.400	42.105	28.69	90.00	153.85
53.808	60.000	0.400	12.000	0.400	42.053	28.69	90.00	153.71
($0.7L_s$) 54.267	60.000	0.400	12.000	0.400	41.910	28.67	90.00	153.30
55.039	60.000	0.400	12.000	0.400	41.671	28.64	90.00	152.63
(Deck Bar Cutoff) 55.043	60.000	0.400	12.000	0.400	41.669	28.64	90.00	152.63
(SZB) 57.878	60.000	0.400	12.000	0.400	40.795	28.50	90.00	150.30
58.555	60.000	0.400	9.000	0.533	40.588	28.46	90.00	199.68
60.505	60.000	0.400	9.000	0.533	39.994	28.35	90.00	197.69
61.305	60.000	0.400	9.000	0.533	39.752	28.30	90.00	196.91
61.555	60.000	0.400	9.000	0.533	39.676	28.28	90.00	196.67
($0.8L_s$) 62.019	60.000	0.400	9.000	0.533	39.536	28.25	90.00	196.23
65.301	60.000	0.400	9.000	0.533	38.752	28.31	90.00	191.80
(SZB) 66.128	60.000	0.400	9.000	0.533	39.041	28.27	90.00	193.61
67.901	60.000	0.400	6.000	0.800	45.008	29.88	90.00	313.33
68.968	60.000	0.400	6.000	0.800	45.104	30.08	90.00	311.52
69.301	60.000	0.400	6.000	0.800	45.135	30.14	90.00	310.92
($0.9L_s$) 69.771	60.000	0.400	6.000	0.800	45.179	29.97	90.00	313.42
(1.5H) 71.048	60.000	0.400	6.000	0.800	45.301	30.23	90.00	310.91
(SZB) 71.628	60.000	0.400	6.000	0.800	45.359	30.10	90.00	313.04
72.048	60.000	0.400	4.000	1.200	45.401	30.18	90.00	468.35
(CS) 72.510	60.000	0.400	4.000	1.200	45.448	30.28	90.00	467.02

Nominal Shear Resistance - Strength I

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 3.924	8.000	7.000	43.289	26.37	142.37	476.50	645.24	632.42	632.42	0.9	569.18
4.583	8.000	7.000	41.581	26.38	134.30	456.21	616.89	608.51	608.51	0.9	547.66
(SZB) 5.003	8.000	7.000	41.580	26.39	133.18	303.68	463.24	608.50	463.24	0.9	416.91
(1.5H) 5.583	8.000	7.000	41.581	26.39	135.66	304.69	466.75	608.52	466.75	0.9	420.07
7.330	8.000	7.000	40.113	26.42	129.96	293.57	449.96	588.00	449.96	0.9	404.96
7.663	8.000	7.000	40.130	26.43	129.31	293.41	449.15	588.25	449.15	0.9	404.23
($0.1L_s$) 7.752	8.000	7.000	40.135	26.43	129.14	293.37	448.94	588.32	448.94	0.9	404.05
8.730	8.000	7.000	40.192	26.44	127.40	292.98	446.83	589.13	446.83	0.9	402.14
(SZB) 10.503	8.000	7.000	39.036	26.47	123.56	189.66	339.68	572.98	339.68	0.9	305.72
11.330	8.000	7.000	38.813	26.48	121.32	188.14	335.94	569.86	335.94	0.9	302.35
15.076	8.000	7.000	39.769	26.53	126.55	193.40	346.48	583.29	346.48	0.9	311.83
15.326	8.000	7.000	39.846	26.53	126.46	193.69	346.68	584.38	346.68	0.9	312.01
($0.2L_s$) 15.505	8.000	7.000	39.902	26.53	126.41	193.89	346.83	585.15	346.83	0.9	312.15
16.126	8.000	7.000	40.094	26.54	126.26	194.62	347.41	587.86	347.41	0.9	312.67
18.076	8.000	7.000	40.701	26.55	126.13	196.97	349.66	596.37	349.66	0.9	314.69
(SZB) 18.753	8.000	7.000	40.913	26.55	126.20	148.37	301.12	599.33	301.12	0.9	271.01
22.823	8.000	7.000	42.167	26.55	127.67	152.38	306.60	616.89	306.60	0.9	275.94
22.989	8.000	7.000	42.218	26.55	127.76	152.55	306.86	617.60	306.86	0.9	276.18
($0.3L_s$) 23.257	8.000	7.000	42.300	26.55	127.91	152.82	307.29	618.75	307.29	0.9	276.56
23.523	8.000	7.000	42.381	26.55	128.06	153.09	307.70	619.88	307.70	0.9	276.93
24.823	8.000	7.000	42.780	26.54	128.87	154.45	309.85	625.46	309.85	0.9	278.87
(SZB) 29.753	8.000	7.000	44.309	26.46	133.54	106.65	266.66	646.78	266.66	0.9	239.99
(HP) 30.569	8.000	7.000	44.564	26.44	134.56	107.31	268.30	650.33	268.30	0.9	241.47
30.574	8.000	7.000	44.564	0.00	127.67	106.21	233.88	623.90	233.88	0.9	210.49
30.652	8.000	7.000	44.563	0.00	127.64	106.20	233.84	623.89	233.84	0.9	210.45
30.919	8.000	7.000	44.561	0.00	127.56	106.18	233.74	623.86	233.74	0.9	210.37
($0.4L_s$) 31.009	8.000	7.000	44.561	0.00	127.55	106.18	233.73	623.85	233.73	0.9	210.36
31.569	8.000	7.000	44.556	0.00	127.60	106.18	233.78	623.79	233.78	0.9	210.40
38.315	8.000	7.000	44.518	0.00	125.37	105.73	231.10	623.25	231.10	0.9	207.99
($0.5L_s$) 38.762	8.000	7.000	44.516	0.00	125.44	105.74	231.18	623.22	231.18	0.9	208.06
45.062	8.000	7.000	44.502	0.00	134.93	107.24	242.17	623.03	242.17	0.9	217.95
45.712	8.000	7.000	44.502	0.00	135.35	107.30	242.66	623.02	242.66	0.9	218.39
45.979	8.000	7.000	44.502	0.00	135.54	107.33	242.87	623.02	242.87	0.9	218.58
46.057	8.000	7.000	44.502	0.00	135.59	107.34	242.93	623.02	242.93	0.9	218.64
(HP) 46.062	8.000	7.000	44.502	26.35	136.96	107.54	270.85	649.37	270.85	0.9	243.76
($0.6L_s$) 46.514	8.000	7.000	44.357	26.35	136.69	107.22	270.26	647.35	270.26	0.9	243.23
(SZB) 46.878	8.000	7.000	44.240	26.36	136.48	106.96	269.80	645.72	269.80	0.9	242.82
51.808	8.000	7.000	42.678	26.39	135.15	155.53	317.06	623.88	317.06	0.9	285.36
53.108	8.000	7.000	42.271	26.39	135.25	154.33	315.97	618.18	315.97	0.9	284.38
53.642	8.000	7.000	42.105	26.39	135.34	153.85	315.59	615.85	315.59	0.9	284.03
53.808	8.000	7.000	42.053	26.39	135.38	153.71	315.47	615.12	315.47	0.9	283.93
($0.7L_s$) 54.267	8.000	7.000	41.910	26.38	135.49	153.30	315.18	613.13	315.18	0.9	283.66
55.039	8.000	7.000	41.671	26.38	135.73	152.63	314.74	609.77	314.74	0.9	283.26
(Deck Bar Cutoff) 55.043	8.000	7.000	41.669	26.38	135.73	152.63	314.74	609.75	314.74	0.9	283.26
(SZB) 57.878	8.000	7.000	40.795	26.36	137.34	150.30	313.99	597.49	313.99	0.9	282.59
58.555	8.000	7.000	40.588	26.35	137.87	199.68	363.91	594.58	363.91	0.9	327.52
60.505	8.000	7.000	39.994	26.32	139.69	197.69	363.70	586.24	363.70	0.9	327.33
61.305	8.000	7.000	39.752	26.31	140.61	196.91	363.83	582.84	363.83	0.9	327.45
61.555	8.000	7.000	39.676	26.31	140.92	196.67	363.89	581.77	363.89	0.9	327.50
($0.8L_s$) 62.019	8.000	7.000	39.536	26.30	141.53	196.23	364.05	579.80	364.05	0.9	327.65
65.301	8.000	7.000	38.752	26.24	136.40	191.80	354.45	568.78	354.45	0.9	319.00
(SZB) 66.128	8.000	7.000	39.041	26.23	139.05	193.61	358.89	572.81	358.89	0.9	323.00
67.901	8.000	7.000	45.008	26.19	113.70	313.33	453.22	656.31	453.22	0.9	407.90
68.968	8.000	7.000	45.104	26.17	110.05	311.52	447.75	657.63	447.75	0.9	402.97
69.301	8.000	7.000	45.135	26.16	108.89	310.92	445.97	658.05	445.97	0.9	401.37

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
($0.9L_s$) 69.771	8.000	7.000	45.179	26.16	112.38	313.42	451.95	658.66	451.95	0.9	406.75
(1.5H) 71.048	8.000	7.000	45.301	26.13	107.59	310.91	444.63	660.35	444.63	0.9	400.16
(SZB) 71.628	8.000	7.000	45.359	26.12	110.30	313.04	449.46	661.14	449.46	0.9	404.52
72.048	8.000	7.000	45.401	26.11	108.76	468.35	603.22	661.73	603.22	0.9	542.89
(CS) 72.510	8.000	7.000	45.448	26.10	107.10	467.02	600.22	662.38	600.22	0.9	540.20

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength I

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

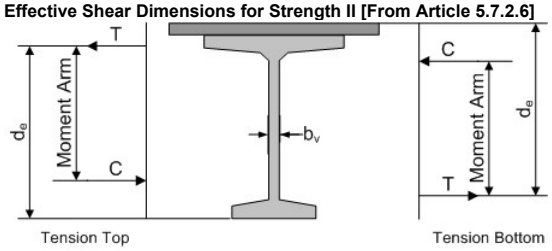
Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 3.924	251.69	142.37	26.37	82.95	60.000	43.289	28.59	0.209
4.583	247.20	134.30	26.38	86.53	60.000	41.581	28.67	0.228
(SZB) 5.003	244.36	133.18	26.39	84.80	60.000	41.580	28.71	0.223
(1.5H) 5.583	240.43	135.66	26.39	78.38	60.000	41.581	28.63	0.206
7.330	228.69	129.96	26.42	72.30	60.000	40.113	28.66	0.197
7.663	226.46	129.31	26.43	70.72	60.000	40.130	28.68	0.193
($0.1L_s$) 7.752	225.86	129.14	26.43	70.29	60.000	40.135	28.69	0.192
8.730	219.34	127.40	26.44	65.50	60.000	40.192	28.75	0.179
(SZB) 10.503	207.61	123.56	26.47	57.59	60.000	39.036	28.76	0.162
11.330	202.19	121.32	26.48	54.39	60.000	38.813	28.82	0.154
15.076	177.93	126.55	26.53	24.86	60.000	39.769	28.74	0.069
15.326	176.33	126.46	26.53	23.34	60.000	39.846	28.75	0.064
($0.2L_s$) 15.505	175.19	126.41	26.53	22.25	60.000	39.902	28.76	0.061
16.126	171.22	126.26	26.54	18.42	60.000	40.094	28.78	0.050
18.076	158.88	126.13	26.55	6.20	60.000	40.701	28.86	0.017
(SZB) 18.753	154.64	126.20	26.55	1.89	60.000	40.913	28.88	0.005
22.823	129.45	127.67	26.55	0.00	60.000	42.167	28.96	0.000
22.989	128.43	127.76	26.55	0.00	60.000	42.218	28.96	0.000
($0.3L_s$) 23.257	126.79	127.91	26.55	0.00	60.000	42.300	28.97	0.000
23.523	125.17	128.06	26.55	0.00	60.000	42.381	28.97	0.000
24.823	117.27	128.87	26.54	0.00	60.000	42.780	28.99	0.000
(SZB) 29.753	88.16	133.54	26.46	0.00	60.000	44.309	28.98	0.000
(HP) 30.569	83.59	134.56	26.44	0.00	60.000	44.564	28.97	0.000
30.574	83.56	127.67	0.00	0.00	60.000	44.564	29.23	0.000
30.652	83.13	127.64	0.00	0.00	60.000	44.563	29.23	0.000
30.919	81.64	127.56	0.00	0.00	60.000	44.561	29.23	0.000
($0.4L_s$) 31.009	81.14	127.55	0.00	0.00	60.000	44.561	29.23	0.000
31.569	78.04	127.60	0.00	0.00	60.000	44.556	29.23	0.000
38.315	90.29	125.37	0.00	0.00	60.000	44.518	29.31	0.000
($0.5L_s$) 38.762	93.04	125.44	0.00	0.00	60.000	44.516	29.31	0.000
45.062	132.06	134.93	0.00	0.00	60.000	44.502	28.96	0.000
45.712	136.10	135.35	0.00	0.75	60.000	44.502	28.94	0.002
45.979	137.75	135.54	0.00	2.22	60.000	44.502	28.93	0.006
46.057	138.24	135.59	0.00	2.65	60.000	44.502	28.93	0.007
(HP) 46.062	138.27	136.96	26.35	0.00	60.000	44.502	28.89	0.000
($0.6L_s$) 46.514	141.08	136.69	26.35	0.00	60.000	44.357	28.88	0.000
(SZB) 46.878	143.34	136.48	26.36	0.00	60.000	44.240	28.88	0.000
51.808	174.15	135.15	26.39	12.61	60.000	42.678	28.76	0.032
53.108	182.29	135.25	26.39	20.65	60.000	42.271	28.71	0.054
53.642	185.62	135.34	26.39	23.89	60.000	42.105	28.69	0.062
53.808	186.66	135.38	26.39	24.89	60.000	42.053	28.69	0.065
($0.7L_s$) 54.267	189.52	135.49	26.38	27.64	60.000	41.910	28.67	0.072
55.039	194.35	135.73	26.38	32.24	60.000	41.671	28.64	0.085
(Deck Bar Cutoff) 55.043	194.38	135.73	26.38	32.27	60.000	41.669	28.64	0.085
(SZB) 57.878	212.19	137.34	26.36	48.49	60.000	40.795	28.50	0.129
58.555	216.45	137.87	26.35	52.23	60.000	40.588	28.46	0.140
60.505	228.71	139.69	26.32	62.70	60.000	39.994	28.35	0.169
61.305	233.73	140.61	26.31	66.81	60.000	39.752	28.30	0.181
61.555	235.29	140.92	26.31	68.07	60.000	39.676	28.28	0.185
($0.8L_s$) 62.019	238.20	141.53	26.30	70.37	60.000	39.536	28.25	0.191
65.301	258.84	136.40	26.24	96.19	60.000	38.752	28.31	0.267
(SZB) 66.128	264.05	139.05	26.23	98.77	60.000	39.041	28.27	0.272
67.901	275.18	113.70	26.19	135.28	60.000	45.008	29.88	0.345
68.968	281.86	110.05	26.17	145.64	60.000	45.104	30.08	0.374
69.301	283.95	108.89	26.16	148.90	60.000	45.135	30.14	0.383
($0.9L_s$) 69.771	286.89	112.38	26.16	148.36	60.000	45.179	29.97	0.379
(1.5H) 71.048	294.89	107.59	26.13	161.18	60.000	45.301	30.23	0.415
(SZB) 71.628	298.54	110.30	26.12	162.12	60.000	45.359	30.10	0.414
72.048	301.17	108.76	26.11	166.30	60.000	45.401	30.18	0.426
(CS) 72.510	304.07	107.10	26.10	170.87	60.000	45.448	30.28	0.439

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength I

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 3.924	1.200	0.209	12.638	22.978	35.616
4.583	1.200	0.228	11.599	21.090	32.689
(SZB) 5.003	0.800	0.223	11.818	21.487	33.305
(1.5H) 5.583	0.800	0.206	12.829	23.326	36.155
7.330	0.800	0.197	13.399	24.362	37.762
7.663	0.800	0.193	13.692	24.895	38.587
($0.1L_s$) 7.752	0.800	0.192	13.774	25.043	38.817
8.730	0.800	0.179	14.762	26.839	41.601
(SZB) 10.503	0.533	0.162	16.302	29.641	45.943
11.330	0.533	0.154	17.122	31.131	48.253
15.076	0.533	0.069	38.506	70.012	108.518
15.326	0.533	0.064	41.081	74.692	115.772
($0.2L_s$) 15.505	0.533	0.061	43.144	78.444	121.588
16.126	0.533	0.050	52.296	95.084	147.381
18.076	0.533	0.017	157.365	286.119	443.485
(SZB) 18.753	0.400	0.005	518.926	943.501	1462.427
22.823	0.400	0.000	N/A	N/A	N/A
22.989	0.400	0.000	N/A	N/A	N/A
($0.3L_s$) 23.257	0.400	0.000	N/A	N/A	N/A
23.523	0.400	0.000	N/A	N/A	N/A
24.823	0.400	0.000	N/A	N/A	N/A
(SZB) 29.753	0.267	0.000	N/A	N/A	N/A
(HP) 30.569	0.267	0.000	N/A	N/A	N/A
30.574	0.267	0.000	N/A	N/A	N/A
30.652	0.267	0.000	N/A	N/A	N/A
30.919	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 31.009	0.267	0.000	N/A	N/A	N/A
31.569	0.267	0.000	N/A	N/A	N/A
38.315	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.762	0.267	0.000	N/A	N/A	N/A
45.062	0.267	0.000	N/A	N/A	N/A
45.712	0.267	0.002	N/A	N/A	N/A
45.979	0.267	0.006	478.987	870.886	1349.873
46.057	0.267	0.007	401.124	729.317	1130.441
(HP) 46.062	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.514	0.267	0.000	N/A	N/A	N/A
(SZB) 46.878	0.267	0.000	N/A	N/A	N/A
51.808	0.400	0.032	81.415	148.027	229.442
53.108	0.400	0.054	49.329	89.689	139.018
53.642	0.400	0.062	42.512	77.295	119.807
53.808	0.400	0.065	40.757	74.103	114.859
($0.7L_s$) 54.267	0.400	0.072	36.601	66.548	103.149
55.039	0.400	0.085	31.241	56.802	88.044
(Deck Bar Cutoff) 55.043	0.400	0.085	31.212	56.749	87.962
(SZB) 57.878	0.400	0.129	20.455	37.191	57.647
58.555	0.533	0.140	18.924	34.407	53.331
60.505	0.533	0.169	15.607	28.376	43.984
61.305	0.533	0.181	14.590	26.527	41.117
61.555	0.533	0.185	14.302	26.004	40.307
($0.8L_s$) 62.019	0.533	0.191	13.803	25.096	38.898
65.301	0.533	0.267	9.870	17.946	27.816
(SZB) 66.128	0.533	0.272	9.703	17.642	27.345
67.901	0.800	0.345	7.643	13.897	21.540
68.968	0.800	0.374	7.059	12.834	19.893
69.301	0.800	0.383	6.891	12.529	19.419
($0.9L_s$) 69.771	0.800	0.379	6.971	12.675	19.646
(1.5H) 71.048	0.800	0.415	6.366	11.574	17.940
(SZB) 71.628	0.800	0.414	6.372	11.586	17.958
72.048	1.200	0.426	6.196	11.265	17.461
(CS) 72.510	1.200	0.439	6.013	10.933	16.946

Effective Shear Dimensions for Strength II [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 3.924	7.000	48.099	51.000	43.289	36.720	38.314	43.289	Bottom
4.583	7.000	46.201	51.000	41.581	36.720	38.317	41.581	Bottom

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(SZB) 5.003	7.000	46.200	51.000	41.580	36.720	38.323	41.580	Bottom
(1.5H) 5.583	7.000	46.201	51.000	41.581	36.720	38.336	41.581	Bottom
7.330	7.000	44.570	51.000	40.113	36.720	38.416	40.113	Bottom
7.663	7.000	44.589	51.000	40.130	36.720	38.438	40.130	Bottom
($0.1L_s$) 7.752	7.000	44.594	51.000	40.135	36.720	38.445	40.135	Bottom
8.730	7.000	44.657	51.000	40.192	36.720	38.524	40.192	Bottom
(SZB) 10.503	7.000	43.374	51.000	39.036	36.720	38.709	39.036	Bottom
11.330	7.000	42.161	51.000	37.945	36.720	38.813	38.813	Bottom
15.076	7.000	41.941	51.000	37.747	36.720	39.769	39.769	Bottom
15.326	7.000	42.019	51.000	37.817	36.720	39.846	39.846	Bottom
($0.2L_s$) 15.505	7.000	42.075	51.000	37.867	36.720	39.902	39.902	Bottom
16.126	7.000	42.269	51.000	38.042	36.720	40.094	40.094	Bottom
18.076	7.000	42.879	51.000	38.591	36.720	40.701	40.701	Bottom
(SZB) 18.753	7.000	43.092	51.000	38.783	36.720	40.913	40.913	Bottom
22.823	7.000	44.379	51.000	39.941	36.720	42.167	42.167	Bottom
22.989	7.000	44.432	51.000	39.989	36.720	42.218	42.218	Bottom
($0.3L_s$) 23.257	7.000	44.517	51.000	40.066	36.720	42.300	42.300	Bottom
23.523	7.000	44.602	51.000	40.142	36.720	42.381	42.381	Bottom
24.823	7.000	45.016	51.000	40.515	36.720	42.780	42.780	Bottom
(SZB) 29.753	7.000	46.596	51.000	41.937	36.720	44.309	44.309	Bottom
(HP) 30.569	7.000	46.859	51.000	42.173	36.720	44.564	44.564	Bottom
30.574	7.000	46.859	51.000	42.173	36.720	44.564	44.564	Bottom
30.652	7.000	46.859	51.000	42.173	36.720	44.563	44.563	Bottom
30.919	7.000	46.859	51.000	42.173	36.720	44.561	44.561	Bottom
($0.4L_s$) 31.009	7.000	46.859	51.000	42.173	36.720	44.561	44.561	Bottom
31.569	7.000	46.859	51.000	42.173	36.720	44.556	44.556	Bottom
38.315	7.000	46.859	51.000	42.174	36.720	44.518	44.518	Bottom
($0.5L_s$) 38.762	7.000	46.860	51.000	42.174	36.720	44.516	44.516	Bottom
45.062	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
45.712	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
45.979	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
46.057	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
(HP) 46.062	7.000	46.860	51.000	42.174	36.720	44.502	44.502	Bottom
($0.6L_s$) 46.514	7.000	46.715	51.000	42.043	36.720	44.357	44.357	Bottom
(SZB) 46.878	7.000	46.598	51.000	41.938	36.720	44.240	44.240	Bottom
51.808	7.000	45.021	51.000	40.519	36.720	42.678	42.678	Bottom
53.108	7.000	44.608	51.000	40.147	36.720	42.271	42.271	Bottom
53.642	7.000	44.439	51.000	39.995	36.720	42.105	42.105	Bottom
53.808	7.000	44.386	51.000	39.948	36.720	42.053	42.053	Bottom
($0.7L_s$) 54.267	7.000	44.241	51.000	39.817	36.720	41.910	41.910	Bottom
55.039	7.000	43.997	51.000	39.597	36.720	41.671	41.671	Bottom
(Deck Bar Cutoff) 55.043	7.000	43.995	51.000	39.596	36.720	41.669	41.669	Bottom
(SZB) 57.878	7.000	43.102	51.000	38.791	36.720	40.795	40.795	Bottom
58.555	7.000	42.889	51.000	38.600	36.720	40.588	40.588	Bottom
60.505	7.000	42.279	51.000	38.051	36.720	39.994	39.994	Bottom
61.305	7.000	42.029	51.000	37.826	36.720	39.752	39.752	Bottom
61.555	7.000	41.951	51.000	37.756	36.720	39.676	39.676	Bottom
($0.8L_s$) 62.019	7.000	41.806	51.000	37.626	36.720	39.536	39.536	Bottom
65.301	7.000	42.168	51.000	37.951	36.720	38.752	38.752	Bottom
(SZB) 66.128	7.000	43.379	51.000	39.041	36.720	38.657	39.041	Bottom
67.901	7.000	50.009	51.000	45.008	36.720	44.738	45.008	Top
68.968	7.000	50.116	51.000	45.104	36.720	44.845	45.104	Top
69.301	7.000	50.150	51.000	45.135	36.720	44.879	45.135	Top
($0.9L_s$) 69.771	7.000	50.199	51.000	45.179	36.720	44.927	45.179	Top
(1.5H) 71.048	7.000	50.335	51.000	45.301	36.720	45.063	45.301	Top
(SZB) 71.628	7.000	50.399	51.000	45.359	36.720	45.127	45.359	Top
72.048	7.000	50.446	51.000	45.401	36.720	45.173	45.401	Top
(CS) 72.510	7.000	50.498	51.000	45.448	36.720	45.226	45.448	Top

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength II

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 3.924	0.9	216.46	26.37	43.289	7.000	0.707
4.583	0.9	212.62	26.38	41.581	7.000	0.721
(SZB) 5.003	0.9	210.19	26.39	41.580	7.000	0.712
(1.5H) 5.583	0.9	206.84	26.39	41.581	7.000	0.699
7.330	0.9	196.78	26.42	40.113	7.000	0.685
7.663	0.9	194.86	26.43	40.130	7.000	0.677
($0.1L_s$) 7.752	0.9	194.35	26.43	40.135	7.000	0.675
8.730	0.9	188.75	26.44	40.192	7.000	0.651
(SZB) 10.503	0.9	178.64	26.47	39.036	7.000	0.630
11.330	0.9	173.95	26.48	38.813	7.000	0.614
15.076	0.9	152.95	26.53	39.769	7.000	0.515
15.326	0.9	151.57	26.53	39.846	7.000	0.509
($0.2L_s$) 15.505	0.9	150.57	26.53	39.902	7.000	0.504
16.126	0.9	147.13	26.54	40.094	7.000	0.488

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
18.076	0.9	136.36	26.55	40.701	7.000	0.439
(SZB) 18.753	0.9	132.64	26.55	40.913	7.000	0.422
22.823	0.9	110.59	26.55	42.167	7.000	0.326
22.989	0.9	109.70	26.55	42.218	7.000	0.323
(0.3L_s) 23.257	0.9	108.26	26.55	42.300	7.000	0.317
23.523	0.9	106.84	26.55	42.381	7.000	0.311
24.823	0.9	99.90	26.54	42.780	7.000	0.282
(SZB) 29.753	0.9	74.20	26.46	44.309	7.000	0.181
(HP) 30.569	0.9	70.17	26.44	44.564	7.000	0.165
30.574	0.9	70.14	0.00	44.564	7.000	0.250
30.652	0.9	69.75	0.00	44.563	7.000	0.248
30.919	0.9	68.44	0.00	44.561	7.000	0.244
(0.4L_s) 31.009	0.9	67.99	0.00	44.561	7.000	0.242
31.569	0.9	65.25	0.00	44.556	7.000	0.232
38.315	0.9	69.67	0.00	44.518	7.000	0.248
(0.5L_s) 38.762	0.9	72.45	0.00	44.516	7.000	0.258
45.062	0.9	111.03	0.00	44.502	7.000	0.396
45.712	0.9	114.95	0.00	44.502	7.000	0.410
45.979	0.9	116.56	0.00	44.502	7.000	0.416
46.057	0.9	117.03	0.00	44.502	7.000	0.417
(HP) 46.062	0.9	117.06	26.35	44.502	7.000	0.333
(0.6L_s) 46.514	0.9	119.78	26.35	44.357	7.000	0.344
(SZB) 46.878	0.9	121.96	26.36	44.240	7.000	0.352
51.808	0.9	151.16	26.39	42.678	7.000	0.474
53.108	0.9	158.74	26.39	42.271	7.000	0.507
53.642	0.9	161.85	26.39	42.105	7.000	0.521
53.808	0.9	162.82	26.39	42.053	7.000	0.525
(0.7L_s) 54.267	0.9	165.48	26.38	41.910	7.000	0.537
55.039	0.9	169.93	26.38	41.671	7.000	0.557
(Deck Bar Cutoff) 55.043	0.9	169.96	26.38	41.669	7.000	0.557
(SZB) 57.878	0.9	186.20	26.36	40.795	7.000	0.632
58.555	0.9	190.04	26.35	40.588	7.000	0.650
60.505	0.9	201.00	26.32	39.994	7.000	0.704
61.305	0.9	205.47	26.31	39.752	7.000	0.726
61.555	0.9	206.87	26.31	39.676	7.000	0.733
(0.8L_s) 62.019	0.9	209.45	26.30	39.536	7.000	0.746
65.301	0.9	227.55	26.24	38.752	7.000	0.835
(SZB) 66.128	0.9	232.04	26.23	39.041	7.000	0.847
67.901	0.9	241.59	26.19	45.008	7.000	0.769
68.968	0.9	247.30	26.17	45.104	7.000	0.787
69.301	0.9	249.08	26.16	45.135	7.000	0.793
(0.9L_s) 69.771	0.9	251.58	26.16	45.179	7.000	0.801
(1.5H) 71.048	0.9	258.35	26.13	45.301	7.000	0.823
(SZB) 71.628	0.9	261.42	26.12	45.359	7.000	0.833
72.048	0.9	263.63	26.11	45.401	7.000	0.840
(CS) 72.510	0.9	266.06	26.10	45.448	7.000	0.847

f_{po} - Strength II

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength II

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \; for \; \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \; for \; \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 3.924	874.36	216.46	26.37	190.09	43.289	0.400	29000.000	3.601	28500.000	365.000	5011.145	-0.128
4.583	1008.60	212.62	26.38	186.24	41.581	0.400	29000.000	3.624	28500.000	365.000	5011.145	-0.107
(SZB) 5.003	1092.08	210.19	26.39	183.80	41.580	0.400	29000.000	3.640	28500.000	365.000	5011.145	-0.0972
(1.5H) 5.583	1205.32	206.84	26.39	180.44	41.581	0.400	29000.000	4.047	28500.000	365.000	5011.145	-0.121
7.330	1528.99	196.78	26.42	170.35	40.113	0.400	29000.000	4.528	28500.000	365.000	5011.145	-0.116
7.663	1587.92	194.86	26.43	168.44	40.130	0.400	29000.000	4.546	28500.000	365.000	5011.145	-0.11
(0.1L_s) 7.752	1603.54	194.35	26.43	167.92	40.135	0.400	29000.000	4.551	28500.000	365.000	5011.145	-0.108
8.730	1770.31	188.75	26.44	162.31	40.192	0.400	29000.000	4.605	28500.000	365.000	5011.145	-0.091
(SZB) 10.503	2052.92	178.64	26.47	152.17	39.036	0.400	29000.000	5.121	28500.000	365.000	5011.145	-0.093
11.330	2176.08	173.95	26.48	147.46	38.813	0.400	29000.000	5.169	28500.000	365.000	5011.145	-0.0788
15.076	2682.13	152.95	26.53	126.43	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.106
15.326	2713.18	151.57	26.53	125.04	39.846	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.102
(0.2L_s) 15.505	2735.05	150.57	26.53	124.04	39.902	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.1
16.126	2809.29	147.13	26.54	120.59	40.094	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0928
18.076	3022.70	136.36	26.55	109.81	40.701	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0732
(SZB) 18.753	3089.80	132.64	26.55	106.09	40.913	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0675
22.823	3419.37	110.59	26.55	84.04	42.167	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0453
22.989	3430.30	109.70	26.55	83.15	42.218	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0448
	3447.42	108.26	26.55	81.71	42.300	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.044

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.3L_s$) 23.257												
23.523	3463.85	106.84	26.55	80.29	42.381	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0433
24.823	3536.68	99.90	26.54	73.37	42.780	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0412
(SZB) 29.753	3743.09	74.20	26.46	47.74	44.309	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0431
(HP) 30.569	3771.71	70.17	26.44	43.73	44.564	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0442
30.574	3771.87	70.14	0.00	70.14	44.564	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0311
30.652	3774.34	69.75	0.00	69.75	44.563	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0309
30.919	3782.42	68.44	0.00	68.44	44.561	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0305
($0.4L_s$) 31.009	3785.04	67.99	0.00	67.99	44.561	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0303
31.569	3799.88	65.25	0.00	65.25	44.556	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0297
38.315	3800.50	69.67	0.00	69.67	44.518	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0269
($0.5L_s$) 38.762	3789.21	72.45	0.00	72.45	44.516	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.027
45.062	3490.46	111.03	0.00	111.03	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0477
45.712	3445.18	114.95	0.00	114.95	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0518
45.979	3426.76	116.56	0.00	116.56	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0535
46.057	3421.33	117.03	0.00	117.03	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.054
(HP) 46.062	3420.99	117.06	26.35	90.71	44.502	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0671
($0.6L_s$) 46.514	3388.80	119.78	26.35	93.42	44.357	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0686
(SZB) 46.878	3362.01	121.96	26.36	95.60	44.240	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0699
51.808	2918.53	151.16	26.39	124.77	42.678	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.101
53.108	2778.02	158.74	26.39	132.35	42.271	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.113
53.642	2717.10	161.85	26.39	135.46	42.105	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.118
53.808	2697.67	162.82	26.39	136.43	42.053	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.12
($0.7L_s$) 54.267	2643.48	165.48	26.38	139.09	41.910	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.125
55.039	2550.01	169.93	26.38	143.55	41.671	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.134
(Deck Bar Cutoff) 55.043	2549.42	169.96	26.38	143.58	41.669	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.134
(SZB) 57.878	2183.38	186.20	26.36	159.84	40.795	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.172
58.555	2090.85	190.04	26.35	163.69	40.588	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.182
60.505	1817.83	201.00	26.32	174.68	39.994	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.213
61.305	1698.31	205.47	26.31	179.16	39.752	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.227
61.555	1660.23	206.87	26.31	180.56	39.676	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.231
($0.8L_s$) 62.019	1588.34	209.45	26.30	183.15	39.536	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.24
65.301	1039.38	227.55	26.24	201.31	38.752	0.400	29000.000	5.159	28500.000	365.000	5011.145	-0.227
(SZB) 66.128	889.34	232.04	26.23	205.82	39.041	0.400	29000.000	5.111	28500.000	365.000	5011.145	-0.245
67.901	807.91 $	241.59	26.19	215.40	45.008	33.680	29000.000	1.225	28500.000	936.473	5011.145	0.197
68.968	895.04	247.30	26.17	221.13	45.104	33.680	29000.000	1.199	28500.000	939.066	5011.145	0.23
69.301	946.98	249.08	26.16	222.92	45.135	33.680	29000.000	1.191	28500.000	939.901	5011.145	0.247
($0.9L_s$) 69.771	1020.81	251.58	26.16	225.43	45.179	33.680	29000.000	1.573	28500.000	941.101	5011.145	0.195
(1.5H) 71.048	1224.10	258.35	26.13	232.22	45.301	33.680	29000.000	1.531	28500.000	944.477	5011.145	0.262
(SZB) 71.628	1318.02	261.42	26.12	235.30	45.359	33.680	29000.000	1.891	28500.000	946.072	5011.145	0.22
72.048	1386.39	263.63	26.11	237.52	45.401	33.680	29000.000	1.875	28500.000	946.549	5011.145	0.242
(CS) 72.510	1462.32	266.06	26.10	239.95	45.448	33.680	29000.000	1.857	28500.000	946.549	5011.145	0.267

$N_u = 0$

$ - Taken as $|V_u - V_p|d_v$ per definitions given in 5.7.3.4.2

Shear Parameter Summary - Strength II [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

$a_g = 0.750$ in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 3.924	Yes	1	---	---	0.0883	-0.128	5.31	28.55
4.583	Yes	1	---	---	0.0901	-0.107	5.22	28.63
(SZB) 5.003	Yes	1	---	---	0.089	-0.0972	5.18	28.66
(1.5H) 5.583	Yes	1	---	---	0.0874	-0.121	5.28	28.58
7.330	Yes	1	---	---	0.0856	-0.116	5.26	28.59
7.663	Yes	1	---	---	0.0846	-0.11	5.23	28.62
($0.1L_s$) 7.752	Yes	1	---	---	0.0843	-0.108	5.22	28.62
8.730	Yes	1	---	---	0.0814	-0.091	5.15	28.68
(SZB) 10.503	Yes	1	---	---	0.0787	-0.093	5.16	28.67
11.330	Yes	1	---	---	0.0767	-0.0788	5.1	28.72
15.076	Yes	1	---	---	0.0644	-0.106	5.21	28.63
15.326	Yes	1	---	---	0.0636	-0.102	5.2	28.64
($0.2L_s$) 15.505	Yes	1	---	---	0.063	-0.1	5.19	28.65
16.126	Yes	1	---	---	0.061	-0.0928	5.16	28.68
18.076	Yes	1	---	---	0.0548	-0.0732	5.08	28.74
(SZB) 18.753	Yes	1	---	---	0.0527	-0.0675	5.06	28.76
22.823	Yes	1	---	---	0.0408	-0.0453	4.97	28.84
22.989	Yes	1	---	---	0.0403	-0.0448	4.97	28.84
($0.3L_s$) 23.257	Yes	1	---	---	0.0396	-0.044	4.96	28.85
23.523	Yes	1	---	---	0.0388	-0.0433	4.96	28.85
24.823	Yes	1	---	---	0.0353	-0.0412	4.95	28.86
(SZB) 29.753	Yes	1	---	---	0.0226	-0.0431	4.96	28.85
(HP) 30.569	Yes	1	---	---	0.0206	-0.0442	4.96	28.85

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
30.574	Yes	1	---	---	0.0312	-0.0311	4.91	28.89
30.652	Yes	1	---	---	0.0311	-0.0309	4.91	28.89
30.919	Yes	1	---	---	0.0305	-0.0305	4.91	28.89
(0.4L_s) 31.009	Yes	1	---	---	0.0303	-0.0303	4.91	28.89
31.569	Yes	1	---	---	0.0291	-0.0297	4.91	28.90
38.315	Yes	1	---	---	0.0311	-0.0269	4.9	28.91
(0.5L_s) 38.762	Yes	1	---	---	0.0323	-0.027	4.9	28.91
45.062	Yes	1	---	---	0.0495	-0.0477	4.98	28.83
45.712	Yes	1	---	---	0.0513	-0.0518	4.99	28.82
45.979	Yes	1	---	---	0.052	-0.0535	5	28.81
46.057	Yes	1	---	---	0.0522	-0.054	5	28.81
(HP) 46.062	Yes	1	---	---	0.0416	-0.0671	5.05	28.77
(0.6L_s) 46.514	Yes	1	---	---	0.043	-0.0686	5.06	28.76
(SZB) 46.878	Yes	1	---	---	0.0441	-0.0699	5.07	28.76
51.808	Yes	1	---	---	0.0592	-0.101	5.19	28.65
53.108	Yes	1	---	---	0.0634	-0.113	5.24	28.60
53.642	Yes	1	---	---	0.0651	-0.118	5.27	28.59
53.808	Yes	1	---	---	0.0656	-0.12	5.28	28.58
(0.7L_s) 54.267	Yes	1	---	---	0.0671	-0.125	5.3	28.56
55.039	Yes	1	---	---	0.0696	-0.134	5.34	28.53
(Deck Bar Cutoff) 55.043	Yes	1	---	---	0.0696	-0.134	5.34	28.53
(SZB) 57.878	Yes	1	---	---	0.079	-0.172	5.51	28.40
58.555	Yes	1	---	---	0.0813	-0.182	5.56	28.36
60.505	Yes	1	---	---	0.088	-0.213	5.71	28.26
61.305	Yes	1	---	---	0.0907	-0.227	5.78	28.21
61.555	Yes	1	---	---	0.0916	-0.231	5.81	28.19
(0.8L_s) 62.019	Yes	1	---	---	0.0932	-0.24	5.85	28.16
65.301	Yes	1	---	---	0.104	-0.227	5.79	28.20
(SZB) 66.128	Yes	1	---	---	0.106	-0.245	5.88	28.14
67.901	Yes	1	---	---	0.0961	0.197	4.18	29.69
68.968	Yes	1	---	---	0.0984	0.23	4.09	29.81
69.301	Yes	1	---	---	0.0991	0.247	4.05	29.86
(0.9L_s) 69.771	Yes	1	---	---	0.1	0.195	4.19	29.68
(1.5H) 71.048	Yes	1	---	---	0.103	0.262	4.01	29.92
(SZB) 71.628	Yes	1	---	---	0.104	0.22	4.12	29.77
72.048	Yes	1	---	---	0.105	0.242	4.06	29.85
(CS) 72.510	Yes	1	---	---	0.106	0.267	4	29.93

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength II

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 3.924	5.31	8.000	-	7.000	43.289	143.77
4.583	5.22	8.000	-	7.000	41.581	135.75
(SZB) 5.003	5.18	8.000	-	7.000	41.580	134.68
(1.5H) 5.583	5.28	8.000	-	7.000	41.581	137.33
7.330	5.26	8.000	-	7.000	40.113	131.92
7.663	5.23	8.000	-	7.000	40.130	131.31
(0.1L_s) 7.752	5.22	8.000	-	7.000	40.135	131.15
8.730	5.15	8.000	-	7.000	40.192	129.54
(SZB) 10.503	5.16	8.000	-	7.000	39.036	126.02
11.330	5.1	8.000	-	7.000	38.813	123.88
15.076	5.21	8.000	-	7.000	39.769	129.70
15.326	5.2	8.000	-	7.000	39.846	129.62
(0.2L_s) 15.505	5.19	8.000	-	7.000	39.902	129.57
16.126	5.16	8.000	-	7.000	40.094	129.42
18.076	5.08	8.000	-	7.000	40.701	129.33
(SZB) 18.753	5.06	8.000	-	7.000	40.913	129.42
22.823	4.97	8.000	-	7.000	42.167	131.09
22.989	4.97	8.000	-	7.000	42.218	131.19
(0.3L_s) 23.257	4.96	8.000	-	7.000	42.300	131.37
23.523	4.96	8.000	-	7.000	42.381	131.55
24.823	4.95	8.000	-	7.000	42.780	132.57
(SZB) 29.753	4.96	8.000	-	7.000	44.309	137.51
(HP) 30.569	4.96	8.000	-	7.000	44.564	138.42
30.574	4.91	8.000	-	7.000	44.564	137.02
30.652	4.91	8.000	-	7.000	44.563	137.01
30.919	4.91	8.000	-	7.000	44.561	136.95
(0.4L_s) 31.009	4.91	8.000	-	7.000	44.561	136.93
31.569	4.91	8.000	-	7.000	44.556	136.85
38.315	4.9	8.000	-	7.000	44.518	136.45
(0.5L_s) 38.762	4.9	8.000	-	7.000	44.516	136.45
45.062	4.98	8.000	-	7.000	44.502	138.61
45.712	4.99	8.000	-	7.000	44.502	139.05
45.979	5	8.000	-	7.000	44.502	139.23
46.057	5	8.000	-	7.000	44.502	139.29
(HP) 46.062	5.05	8.000	-	7.000	44.502	140.73
(0.6L_s) 46.514	5.06	8.000	-	7.000	44.357	140.43

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(SZB) 46.878	5.07	8.000	-	7.000	44.240	140.21
51.808	5.19	8.000	-	7.000	42.678	138.65
53.108	5.24	8.000	-	7.000	42.271	138.69
53.642	5.27	8.000	-	7.000	42.105	138.77
53.808	5.28	8.000	-	7.000	42.053	138.81
($0.7L_s$) 54.267	5.3	8.000	-	7.000	41.910	138.92
55.039	5.34	8.000	-	7.000	41.671	139.16
(Deck Bar Cutoff) 55.043	5.34	8.000	-	7.000	41.669	139.16
(SZB) 57.878	5.51	8.000	-	7.000	40.795	140.65
58.555	5.56	8.000	-	7.000	40.588	141.16
60.505	5.71	8.000	-	7.000	39.994	142.90
61.305	5.78	8.000	-	7.000	39.752	143.83
61.555	5.81	8.000	-	7.000	39.676	144.15
($0.8L_s$) 62.019	5.85	8.000	-	7.000	39.536	144.78
65.301	5.79	8.000	-	7.000	38.752	140.30
(SZB) 66.128	5.88	8.000	-	7.000	39.041	143.64
67.901	4.18	8.000	-	7.000	45.008	117.76
68.968	4.09	8.000	-	7.000	45.104	115.51
69.301	4.05	8.000	-	7.000	45.135	114.36
($0.9L_s$) 69.771	4.19	8.000	-	7.000	45.179	118.35
(1.5H) 71.048	4.01	8.000	-	7.000	45.301	113.72
(SZB) 71.628	4.12	8.000	-	7.000	45.359	116.93
72.048	4.06	8.000	-	7.000	45.401	115.37
(CS) 72.510	4	8.000	-	7.000	45.448	113.71

Shear Resistance Provided By Shear Reinforcement - Strength II

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 3.924	60.000	0.400	4.000	1.200	43.289	28.55	90.00	477.32
4.583	60.000	0.400	4.000	1.200	41.581	28.63	90.00	457.09
(SZB) 5.003	60.000	0.400	6.000	0.800	41.580	28.66	90.00	304.29
(1.5H) 5.583	60.000	0.400	6.000	0.800	41.581	28.58	90.00	305.35
7.330	60.000	0.400	6.000	0.800	40.113	28.59	90.00	294.35
7.663	60.000	0.400	6.000	0.800	40.130	28.62	90.00	294.22
($0.1L_s$) 7.752	60.000	0.400	6.000	0.800	40.135	28.62	90.00	294.18
8.730	60.000	0.400	6.000	0.800	40.192	28.68	90.00	293.87
(SZB) 10.503	60.000	0.400	9.000	0.533	39.036	28.67	90.00	190.34
11.330	60.000	0.400	9.000	0.533	38.813	28.72	90.00	188.86
15.076	60.000	0.400	9.000	0.533	39.769	28.63	90.00	194.26
15.326	60.000	0.400	9.000	0.533	39.846	28.64	90.00	194.55
($0.2L_s$) 15.505	60.000	0.400	9.000	0.533	39.902	28.65	90.00	194.76
16.126	60.000	0.400	9.000	0.533	40.094	28.68	90.00	195.49
18.076	60.000	0.400	9.000	0.533	40.701	28.74	90.00	197.89
(SZB) 18.753	60.000	0.400	12.000	0.400	40.913	28.76	90.00	149.06
22.823	60.000	0.400	12.000	0.400	42.167	28.84	90.00	153.14
22.989	60.000	0.400	12.000	0.400	42.218	28.84	90.00	153.31
($0.3L_s$) 23.257	60.000	0.400	12.000	0.400	42.300	28.85	90.00	153.59
23.523	60.000	0.400	12.000	0.400	42.381	28.85	90.00	153.87
24.823	60.000	0.400	12.000	0.400	42.780	28.86	90.00	155.27
(SZB) 29.753	60.000	0.400	18.000	0.267	44.309	28.85	90.00	107.25
(HP) 30.569	60.000	0.400	18.000	0.267	44.564	28.85	90.00	107.88
30.574	60.000	0.400	18.000	0.267	44.564	28.89	90.00	107.68
30.652	60.000	0.400	18.000	0.267	44.563	28.89	90.00	107.67
30.919	60.000	0.400	18.000	0.267	44.561	28.89	90.00	107.66
($0.4L_s$) 31.009	60.000	0.400	18.000	0.267	44.561	28.89	90.00	107.66
31.569	60.000	0.400	18.000	0.267	44.556	28.90	90.00	107.64
38.315	60.000	0.400	18.000	0.267	44.518	28.91	90.00	107.50
($0.5L_s$) 38.762	60.000	0.400	18.000	0.267	44.516	28.91	90.00	107.50
45.062	60.000	0.400	18.000	0.267	44.502	28.83	90.00	107.78
45.712	60.000	0.400	18.000	0.267	44.502	28.82	90.00	107.85
45.979	60.000	0.400	18.000	0.267	44.502	28.81	90.00	107.87
46.057	60.000	0.400	18.000	0.267	44.502	28.81	90.00	107.88
(HP) 46.062	60.000	0.400	18.000	0.267	44.502	28.77	90.00	108.09
($0.6L_s$) 46.514	60.000	0.400	18.000	0.267	44.357	28.76	90.00	107.76
(SZB) 46.878	60.000	0.400	18.000	0.267	44.240	28.76	90.00	107.50
51.808	60.000	0.400	12.000	0.400	42.678	28.65	90.00	156.25
53.108	60.000	0.400	12.000	0.400	42.271	28.60	90.00	155.03
53.642	60.000	0.400	12.000	0.400	42.105	28.59	90.00	154.54
53.808	60.000	0.400	12.000	0.400	42.053	28.58	90.00	154.39
($0.7L_s$) 54.267	60.000	0.400	12.000	0.400	41.910	28.56	90.00	153.98
55.039	60.000	0.400	12.000	0.400	41.671	28.53	90.00	153.30
(Deck Bar Cutoff) 55.043	60.000	0.400	12.000	0.400	41.669	28.53	90.00	153.30
(SZB) 57.878	60.000	0.400	12.000	0.400	40.795	28.40	90.00	150.91
58.555	60.000	0.400	9.000	0.533	40.588	28.36	90.00	200.49
60.505	60.000	0.400	9.000	0.533	39.994	28.26	90.00	198.44
61.305	60.000	0.400	9.000	0.533	39.752	28.21	90.00	197.64
61.555	60.000	0.400	9.000	0.533	39.676	28.19	90.00	197.40
($0.8L_s$) 62.019	60.000	0.400	9.000	0.533	39.536	28.16	90.00	196.95

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
65.301	60.000	0.400	9.000	0.533	38.752	28.20	90.00	192.69
(SZB) 66.128	60.000	0.400	9.000	0.533	39.041	28.14	90.00	194.64
67.901	60.000	0.400	6.000	0.800	45.008	29.69	90.00	315.76
68.968	60.000	0.400	6.000	0.800	45.104	29.81	90.00	314.96
69.301	60.000	0.400	6.000	0.800	45.135	29.86	90.00	314.42
($0.9L_s$) 69.771	60.000	0.400	6.000	0.800	45.179	29.68	90.00	317.05
(1.5H) 71.048	60.000	0.400	6.000	0.800	45.301	29.92	90.00	314.92
(SZB) 71.628	60.000	0.400	6.000	0.800	45.359	29.77	90.00	317.19
72.048	60.000	0.400	4.000	1.200	45.401	29.85	90.00	474.72
(CS) 72.510	60.000	0.400	4.000	1.200	45.448	29.93	90.00	473.56

Nominal Shear Resistance - Strength II

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1} [$] (kip)	V_{n2} [#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 3.924	8.000	7.000	43.289	26.37	143.77	477.32	647.46	632.42	632.42	0.9	569.18
4.583	8.000	7.000	41.581	26.38	135.75	457.09	619.22	608.51	608.51	0.9	547.66
(SZB) 5.003	8.000	7.000	41.580	26.39	134.68	304.29	465.36	608.50	465.36	0.9	418.82
(1.5H) 5.583	8.000	7.000	41.581	26.39	137.33	305.35	469.07	608.52	469.07	0.9	422.17
7.330	8.000	7.000	40.113	26.42	131.92	294.35	452.69	588.00	452.69	0.9	407.42
7.663	8.000	7.000	40.130	26.43	131.31	294.22	451.96	588.25	451.96	0.9	406.76
($0.1L_s$) 7.752	8.000	7.000	40.135	26.43	131.15	294.18	451.76	588.32	451.76	0.9	406.59
8.730	8.000	7.000	40.192	26.44	129.54	293.87	449.85	589.13	449.85	0.9	404.87
(SZB) 10.503	8.000	7.000	39.036	26.47	126.02	190.34	342.82	572.98	342.82	0.9	308.54
11.330	8.000	7.000	38.813	26.48	123.88	188.86	339.22	569.86	339.22	0.9	305.30
15.076	8.000	7.000	39.769	26.53	129.70	194.26	350.49	583.29	350.49	0.9	315.44
15.326	8.000	7.000	39.846	26.53	129.62	194.55	350.70	584.38	350.70	0.9	315.63
($0.2L_s$) 15.505	8.000	7.000	39.902	26.53	129.57	194.76	350.86	585.15	350.86	0.9	315.77
16.126	8.000	7.000	40.094	26.54	129.42	195.49	351.45	587.86	351.45	0.9	316.30
18.076	8.000	7.000	40.701	26.55	129.33	197.89	353.77	596.37	353.77	0.9	318.39
(SZB) 18.753	8.000	7.000	40.913	26.55	129.42	149.06	305.04	599.33	305.04	0.9	274.53
22.823	8.000	7.000	42.167	26.55	131.09	153.14	310.78	616.89	310.78	0.9	279.70
22.989	8.000	7.000	42.218	26.55	131.19	153.31	311.06	617.60	311.06	0.9	279.95
($0.3L_s$) 23.257	8.000	7.000	42.300	26.55	131.37	153.59	311.51	618.75	311.51	0.9	280.36
23.523	8.000	7.000	42.381	26.55	131.55	153.87	311.97	619.88	311.97	0.9	280.78
24.823	8.000	7.000	42.780	26.54	132.57	155.27	314.38	625.46	314.38	0.9	282.94
(SZB) 29.753	8.000	7.000	44.309	26.46	137.51	107.25	271.22	646.78	271.22	0.9	244.10
(HP) 30.569	8.000	7.000	44.564	26.44	138.42	107.88	272.74	650.33	272.74	0.9	245.46
30.574	8.000	7.000	44.564	0.00	137.02	107.68	244.70	623.90	244.70	0.9	220.23
30.652	8.000	7.000	44.563	0.00	137.01	107.67	244.68	623.89	244.68	0.9	220.21
30.919	8.000	7.000	44.561	0.00	136.95	107.66	244.61	623.86	244.61	0.9	220.15
($0.4L_s$) 31.009	8.000	7.000	44.561	0.00	136.93	107.66	244.59	623.85	244.59	0.9	220.13
31.569	8.000	7.000	44.556	0.00	136.85	107.64	244.49	623.79	244.49	0.9	220.04
38.315	8.000	7.000	44.518	0.00	136.45	107.50	243.95	623.25	243.95	0.9	219.55
($0.5L_s$) 38.762	8.000	7.000	44.516	0.00	136.45	107.50	243.95	623.22	243.95	0.9	219.56
45.062	8.000	7.000	44.502	0.00	138.61	107.78	246.39	623.03	246.39	0.9	221.75
45.712	8.000	7.000	44.502	0.00	139.05	107.85	246.90	623.02	246.90	0.9	222.21
45.979	8.000	7.000	44.502	0.00	139.23	107.87	247.11	623.02	247.11	0.9	222.40
46.057	8.000	7.000	44.502	0.00	139.29	107.88	247.17	623.02	247.17	0.9	222.45
(HP) 46.062	8.000	7.000	44.502	26.35	140.73	108.09	275.16	649.37	275.16	0.9	247.65
($0.6L_s$) 46.514	8.000	7.000	44.357	26.35	140.43	107.76	274.54	647.35	274.54	0.9	247.09
(SZB) 46.878	8.000	7.000	44.240	26.36	140.21	107.50	274.07	645.72	274.07	0.9	246.66
51.808	8.000	7.000	42.678	26.39	138.65	156.25	321.28	623.88	321.28	0.9	289.15
53.108	8.000	7.000	42.271	26.39	138.69	155.03	320.11	618.18	320.11	0.9	288.10
53.642	8.000	7.000	42.105	26.39	138.77	154.54	319.70	615.85	319.70	0.9	287.73
53.808	8.000	7.000	42.053	26.39	138.81	154.39	319.59	615.12	319.59	0.9	287.63
($0.7L_s$) 54.267	8.000	7.000	41.910	26.38	138.92	153.98	319.29	613.13	319.29	0.9	287.36
55.039	8.000	7.000	41.671	26.38	139.16	153.30	318.84	609.77	318.84	0.9	286.96
(Deck Bar Cutoff) 55.043	8.000	7.000	41.669	26.38	139.16	153.30	318.84	609.75	318.84	0.9	286.96
(SZB) 57.878	8.000	7.000	40.795	26.36	140.65	150.91	317.92	597.49	317.92	0.9	286.13
58.555	8.000	7.000	40.588	26.35	141.16	200.49	367.99	594.58	367.99	0.9	331.19
60.505	8.000	7.000	39.994	26.32	142.90	198.44	367.66	586.24	367.66	0.9	330.89
61.305	8.000	7.000	39.752	26.31	143.83	197.64	367.79	582.84	367.79	0.9	331.01
61.555	8.000	7.000	39.676	26.31	144.15	197.40	367.86	581.77	367.86	0.9	331.07
($0.8L_s$) 62.019	8.000	7.000	39.536	26.30	144.78	196.95	368.03	579.80	368.03	0.9	331.23
65.301	8.000	7.000	38.752	26.24	140.30	192.69	359.24	568.78	359.24	0.9	323.31
(SZB) 66.128	8.000	7.000	39.041	26.23	143.64	194.64	364.51	572.81	364.51	0.9	328.06
67.901	8.000	7.000	45.008	26.19	117.76	315.76	459.71	656.31	459.71	0.9	413.74
68.968	8.000	7.000	45.104	26.17	115.51	314.96	456.64	657.63	456.64	0.9	410.98
69.301	8.000	7.000	45.135	26.16	114.36	314.42	454.95	658.05	454.95	0.9	409.45
($0.9L_s$) 69.771	8.000	7.000	45.179	26.16	118.35	317.05	461.56	658.66	461.56	0.9	415.40
(1.5H) 71.048	8.000	7.000	45.301	26.13	113.72	314.92	454.77	660.35	454.77	0.9	409.29
(SZB) 71.628	8.000	7.000	45.359	26.12	116.93	317.19	460.25	661.14	460.25	0.9	414.22
72.048	8.000	7.000	45.401	26.11	115.37	474.72	616.21	661.73	616.21	0.9	554.59
(CS) 72.510	8.000	7.000	45.448	26.10	113.71	473.56	613.37	662.38	613.37	0.9	552.03

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength II

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 3.924	240.51	143.77	26.37	70.37	60.000	43.289	28.55	0.177
4.583	236.24	135.75	26.38	74.12	60.000	41.581	28.63	0.195
(SZB) 5.003	233.54	134.68	26.39	72.48	60.000	41.580	28.66	0.191
(1.5H) 5.583	229.82	137.33	26.39	66.09	60.000	41.581	28.58	0.173
7.330	218.64	131.92	26.42	60.30	60.000	40.113	28.59	0.164
7.663	216.52	131.31	26.43	58.78	60.000	40.130	28.62	0.160
($0.1L_s$) 7.752	215.95	131.15	26.43	58.36	60.000	40.135	28.62	0.159
8.730	209.73	129.54	26.44	53.74	60.000	40.192	28.68	0.146
(SZB) 10.503	198.49	126.02	26.47	46.00	60.000	39.036	28.67	0.129
11.330	193.27	123.88	26.48	42.91	60.000	38.813	28.72	0.121
15.076	169.95	129.70	26.53	13.72	60.000	39.769	28.63	0.038
15.326	168.41	129.62	26.53	12.26	60.000	39.846	28.64	0.034
($0.2L_s$) 15.505	167.30	129.57	26.53	11.21	60.000	39.902	28.65	0.031
16.126	163.48	129.42	26.54	7.52	60.000	40.094	28.68	0.021
18.076	151.51	129.33	26.55	0.00	60.000	40.701	28.74	0.000
(SZB) 18.753	147.38	129.42	26.55	0.00	60.000	40.913	28.76	0.000
22.823	122.88	131.09	26.55	0.00	60.000	42.167	28.84	0.000
22.989	121.89	131.19	26.55	0.00	60.000	42.218	28.84	0.000
($0.3L_s$) 23.257	120.29	131.37	26.55	0.00	60.000	42.300	28.85	0.000
23.523	118.71	131.55	26.55	0.00	60.000	42.381	28.85	0.000
24.823	111.00	132.57	26.54	0.00	60.000	42.780	28.86	0.000
(SZB) 29.753	82.45	137.51	26.46	0.00	60.000	44.309	28.85	0.000
(HP) 30.569	77.96	138.42	26.44	0.00	60.000	44.564	28.85	0.000
30.574	77.94	137.02	0.00	0.00	60.000	44.564	28.89	0.000
30.652	77.51	137.01	0.00	0.00	60.000	44.563	28.89	0.000
30.919	76.04	136.95	0.00	0.00	60.000	44.561	28.89	0.000
($0.4L_s$) 31.009	75.55	136.93	0.00	0.00	60.000	44.561	28.89	0.000
31.569	72.50	136.85	0.00	0.00	60.000	44.556	28.90	0.000
38.315	77.42	136.45	0.00	0.00	60.000	44.518	28.91	0.000
($0.5L_s$) 38.762	80.50	136.45	0.00	0.00	60.000	44.516	28.91	0.000
45.062	123.37	138.61	0.00	0.00	60.000	44.502	28.83	0.000
45.712	127.73	139.05	0.00	0.00	60.000	44.502	28.82	0.000
45.979	129.51	139.23	0.00	0.00	60.000	44.502	28.81	0.000
46.057	130.03	139.29	0.00	0.00	60.000	44.502	28.81	0.000
(HP) 46.062	130.07	140.73	26.35	0.00	60.000	44.502	28.77	0.000
($0.6L_s$) 46.514	133.08	140.43	26.35	0.00	60.000	44.357	28.76	0.000
(SZB) 46.878	135.51	140.21	26.36	0.00	60.000	44.240	28.76	0.000
51.808	167.96	138.65	26.39	2.92	60.000	42.678	28.65	0.007
53.108	176.38	138.69	26.39	11.30	60.000	42.271	28.60	0.029
53.642	179.83	138.77	26.39	14.67	60.000	42.105	28.59	0.038
53.808	180.91	138.81	26.39	15.71	60.000	42.053	28.58	0.041
($0.7L_s$) 54.267	183.86	138.92	26.38	18.56	60.000	41.910	28.56	0.048
55.039	188.81	139.16	26.38	23.27	60.000	41.671	28.53	0.061
(Deck Bar Cutoff) 55.043	188.84	139.16	26.38	23.30	60.000	41.669	28.53	0.061
(SZB) 57.878	206.89	140.65	26.36	39.88	60.000	40.795	28.40	0.106
58.555	211.16	141.16	26.35	43.65	60.000	40.588	28.36	0.116
60.505	223.34	142.90	26.32	54.12	60.000	39.994	28.26	0.145
61.305	228.30	143.83	26.31	58.16	60.000	39.752	28.21	0.157
61.555	229.85	144.15	26.31	59.40	60.000	39.676	28.19	0.160
($0.8L_s$) 62.019	232.73	144.78	26.30	61.65	60.000	39.536	28.16	0.167
65.301	252.83	140.30	26.24	86.29	60.000	38.752	28.20	0.239
(SZB) 66.128	257.83	143.64	26.23	87.95	60.000	39.041	28.14	0.241
67.901	268.44	117.76	26.19	124.49	60.000	45.008	29.69	0.315
68.968	274.78	115.51	26.17	133.09	60.000	45.104	29.81	0.338
69.301	276.76	114.36	26.16	136.23	60.000	45.135	29.86	0.347
($0.9L_s$) 69.771	279.54	118.35	26.16	135.03	60.000	45.179	29.68	0.341
(1.5H) 71.048	287.06	113.72	26.13	147.21	60.000	45.301	29.92	0.374
(SZB) 71.628	290.46	116.93	26.12	147.41	60.000	45.359	29.77	0.372
72.048	292.92	115.37	26.11	151.43	60.000	45.401	29.85	0.383
(CS) 72.510	295.62	113.71	26.10	155.81	60.000	45.448	29.93	0.395

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength II

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 3.924	1.200	0.177	14.923	27.133	42.057
4.583	1.200	0.195	13.568	24.669	38.237
(SZB) 5.003	0.800	0.191	13.855	25.191	39.046
(1.5H) 5.583	0.800	0.173	15.246	27.720	42.965
7.330	0.800	0.164	16.109	29.289	45.398
7.663	0.800	0.160	16.519	30.035	46.554
($0.1L_s$) 7.752	0.800	0.159	16.634	30.243	46.877
8.730	0.800	0.146	18.045	32.810	50.855
(SZB) 10.503	0.533	0.129	20.480	37.237	57.717
11.330	0.533	0.121	21.786	39.611	61.398
15.076	0.533	0.038	70.076	127.411	197.487

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
15.326	0.533	0.034	78.562	142.840	221.401
(0.2L_s) 15.505	0.533	0.031	86.023	156.406	242.430
16.126	0.533	0.021	128.642	233.895	362.538
18.076	0.533	0.000	N/A	N/A	N/A
(SZB) 18.753	0.400	0.000	N/A	N/A	N/A
22.823	0.400	0.000	N/A	N/A	N/A
22.989	0.400	0.000	N/A	N/A	N/A
(0.3L_s) 23.257	0.400	0.000	N/A	N/A	N/A
23.523	0.400	0.000	N/A	N/A	N/A
24.823	0.400	0.000	N/A	N/A	N/A
(SZB) 29.753	0.267	0.000	N/A	N/A	N/A
(HP) 30.569	0.267	0.000	N/A	N/A	N/A
30.574	0.267	0.000	N/A	N/A	N/A
30.652	0.267	0.000	N/A	N/A	N/A
30.919	0.267	0.000	N/A	N/A	N/A
(0.4L_s) 31.009	0.267	0.000	N/A	N/A	N/A
31.569	0.267	0.000	N/A	N/A	N/A
38.315	0.267	0.000	N/A	N/A	N/A
(0.5L_s) 38.762	0.267	0.000	N/A	N/A	N/A
45.062	0.267	0.000	N/A	N/A	N/A
45.712	0.267	0.000	N/A	N/A	N/A
45.979	0.267	0.000	N/A	N/A	N/A
46.057	0.267	0.000	N/A	N/A	N/A
(HP) 46.062	0.267	0.000	N/A	N/A	N/A
(0.6L_s) 46.514	0.267	0.000	N/A	N/A	N/A
(SZB) 46.878	0.267	0.000	N/A	N/A	N/A
51.808	0.400	0.007	352.565	641.027	993.592
53.108	0.400	0.029	90.532	164.604	255.137
53.642	0.400	0.038	69.527	126.412	195.938
53.808	0.400	0.041	64.844	117.898	182.742
(0.7L_s) 54.267	0.400	0.048	54.754	99.552	154.306
55.039	0.400	0.061	43.476	79.047	122.524
(Deck Bar Cutoff) 55.043	0.400	0.061	43.419	78.944	122.362
(SZB) 57.878	0.400	0.106	24.974	45.407	70.382
58.555	0.533	0.116	22.735	41.336	64.071
60.505	0.533	0.145	18.152	33.003	51.155
61.305	0.533	0.157	16.821	30.584	47.406
61.555	0.533	0.160	16.451	29.911	46.362
(0.8L_s) 62.019	0.533	0.167	15.815	28.754	44.569
65.301	0.533	0.239	11.054	20.099	31.153
(SZB) 66.128	0.533	0.241	10.954	19.916	30.870
67.901	0.800	0.315	8.370	15.219	23.590
68.968	0.800	0.338	7.809	14.198	22.008
69.301	0.800	0.347	7.616	13.848	21.464
(0.9L_s) 69.771	0.800	0.341	7.749	14.088	21.837
(1.5H) 71.048	0.800	0.374	7.060	12.836	19.895
(SZB) 71.628	0.800	0.372	7.101	12.910	20.011
72.048	1.200	0.383	6.897	12.539	19.436
(CS) 72.510	1.200	0.395	6.687	12.158	18.844

Horizontal Interface Shear Capacity Details

Strength I

Details for Horizontal Interface Shear Capacity (Strength I) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.000	372065.3	8396.0	226.52	61.340	43.000	0.119
(0.0L_s) 0.000	372065.3	8396.0	226.52	61.340	43.000	0.119
(FoS) 0.333	372065.3	8396.0	226.52	61.340	43.000	0.119
(SZB) 1.337	372065.3	8396.0	226.52	61.340	43.000	0.119
(Bar Develop.) 1.705	372065.3	8396.0	226.52	61.340	43.000	0.119
(Bar Develop.) 2.765	372065.4	8396.0	226.52	61.340	43.000	0.119
(H) 3.833	372065.4	8396.0	226.52	61.340	43.000	0.119
(CS) 3.924	372065.4	8396.0	226.52	61.340	43.000	0.119
(SZB) 5.003	372065.5	8396.0	219.92	59.553	43.000	0.115
(1.5H) 5.583	372065.5	8396.0	216.39	58.596	43.000	0.114
(0.1L_s) 7.752	372065.6	8396.0	203.27	55.045	43.000	0.107
(SZB) 10.503	372065.6	8396.0	186.85	50.598	43.000	0.098
(0.2L_s) 15.505	372065.8	8396.0	157.67	42.695	43.000	0.083
(SZB) 18.753	372065.9	8396.0	139.17	37.687	43.000	0.073
(0.3L_s) 23.257	370819.9	8349.7	114.11	30.833	43.000	0.060
(SZB) 29.753	368328.7	8257.1	79.35	21.345	43.000	0.041
(HP) 30.569	368070.7	8247.5	75.23	20.229	43.000	0.039
(0.4L_s) 31.009	367936.8	8242.5	73.02	19.630	43.000	0.038
(0.5L_s) 38.762	366193.0	8177.6	83.73	22.439	43.000	0.043
(HP) 46.062	365639.0	8157.0	124.44	33.315	43.000	0.065
(0.6L_s) 46.514	365639.9	8157.1	126.97	33.991	43.000	0.066
(SZB) 46.878	365643.7	8157.2	129.01	34.537	43.000	0.067
(0.7L_s) 54.267	366294.4	8181.4	170.57	45.717	43.000	0.089
(Deck Bar Cutoff) 55.043	366426.1	8186.3	174.95	46.901	43.000	0.091

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
(SZB) 57.878	367007.4	8207.9	190.97	51.252	43.000	0.099
(0.8L_s) 62.019	368136.6	8250.0	214.38	57.651	43.000	0.112
(SZB) 66.128	369577.5	8303.5	237.64	64.071	43.000	0.124
(0.9L_s) 69.771	371112.3	8360.6	258.20	69.803	43.000	0.135
(1.5H) 71.048	371705.3	8382.6	265.40	71.824	43.000	0.139
(SZB) 71.628	371984.4	8393.0	268.69	72.747	43.000	0.141
(CS) 72.510	372067.7	8396.1	273.66	74.106	43.000	0.144
(H) 72.798	372067.7	8396.1	273.66	74.106	43.000	0.144
(Bar Develop.) 73.866	372067.8	8396.1	273.66	74.106	43.000	0.144
(Bar Develop.) 74.926	372067.8	8396.1	273.66	74.106	43.000	0.144
(SZB) 75.294	372067.8	8396.1	273.66	74.106	43.000	0.144
(FoS) 76.298	372067.9	8396.1	273.66	74.106	43.000	0.144
76.631	372067.9	8396.1	273.66	74.106	43.000	0.144

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.000	0.000	∞	0.220	12.000	0.220
(0.0L_s) 0.000	0.000	∞	0.220	12.000	0.220
(FoS) 0.333	0.000	∞	0.220	12.000	0.220
(SZB) 1.337	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 1.705	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.765	0.000	∞	0.220	12.000	0.220
(H) 3.833	0.000	∞	0.220	12.000	0.220
(CS) 3.924	0.000	∞	0.220	12.000	0.220
(SZB) 5.003	0.000	∞	0.220	12.000	0.220
(1.5H) 5.583	0.000	∞	0.220	12.000	0.220
(0.1L_s) 7.752	0.000	∞	0.220	12.000	0.220
(SZB) 10.503	0.000	∞	0.220	9.000	0.293
(0.2L_s) 15.505	0.000	∞	0.220	9.000	0.293
(SZB) 18.753	0.000	∞	0.220	12.000	0.220
(0.3L_s) 23.257	0.000	∞	0.220	12.000	0.220
(SZB) 29.753	0.000	∞	0.220	18.000	0.147
(HP) 30.569	0.000	∞	0.220	18.000	0.147
(0.4L_s) 31.009	0.000	∞	0.220	18.000	0.147
(0.5L_s) 38.762	0.000	∞	0.220	18.000	0.147
(HP) 46.062	0.000	∞	0.220	18.000	0.147
(0.6L_s) 46.514	0.000	∞	0.220	18.000	0.147
(SZB) 46.878	0.000	∞	0.220	18.000	0.147
(0.7L_s) 54.267	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 55.043	0.000	∞	0.220	12.000	0.220
(SZB) 57.878	0.000	∞	0.220	12.000	0.220
(0.8L_s) 62.019	0.000	∞	0.220	9.000	0.293
(SZB) 66.128	0.000	∞	0.220	9.000	0.293
(0.9L_s) 69.771	0.000	∞	0.220	12.000	0.220
(1.5H) 71.048	0.000	∞	0.220	12.000	0.220
(SZB) 71.628	0.000	∞	0.220	12.000	0.220
(CS) 72.510	0.000	∞	0.220	12.000	0.220
(H) 72.798	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 73.866	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.926	0.000	∞	0.220	12.000	0.220
(SZB) 75.294	0.000	∞	0.220	12.000	0.220
(FoS) 76.298	0.000	∞	0.220	12.000	0.220
76.631	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.000	516.000	0.220	0.885	158.476	696.600	928.800	142.629
(0.0L_s) 0.000	516.000	0.220	0.885	158.476	696.600	928.800	142.629
(FoS) 0.333	516.000	0.220	0.883	158.475	696.600	928.800	142.627
(SZB) 1.337	516.000	0.220	0.877	158.469	696.600	928.800	142.622
(Bar Develop.) 1.705	516.000	0.220	0.874	158.467	696.600	928.800	142.620
(Bar Develop.) 2.765	516.000	0.220	0.868	158.461	696.600	928.800	142.615
(H) 3.833	516.000	0.220	0.862	158.455	696.600	928.800	142.610
(CS) 3.924	516.000	0.220	0.861	158.455	696.600	928.800	142.609
(SZB) 5.003	516.000	0.220	0.855	158.449	696.600	928.800	142.604
(1.5H) 5.583	516.000	0.220	0.852	158.446	696.600	928.800	142.602
(0.1L_s) 7.752	516.000	0.220	0.840	158.436	696.600	928.800	142.592
(SZB) 10.503	516.000	0.293	0.826	162.823	696.600	928.800	146.541
(0.2L_s) 15.505	516.000	0.293	0.803	162.803	696.600	928.800	146.522
(SZB) 18.753	516.000	0.220	0.790	158.391	696.600	928.800	142.552
(0.3L_s) 23.257	516.000	0.220	0.774	158.377	696.600	928.800	142.539
(SZB) 29.753	516.000	0.147	0.757	153.961	696.600	928.800	138.565
(HP) 30.569	516.000	0.147	0.755	153.960	696.600	928.800	138.564
(0.4L_s) 31.009	516.000	0.147	0.754	153.959	696.600	928.800	138.563
(0.5L_s) 38.762	516.000	0.147	0.742	153.948	696.600	928.800	138.553

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
(HP) 46.062	516.000	0.147	0.738	153.944	696.600	928.800	138.550
(0.6L_s) 46.514	516.000	0.147	0.738	153.944	696.600	928.800	138.550
(SZB) 46.878	516.000	0.147	0.738	153.944	696.600	928.800	138.550
(0.7L_s) 54.267	516.000	0.220	0.743	158.348	696.600	928.800	142.514
(Deck Bar Cutoff) 55.043	516.000	0.220	0.744	158.349	696.600	928.800	142.514
(SZB) 57.878	516.000	0.220	0.748	158.353	696.600	928.800	142.518
(0.8L_s) 62.019	516.000	0.293	0.755	162.760	696.600	928.800	146.484
(SZB) 66.128	516.000	0.293	0.766	162.769	696.600	928.800	146.492
(0.9L_s) 69.771	516.000	0.220	0.777	158.379	696.600	928.800	142.541
(1.5H) 71.048	516.000	0.220	0.781	158.383	696.600	928.800	142.544
(SZB) 71.628	516.000	0.220	0.783	158.384	696.600	928.800	142.546
(CS) 72.510	516.000	0.220	0.786	158.387	696.600	928.800	142.549
(H) 72.798	516.000	0.220	0.787	158.388	696.600	928.800	142.549
(Bar Develop.) 73.866	516.000	0.220	0.791	158.392	696.600	928.800	142.553
(Bar Develop.) 74.926	516.000	0.220	0.795	158.396	696.600	928.800	142.556
(SZB) 75.294	516.000	0.220	0.797	158.397	696.600	928.800	142.557
(FoS) 76.298	516.000	0.220	0.801	158.401	696.600	928.800	142.560
76.631	516.000	0.220	0.802	158.402	696.600	928.800	142.562

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{matrix} lesser\ of, \\ but\ not < 0.0 \end{matrix} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.000	516.000	0.119	0.430	-0.912	0.000	No
(0.0L_s) 0.000	516.000	0.119	0.430	-0.912	0.000	No
(FoS) 0.333	516.000	0.119	0.430	-0.912	0.000	No
(SZB) 1.337	516.000	0.119	0.430	-0.912	0.000	No
(Bar Develop.) 1.705	516.000	0.119	0.430	-0.912	0.000	No
(Bar Develop.) 2.765	516.000	0.119	0.430	-0.912	0.000	No
(H) 3.833	516.000	0.119	0.430	-0.912	0.000	No
(CS) 3.924	516.000	0.119	0.430	-0.912	0.000	No
(SZB) 5.003	516.000	0.115	0.430	-0.955	0.000	No
(1.5H) 5.583	516.000	0.114	0.430	-0.979	0.000	No
(0.1L_s) 7.752	516.000	0.107	0.430	-1.066	0.000	No
(SZB) 10.503	516.000	0.098	0.430	-1.176	0.000	No
(0.2L_s) 15.505	516.000	0.083	0.430	-1.370	0.000	No
(SZB) 18.753	516.000	0.073	0.430	-1.493	0.000	No
(0.3L_s) 23.257	516.000	0.060	0.430	-1.662	0.000	No
(SZB) 29.753	516.000	0.041	0.430	-1.895	0.000	No
(HP) 30.569	516.000	0.039	0.430	-1.922	0.000	No
(0.4L_s) 31.009	516.000	0.038	0.430	-1.937	0.000	No
(0.5L_s) 38.762	516.000	0.043	0.430	-1.868	0.000	No
(HP) 46.062	516.000	0.065	0.430	-1.600	0.000	No
(0.6L_s) 46.514	516.000	0.066	0.430	-1.583	0.000	No
(SZB) 46.878	516.000	0.067	0.430	-1.570	0.000	No
(0.7L_s) 54.267	516.000	0.089	0.430	-1.294	0.000	No
(Deck Bar Cutoff) 55.043	516.000	0.091	0.430	-1.265	0.000	No
(SZB) 57.878	516.000	0.099	0.430	-1.158	0.000	No
(0.8L_s) 62.019	516.000	0.112	0.430	-1.001	0.000	No
(SZB) 66.128	516.000	0.124	0.430	-0.843	0.000	No
(0.9L_s) 69.771	516.000	0.135	0.430	-0.702	0.000	No
(1.5H) 71.048	516.000	0.139	0.430	-0.652	0.000	No
(SZB) 71.628	516.000	0.141	0.430	-0.629	0.000	No
(CS) 72.510	516.000	0.144	0.430	-0.596	0.000	No
(H) 72.798	516.000	0.144	0.430	-0.596	0.000	No
(Bar Develop.) 73.866	516.000	0.144	0.430	-0.596	0.000	No
(Bar Develop.) 74.926	516.000	0.144	0.430	-0.596	0.000	No
(SZB) 75.294	516.000	0.144	0.430	-0.596	0.000	No
(FoS) 76.298	516.000	0.144	0.430	-0.596	0.000	No
76.631	516.000	0.144	0.430	-0.596	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Strength II

Details for Horizontal Interface Shear Capacity (Strength II) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.000	372065.3	8396.0	216.46	58.615	43.000	0.114
(0.0L_s) 0.000	372065.3	8396.0	216.46	58.615	43.000	0.114
(FoS) 0.333	372065.3	8396.0	216.46	58.615	43.000	0.114
(SZB) 1.337	372065.3	8396.0	216.46	58.615	43.000	0.114
(Bar Develop.) 1.705	372065.3	8396.0	216.46	58.615	43.000	0.114
(Bar Develop.) 2.765	372065.4	8396.0	216.46	58.615	43.000	0.114
(H) 3.833	372065.4	8396.0	216.46	58.615	43.000	0.114
(SZB) 5.003	372065.5	8396.0	210.19	56.917	43.000	0.110
(1.5H) 5.583	372065.5	8396.0	206.84	56.009	43.000	0.109

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
($0.1L_s$) 7.752	372065.6	8396.0	194.35	52.629	43.000	0.102
(SZB) 10.503	372065.6	8396.0	178.64	48.374	43.000	0.094
($0.2L_s$) 15.505	372065.8	8396.0	150.57	40.774	43.000	0.079
(SZB) 18.753	372065.9	8396.0	132.64	35.918	43.000	0.070
($0.3L_s$) 23.257	370819.9	8349.7	108.26	29.253	43.000	0.057
(SZB) 29.753	368328.7	8257.1	74.20	19.961	43.000	0.039
(HP) 30.569	368070.7	8247.5	70.17	18.867	43.000	0.037
($0.4L_s$) 31.009	367936.8	8242.5	67.99	18.278	43.000	0.035
($0.5L_s$) 38.762	366193.0	8177.6	72.45	19.414	43.000	0.038
(HP) 46.062	365639.0	8157.0	117.06	31.338	43.000	0.061
($0.6L_s$) 46.514	365639.9	8157.1	119.78	32.065	43.000	0.062
(SZB) 46.878	365643.7	8157.2	121.96	32.650	43.000	0.063
($0.7L_s$) 54.267	366294.4	8181.4	165.48	44.352	43.000	0.086
(Deck Bar Cutoff) 55.043	366426.1	8186.3	169.96	45.565	43.000	0.088
(SZB) 57.878	367007.4	8207.9	186.20	49.971	43.000	0.097
($0.8L_s$) 62.019	368136.6	8250.0	209.45	56.326	43.000	0.109
(SZB) 66.128	369577.5	8303.5	232.04	62.561	43.000	0.121
($0.9L_s$) 69.771	371112.3	8360.6	251.58	68.013	43.000	0.132
(1.5H) 71.048	371705.3	8382.6	258.35	69.915	43.000	0.135
(SZB) 71.628	371984.4	8393.0	261.42	70.780	43.000	0.137
(H) 72.798	372067.7	8396.1	266.06	72.046	43.000	0.140
(Bar Develop.) 73.866	372067.8	8396.1	266.06	72.046	43.000	0.140
(Bar Develop.) 74.926	372067.8	8396.1	266.06	72.046	43.000	0.140
(SZB) 75.294	372067.8	8396.1	266.06	72.046	43.000	0.140
(FoS) 76.298	372067.9	8396.1	266.06	72.046	43.000	0.140
76.631	372067.9	8396.1	266.06	72.046	43.000	0.140

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.000	0.000	∞	0.220	12.000	0.220
($0.0L_s$) 0.000	0.000	∞	0.220	12.000	0.220
(FoS) 0.333	0.000	∞	0.220	12.000	0.220
(SZB) 1.337	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 1.705	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.765	0.000	∞	0.220	12.000	0.220
(H) 3.833	0.000	∞	0.220	12.000	0.220
(SZB) 5.003	0.000	∞	0.220	12.000	0.220
(1.5H) 5.583	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.752	0.000	∞	0.220	12.000	0.220
(SZB) 10.503	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.505	0.000	∞	0.220	9.000	0.293
(SZB) 18.753	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.257	0.000	∞	0.220	12.000	0.220
(SZB) 29.753	0.000	∞	0.220	18.000	0.147
(HP) 30.569	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 31.009	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.762	0.000	∞	0.220	18.000	0.147
(HP) 46.062	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.514	0.000	∞	0.220	18.000	0.147
(SZB) 46.878	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 54.267	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 55.043	0.000	∞	0.220	12.000	0.220
(SZB) 57.878	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 62.019	0.000	∞	0.220	9.000	0.293
(SZB) 66.128	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.771	0.000	∞	0.220	12.000	0.220
(1.5H) 71.048	0.000	∞	0.220	12.000	0.220
(SZB) 71.628	0.000	∞	0.220	12.000	0.220
(H) 72.798	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 73.866	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.926	0.000	∞	0.220	12.000	0.220
(SZB) 75.294	0.000	∞	0.220	12.000	0.220
(FoS) 76.298	0.000	∞	0.220	12.000	0.220
76.631	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, $\mu = 1$, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, $\gamma_{DC} = 0.9$, $K_1 = 0.3$, $K_2 = 1.800$ KSI, $\phi = 0.9$, $f'_c = 4.500$ KSI, $f_y = 60.000$ KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.000	516.000	0.220	0.885	158.476	696.600	928.800	142.629
($0.0L_s$) 0.000	516.000	0.220	0.885	158.476	696.600	928.800	142.629
(FoS) 0.333	516.000	0.220	0.883	158.475	696.600	928.800	142.627
(SZB) 1.337	516.000	0.220	0.877	158.469	696.600	928.800	142.622
(Bar Develop.) 1.705	516.000	0.220	0.874	158.467	696.600	928.800	142.620
(Bar Develop.) 2.765	516.000	0.220	0.868	158.461	696.600	928.800	142.615
(H) 3.833	516.000	0.220	0.862	158.455	696.600	928.800	142.610

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
(SZB) 5.003	516.000	0.220	0.855	158.449	696.600	928.800	142.604
(1.5H) 5.583	516.000	0.220	0.852	158.446	696.600	928.800	142.602
($0.1L_s$) 7.752	516.000	0.220	0.840	158.436	696.600	928.800	142.592
(SZB) 10.503	516.000	0.293	0.826	162.823	696.600	928.800	146.541
($0.2L_s$) 15.505	516.000	0.293	0.803	162.803	696.600	928.800	146.522
(SZB) 18.753	516.000	0.220	0.790	158.391	696.600	928.800	142.552
($0.3L_s$) 23.257	516.000	0.220	0.774	158.377	696.600	928.800	142.539
(SZB) 29.753	516.000	0.147	0.757	153.961	696.600	928.800	138.565
(HP) 30.569	516.000	0.147	0.755	153.960	696.600	928.800	138.564
($0.4L_s$) 31.009	516.000	0.147	0.754	153.959	696.600	928.800	138.563
($0.5L_s$) 38.762	516.000	0.147	0.742	153.948	696.600	928.800	138.553
(HP) 46.062	516.000	0.147	0.738	153.944	696.600	928.800	138.550
($0.6L_s$) 46.514	516.000	0.147	0.738	153.944	696.600	928.800	138.550
(SZB) 46.878	516.000	0.147	0.738	153.944	696.600	928.800	138.550
($0.7L_s$) 54.267	516.000	0.220	0.743	158.348	696.600	928.800	142.514
(Deck Bar Cutoff) 55.043	516.000	0.220	0.744	158.349	696.600	928.800	142.514
(SZB) 57.878	516.000	0.220	0.748	158.353	696.600	928.800	142.518
($0.8L_s$) 62.019	516.000	0.293	0.755	162.760	696.600	928.800	146.484
(SZB) 66.128	516.000	0.293	0.766	162.769	696.600	928.800	146.492
($0.9L_s$) 69.771	516.000	0.220	0.777	158.379	696.600	928.800	142.541
(1.5H) 71.048	516.000	0.220	0.781	158.383	696.600	928.800	142.544
(SZB) 71.628	516.000	0.220	0.783	158.384	696.600	928.800	142.546
(H) 72.798	516.000	0.220	0.787	158.388	696.600	928.800	142.549
(Bar Develop.) 73.866	516.000	0.220	0.791	158.392	696.600	928.800	142.553
(Bar Develop.) 74.926	516.000	0.220	0.795	158.396	696.600	928.800	142.556
(SZB) 75.294	516.000	0.220	0.797	158.397	696.600	928.800	142.557
(FoS) 76.298	516.000	0.220	0.801	158.401	696.600	928.800	142.560
76.631	516.000	0.220	0.802	158.402	696.600	928.800	142.562

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\ min} = \underset{but\ not\ <\ 0.0}{lesser\ of,} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\ min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\ min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.000	516.000	0.114	0.430	-0.979	0.000	No
($0.0L_s$) 0.000	516.000	0.114	0.430	-0.979	0.000	No
(FoS) 0.333	516.000	0.114	0.430	-0.979	0.000	No
(SZB) 1.337	516.000	0.114	0.430	-0.979	0.000	No
(Bar Develop.) 1.705	516.000	0.114	0.430	-0.979	0.000	No
(Bar Develop.) 2.765	516.000	0.114	0.430	-0.979	0.000	No
(H) 3.833	516.000	0.114	0.430	-0.979	0.000	No
(SZB) 5.003	516.000	0.110	0.430	-1.020	0.000	No
(1.5H) 5.583	516.000	0.109	0.430	-1.043	0.000	No
($0.1L_s$) 7.752	516.000	0.102	0.430	-1.126	0.000	No
(SZB) 10.503	516.000	0.094	0.430	-1.230	0.000	No
($0.2L_s$) 15.505	516.000	0.079	0.430	-1.417	0.000	No
(SZB) 18.753	516.000	0.070	0.430	-1.537	0.000	No
($0.3L_s$) 23.257	516.000	0.057	0.430	-1.700	0.000	No
(SZB) 29.753	516.000	0.039	0.430	-1.929	0.000	No
(HP) 30.569	516.000	0.037	0.430	-1.956	0.000	No
($0.4L_s$) 31.009	516.000	0.035	0.430	-1.970	0.000	No
($0.5L_s$) 38.762	516.000	0.038	0.430	-1.942	0.000	No
(HP) 46.062	516.000	0.061	0.430	-1.648	0.000	No
($0.6L_s$) 46.514	516.000	0.062	0.430	-1.631	0.000	No
(SZB) 46.878	516.000	0.063	0.430	-1.616	0.000	No
($0.7L_s$) 54.267	516.000	0.086	0.430	-1.328	0.000	No
(Deck Bar Cutoff) 55.043	516.000	0.088	0.430	-1.298	0.000	No
(SZB) 57.878	516.000	0.097	0.430	-1.190	0.000	No
($0.8L_s$) 62.019	516.000	0.109	0.430	-1.033	0.000	No
(SZB) 66.128	516.000	0.121	0.430	-0.880	0.000	No
($0.9L_s$) 69.771	516.000	0.132	0.430	-0.746	0.000	No
(1.5H) 71.048	516.000	0.135	0.430	-0.699	0.000	No
(SZB) 71.628	516.000	0.137	0.430	-0.678	0.000	No
(H) 72.798	516.000	0.140	0.430	-0.647	0.000	No
(Bar Develop.) 73.866	516.000	0.140	0.430	-0.647	0.000	No
(Bar Develop.) 74.926	516.000	0.140	0.430	-0.647	0.000	No
(SZB) 75.294	516.000	0.140	0.430	-0.647	0.000	No
(FoS) 76.298	516.000	0.140	0.430	-0.647	0.000	No
76.631	516.000	0.140	0.430	-0.647	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Stirrup Detailing Check Details

$$\frac{A_v}{S} min = \frac{0.0316 \lambda \sqrt{f'_c}\, b_v}{f_y}$$

f'_c = 8.000 KSI

f_y = 60.000 KSI

Details for Minimum Transverse Reinforcement Check - 5.7.2.5-1

Location from Left Support (ft)	b_v (in)	A_v/S_{min} (in^2/ft)
0.000	7.000	N/A
(0.0L_e) 0.000	7.000	0.125
(FoS) 0.333	7.000	0.125
(SZB) 1.337	7.000	0.125
(Bar Develop.) 1.705	7.000	0.125
(Bar Develop.) 2.765	7.000	0.125
(H) 3.833	7.000	0.125
(CS) 3.924	7.000	0.125
(SZB) 5.003	7.000	0.125
(1.5H) 5.583	7.000	0.125
7.752	7.000	0.125
(SZB) 10.503	7.000	0.125
15.505	7.000	0.125
(SZB) 18.753	7.000	0.125
23.257	7.000	0.125
(SZB) 29.753	7.000	0.125
(HP) 30.569	7.000	0.125
31.009	7.000	0.125
38.762	7.000	0.125
(HP) 46.062	7.000	0.125
46.514	7.000	0.125
(SZB) 46.878	7.000	0.125
54.267	7.000	0.125
(Deck Bar Cutoff) 55.043	7.000	0.125
(SZB) 57.878	7.000	0.125
62.019	7.000	0.125
(SZB) 66.128	7.000	0.125
69.771	7.000	0.125
(1.5H) 71.048	7.000	0.125
(SZB) 71.628	7.000	0.125
(CS) 72.510	7.000	0.125
(H) 72.798	7.000	0.125
(Bar Develop.) 73.866	7.000	0.125
(Bar Develop.) 74.926	7.000	0.125
(SZB) 75.294	7.000	0.125
(FoS) 76.298	7.000	0.125
76.631	7.000	0.125

Strength I - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.781	1.000	7.000	45.386	N/A
(0.0L_e) 0.000	0.781	1.000	7.000	45.386	18.000
(FoS) 0.333	0.799	1.000	7.000	43.815	18.000
(SZB) 1.337	0.775	1.000	7.000	43.550	18.000
(Bar Develop.) 1.705	0.766	1.000	7.000	43.475	18.000
(Bar Develop.) 2.765	0.743	1.000	7.000	43.322	18.000
(H) 3.833	0.744	1.000	7.000	43.292	18.000
(CS) 3.924	0.744	1.000	7.000	43.289	18.000
(SZB) 5.003	0.749	1.000	7.000	41.580	18.000
(1.5H) 5.583	0.735	1.000	7.000	41.581	18.000
7.752	0.710	1.000	7.000	40.135	18.000
(SZB) 10.503	0.663	1.000	7.000	39.036	18.000
15.505	0.532	1.000	7.000	39.902	18.000
(SZB) 18.753	0.447	1.000	7.000	40.913	18.000
23.257	0.339	1.000	7.000	42.300	18.000
(SZB) 29.753	0.199	1.000	7.000	44.309	18.000
(HP) 30.569	0.183	1.000	7.000	44.564	18.000
31.009	0.260	1.000	7.000	44.561	18.000
38.762	0.299	1.000	7.000	44.516	18.000
(HP) 46.062	0.359	1.000	7.000	44.502	18.000
46.514	0.369	1.000	7.000	44.357	18.000
(SZB) 46.878	0.378	1.000	7.000	44.240	18.000
54.267	0.556	1.000	7.000	41.910	18.000
(Deck Bar Cutoff) 55.043	0.576	1.000	7.000	41.669	18.000
(SZB) 57.878	0.651	1.000	7.000	40.795	18.000
62.019	0.766	1.000	7.000	39.536	18.000
(SZB) 66.128	0.870	1.000	7.000	39.041	18.000
69.771	0.824	1.000	7.000	45.179	18.000
(1.5H) 71.048	0.848	1.000	7.000	45.301	18.000
(SZB) 71.628	0.858	1.000	7.000	45.359	18.000
(CS) 72.510	0.874	1.000	7.000	45.448	18.000
(H) 72.798	0.873	1.000	7.000	45.478	18.000
(Bar Develop.) 73.866	0.871	1.000	7.000	45.591	18.000
(Bar Develop.) 74.926	0.893	1.000	7.000	45.706	18.000
(SZB) 75.294	0.902	1.000	7.000	45.747	18.000
(FoS) 76.298	0.927	1.000	7.000	45.861	18.000

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
76.631	0.935	1.000	7.000	45.900	18.000

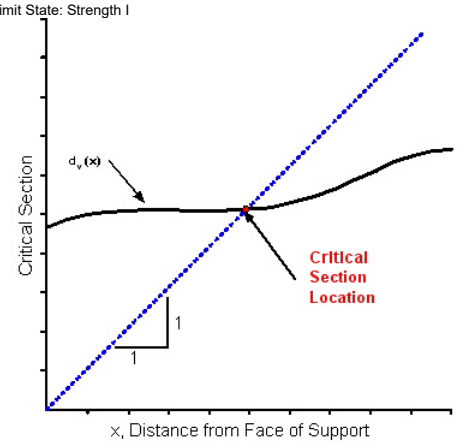
Strength II - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.781	1.000	7.000	45.386	N/A
(0.0L_e) 0.000	0.781	1.000	7.000	45.386	18.000
(FoS) 0.333	0.799	1.000	7.000	43.815	18.000
(SZB) 1.337	0.775	1.000	7.000	43.550	18.000
(Bar Develop.) 1.705	0.766	1.000	7.000	43.475	18.000
(Bar Develop.) 2.765	0.743	1.000	7.000	43.322	18.000
(H) 3.833	0.744	1.000	7.000	43.292	18.000
(CS) 3.924	0.744	1.000	7.000	43.289	18.000
(SZB) 5.003	0.749	1.000	7.000	41.580	18.000
(1.5H) 5.583	0.735	1.000	7.000	41.581	18.000
7.752	0.710	1.000	7.000	40.135	18.000
(SZB) 10.503	0.663	1.000	7.000	39.036	18.000
15.505	0.532	1.000	7.000	39.902	18.000
(SZB) 18.753	0.447	1.000	7.000	40.913	18.000
23.257	0.339	1.000	7.000	42.300	18.000
(SZB) 29.753	0.199	1.000	7.000	44.309	18.000
(HP) 30.569	0.183	1.000	7.000	44.564	18.000
31.009	0.260	1.000	7.000	44.561	18.000
38.762	0.299	1.000	7.000	44.516	18.000
(HP) 46.062	0.359	1.000	7.000	44.502	18.000
46.514	0.369	1.000	7.000	44.357	18.000
(SZB) 46.878	0.378	1.000	7.000	44.240	18.000
54.267	0.556	1.000	7.000	41.910	18.000
(Deck Bar Cutoff) 55.043	0.576	1.000	7.000	41.669	18.000
(SZB) 57.878	0.651	1.000	7.000	40.795	18.000
62.019	0.766	1.000	7.000	39.536	18.000
(SZB) 66.128	0.870	1.000	7.000	39.041	18.000
69.771	0.824	1.000	7.000	45.179	18.000
(1.5H) 71.048	0.848	1.000	7.000	45.301	18.000
(SZB) 71.628	0.858	1.000	7.000	45.359	18.000
(CS) 72.510	0.874	1.000	7.000	45.448	18.000
(H) 72.798	0.873	1.000	7.000	45.478	18.000
(Bar Develop.) 73.866	0.871	1.000	7.000	45.591	18.000
(Bar Develop.) 74.926	0.893	1.000	7.000	45.706	18.000
(SZB) 75.294	0.902	1.000	7.000	45.747	18.000
(FoS) 76.298	0.927	1.000	7.000	45.861	18.000
76.631	0.935	1.000	7.000	45.900	18.000

Critical Section for Shear Details

Limit State: Strength I



LRFD 5.8.3.2
Critical Section = d_v measured at d_v from the face of support

Critical Section Calculation for Ahead side of Pier 1

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(FoS) 0.333	0.000	43.815	No
1.333	12.000	43.551	No
(SZB) 1.337	12.039	43.550	No
(Bar Develop.) 1.705	16.456	43.475	No
(PSXFR) 2.583	27.000	43.327	No
2.625	27.500	43.326	No
(Bar Develop.) 2.765	29.184	43.322	No
(H) 3.833	42.000	43.292	No

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
3.924	43.085	43.085	*Yes
4.583	51.000	41.581	No
(SZB) 5.003	56.031	41.580	No
(1.5H) 5.583	63.000	41.581	No
7.330	83.957	40.113	No
($0.1L_e$) 7.663	87.957	40.130	No
7.752	89.028	40.135	No
8.730	100.757	40.192	No

* - Intersection values are linearly interpolated
Critical Section is at 3.590 ft (43.085 in) from the face of support on the Ahead side of Pier 1

Critical Section Calculation for Back side of Pier 2

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
67.901	100.757	45.008	No
($0.9L_e$) 68.968	87.957	45.104	No
69.301	83.957	45.135	No
69.771	78.314	45.179	No
(1.5H) 71.048	63.000	45.301	No
(SZB) 71.628	56.031	45.359	No
72.048	51.000	45.401	No
72.510	45.448	45.448	*Yes
(H) 72.798	42.000	45.478	No
(Bar Develop.) 73.866	29.184	45.591	No
74.006	27.500	45.606	No
(PSXFR) 74.048	27.000	45.610	No
(Bar Develop.) 74.926	16.456	45.706	No
(SZB) 75.294	12.039	45.747	No
75.298	12.000	45.748	No
(FoS) 76.298	0.000	45.861	No

* - Intersection values are linearly interpolated
Critical Section is at 3.787 ft (45.448 in) from the face of support on the Back side of Pier 2

Longitudinal Reinforcement for Shear

$$A_s f_y + A_{ps} f_{ps} \geq \left[\frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right] \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Strength I

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y* (KSI)	A_{ps} (in^2)	f_{ps}* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 0.333	0.400	21.213	3.906	106.131	83.16	43.815	1
(SZB) 1.337	0.400	49.590	3.906	144.683	327.95	43.550	1
(Bar Develop.) 1.705	0.400	60.000	3.906	158.774	415.68	43.475	1
(Bar Develop.) 2.765	0.400	60.000	3.906	193.269	662.30	43.322	1
(H) 3.833	0.400	60.000	3.906	201.393	901.36	43.292	1
(CS) 3.924	0.400	60.000	3.906	202.082	921.17	43.289	1
(SZB) 5.003	0.400	60.000	3.906	210.302	1152.46	41.580	1
(1.5H) 5.583	0.400	60.000	4.340	214.722	1273.07	41.581	1
($0.1L_s$) 7.752	0.400	60.000	4.774	231.256	1699.43	40.135	1
(SZB) 10.503	0.400	60.000	5.208	252.263	2185.72	39.036	1
($0.2L_s$) 15.505	0.400	60.000	6.076	268.140	2917.64	39.902	1
(SZB) 18.753	0.400	60.000	6.076	268.697	3289.37	40.913	1
($0.3L_s$) 23.257	0.400	60.000	6.076	269.349	3674.16	42.300	1
(SZB) 29.753	0.400	60.000	6.076	269.887	4009.29	44.309	1
(HP) 30.569	0.400	60.000	6.076	269.930	4029.35	44.564	1
($0.4L_s$) 31.009	0.400	60.000	6.076	269.928	4038.13	44.561	1
($0.5L_s$) 38.762	0.400	60.000	6.076	269.882	4009.51	44.516	1
(HP) 46.062	0.400	60.000	6.076	269.864	3653.87	44.502	1
($0.6L_s$) 46.514	0.400	60.000	6.076	269.835	3620.37	44.357	1
(SZB) 46.878	0.400	60.000	6.076	269.812	3592.45	44.240	1
($0.7L_s$) 54.267	0.400	60.000	6.076	268.931	2840.36	41.910	1
(Deck Bar Cutoff) 55.043	0.400	60.000	6.076	268.814	2744.01	41.669	1
(SZB) 57.878	0.400	60.000	6.076	268.387	2358.72	40.795	1
($0.8L_s$) 62.019	0.400	60.000	6.076	267.758	1738.90	39.536	1
(SZB) 66.128	0.400	60.000	5.208	252.124	1103.48	39.041	1
($0.9L_s$) 69.771	33.680	60.000	1.736	0.000	1308.58	45.179	0.9
(1.5H) 71.048	33.680	60.000	1.736	0.000	1547.78	45.301	0.9
(SZB) 71.628	33.680	60.000	2.170	0.000	1654.12	45.359	0.9
(CS) 72.510	33.680	60.000	2.170	0.000	1818.66	45.448	0.9
(H) 72.798	33.680	60.000	2.170	0.000	1873.06	45.478	0.9
(Bar Develop.) 73.866	33.680	60.000	2.170	0.000	2101.49	45.591	0.9
(Bar Develop.) 74.926	33.680	59.477	2.170	0.000	2345.17	45.706	0.9
(SZB) 75.294	33.680	59.049	2.170	0.000	2431.10	45.747	0.9
(FoS) 76.298	33.680	57.881	2.170	0.000	2668.87	45.861	0.9

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 0.333	0.00	0.75	226.52	0.9	251.69	26.37	28.59
(SZB) 1.337	0.00	0.75	226.52	0.9	251.69	26.37	28.59
(Bar Develop.) 1.705	0.00	0.75	226.52	0.9	251.69	26.37	28.59
(Bar Develop.) 2.765	0.00	0.75	226.52	0.9	251.69	26.37	28.59
(H) 3.833	0.00	0.75	226.52	0.9	251.69	26.37	28.59
(CS) 3.924	0.00	0.75	226.52	0.9	251.69	26.37	28.59
(SZB) 5.003	0.00	0.75	219.92	0.9	244.36	26.39	28.71
(1.5H) 5.583	0.00	0.75	216.39	0.9	240.43	26.39	28.63
($0.1L_s$) 7.752	0.00	0.75	203.27	0.9	225.86	26.43	28.69
(SZB) 10.503	0.00	0.75	186.85	0.9	189.66	26.47	28.76
($0.2L_s$) 15.505	0.00	0.75	157.67	0.9	175.19	26.53	28.76
(SZB) 18.753	0.00	0.75	139.17	0.9	148.37	26.55	28.88
($0.3L_s$) 23.257	0.00	0.75	114.11	0.9	126.79	26.55	28.97
(SZB) 29.753	0.00	0.75	79.35	0.9	88.16	26.46	28.98
(HP) 30.569	0.00	0.75	75.23	0.9	83.59	26.44	28.97
($0.4L_s$) 31.009	0.00	0.75	73.02	0.9	81.14	0.00	29.23
($0.5L_s$) 38.762	0.00	0.75	83.73	0.9	93.04	0.00	29.31
(HP) 46.062	0.00	0.75	124.44	0.9	107.54	26.35	28.89
($0.6L_s$) 46.514	0.00	0.75	126.97	0.9	107.22	26.35	28.88
(SZB) 46.878	0.00	0.75	129.01	0.9	106.96	26.36	28.88
($0.7L_s$) 54.267	0.00	0.75	170.57	0.9	153.30	26.38	28.67
(Deck Bar Cutoff) 55.043	0.00	0.75	174.95	0.9	152.63	26.38	28.64
(SZB) 57.878	0.00	0.75	190.97	0.9	150.30	26.36	28.50
($0.8L_s$) 62.019	0.00	0.75	214.38	0.9	196.23	26.30	28.25
(SZB) 66.128	0.00	0.75	237.64	0.9	193.61	26.23	28.27
($0.9L_s$) 69.771	0.00	0.75	258.20	0.9	286.89	26.16	29.97
(1.5H) 71.048	0.00	0.75	265.40	0.9	294.89	26.13	30.23
(SZB) 71.628	0.00	0.75	268.69	0.9	298.54	26.12	30.10
(CS) 72.510	0.00	0.75	273.66	0.9	304.07	26.10	30.28
(H) 72.798	0.00	0.75	273.66	0.9	304.07	26.10	30.28
(Bar Develop.) 73.866	0.00	0.75	273.66	0.9	304.07	26.10	30.28
(Bar Develop.) 74.926	0.00	0.75	273.66	0.9	304.07	26.10	30.28
(SZB) 75.294	0.00	0.75	273.66	0.9	304.07	26.10	30.28
(FoS) 76.298	0.00	0.75	273.66	0.9	304.07	26.10	30.28

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 0.333	182.50	423.03	5.7.3.5-2
(SZB) 1.337	182.50	584.97	5.7.3.5-2
(Bar Develop.) 1.705	182.50	644.17	5.7.3.5-2
(Bar Develop.) 2.765	182.50	778.91	5.7.3.5-2
(H) 3.833	182.50	810.64	5.7.3.5-2
(CS) 3.924	437.85	813.33	5.7.3.5-1
(SZB) 5.003	507.51	845.44	5.7.3.5-1
(1.5H) 5.583	539.28	955.89	5.7.3.5-1
($0.1L_s$) 7.752	666.19	1128.02	5.7.3.5-1
(SZB) 10.503	829.16	1337.79	5.7.3.5-1
($0.2L_s$) 15.505	988.72	1653.22	5.7.3.5-1
(SZB) 18.753	1062.53	1656.60	5.7.3.5-1
($0.3L_s$) 23.257	1108.88	1660.57	5.7.3.5-1
(SZB) 29.753	1117.64	1663.83	5.7.3.5-1
(HP) 30.569	1112.74	1664.09	5.7.3.5-1
($0.4L_s$) 31.009	1159.95	1664.08	5.7.3.5-1
($0.5L_s$) 38.762	1163.70	1663.80	5.7.3.5-1
(HP) 46.062	1090.68	1663.69	5.7.3.5-1
($0.6L_s$) 46.514	1090.23	1663.52	5.7.3.5-1
(SZB) 46.878	1089.59	1663.38	5.7.3.5-1
($0.7L_s$) 54.267	971.45	1658.03	5.7.3.5-1
(Deck Bar Cutoff) 55.043	958.15	1657.31	5.7.3.5-1
(SZB) 57.878	897.72	1654.72	5.7.3.5-1
($0.8L_s$) 62.019	739.57	1650.89	5.7.3.5-1
(SZB) 66.128	601.41	1337.06	5.7.3.5-1
($0.9L_s$) 69.771	589.61	2020.80	5.7.3.5-1
(1.5H) 71.048	663.70	2020.80	5.7.3.5-1
(SZB) 71.628	698.71	2020.80	5.7.3.5-1
(CS) 72.510	749.22	2020.80	5.7.3.5-1
(H) 72.798	764.83	2020.80	5.7.3.5-1
(Bar Develop.) 73.866	830.28	2020.80	5.7.3.5-1
(Bar Develop.) 74.926	899.81	2003.20	5.7.3.5-1
(SZB) 75.294	924.24	1988.77	5.7.3.5-1
(FoS) 76.298	991.60	1949.42	5.7.3.5-1

Strength II

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 0.333	0.400	21.213	3.906	106.131	79.35	43.815	1

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(SZB) 1.337	0.400	49.590	3.906	144.683	312.50	43.550	1
(Bar Develop.) 1.705	0.400	60.000	3.906	158.774	395.88	43.475	1
(Bar Develop.) 2.765	0.400	60.000	3.906	193.269	629.75	43.322	1
(H) 3.833	0.400	60.000	3.906	201.393	855.67	43.292	1
(SZB) 5.003	0.400	60.000	3.906	210.302	1092.08	41.580	1
(1.5H) 5.583	0.400	60.000	4.340	214.722	1205.32	41.581	1
($0.1L_s$) 7.752	0.400	60.000	4.774	231.256	1603.54	40.135	1
(SZB) 10.503	0.400	60.000	5.208	252.263	2052.92	39.036	1
($0.2L_s$) 15.505	0.400	60.000	6.076	268.140	2735.05	39.902	1
(SZB) 18.753	0.400	60.000	6.076	268.697	3089.80	40.913	1
($0.3L_s$) 23.257	0.400	60.000	6.076	269.349	3447.42	42.300	1
(SZB) 29.753	0.400	60.000	6.076	269.887	3743.09	44.309	1
(HP) 30.569	0.400	60.000	6.076	269.930	3771.71	44.564	1
($0.4L_s$) 31.009	0.400	60.000	6.076	269.928	3785.04	44.561	1
($0.5L_s$) 38.762	0.400	60.000	6.076	269.882	3789.21	44.516	1
(HP) 46.062	0.400	60.000	6.076	269.864	3420.99	44.502	1
($0.6L_s$) 46.514	0.400	60.000	6.076	269.835	3388.80	44.357	1
(SZB) 46.878	0.400	60.000	6.076	269.812	3362.01	44.240	1
($0.7L_s$) 54.267	0.400	60.000	6.076	268.931	2643.48	41.910	1
(Deck Bar Cutoff) 55.043	0.400	60.000	6.076	268.814	2549.42	41.669	1
(SZB) 57.878	0.400	60.000	6.076	268.387	2183.38	40.795	1
($0.8L_s$) 62.019	0.400	60.000	6.076	267.758	1588.34	39.536	1
(SZB) 66.128	0.400	60.000	5.208	252.124	889.34	39.041	1
($0.9L_s$) 69.771	33.680	60.000	1.736	0.000	1020.81	45.179	0.9
(1.5H) 71.048	33.680	60.000	1.736	0.000	1224.10	45.301	0.9
(SZB) 71.628	33.680	60.000	2.170	0.000	1318.02	45.359	0.9
(H) 72.798	33.680	60.000	2.170	0.000	1509.73	45.478	0.9
(Bar Develop.) 73.866	33.680	60.000	2.170	0.000	1706.17	45.591	0.9
(Bar Develop.) 74.926	33.680	59.477	2.170	0.000	1916.10	45.706	0.9
(SZB) 75.294	33.680	59.049	2.170	0.000	1989.87	45.747	0.9
(FoS) 76.298	33.680	57.881	2.170	0.000	2193.54	45.861	0.9

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 0.333	0.00	0.75	216.46	0.9	240.51	26.37	28.55
(SZB) 1.337	0.00	0.75	216.46	0.9	240.51	26.37	28.55
(Bar Develop.) 1.705	0.00	0.75	216.46	0.9	240.51	26.37	28.55
(Bar Develop.) 2.765	0.00	0.75	216.46	0.9	240.51	26.37	28.55
(H) 3.833	0.00	0.75	216.46	0.9	240.51	26.37	28.55
(SZB) 5.003	0.00	0.75	210.19	0.9	233.54	26.39	28.66
(1.5H) 5.583	0.00	0.75	206.84	0.9	229.82	26.39	28.58
($0.1L_s$) 7.752	0.00	0.75	194.35	0.9	215.95	26.43	28.62
(SZB) 10.503	0.00	0.75	178.64	0.9	190.34	26.47	28.67
($0.2L_s$) 15.505	0.00	0.75	150.57	0.9	167.30	26.53	28.65
(SZB) 18.753	0.00	0.75	132.64	0.9	147.38	26.55	28.76
($0.3L_s$) 23.257	0.00	0.75	108.26	0.9	120.29	26.55	28.85
(SZB) 29.753	0.00	0.75	74.20	0.9	82.45	26.46	28.85
(HP) 30.569	0.00	0.75	70.17	0.9	77.96	26.44	28.85
($0.4L_s$) 31.009	0.00	0.75	67.99	0.9	75.55	0.00	28.89
($0.5L_s$) 38.762	0.00	0.75	72.45	0.9	80.50	0.00	28.91
(HP) 46.062	0.00	0.75	117.06	0.9	108.09	26.35	28.77
($0.6L_s$) 46.514	0.00	0.75	119.78	0.9	107.76	26.35	28.76
(SZB) 46.878	0.00	0.75	121.96	0.9	107.50	26.36	28.76
($0.7L_s$) 54.267	0.00	0.75	165.48	0.9	153.98	26.38	28.56
(Deck Bar Cutoff) 55.043	0.00	0.75	169.96	0.9	153.30	26.38	28.53
(SZB) 57.878	0.00	0.75	186.20	0.9	150.91	26.36	28.40
($0.8L_s$) 62.019	0.00	0.75	209.45	0.9	196.95	26.30	28.16
(SZB) 66.128	0.00	0.75	232.04	0.9	194.64	26.23	28.14
($0.9L_s$) 69.771	0.00	0.75	251.58	0.9	279.54	26.16	29.68
(1.5H) 71.048	0.00	0.75	258.35	0.9	287.06	26.13	29.92
(SZB) 71.628	0.00	0.75	261.42	0.9	290.46	26.12	29.77
(H) 72.798	0.00	0.75	266.06	0.9	295.62	26.10	29.93
(Bar Develop.) 73.866	0.00	0.75	266.06	0.9	295.62	26.10	29.93
(Bar Develop.) 74.926	0.00	0.75	266.06	0.9	295.62	26.10	29.93
(SZB) 75.294	0.00	0.75	266.06	0.9	295.62	26.10	29.93
(FoS) 76.298	0.00	0.75	266.06	0.9	295.62	26.10	29.93

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 0.333	172.54	423.03	5.7.3.5-2
(SZB) 1.337	172.54	584.97	5.7.3.5-2
(Bar Develop.) 1.705	172.54	644.17	5.7.3.5-2
(Bar Develop.) 2.765	172.54	778.91	5.7.3.5-2
(H) 3.833	172.54	810.64	5.7.3.5-2

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(SZB) 5.003	480.55	845.44	5.7.3.5-1
(1.5H) 5.583	510.35	955.89	5.7.3.5-1
($0.1L_s$) 7.752	628.87	1128.02	5.7.3.5-1
(SZB) 10.503	771.60	1337.79	5.7.3.5-1
($0.2L_s$) 15.505	927.09	1653.22	5.7.3.5-1
(SZB) 18.753	992.13	1656.60	5.7.3.5-1
($0.3L_s$) 23.257	1038.99	1660.57	5.7.3.5-1
(SZB) 29.753	1040.54	1663.83	5.7.3.5-1
(HP) 30.569	1038.40	1664.09	5.7.3.5-1
($0.4L_s$) 31.009	1087.74	1664.08	5.7.3.5-1
($0.5L_s$) 38.762	1094.34	1663.80	5.7.3.5-1
(HP) 46.062	1012.97	1663.69	5.7.3.5-1
($0.6L_s$) 46.514	1013.08	1663.52	5.7.3.5-1
(SZB) 46.878	1012.90	1663.38	5.7.3.5-1
($0.7L_s$) 54.267	904.76	1658.03	5.7.3.5-1
(Deck Bar Cutoff) 55.043	892.05	1657.31	5.7.3.5-1
(SZB) 57.878	836.60	1654.72	5.7.3.5-1
($0.8L_s$) 62.019	683.76	1650.89	5.7.3.5-1
(SZB) 66.128	524.39	1337.06	5.7.3.5-1
($0.9L_s$) 69.771	500.59	2020.80	5.7.3.5-1
(1.5H) 71.048	564.31	2020.80	5.7.3.5-1
(SZB) 71.628	595.67	2020.80	5.7.3.5-1
(H) 72.798	653.98	2020.80	5.7.3.5-1
(Bar Develop.) 73.866	710.34	2020.80	5.7.3.5-1
(Bar Develop.) 74.926	770.32	2003.20	5.7.3.5-1
(SZB) 75.294	791.32	1988.77	5.7.3.5-1
(FoS) 76.298	849.09	1949.42	5.7.3.5-1

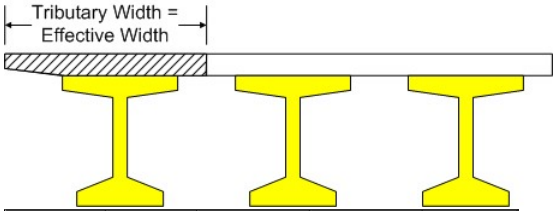
Splitting Resistance Details

Check for Splitting resistance (LRFD 5.9.4.4.1) is disabled in Project Criteria library.

Effective Flange Width Details

LRFD 4.6.2.6.1

Effective flange width is measured at top CL girder and is taken as one-half the distance to the adjacent girder plus the full overhang width



Location from Left Support (ft)	Left Spacing (in)	Right Overhang (in)	Effective Right Overhang (in)	Effective Flange Width (in)
0.000	94.003	59.189	47.001	94.003
($0.0L_s$) 0.000	94.003	59.189	47.001	94.003
($0.1L_s$) 7.752	94.003	53.780	47.001	94.003
($0.2L_s$) 15.505	94.003	49.359	47.002	94.003
($0.3L_s$) 23.257	94.003	45.929	45.929	92.931
($0.4L_s$) 31.009	94.004	43.490	43.490	90.491
($0.5L_s$) 38.762	94.004	42.042	42.042	89.044
($0.6L_s$) 46.514	94.004	41.588	41.588	88.590
($0.7L_s$) 54.267	94.004	42.126	42.126	89.128
($0.8L_s$) 62.019	94.004	43.656	43.656	90.659
($0.9L_s$) 69.771	94.005	46.179	46.179	93.181
76.631	94.005	49.237	47.002	94.005
($1.0L_s$) 77.524	94.005	49.693	47.002	94.005

Live Load Distribution Factor Details

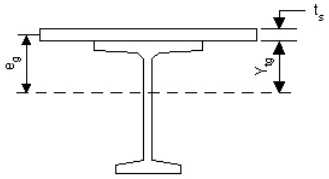
Moment and Shear

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
0.000	0.741	0.741	0.741	0.618	0.618	0.618
($0.0L_s$) 0.000	0.741	0.741	0.741	0.618	0.618	0.618
($0.1L_s$) 7.752	0.741	0.741	0.741	0.618	0.618	0.618
($0.2L_s$) 15.505	0.741	0.741	0.741	0.618	0.618	0.618
($0.3L_s$) 23.257	0.741	0.741	0.741	0.618	0.618	0.618
($0.4L_s$) 31.009	0.741	0.741	0.741	0.618	0.618	0.618
($0.5L_s$) 38.762	0.741	0.741	0.741	0.618	0.618	0.618
($0.6L_s$) 46.514	0.741	0.741	0.751	0.618	0.618	0.626
($0.7L_s$) 54.267	0.741	0.741	0.761	0.618	0.618	0.634
($0.8L_s$) 62.019	0.741	0.741	0.770	0.618	0.618	0.642
($0.9L_s$) 69.771	0.741	0.741	0.780	0.618	0.618	0.650
76.631	0.741	0.741	0.789	0.618	0.618	0.657

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
($1.0L_s$) 77.524	0.741	0.741	0.790	0.618	0.618	0.658

Method of Computation:
Type (k) cross section. With AASHTO LRFD Method per Article 4.6.2.2

Longitudinal Stiffness Parameters
Modular ratio: n = 1.209
Moment of Inertia: I_g = 153070.0 in^4
Area: A_g = 654.000 in^2
Top centroidal distance: Y_{tg} = 20.850 in
Slab Thickness: t_s = 8.000 in



Distance between CG of slab and girder: $e_g = Y_{tg} + \frac{t_s}{2} + fillet$ e_g = 25.850 in

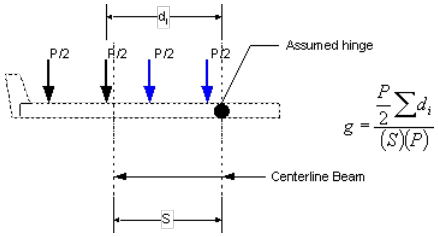
Stiffness Parameter: $K_g = n(I_g + A_g e_g^2)$ K_g = 713476.7 in^4

Distribution Factor Parameters
Deck Width, Girder Spacing and Deck Overhang are measured along a line that is normal to the alignment and passing through a point 38.345 ft from the left support along the centerline of girder. The measurement line passes through Station 94+08.62 (43.496 R)
Bridge Width: W = 94.000 ft
Roadway Width: w = 91.000 ft
Number of Design Lanes: N_L = 7
Lane Width: wLane = 12.000 ft
Number of Girders: N_b = 12
Girder Spacing: S_{avg} = 7.835 ft
Deck Overhang = 3.504 ft
Distance from exterior web of exterior girder to curb line: d_e = 2.004 ft
Skew Angle at start: θ = 23.37 deg
Skew Angle at end: θ = 17.50 deg

Strength and Service Limit States

Distribution Factor for Positive and Negative Moment in Span 1
Average Skew Angle: θ = 20.43 deg
Span Length: L = 77.524 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{ME}_1 = (1.2)[(7.838 ft)(P/2) + (1.838 ft)(P/2)]/[(7.834 ft)(P)] = 0.741

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.661
e = 0.990
mg^{ME}_{2+} = 0.655 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

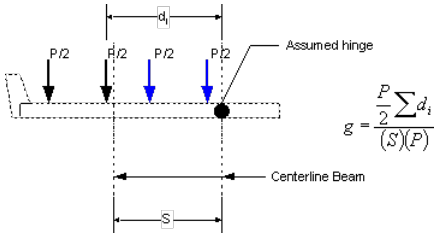
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_1 = 0.741 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.655

Distribution Factor for Negative Moment over Pier 2
Average Skew Angle: θ = 23.37 deg
Span Length: L = 77.435 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{ME}_{1} = (1.2)[(7.838 ft)(P/2) + (1.838 ft)(P/2)]/[(7.834 ft)(P)] = 0.741

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.662
e = 0.990
mg^{ME}_{2+} = 0.655 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

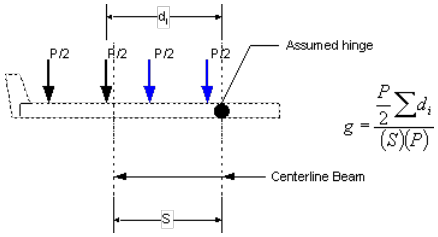
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_{1} = 0.741 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.655

Distribution Factor for Shear in Span 1
Average Skew Angle: θ = 20.43 deg
Span Length: L = 77.524 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{VE}_{1} = (1.2)[(7.838 ft)(P/2) + (1.838 ft)(P/2)]/[(7.834 ft)(P)] = 0.741

2+ Loaded Lanes: Spec Equation

$$mg^{VE}_{2+} = e(mg^{VI}_{2+})$$

$$e = 0.6 + \frac{d_e}{10.0}$$

$$mg^{VI}_{2+} = 0.2 + \left(\frac{S}{12}\right) - \left(\frac{S}{35}\right)^{2.0}$$

mg^{VI}_{2+} = 0.803
e = 0.800
mg^{VE}_{2+} = 0.643

Skew Correction

$$1.0 + 0.20\left(\frac{12.0Lt_s^3}{K_g}\right)^{0.3}\tan\theta$$

Skew Correction Factor: = 1.066

Skew Corrected Factor: mg^{VE}_{1} = 0.790 **< Controls**
Skew Corrected Factor: mg^{VE}_{2+} = 0.685

Fatigue Limit States

Distribution Factor for Negative Moment over Pier 1
$gME_{Fatigue}$ = $mgME_1$/m = 0.741/ 1.200 = 0.618

Distribution Factor for Positive and Negative Moment in Span 1
$gME_{Fatigue}$ = $mgME_1$/m = 0.741/ 1.200 = 0.618

Distribution Factor for Negative Moment over Pier 2
$gME_{Fatigue}$ = $mgME_1$/m = 0.741/ 1.200 = 0.618

Distribution Factor for Shear in Span 1
$gVE_{Fatigue}$ = $mgVE_1$/m = 0.790/ 1.200 = 0.658

Creep Coefficient Details

$$\psi(t,t_i) = 1.9K_1K_2k_sk_{hc}k_fk_{td}t_i^{-0.118}$$

for which:

$$k_s = 1.45 - 0.13(V/S) \geq 1.0$$

$$k_{hc} = 1.56 - 0.008H$$

$$k_f = \frac{5}{1 + f'_{ci}}$$

$$k_{td} = \frac{t}{12\left(\frac{100 - 4f'_{ci}}{f'_{ci} + 20}\right) + t}$$

where:
H = 55%, V/S = 3.326 in, K_1 = 1, K_2 = 1
Curing Method = Normal

Minimum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01763, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01763, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805292

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01763, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970068

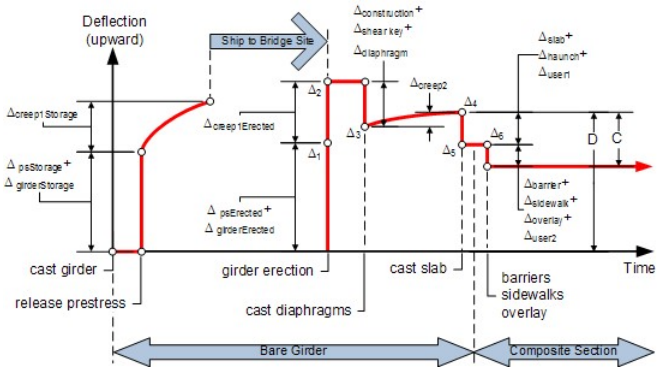
Maximum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01763, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01763, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805292

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01763, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970068

Camber Details



Minimum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.746	-0.270	0.843	0.573
(0.2L_r) 15.493	-0.511	1.555	1.045
(0.3L_r) 23.239	-0.699	2.102	1.403
(HP, 0.4L_r) 30.986	-0.819	2.448	1.629
(0.5L_r) 38.732	-0.860	2.565	1.705
(HP, 0.6L_r) 46.479	-0.819	2.448	1.629
(0.7L_r) 54.225	-0.699	2.102	1.403
(0.8L_r) 61.971	-0.511	1.555	1.045
(0.9L_r) 69.718	-0.270	0.843	0.573
77.048	-0.015	0.048	0.033
(STLF, 1.0L_r) 77.464	0.000	0.000	0.000

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.663	-0.258	0.829	0.000	0.570
(0.2L_{st}) 15.326	-0.489	1.528	0.000	1.039
(0.3L_{st}) 22.989	-0.669	2.063	0.000	1.394
(0.4L_{st}) 30.652	-0.784	2.402	0.000	1.618
(0.5L_{st}) 38.315	-0.823	2.517	0.000	1.694
(0.6L_{st}) 45.979	-0.784	2.402	0.000	1.618
(0.7L_{st}) 53.642	-0.669	2.063	0.000	1.394
(0.8L_{st}) 61.305	-0.489	1.528	0.000	1.039
(0.9L_{st}) 68.968	-0.258	0.829	0.000	0.570
(1.0L_{st}) 76.631	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 77.048	0.014	-0.048	0.000	-0.034

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release $\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.663	-0.258	0.829	0.000	0.000	0.000	0.553	-0.268	-0.040	-0.007	-0.019	-0.008	-0.015	0.000
(0.2L_e) 15.326	-0.489	1.528	0.000	0.000	0.000	1.007	-0.506	-0.076	-0.013	-0.035	-0.015	-0.029	0.000
(0.3L_e) 22.989	-0.669	2.063	0.000	0.000	0.000	1.352	-0.691	-0.103	-0.018	-0.046	-0.019	-0.038	0.000
(0.4L_e) 30.652	-0.784	2.402	0.000	0.000	0.000	1.570	-0.808	-0.121	-0.021	-0.051	-0.021	-0.042	0.000
(0.5L_e) 38.315	-0.823	2.517	0.000	0.000	0.000	1.643	-0.847	-0.127	-0.022	-0.050	-0.021	-0.040	0.000
(0.6L_e) 45.979	-0.784	2.402	0.000	0.000	0.000	1.570	-0.806	-0.121	-0.021	-0.043	-0.018	-0.035	0.000
(0.7L_e) 53.642	-0.669	2.063	0.000	0.000	0.000	1.352	-0.687	-0.103	-0.018	-0.031	-0.013	-0.025	0.000
(0.8L_e) 61.305	-0.489	1.528	0.000	0.000	0.000	1.007	-0.502	-0.076	-0.013	-0.018	-0.007	-0.014	0.000
(0.9L_e) 68.968	-0.258	0.829	0.000	0.000	0.000	0.553	-0.265	-0.040	-0.007	-0.006	-0.003	-0.005	0.000
(1.0L_e) 76.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 77.048	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.049	-0.047	-0.020
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.663	0.570	0.570	0.570	1.123	0.809	0.766	0.357
(0.2L_e) 15.326	1.039	1.039	1.039	2.046	1.452	1.373	0.673
(0.3L_e) 22.989	1.394	1.394	1.394	2.746	1.933	1.830	0.916
(0.4L_e) 30.652	1.618	1.618	1.618	3.188	2.238	2.124	1.064
(0.5L_e) 38.315	1.694	1.694	1.694	3.337	2.340	2.229	1.108
(0.6L_e) 45.979	1.618	1.618	1.618	3.188	2.240	2.145	1.043
(0.7L_e) 53.642	1.394	1.394	1.394	2.746	1.937	1.868	0.878
(0.8L_e) 61.305	1.039	1.039	1.039	2.046	1.455	1.416	0.630
(0.9L_e) 68.968	0.570	0.570	0.570	1.123	0.811	0.798	0.326
(1.0L_e) 76.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 77.048	-0.034	-0.034	-0.034	-0.067	-0.049	-0.049	-0.017

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Maximum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.746	-0.270	0.843	0.573
(0.2L_r) 15.493	-0.511	1.555	1.045
(0.3L_r) 23.239	-0.699	2.102	1.403
(HP, 0.4L_r) 30.986	-0.819	2.448	1.629
(0.5L_r) 38.732	-0.860	2.565	1.705
(HP, 0.6L_r) 46.479	-0.819	2.448	1.629
(0.7L_r) 54.225	-0.699	2.102	1.403
(0.8L_r) 61.971	-0.511	1.555	1.045
(0.9L_r) 69.718	-0.270	0.843	0.573
77.048	-0.015	0.048	0.033
(STLF, 1.0L_r) 77.464	0.000	0.000	0.000

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.663	-0.258	0.829	0.000	0.570
(0.2L_{st}) 15.326	-0.489	1.528	0.000	1.039
(0.3L_{st}) 22.989	-0.669	2.063	0.000	1.394
(0.4L_{st}) 30.652	-0.784	2.402	0.000	1.618
(0.5L_{st}) 38.315	-0.823	2.517	0.000	1.694
(0.6L_{st}) 45.979	-0.784	2.402	0.000	1.618
(0.7L_{st}) 53.642	-0.669	2.063	0.000	1.394
(0.8L_{st}) 61.305	-0.489	1.528	0.000	1.039
(0.9L_{st}) 68.968	-0.258	0.829	0.000	0.570
(1.0L_{st}) 76.631	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 77.048	0.014	-0.048	0.000	-0.034

$\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.663	-0.258	0.829	0.000	0.000	0.000	0.553	-0.268	-0.040	-0.007	-0.019	-0.008	-0.015	0.000
(0.2L_e) 15.326	-0.489	1.528	0.000	0.000	0.000	1.007	-0.506	-0.076	-0.013	-0.035	-0.015	-0.029	0.000
	-0.669	2.063	0.000	0.000	0.000	1.352	-0.691	-0.103	-0.018	-0.046	-0.019	-0.038	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
($0.3L_e$) 22.989													
($0.4L_e$) 30.652	-0.784	2.402	0.000	0.000	0.000	1.570	-0.808	-0.121	-0.021	-0.051	-0.021	-0.042	0.000
($0.5L_e$) 38.315	-0.823	2.517	0.000	0.000	0.000	1.643	-0.847	-0.127	-0.022	-0.050	-0.021	-0.040	0.000
($0.6L_e$) 45.979	-0.784	2.402	0.000	0.000	0.000	1.570	-0.806	-0.121	-0.021	-0.043	-0.018	-0.035	0.000
($0.7L_e$) 53.642	-0.669	2.063	0.000	0.000	0.000	1.352	-0.687	-0.103	-0.018	-0.031	-0.013	-0.025	0.000
($0.8L_e$) 61.305	-0.489	1.528	0.000	0.000	0.000	1.007	-0.502	-0.076	-0.013	-0.018	-0.007	-0.014	0.000
($0.9L_e$) 68.968	-0.258	0.829	0.000	0.000	0.000	0.553	-0.265	-0.040	-0.007	-0.006	-0.003	-0.005	0.000
($1.0L_e$) 76.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 77.048	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

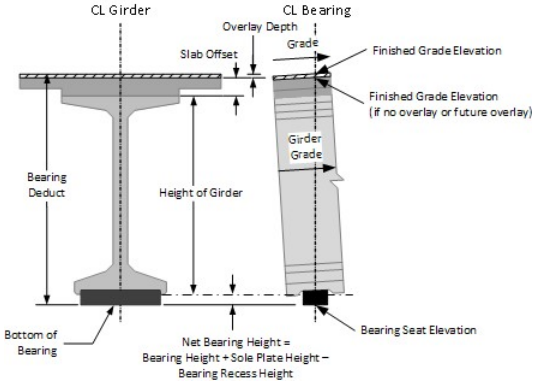
Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.049	-0.047	-0.020
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
($0.1L_e$) 7.663	0.570	0.570	0.570	1.123	0.809	0.766	0.357
($0.2L_e$) 15.326	1.039	1.039	1.039	2.046	1.452	1.373	0.673
($0.3L_e$) 22.989	1.394	1.394	1.394	2.746	1.933	1.830	0.916
($0.4L_e$) 30.652	1.618	1.618	1.618	3.188	2.238	2.124	1.064
($0.5L_e$) 38.315	1.694	1.694	1.694	3.337	2.340	2.229	1.108
($0.6L_e$) 45.979	1.618	1.618	1.618	3.188	2.240	2.145	1.043
($0.7L_e$) 53.642	1.394	1.394	1.394	2.746	1.937	1.868	0.878
($0.8L_e$) 61.305	1.039	1.039	1.039	2.046	1.455	1.416	0.630
($0.9L_e$) 68.968	0.570	0.570	0.570	1.123	0.811	0.798	0.326
($1.0L_e$) 76.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 77.048	-0.034	-0.034	-0.034	-0.067	-0.049	-0.049	-0.017

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Haunch Details

Slab Offset check disabled in Project Criteria. No analysis performed.

Bearing Seat Elevation Details



NOTE: Vertical height dimensions listed in the tables below are adjusted for girder and roadway grade and orientation.
NOTE: Bearing Deduct is a nominal value rounded to 1/8"

Abutment 1 Ahead

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+04.36	43.319 L	-0.866	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.533	0.000	-5.533	56.000
B	1	94+01.38	35.605 L	-0.712	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	93+98.35	27.903 L	-0.558	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	93+95.26	20.214 L	-0.404	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.071	0.000	-5.071	56.000
E	1	93+92.11	12.537 L	-0.251	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.917	0.000	-4.917	56.000
F	1	93+88.90	4.874 L	-0.097	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.764	0.000	-4.764	56.000
G	1	93+85.21	3.734 R	-0.075	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.741	0.000	-4.741	56.000
H	1	93+81.83	11.432 R	-0.229	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	93+78.38	19.114 R	-0.382	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	93+74.86	26.781 R	-0.536	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.202	0.000	-5.202	56.000
K	1	93+71.27	34.433 R	-0.689	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.355	0.000	-5.355	56.000
L	1	93+67.60	42.068 R	-0.841	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.508	0.000	-5.508	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Back

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+76.29	43.946 L	-0.879	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.546	0.000	-5.546	56.000
B	1	94+74.02	35.973 L	-0.719	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	94+71.71	28.007 L	-0.560	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.227	0.000	-5.227	56.000
D	1	94+69.34	20.048 L	-0.401	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.068	0.000	-5.068	56.000
E	1	94+66.93	12.097 L	-0.242	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.909	0.000	-4.909	56.000
F	1	94+64.47	4.154 L	-0.083	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.750	0.000	-4.750	56.000
G	1	94+62.21	3.014 R	-0.060	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.727	0.000	-4.727	56.000
H	1	94+59.63	11.009 R	-0.220	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	94+56.99	18.995 R	-0.380	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.047	0.000	-5.047	56.000
J	1	94+54.30	26.971 R	-0.539	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.206	0.000	-5.206	56.000
K	1	94+51.55	34.939 R	-0.699	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.365	0.000	-5.365	56.000
L	1	94+48.74	42.897 R	-0.858	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.525	0.000	-5.525	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Ahead

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+77.78	43.375 L	-0.868	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.534	0.000	-5.534	56.000
B	1	94+75.59	35.630 L	-0.713	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	94+73.35	27.892 L	-0.558	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	94+71.08	20.161 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.070	0.000	-5.070	56.000
E	1	94+68.75	12.436 L	-0.249	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.915	0.000	-4.915	56.000
F	1	94+66.39	4.719 L	-0.094	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.761	0.000	-4.761	56.000
G	1	94+63.76	3.662 R	-0.073	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.740	0.000	-4.740	56.000
H	1	94+61.28	11.394 R	-0.228	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	94+58.75	19.119 R	-0.382	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	94+56.17	26.836 R	-0.537	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.203	0.000	-5.203	56.000
K	1	94+53.53	34.543 R	-0.691	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.358	0.000	-5.358	56.000
L	1	94+50.84	42.242 R	-0.845	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.512	0.000	-5.512	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Abutment 3 Back

Girder	Bearing* #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	95+49.88	43.902 L	-0.878	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.545	0.000	-5.545	56.000
B	1	95+48.39	35.975 L	-0.719	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	95+46.88	28.051 L	-0.561	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.228	0.000	-5.228	56.000
D	1	95+45.33	20.130 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.069	0.000	-5.069	56.000
E	1	95+43.75	12.213 L	-0.244	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.911	0.000	-4.911	56.000
F	1	95+42.14	4.298 L	-0.086	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.753	0.000	-4.753	56.000
G	1	95+40.61	3.069 R	-0.061	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.728	0.000	-4.728	56.000
H	1	95+38.92	11.009 R	-0.220	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	95+37.20	18.945 R	-0.379	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.046	0.000	-5.046	56.000
J	1	95+35.45	26.877 R	-0.538	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.204	0.000	-5.204	56.000
K	1	95+33.65	34.805 R	-0.696	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.363	0.000	-5.363	56.000
L	1	95+31.82	42.729 R	-0.855	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.521	0.000	-5.521	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Bearing Design Parameters

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	28.67	3.48	34.06	4.93	8.22	3.44	6.59	3.60	-0.51	103.25 (D0)	-11.68 (D0)	59.42 (F0)	-6.31 (F0)	128.77 (P0)	-14.32 (P0)
Pier 2 - Back	28.67	0.00	32.53	4.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Live Load values are per lane and include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Girder Bearing Reactions due to User Defined Loads in Interval 17: Open to Traffic

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 1 - Ahead	0.84	1.16	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
Abutment 1 - Ahead	0.00	0.00	83.66	7.76	167.92

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.60	-0.51	76.51	-8.66	36.70	-3.90	95.42	-10.61	80.11	-9.17	36.70	-3.90	95.42	-10.61

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	167.92	152.62	100.75	250.10	65.18	245.02	66.01

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	3.60	-0.51	61.52	-7.08	31.91	-3.39	71.74	-7.98	65.12	-7.59	31.91	-3.39	71.74	-7.98

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Without Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 1 - Ahead	152.93	140.63	93.57	223.86	67.95	213.06	69.56

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load		* Legal Routine		* Legal Special		* Legal Emergency	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 1 - Ahead	-0.00286	0.00000	-0.00297	-0.00044	-0.00021	-0.00009	-0.00017	0.00004	-0.00012	0.00056 (D0)	-0.00171 (D0)	0.00027 (F0)	-0.00081 (F0)	0.00063 (P0)	-0.00195 (P0)	0.00033 (R1)	-0.00102 (R1)	0.00042 (S0)	-0.00131 (S0)	0.00046 (E1)	-0.0014 (E1

* Live Load values are per girder and do not include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Rotations due to User Defined Loads in Interval 17: Open to Traffic

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 1 - Ahead	-0.00008	-0.00003	0.00000

Prestress and Time-Dependent Rotations

	Pre-tensioning (rad)	Creep (rad)
Abutment 1 - Ahead	0.00771	0.00643
Pier 2 - Back	-0.00771	-0.00643

Corresponding Live Load Bearing Reactions and Rotations

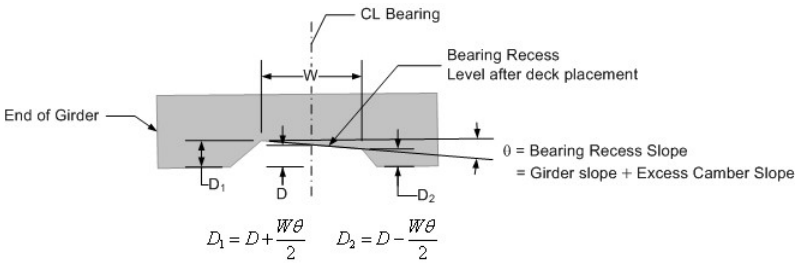
	* Reactions				* Rotations			
	R_{Max} (kip)	θ (rad)	R_{Min} (kip)	θ (rad)	θ_{Max} (rad)	R (kip)	θ_{Min} (rad)	R (kip)
Abutment 1	61.52	0.00009	-7.08	0.00028	0.00056	-4.80	-0.00171	24.62

* Live Load values are per girder and do not include impact.

Bearing Recess Geometry

	Girder Slope (ft/ft)	Excess Camber Slope (ft/ft)	Bearing Recess Slope (ft/ft)	* W Recess Length	D Recess Height	D_1	D_2
Abutment 1	-0.000	0.009	0.009	8"	0"	0"	0"

* W is maximum of input bearing length and recess length



$$D_1 = D + \frac{W\theta}{2} \qquad D_2 = D - \frac{W\theta}{2}$$

Lifting Check Details

Details for Check for Lifting In Casting Yard [5.5.4.3][5.9.2.3.1]

Lifting analysis disabled in Project Criteria. No analysis performed.

Hauling Check Details

Details for Check for Hauling to Bridge Site [5.5.4.3][5.9.2.3.1]

Hauling analysis disabled in Project Criteria. No analysis performed.

Details Report

For

Span 2 Girder L

March 15, 2021 8:13:36 am

PGSuper™ (x64)

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Version 5.0.3 - Built on Jul 9 2020



Project Properties

Bridge Name	Belford over Happy Canyon Creek
Bridge ID	
Company	FHU
Engineer	J. Lynch
Job Number	115360
Comments	Belford Ave over Happy Canyon Creek. Updated design for full width and current design codes.
File	C:\Users\john.lynch\Desktop\Structural Engineering\Belford\1. Superstructure\PGSuper\Belford over HCC Bridge Design.pgs

Configuration

Configuration Name: WSDOT
Configuration Source: ftp://ftp.wsdot.wa.gov/public/bridge/Software/PGSuper/Version_5.0.0/WSDOT.pgz
Configuration Date Stamp: September 25, 2020 2:10:27 pm

Library	Entry	Source
Girders	BT-42 CDOT	Project Library
Traffic Barriers	Parker Rail	Project Library
Project Criteria	CDOT based on AASHTO LRFD Bridge Design Specification, Eighth Edition 2017	Project Library
Vehicular Live Load	CDOT Permit	Project Library
Vehicular Live Load	OL1	Master Library
Vehicular Live Load	OL2	Master Library
Load Rating Criteria	WSDOT based on The Manual for Bridge Evaluation, Second Edition 2011, with 2011-2016 interim provisions	Master Library
Haul Trucks	HT40-72	Master Library

Analysis Controls

Structural Analysis Method: Simple Spans made Continuous
Section Properties: Gross
Losses: Approximate lump sum estimate per AASHTO LRFD 5.9.3.3

Notes

Symbol	Definition
L_r	Span Length of Girder at Release
L_l	Span Length of Girder during Lifting
L_{st}	Span Length of Girder during Storage
L_h	Span Length of Girder during Hauling
L_e	Span Length of Girder after Erection
L_s	Length of Span
Debond	Point where bond begins for a debonded strand
PSXFR	Point of prestress transfer
FoS	Face of Support
ST	Section Transitions
STLF	Section Transitions, Left Face
STRF	Section Transitions, Right Face
SDCR	Start of Deck Casting Region
EDCR	End of Deck Casting Region
Diaphragm	Location of a precast or cast in place diaphragm
Bar Cutoff	End of a reinforcing bar in the girder
Deck Bar Cutoff	End of a reinforcing bar in the deck
CS	Critical Section for Shear
SZB	Stirrup Zone Boundary
H	H from end of girder or face of support
1.5H	1.5H from end of girder or face of support
HP	Harp Point
Pick Point	Support point where girder is lifted from form
Bunk Point	Point where girder is supported during transportation

Status Items

Level	Description
Warning	Span 1, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 1, Girder L: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder A: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)
Warning	Span 2, Girder L: The deck overhang exceeds S/2. The overhang is taken to be equal to S/2 for purposes of computing the effective flange width and the effect of structurally continuous barriers has been ignored. (LRFD 4.6.2.6.1)

Alignment

Alignment Details

Direction: N 49° 48' 33.38" E
Ref. Point: 0+00.00 (E (X) 0.000, N (Y) 0.000)

Horizontal Curve Data

Curve Parameters	Curve 1
Back Tangent Bearing	N 49° 48' 33.38" E
Forward Tangent Bearing	S 24° 47' 12.62" E
PC Station	81+65.50
PI Station	91+76.34
PT Station	95+82.03
Delta (Δ_{cc})	105° 24' 14.00" R
Degree Curvature (DC)	7° 26' 27.64"
Radius (R)	770.000 ft
Tangent (T)	1010.841 ft
Length (L)	1416.527 ft
Chord (C)	1225.061 ft
External (E)	500.708 ft
Mid Ordinate (MO)	303.410 ft
Curve Points (x,y)	
PC	5269.475 ft, 6237.629 ft
PI	5921.805 ft, 7009.810 ft
PT	5004.089 ft, 7433.599 ft
Center of Circular Curve (CCC)	4681.272 ft, 6734.536 ft

Profile Details

Station: 0+00.00
Elevation: 0.000 ft
Grade: 0%

Roadway Cross Sections

Each Roadway Cross Section Template contains 3 segments per section.
Ridge Point #1 is the controlling ridge point. It defines the slope sign convention and coincides with the horizontal alignment, profile grade, and superelevation pivot location.

Template	Station	Segment 1	Segment 2		Segment 3
		Slope (ft/ft)	Length (ft)	Slope (ft/ft)	Slope (ft/ft)
1	0+00.00	-0.02	0.000	0	-0.02

Bridge Description

General Bridge Information

Number of Spans	2
Girder Type	BT-42 CDOT

Concrete Properties

Element	Type	f'_{ci} (KSI)	E_{ci} (KSI)	f'_c (KSI)	E_c (KSI)	w_w (kip/ft^3)	w_c (kip/ft^3)	D_{agg} (in)	f_{ct} (KSI)	E_c		Creep		Shrinkage		λ
										K_1	K_2	K_1	K_2	K_1	K_2	
Girder L	Normal Weight Concrete	6.000	4557.295	8.000	5011.145	0.163	0.145	0.750	N/A	1	1	1	1	1	1	1
Deck	Normal Weight Concrete	-	-	4.500	4144.550	0.150	0.145	0.750	N/A	1	1	1	1	1	1	1

$$E_c = 120{,}000 K_1 K_2 w_c^{2.0} f_c'^{0.33}$$

* = Modulus of elasticity was input

Pier Layout

	Station	Bearing	Skew Angle	Boundary Condition
Abutment 1	93+85.19	N 73° 56' 01.00" E	23° 22' 01.32" R	Hinge
Pier 2	94+64.04	N 73° 56' 01.00" E	17° 29' 59.26" R	Continuous after deck placement
Abutment 3	95+42.78	N 73° 56' 01.00" E	11° 38' 26.68" R	Hinge

Pier Diaphragms

	Diaphragm - Back				Diaphragm - Ahead			
	Height (in)	Width (in)	Loading	Location(*) (in)	Height (in)	Width (in)	Loading	Location(*) (in)
Abutment 1					Compute	Compute	Apply load at centerline bearing	N/A
Pier 2	Compute	Compute	Apply load at centerline bearing	N/A	Compute	Compute	Apply load at centerline bearing	N/A
Abutment 3	Compute	Compute	Apply load at centerline bearing	N/A				

(*) Distance from Abutment/Pier Line to Centroid of Diaphragm

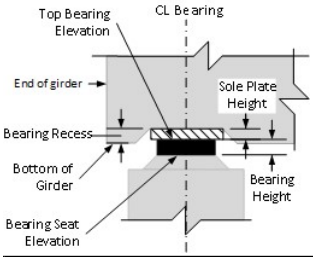
Pier Connections

	Back				Ahead			
	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure	Bearing Offset (in)	Bearing Offset Measure	End Distance (in)	End Distance Measure
Abutment 1					18.000	FA-NA	5.000	FCLB-AG
Pier 2	10.000	FP-NP	5.000	FCLB-AG	10.000	FP-NP	5.000	FCLB-AG
Abutment 3	18.000	FA-NA	5.000	FCLB-AG				

Bearing Offset Measure
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

End Distance Measure
FCLB-AG = Measured From CL Bearing along Girder
FCLB-NCLB = Measured From and Normal to CL Bearing
FCLB-NCLB = Measured From and Normal to CL Bearing
FA-AG = Measured From Abutment Line and Along Girder Centerline
FP-AG = Measured From Pier Line and Along Girder Centerline
FA-NA = Measured From and Normal to Abutment Line
FP-NP = Measured From and Normal to Pier Line

Bearing Details



Location	Shape	# of Bearings	Spacing (in)	Length or Diameter (in)	Width (in)	Height (in)	Recess Height (in)	Recess Length (in)	Sole Plate Height (in)
Abutment 3 - Back	Rectangular	1	N/A	8.000	12.000	0.000	0.000	0.000	0.000

Spans

Span	# Girders	Start of Span		End of Span	
		Girder Spacing	Datum	Girder Spacing	Datum
1	12	Between A & F : 8.323 ft Between F & G : 9.368 ft Between G & L : 8.393 ft	4	Between A & F : 8.323 ft Between F & G : 7.519 ft Between G & L : 8.393 ft	4
2	12	Between A & F : 8.080 ft Between F & G : 8.784 ft Between G & L : 8.113 ft	4	Between A & F : 8.080 ft Between F & G : 7.525 ft Between G & L : 8.113 ft	4

Girder Spacing Datum:
(1) Measured normal to the alignment at the abutment/pier line
(2) Measured normal to the alignment at the centerline of bearing
(3) Measured at and along the abutment/pier line
(4) Measured at and along the centerline of bearing

Girder spacing is measured at the work point elevation, which is at top centerline of girder.
Girder orientation is set plumb

Span 2, Girder L

Girder Type	BT-42 CDOT
Slab Offset ("A" Dimension) at Pier 2	11.000 in
Slab Offset ("A" Dimension) at Abutment 3	11.000 in
Strand Fill Type	Sequence of Straight/Harped Strands
Type of Adjustable Web Strands	Harped
Number of Straight Strands	18 8 extended at left end 8 extended at right end
Straight Strand P_{jack}	790.97 kip
Number of Harped Strands	10
Harped Strand P_{jack}	439.43 kip
Total Number of Permanent Strands	28
Distance from top of girder to top-most harped strand at ends of girder	4.000 in
Distance from bottom of girder to lowest harped strand at harp point	2.000 in
Specified Release Strength f'_{ci}	6.000 KSI
Specified 28 day Strength f'_c	8.000 KSI
Prestressing Strand (Permanent)	0.600 in Dia. Grade 270 Low Relaxation

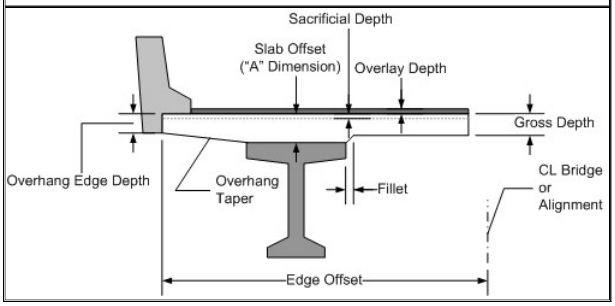
Deck Geometry

Deck Type
Composite cast-in-place deck
Cross Section
Gross Depth = 8.000 in
Left Overhang Edge Depth = 8.000 in
Left Overhang Taper = Taper overhang to bottom of girder top flange
Right Overhang Edge Depth = 8.000 in
Right Overhang Taper = Taper overhang to bottom of girder top flange
Fillet = 1.000 in
Slab Offset ("A" Dimension) = 11.000 in

Plan (Edge of Deck)

Station	Measured From	Left Offset (ft)	Right Offset (ft)
0+00.00	Bridge Line	47.000	47.000

Wearing Surface
Wearing Surface: Overlay
Overlay Weight = 0.037 KSF



Deck Reinforcement
Reinforcement: AASHTO M31 (A615) - Grade 60
Top Mat Cover: 2.000 in
Bottom Mat Cover: 1.000 in
Primary Reinforcement - Longitudinal reinforcement running the full length of the bridge

Mat	Bars		Lump Sum (in^2/ft)
Top	#9 @ 6.000	AND	0.000
Bottom	None @ 18.000	AND	0.000

Supplemental Reinforcement - Negative moment reinforcement at continuous piers

Pier	Mat	A_s (in^2/ft)	Bar	Spacing (in)	Left Cutoff (ft)	Right Cutoff (ft)
2	Top	0.000	#9	6.000	22.000	22.000

Analysis Intervals

Interval	Description	Start Event	End Event	Start (day)	Middle (day)	End (day)	Duration (day)
1	Tension strand, cast girder, strand relaxation, and concrete curing	1	1	0	0.5	1	1
2	Prestress Release	1	1	1	1	1	0
3	Lift girders	1	1	1	1	1	0
4	Place girders into storage	1	1	1	1	1	0
5	Time Step	1	2	1	14.5	28	27
6	Haul Girders	2	2	28	28	28	0
7	Erect Girders	2	2	28	28	28	0
8	Time Step	2	3	28	44.5	61	33
9	Install Intermediate Diaphragms	3	3	61	61	61	0
10	Time Step	3	4	61	61.5	62	1
11	Cast Deck, Apply User Defined Loads	4	4	62	62	62	0
12	Deck curing	4	4	62	62	62	0
13	Composite deck	4	4	62	62	62	0
14	Time Step	4	5	62	62.5	63	1
15	Apply User Defined Loads, Install Railing System and Overlay	5	5	63	63	63	0
16	Time Step	5	6	63	63.5	64	1
17	Open to Traffic	6	6	64	64	64	0

Span Lengths

C-C Pier = Abutment/Pier Line to Abutment/Pier Line length measured along the girder
C-C Bearing = Centerline bearing to centerline bearing length measured along the girder centerline
Girder Length, Plan = End to end length of the girder projected into a horizontal plane
Girder Length, Along Grade = End to end length of girder measured along grade of the girder (slope adjusted) = $L_g\sqrt{1+grade^2}$

C-C Pier (ft)	C-C Bearing (ft)	Girder Length		Grade (ft/ft)	End Distance	
		Plan (ft)	Along Grade (ft)		Start (ft)	End (ft)
78.901	76.484	77.317	77.317	-0.0001	0.417	0.417

Section Properties

Left Traffic Barrier Area = 2145.000 in^2
Left Traffic Barrier I_{yy} = 298512.8 in^4
Left Traffic Barrier Y_b = 12.798 in
Left Exterior Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Left Exterior Traffic Barrier to Left Edge of Deck = 9.000 in
Left Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Left Sidewalk to Left Edge of Deck = 69.000 in
Left Sidewalk Actual Width = 120.000 in
Left Sidewalk Face Depth = 11.000 in
Left Sidewalk Back Depth = 15.750 in
Left Sidewalk Weight = 1.672 kip/ft

Right Traffic Barrier Area = 2145.000 in^2
Right Traffic Barrier I_{yy} = 298512.8 in^4
Right Traffic Barrier Y_b = 12.798 in
Right Traffic Barrier Weight = 0.700 kip/ft
Distance from CG of Right Exterior Traffic Barrier to Right Edge of Deck = 9.000 in
Right Sidewalk Nominal Width = 102.000 in
Distance from Nominal Centerline of Right Sidewalk to Right Edge of Deck = 69.000 in
Right Sidewalk Actual Width = 120.000 in
Right Sidewalk Face Depth = 11.000 in
Right Sidewalk Back Depth = 15.750 in
Right Sidewalk Weight = 1.672 kip/ft

Deck E_c = 4144.550 KSI

Bending Stiffness of Entire Bridge Section at center of Span 2
EI_{xx} = 2.13e+10 kip-in^2 (used to compute Live Load Deflections per LRFD 3.6.1.3.2)
EI_{yy} = 8.26e+12 kip-in^2
EI_{xy} = -2.03e+09 kip-in^2

Section Properties

	Girder
Area (in^2)	654.000
I_x (in^4)	153070.0
I_y (in^4)	42346.5
d (girder depth) (in)	42.000
Y_{tg} (in)	20.850
Y_{bg} (in)	21.150
Y_{td} (in)	-
Y_{bd} (in)	-
S_{tg} (in^3)	7341.4
S_{bg} (in^3)	7237.4
$S_{td} = n(I_x/Y_{td})$ (in^3)	-

	Girder
$S_{bd} = n(I_x/Y_{bd})$ (in^3)	-
Q_{deck} (in^3)	-
Effective Flange Width (in)	-
k_t (in) (Top kern point)	11.066
k_b (in) (Bottom kern point)	11.225
Perimeter (in)	195.230
Span/Depth Ratio	22
Weight (kip/ft)	0.740
Total Weight (kip)	57.24

Interval 17 : Open to Traffic

Location from Left Support (ft)	Area (in^2)	Depth (in)	I_x (in^4)	X_{tg} (in)	X_{rg} (in)	Y_{tg} (in)	Y_{bg} (in)	Y_{td} (in)	Y_{bd} (in)	S_{tg} (in^3)	S_{bg} (in^3)	S_{td} (in^3)	S_{bd} (in^3)	Q_{deck} (in^3)	Effective Flange Width (in)	Assumed Haunch Depth (in)
(STRF) -0.417	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
0.000	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(0.0L_e) 0.000	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(FoS) 0.333	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(SZB) 1.337	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(Bar Develop.) 1.705	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(PSXFR) 2.583	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(Bar Develop.) 2.765	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(H) 3.833	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(SZB) 5.003	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(1.5H) 5.583	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(0.1L_e) 7.648	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(SZB) 10.503	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(0.2L_e) 15.297	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(SZB) 18.753	1309.693	51.000	371743.2	46.862	46.862	8.031	33.969	17.031	8.031	46291.1	10943.5	26392.1	55970.2	8384.0	93.724	1.000
(Deck Bar Cutoff) 20.870	1304.361	51.000	370805.6	46.459	46.459	8.084	33.916	17.084	8.084	45870.0	10933.0	26243.4	55461.1	8349.2	92.918	1.000
(0.3L_e) 22.945	1299.608	51.000	369963.5	46.100	46.100	8.132	33.868	17.132	8.132	45496.5	10923.6	26110.7	55009.5	8317.9	92.200	1.000
(SZB) 29.753	1287.319	51.000	367758.6	45.171	45.171	8.257	33.743	17.257	8.257	44538.8	10898.8	25766.5	53851.5	8235.9	90.343	1.000
(HP) 30.510	1286.264	51.000	367567.5	45.092	45.092	8.268	33.732	17.268	8.268	44457.1	10896.7	25736.9	53752.8	8228.8	90.183	1.000
(0.4L_e) 30.593	1286.152	51.000	367547.2	45.083	45.083	8.269	33.731	17.269	8.269	44448.4	10896.4	25733.8	53742.3	8228.0	90.166	1.000
(0.5L_e) 38.242	1279.086	51.000	366258.6	44.549	44.549	8.342	33.658	17.342	8.342	43903.4	10881.9	25535.2	53083.3	8180.1	89.098	1.000
(0.6L_e) 45.890	1278.413	51.000	366135.2	44.498	44.498	8.349	33.651	17.349	8.349	43851.7	10880.5	25516.3	53020.8	8175.5	88.997	1.000
(HP) 45.974	1278.441	51.000	366140.3	44.500	44.500	8.349	33.651	17.349	8.349	43853.9	10880.5	25517.0	53023.4	8175.7	89.001	1.000
(SZB) 46.731	1278.730	51.000	366193.2	44.522	44.522	8.346	33.654	17.346	8.346	43876.0	10881.1	25525.1	53050.2	8177.7	89.044	1.000
(0.7L_e) 53.539	1284.133	51.000	367180.5	44.931	44.931	8.290	33.710	17.290	8.290	44292.4	10892.3	25677.1	53553.6	8214.4	89.861	1.000
(SZB) 57.731	1289.981	51.000	368239.8	45.372	45.372	8.230	33.770	17.230	8.230	44745.3	10904.2	25841.2	54101.2	8253.8	90.745	1.000
(0.8L_e) 61.187	1296.244	51.000	369364.2	45.846	45.846	8.166	33.834	17.166	8.166	45233.3	10916.9	26016.7	54691.3	8295.6	91.692	1.000
(SZB) 65.981	1307.093	51.000	371286.8	46.666	46.666	8.056	33.944	17.056	8.056	46085.4	10938.4	26319.6	55721.6	8367.1	93.331	1.000
(0.9L_e) 68.835	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(1.5H) 70.900	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(SZB) 71.481	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(H) 72.650	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(Bar Develop.) 73.718	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(PSXFR) 73.900	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(Bar Develop.) 74.779	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(SZB) 75.147	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(FoS) 76.150	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(1.0L_e) 76.484	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
76.484	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000
(STLF) 76.900	1311.467	51.000	372053.3	46.996	46.996	8.013	33.987	17.013	8.013	46431.6	10946.9	26441.5	56140.1	8395.5	93.992	1.000

User Defined Loads

Locations are measured from left support.
Point loads were not defined for this girder

Distributed Loads

Event	Load Case	Start Location	End Location	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Event 5: Final without Live Load	DW	0.00 %	100.00 %	0.040	0.040	Utility Load
Event 4: Cast Deck	DC	0.00 %	100.00 %	0.022	0.022	SIP Forms

Moment loads were not defined for this girder

Moments, Shears, and Reactions

Load Responses - Casting Yard

At Release

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF, 0.0L_r) 0.000	0.00	28.62	0.000
(PSXFR) 3.000	82.52	26.40	-0.106
(0.1L_r) 7.732	199.14	22.89	-0.268
(0.2L_r) 15.463	354.03	17.17	-0.507
(0.3L_r) 23.195	464.67	11.45	-0.694
(HP, 0.4L_r) 30.927	531.05	5.72	-0.813
(0.5L_r) 38.659	553.18	0.00	-0.853
(HP, 0.6L_r) 46.390	531.05	-5.72	-0.813

During Storage

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
(STRF) -0.417	0.00	0.00	0.014
(0.0L_{st}) 0.000	-0.06	-0.31 28.31	0.000
(PSXFR) 2.583	70.60	26.40	-0.088
(0.1L_{st}) 7.648	194.81	22.65	-0.256
(0.2L_{st}) 15.297	346.38	16.99	-0.485
(0.3L_{st}) 22.945	454.64	11.32	-0.664
(HP) 30.510	519.13	5.72	-0.777
(0.4L_{st}) 30.593	519.60	5.66	-0.778

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.7L_r$) 54.122	464.67	-11.45	-0.694
($0.8L_r$) 61.854	354.03	-17.17	-0.507
($0.9L_r$) 69.585	199.14	-22.89	-0.268
(PSXFR) 74.317	82.52	-26.40	-0.106
(STLF, $1.0L_r$) 77.317	0.00	-28.62	0.000

Location from End of Girder (ft)	Moment (kip-ft)	Shear (kip)	Deflection (in)
($0.5L_{st}$) 38.242	541.25	0.00	-0.817
($0.6L_{st}$) 45.890	519.60	-5.66	-0.778
(HP) 45.974	519.13	-5.72	-0.777
($0.7L_{st}$) 53.539	454.64	-11.32	-0.664
($0.8L_{st}$) 61.187	346.38	-16.99	-0.485
($0.9L_{st}$) 68.835	194.81	-22.65	-0.256
(PSXFR) 73.900	70.60	-26.40	-0.088
($1.0L_{st}$) 76.484	-0.06	-28.31 0.31	0.000
(STLF) 76.900	0.00	0.00	0.014

Responses from Externally Applied Loads at the Bridge Site

Moments

Location from Left Support (ft)	Girder (kip-ft)	Diaphragm (kip-ft)	Slab (kip-ft)	Haunch (kip-ft)	Sidewalk (kip-ft)	Railing System (kip-ft)	Overlay (kip-ft)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
0.000	0.00	0.00	0.00	0.00	-197.33	-82.62	-160.49	0.04	-75.12	18.73 (D0)	-1531.69 (D2)	0.00 (F0)	-486.70 (F0)	0.00 (P0)	-1632.66 (P0)
($0.0L_e$) 0.000	0.00	0.00	0.00	0.00	-197.33	-82.62	-160.49	0.04	-75.12	18.73 (D0)	-1531.69 (D2)	0.00 (F0)	-486.70 (F0)	0.00 (P0)	-1632.66 (P0)
(PSXFR) 2.583	70.66	0.00	82.66	12.12	-164.06	-68.69	-133.43	0.69	-63.09	78.93 (D0)	-1322.34 (D2)	0.00 (F0)	-470.26 (F0)	0.00 (P0)	-1425.56 (P0)
($0.1L_e$) 7.648	194.87	0.00	226.27	33.32	-104.24	-43.65	-84.78	4.82	-44.42	270.11 (D1)	-940.61 (D2)	61.41 (F0)	-438.03 (F0)	53.65 (P0)	-1027.38 (P0)
($0.2L_e$) 15.297	346.44	0.00	397.96	59.01	-27.46	-11.50	-22.33	21.20	-31.54	667.39 (D0)	-720.39 (D0)	362.12 (F0)	-389.36 (F0)	748.82 (P0)	-883.02 (P0)
($0.3L_e$) 22.945	454.71	0.00	517.89	77.22	33.02	13.83	26.86	40.31	-27.60	1085.60 (D0)	-630.34 (D0)	596.82 (F0)	-340.69 (F0)	1279.33 (P0)	-772.64 (P0)
($0.4L_e$) 30.593	519.66	0.00	588.21	88.10	77.21	32.33	62.79	53.19	-23.66	1384.99 (D0)	-540.29 (D0)	742.15 (F0)	-292.02 (F0)	1656.25 (P0)	-662.26 (P0)
($0.5L_e$) 38.242	541.32	0.00	610.33	91.72	105.09	44.00	85.47	59.87	-19.71	1533.20 (D0)	-450.24 (D0)	778.49 (F0)	-243.35 (F0)	1874.15 (P0)	-551.89 (P0)
($0.6L_e$) 45.890	519.66	0.00	584.97	88.10	116.67	48.85	94.89	60.32	-15.77	1558.44 (D0)	-360.19 (D0)	823.42 (F0)	-194.68 (F0)	1870.03 (P0)	-441.51 (P0)
($0.7L_e$) 53.539	454.71	0.00	512.20	77.22	111.95	46.87	91.05	54.57	-11.83	1430.80 (D0)	-270.15 (D0)	778.41 (F0)	-146.01 (F0)	1726.85 (P0)	-331.13 (P0)
($0.8L_e$) 61.187	346.44	0.00	391.42	59.01	90.94	38.07	73.96	42.59	-7.89	1155.81 (D0)	-180.10 (D0)	625.80 (F0)	-97.34 (F0)	1391.77 (P0)	-220.75 (P0)
($0.9L_e$) 68.835	194.87	0.00	221.33	33.32	53.62	22.45	43.61	24.40	-3.94	682.39 (D0)	-90.05 (D0)	382.04 (F0)	-48.67 (F0)	832.96 (P0)	-110.38 (P0)
(PSXFR) 73.900	70.66	0.00	80.64	12.12	19.93	8.35	16.21	8.94	-1.33	254.29 (D0)	-30.42 (D0)	145.10 (F0)	-16.44 (F0)	315.01 (P0)	-37.28 (P0)
($1.0L_e$) 76.484	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)
76.484	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.
(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Moment due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip-ft)	User DW (kip-ft)	User LL+IM (kip-ft)
0.000	-0.00	0.00	0.00
($0.0L_e$) 0.000	-0.00	0.00	0.00
(PSXFR) 2.583	2.10	0.00	0.00
($0.1L_e$) 7.648	5.79	0.00	0.00
($0.2L_e$) 15.297	10.29	0.00	0.00
($0.3L_e$) 22.945	13.51	0.00	0.00
($0.4L_e$) 30.593	15.44	0.00	0.00
($0.5L_e$) 38.242	16.08	0.00	0.00
($0.6L_e$) 45.890	15.44	0.00	0.00
($0.7L_e$) 53.539	13.51	0.00	0.00
($0.8L_e$) 61.187	10.29	0.00	0.00
($0.9L_e$) 68.835	5.79	0.00	0.00
(PSXFR) 73.900	2.10	0.00	0.00
($1.0L_e$) 76.484	0.00	0.00	0.00
76.484	0.00	0.00	0.00

Shears

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
0.000	0.00	0.00	0.00	0.00	13.24	5.54	10.76	5.05	-0.00	117.74 (D0)	-0.24 (D0)	66.89 (F0)	0.00 (F0)	152.03 (P0)	0.00 (P0)
($0.0L_e$) 0.000	28.62 28.31	2.45 0.00	33.64 33.24	4.92 4.87	13.24	5.54	10.76	5.05	-0.00	117.74 (D0)	-0.24 (D0)	66.89 (F0)	0.00 (F0)	152.03 (P0)	0.00 (P0)
($0.1L_e$) 7.648	22.65	0.00	25.96	3.85	11.10	4.65	9.03	4.26	-0.03	106.04 (D0)	-3.34 (D1)	59.99 (F0)	0.00 (F0)	138.53 (P0)	0.00 (P0)

Location from Left Support (ft)	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.2L_e$) 15.297	16.99	0.00	19.01	2.87	8.97	3.76	7.30	3.53	-0.11	93.58 (D0)	-8.34 (D1)	52.30 (F0)	-1.65 (F0)	122.58 (P0)	0.00 (P0)
($0.3L_e$) 22.945	11.32	0.00	12.40	1.90	6.84	2.86	5.56	2.86	-0.25	80.55 (D0)	-14.51 (D1)	43.94 (F0)	-5.94 (F0)	104.22 (P0)	-1.93 (P0)
($0.4L_e$) 30.593	5.66	0.00	6.02	0.95	4.71	1.97	3.83	2.26	-0.46	67.16 (D0)	-22.59 (D0)	35.02 (F0)	-11.22 (F0)	83.64 (P0)	-16.09 (P0)
($0.5L_e$) 38.242	0.00	0.00	-0.22	-0.00	2.58	1.08	2.10	1.74	-0.76	53.59 (D0)	-32.95 (D0)	26.52 (F0)	-17.44 (F0)	60.92 (P0)	-37.91 (P0)
($0.6L_e$) 45.890	-5.66	0.00	-6.41	-0.95	0.45	0.19	0.36	1.31	-1.14	40.00 (D0)	-44.69 (D0)	17.97 (F0)	-24.54 (F0)	38.24 (P0)	-54.86 (P0)
($0.7L_e$) 53.539	-11.32	0.00	-12.63	-1.90	-1.68	-0.70	-1.37	0.96	-1.61	27.97 (D1)	-57.71 (D0)	13.40 (F0)	-32.40 (F0)	26.16 (P0)	-71.74 (P0)
($0.8L_e$) 61.187	-16.99	0.00	-18.98	-2.87	-3.81	-1.60	-3.10	0.72	-2.17	18.51 (D1)	-71.87 (D0)	9.02 (F0)	-40.91 (F0)	15.72 (P0)	-89.84 (P0)
($0.9L_e$) 68.835	-22.65	0.00	-25.54	-3.85	-5.94	-2.49	-4.83	0.57	-2.83	12.08 (D0)	-87.07 (D0)	6.36 (F0)	-49.95 (F0)	14.43 (P0)	-108.91 (P0)
($1.0L_e$) 76.484	-28.31 -28.62	0.00 -3.10	-32.40 -32.78	-4.87 -4.92	-8.08 -8.19	-3.38 -3.43	-6.57	0.52	-3.60	11.77 (D0)	-103.18 (D0)	6.36 (F0)	-59.38 (F0)	14.43 (P0)	-128.70 (P0)
76.484	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (D0)	0.00 (D0)	0.00 (F0)	0.00 (F0)	0.00 (P0)	0.00 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Shears due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (kip)	User DW (kip)	User LL+IM (kip)
0.000	-0.01	0.00	0.00
($0.0L_e$) 0.000	0.84	0.00	0.00
($0.1L_e$) 7.648	0.67	0.00	0.00
($0.2L_e$) 15.297	0.50	0.00	0.00
($0.3L_e$) 22.945	0.34	0.00	0.00
($0.4L_e$) 30.593	0.17	0.00	0.00
($0.5L_e$) 38.242	0.00	0.00	0.00
($0.6L_e$) 45.890	-0.17	0.00	0.00
($0.7L_e$) 53.539	-0.34	0.00	0.00
($0.8L_e$) 61.187	-0.50	0.00	0.00
($0.9L_e$) 68.835	-0.67	0.00	0.00
($1.0L_e$) 76.484	-0.84	0.00	0.00
76.484	0.00	0.00	0.00

Girder Line Pier Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2	57.29	0.00	66.17	9.85	26.97	11.29	21.75	10.28	0.00	171.56 (D2)	0.00 (D0)	77.41 (F0)	0.00 (F0)	214.04 (P0)	0.00 (P0)
Abutment 3	28.62	3.10	32.78	4.92	8.19	3.43	6.57	3.60	-0.52	103.18 (D0)	-11.77 (D0)	59.38 (F0)	-6.36 (F0)	128.70 (P0)	-14.43 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2 - Ahead	28.62	0.00	33.64	4.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Abutment 3 - Back	28.62	3.10	32.78	4.92	8.19	3.43	6.57	3.60	-0.52	103.18 (D0)	-11.77 (D0)	59.38 (F0)	-6.36 (F0)	128.70 (P0)	-14.43 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Girder Line Pier Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Pier 2	1.71	0.00	0.00

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3	0.84	0.00	0.00

Girder Bearing Reactions due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3 - Back	0.84	0.00	0.00

Deflections

Location from Left Support (ft)	Girder (in)	Diaphragm (in)	Slab (in)	Haunch (in)	Sidewalk (in)	Railing System (in)	Overlay (in)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)	Max (in)	Min (in)
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.023 (P0)	-0.024 (P0)
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019 (D0)	-0.019 (D0)	0.010 (F0)	-0.010 (F0)	0.023 (P0)	-0.024 (P0)
(0.1L_e) 7.648	-0.256	0.000	-0.265	-0.040	-0.006	-0.002	-0.005	0.007	-0.009	0.158 (D0)	-0.210 (D0)	0.086 (F0)	-0.113 (F0)	0.194 (P0)	-0.257 (P0)
(0.2L_e) 15.297	-0.485	0.000	-0.501	-0.075	-0.017	-0.007	-0.014	0.011	-0.018	0.253 (D0)	-0.410 (D0)	0.137 (F0)	-0.220 (F0)	0.310 (P0)	-0.503 (P0)
(0.3L_e) 22.945	-0.664	0.000	-0.685	-0.103	-0.030	-0.013	-0.025	0.013	-0.025	0.308 (D0)	-0.585 (D0)	0.167 (F0)	-0.312 (F0)	0.378 (P0)	-0.719 (P0)
(0.4L_e) 30.593	-0.778	0.000	-0.801	-0.120	-0.042	-0.018	-0.034	0.014	-0.030	0.329 (D0)	-0.711 (D0)	0.178 (F0)	-0.375 (F0)	0.403 (P0)	-0.875 (P0)
(0.5L_e) 38.242	-0.817	0.000	-0.841	-0.126	-0.049	-0.021	-0.040	0.014	-0.033	0.319 (D0)	-0.770 (D0)	0.173 (F0)	-0.402 (F0)	0.391 (P0)	-0.948 (P0)
(0.6L_e) 45.890	-0.778	0.000	-0.800	-0.120	-0.050	-0.021	-0.041	0.012	-0.032	0.285 (D0)	-0.750 (D0)	0.154 (F0)	-0.394 (F0)	0.350 (P0)	-0.923 (P0)
(0.7L_e) 53.539	-0.664	0.000	-0.683	-0.103	-0.046	-0.019	-0.037	0.010	-0.027	0.231 (D0)	-0.651 (D0)	0.125 (F0)	-0.344 (F0)	0.283 (P0)	-0.803 (P0)
(0.8L_e) 61.187	-0.485	0.000	-0.499	-0.075	-0.035	-0.015	-0.028	0.007	-0.020	0.162 (D0)	-0.478 (D0)	0.088 (F0)	-0.254 (F0)	0.199 (P0)	-0.592 (P0)
(0.9L_e) 68.835	-0.256	0.000	-0.264	-0.040	-0.019	-0.008	-0.015	0.004	-0.011	0.084 (D0)	-0.253 (D0)	0.045 (F0)	-0.135 (F0)	0.103 (P0)	-0.313 (P0)
(1.0L_e) 76.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)
76.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 (D0)	0.000 (D0)	0.000 (F0)	0.000 (F0)	0.000 (P0)	0.000 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Deflections due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (in)	User DW (in)	User LL+IM (in)
0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000
(0.1L_e) 7.648	-0.007	0.000	0.000
(0.2L_e) 15.297	-0.013	0.000	0.000
(0.3L_e) 22.945	-0.018	0.000	0.000
(0.4L_e) 30.593	-0.021	0.000	0.000
(0.5L_e) 38.242	-0.022	0.000	0.000
(0.6L_e) 45.890	-0.021	0.000	0.000
(0.7L_e) 53.539	-0.018	0.000	0.000
(0.8L_e) 61.187	-0.013	0.000	0.000
(0.9L_e) 68.835	-0.007	0.000	0.000
(1.0L_e) 76.484	0.000	0.000	0.000
76.484	0.000	0.000	0.000

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 3 - Back	-0.00285	0.00000	-0.00295	-0.00044	-0.00001	0.00000	-0.00001	0.00008	-0.00008	0.00178 (D0)	-0.00190 (D0)	0.00096 (F0)	-0.00102 (F0)	0.00218 (P0)	-0.00232 (P0)

$ Pedestrian values are per girder
* Live Load values are per lane and include impact.

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(F0) LRFD Fatigue Truck
(P0) CDOT Permit

Rotations due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 3 - Back	0.00008	0.00000	0.00000

Deflections For The LRFD Optional Deflection Live Load (LRFD 3.6.1.3.2)

Location from Left Support (ft)	D1 (in)	D2 (in)	D Controlling (in)
0.000	-0.006	-0.003	-0.006
($0.0L_e$) 0.000	-0.006	-0.003	-0.006
($0.1L_e$) 7.648	-0.061	-0.037	-0.061
($0.2L_e$) 15.297	-0.119	-0.071	-0.119
($0.3L_e$) 22.945	-0.170	-0.102	-0.170
($0.4L_e$) 30.593	-0.208	-0.123	-0.208
($0.5L_e$) 38.242	-0.225	-0.133	-0.225
($0.6L_e$) 45.890	-0.219	-0.130	-0.219
($0.7L_e$) 53.539	-0.190	-0.112	-0.190
($0.8L_e$) 61.187	-0.140	-0.083	-0.140
($0.9L_e$) 68.835	-0.074	-0.044	-0.074
($1.0L_e$) 76.484	0.000	0.000	0.000
76.484	0.000	0.000	0.000

D1 = LRFD Design truck without lane load and including impact
D2 = 0.25*(Design truck) + lane load, including impact
D(Controlling) = Max(D1, D2)
EI = Bridge EI / Number of Girders
Live Load Distribution Factor = (Multiple Presence Factor)(Number of Lanes)/(Number of Girders)

Combined Results - Interval 2: Prestress Release

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF, $0.0L_t$) 0.000	0.00	0.00	0.00	0.00	0.00
(FoS) 0.750	21.26	0.00	21.26	0.00	21.26
(SZB) 1.753	49.04	0.00	49.04	0.00	49.04
(Bar Develop.) 2.121	59.04	0.00	59.04	0.00	59.04
(PSXFR) 3.000	82.52	0.00	82.52	0.00	82.52
(Bar Develop.) 3.182	87.32	0.00	87.32	0.00	87.32
(H) 4.250	114.94	0.00	114.94	0.00	114.94
(SZB) 5.419	144.22	0.00	144.22	0.00	144.22
(1.5H) 6.000	158.39	0.00	158.39	0.00	158.39
($0.1L_t$) 7.732	199.14	0.00	199.14	0.00	199.14
(SZB) 10.919	268.36	0.00	268.36	0.00	268.36
($0.2L_t$) 15.463	354.03	0.00	354.03	0.00	354.03
(SZB) 19.169	412.58	0.00	412.58	0.00	412.58
(Deck Bar Cutoff) 21.286	441.47	0.00	441.47	0.00	441.47
($0.3L_t$) 23.195	464.67	0.00	464.67	0.00	464.67
(SZB) 30.169	526.50	0.00	526.50	0.00	526.50
(HP, $0.4L_t$) 30.927	531.05	0.00	531.05	0.00	531.05
($0.5L_t$) 38.659	553.18	0.00	553.18	0.00	553.18
(HP, $0.6L_t$) 46.390	531.05	0.00	531.05	0.00	531.05
(SZB) 47.148	526.50	0.00	526.50	0.00	526.50
($0.7L_t$) 54.122	464.67	0.00	464.67	0.00	464.67
(SZB) 58.148	412.58	0.00	412.58	0.00	412.58
($0.8L_t$) 61.854	354.03	0.00	354.03	0.00	354.03
(SZB) 66.398	268.36	0.00	268.36	0.00	268.36
($0.9L_t$) 69.585	199.14	0.00	199.14	0.00	199.14
(1.5H) 71.317	158.39	0.00	158.39	0.00	158.39
(SZB) 71.898	144.22	0.00	144.22	0.00	144.22
(H) 73.067	114.94	0.00	114.94	0.00	114.94
(Bar Develop.) 74.135	87.32	0.00	87.32	0.00	87.32
(PSXFR) 74.317	82.52	0.00	82.52	0.00	82.52
(Bar Develop.) 75.196	59.04	0.00	59.04	0.00	59.04
(SZB) 75.564	49.04	0.00	49.04	0.00	49.04
(FoS) 76.567	21.26	0.00	21.26	0.00	21.26
(STLF, $1.0L_t$) 77.317	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF, $0.0L_t$) 0.000	28.62	0.00	28.62	0.00	28.62
(FoS) 0.750	28.06	0.00	28.06	0.00	28.06
(SZB) 1.753	27.32	0.00	27.32	0.00	27.32
(Bar Develop.) 2.121	27.05	0.00	27.05	0.00	27.05
(PSXFR) 3.000	26.40	0.00	26.40	0.00	26.40
(Bar Develop.) 3.182	26.26	0.00	26.26	0.00	26.26
(H) 4.250	25.47	0.00	25.47	0.00	25.47
(SZB) 5.419	24.61	0.00	24.61	0.00	24.61
(1.5H) 6.000	24.18	0.00	24.18	0.00	24.18
($0.1L_t$) 7.732	22.89	0.00	22.89	0.00	22.89
(SZB) 10.919	20.54	0.00	20.54	0.00	20.54
($0.2L_t$) 15.463	17.17	0.00	17.17	0.00	17.17
(SZB) 19.169	14.43	0.00	14.43	0.00	14.43
(Deck Bar Cutoff) 21.286	12.86	0.00	12.86	0.00	12.86

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(0.3L$_t$) 23.195	11.45	0.00	11.45	0.00	11.45
(SZB) 30.169	6.28	0.00	6.28	0.00	6.28
(HP, 0.4L$_t$) 30.927	5.72	0.00	5.72	0.00	5.72
(0.5L$_t$) 38.659	0.00	0.00	0.00	0.00	0.00
(HP, 0.6L$_t$) 46.390	-5.72	0.00	-5.72	0.00	-5.72
(SZB) 47.148	-6.28	0.00	-6.28	0.00	-6.28
(0.7L$_t$) 54.122	-11.45	0.00	-11.45	0.00	-11.45
(SZB) 58.148	-14.43	0.00	-14.43	0.00	-14.43
(0.8L$_t$) 61.854	-17.17	0.00	-17.17	0.00	-17.17
(SZB) 66.398	-20.54	0.00	-20.54	0.00	-20.54
(0.9L$_t$) 69.585	-22.89	0.00	-22.89	0.00	-22.89
(1.5H) 71.317	-24.18	0.00	-24.18	0.00	-24.18
(SZB) 71.898	-24.61	0.00	-24.61	0.00	-24.61
(H) 73.067	-25.47	0.00	-25.47	0.00	-25.47
(Bar Develop.) 74.135	-26.26	0.00	-26.26	0.00	-26.26
(PSXFR) 74.317	-26.40	0.00	-26.40	0.00	-26.40
(Bar Develop.) 75.196	-27.05	0.00	-27.05	0.00	-27.05
(SZB) 75.564	-27.32	0.00	-27.32	0.00	-27.32
(FoS) 76.567	-28.06	0.00	-28.06	0.00	-28.06
(STLF, 1.0L$_t$) 77.317	-28.62	0.00	-28.62	0.00	-28.62

Combined Results - Interval 11: Cast Deck, Apply User Defined Loads

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)	Service I (kip-ft)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00
0.000	-0.00	0.00	-0.00	0.00	-0.00
(0.0L$_e$) 0.000	-0.00	0.00	-0.00	0.00	-0.00
(FoS) 0.333	12.92	0.00	22.31	0.00	22.31
(SZB) 1.337	51.05	0.00	88.23	0.00	88.23
(Bar Develop.) 1.705	64.76	0.00	111.94	0.00	111.94
(PSXFR) 2.583	96.88	0.00	167.54	0.00	167.54
(Bar Develop.) 2.765	103.42	0.00	178.88	0.00	178.88
(H) 3.833	141.09	0.00	244.17	0.00	244.17
(SZB) 5.003	180.88	0.00	313.24	0.00	313.24
(1.5H) 5.583	200.09	0.00	346.61	0.00	346.61
(0.1L$_e$) 7.648	265.38	0.00	460.25	0.00	460.25
(SZB) 10.503	347.99	0.00	604.49	0.00	604.49
(0.2L$_e$) 15.297	467.26	0.00	813.71	0.00	813.71
(SZB) 18.753	538.47	0.00	939.20	0.00	939.20
(Deck Bar Cutoff) 20.870	576.10	0.00	1005.71	0.00	1005.71
(0.3L$_e$) 22.945	608.63	0.00	1063.33	0.00	1063.33
(SZB) 29.753	685.41	0.00	1200.06	0.00	1200.06
(HP) 30.510	691.16	0.00	1210.35	0.00	1210.35
(0.4L$_e$) 30.593	691.76	0.00	1211.42	0.00	1211.42
(0.5L$_e$) 38.242	718.13	0.00	1259.45	0.00	1259.45
(0.6L$_e$) 45.890	688.52	0.00	1208.18	0.00	1208.18
(HP) 45.974	687.89	0.00	1207.07	0.00	1207.07
(SZB) 46.731	681.85	0.00	1196.49	0.00	1196.49
(0.7L$_e$) 53.539	602.94	0.00	1057.64	0.00	1057.64
(SZB) 57.731	532.07	0.00	932.79	0.00	932.79
(0.8L$_e$) 61.187	460.72	0.00	807.16	0.00	807.16
(SZB) 65.981	342.10	0.00	598.60	0.00	598.60
(0.9L$_e$) 68.835	260.45	0.00	455.32	0.00	455.32
(1.5H) 70.900	196.17	0.00	342.69	0.00	342.69
(SZB) 71.481	177.29	0.00	309.66	0.00	309.66
(H) 72.650	138.22	0.00	241.31	0.00	241.31
(Bar Develop.) 73.718	101.28	0.00	176.74	0.00	176.74
(PSXFR) 73.900	94.87	0.00	165.53	0.00	165.53
(Bar Develop.) 74.779	63.40	0.00	110.58	0.00	110.58
(SZB) 75.147	49.97	0.00	87.15	0.00	87.15
(FoS) 76.150	12.64	0.00	22.04	0.00	22.04
(1.0L$_e$) 76.484	0.00	0.00	0.00	0.00	0.00
76.484	0.00	0.00	0.00	0.00	0.00
(STLF) 76.900	0.00	0.00	0.00	0.00	0.00

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(STRF) -0.417	-0.00	0.00	-0.00	0.00	-0.00
0.000	-0.01	0.00	-0.01	0.00	-0.01
(0.0L$_e$) 0.000	41.86 38.95	0.00	70.48 67.26	0.00	70.48 67.26
(FoS) 0.333	38.57	0.00	66.64	0.00	66.64
(SZB) 1.337	37.45	0.00	64.77	0.00	64.77
(Bar Develop.) 1.705	37.04	0.00	64.09	0.00	64.09
(PSXFR) 2.583	36.06	0.00	62.46	0.00	62.46
(Bar Develop.) 2.765	35.86	0.00	62.12	0.00	62.12
(H) 3.833	34.68	0.00	60.15	0.00	60.15
(SZB) 5.003	33.39	0.00	57.99	0.00	57.99

Location from Left Support (ft)	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
(1.5H) 5.583	32.75	0.00	56.93	0.00	56.93
($0.1L_e$) 7.648	30.49	0.00	53.14	0.00	53.14
(SZB) 10.503	27.41	0.00	47.94	0.00	47.94
($0.2L_e$) 15.297	22.38	0.00	39.36	0.00	39.36
(SZB) 18.753	18.84	0.00	33.27	0.00	33.27
(Deck Bar Cutoff) 20.870	16.71	0.00	29.57	0.00	29.57
($0.3L_e$) 22.945	14.64	0.00	25.96	0.00	25.96
(SZB) 29.753	7.95	0.00	14.23	0.00	14.23
(HP) 30.510	7.22	0.00	12.94	0.00	12.94
($0.4L_e$) 30.593	7.13	0.00	12.80	0.00	12.80
($0.5L_e$) 38.242	-0.22	0.00	-0.22	0.00	-0.22
($0.6L_e$) 45.890	-7.52	0.00	-13.19	0.00	-13.19
(HP) 45.974	-7.60	0.00	-13.33	0.00	-13.33
(SZB) 46.731	-8.33	0.00	-14.61	0.00	-14.61
($0.7L_e$) 53.539	-14.87	0.00	-26.19	0.00	-26.19
(SZB) 57.731	-18.95	0.00	-33.38	0.00	-33.38
($0.8L_e$) 61.187	-22.35	0.00	-39.34	0.00	-39.34
(SZB) 65.981	-27.15	0.00	-47.69	0.00	-47.69
($0.9L_e$) 68.835	-30.06	0.00	-52.71	0.00	-52.71
(1.5H) 70.900	-32.20	0.00	-56.37	0.00	-56.37
(SZB) 71.481	-32.80	0.00	-57.41	0.00	-57.41
(H) 72.650	-34.03	0.00	-59.50	0.00	-59.50
(Bar Develop.) 73.718	-35.15	0.00	-61.42	0.00	-61.42
(PSXFR) 73.900	-35.35	0.00	-61.74	0.00	-61.74
(Bar Develop.) 74.779	-36.28	0.00	-63.33	0.00	-63.33
(SZB) 75.147	-36.67	0.00	-63.99	0.00	-63.99
(FoS) 76.150	-37.75	0.00	-65.81	0.00	-65.81
($1.0L_e$) 76.484	-38.10 -38.54	0.00	-66.41 -70.27	0.00	-66.41 -70.27
76.484	0.00	0.00	0.00	0.00	0.00
(STLF) 76.900	0.00	0.00	0.00	0.00	0.00

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2	82.69	0.00	139.98	0.00
Abutment 3	38.54	0.00	70.27	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2 - Ahead	41.87	0.00	70.49	0.00
Abutment 3 - Back	38.54	0.00	70.27	0.00

Combined Results - Interval 17: Open to Traffic

Moment

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	ΣDC (kip-ft)	ΣDW (kip-ft)
($0.0L_s$) 0.000	0.00	0.00	-296.30	-199.78
(STRF) 0.446	0.00	0.00	-287.80	-194.09
0.863	0.00	0.00	-279.95	-188.81
(FoS) 1.196	0.00	0.00	-251.40	-184.61
(SZB) 2.200	0.00	0.00	-166.97	-172.12
(Bar Develop.) 2.568	0.00	0.00	-136.57	-167.61
(PSXFR) 3.446	0.00	0.00	-65.21	-156.98
(Bar Develop.) 3.628	0.00	0.00	-50.65	-154.81
(H) 4.696	0.00	0.00	33.31	-142.22
(SZB) 5.866	0.00	0.00	122.29	-128.79
(1.5H) 6.446	0.00	0.00	165.35	-122.26
($0.1L_s$) 7.735	0.00	0.00	258.18	-108.08
(SZB) 11.366	0.00	0.00	499.96	-70.50
($0.2L_s$) 15.469	0.00	0.00	738.26	-32.27
(SZB) 19.616	0.00	0.00	941.88	1.81
(Deck Bar Cutoff) 21.733	0.00	0.00	1031.56	17.44
($0.3L_s$) 23.204	0.00	0.00	1088.24	27.59
(SZB) 30.616	0.00	0.00	1303.83	69.99
($0.4L_s$) 30.939	0.00	0.00	1310.58	71.51
(HP) 31.373	0.00	0.00	1319.32	73.50
($0.5L_s$) 38.673	0.00	0.00	1406.86	99.47
($0.6L_s$) 46.408	0.00	0.00	1377.91	111.47
(HP) 46.837	0.00	0.00	1372.65	111.67
(SZB) 47.594	0.00	0.00	1362.41	111.91
($0.7L_s$) 54.143	0.00	0.00	1223.80	107.53
(SZB) 58.594	0.00	0.00	1078.14	98.03
($0.8L_s$) 61.878	0.00	0.00	943.86	87.64
(SZB) 66.844	0.00	0.00	697.13	66.45
($0.9L_s$) 69.612	0.00	0.00	536.66	51.79
(1.5H) 71.764	0.00	0.00	400.50	38.99
(SZB) 72.344	0.00	0.00	362.03	35.32
(H) 73.514	0.00	0.00	282.32	27.66
(Bar Develop.) 74.582	0.00	0.00	206.91	20.35

Location from Left Support (ft)	DC (kip-ft)	DW (kip-ft)	∑DC (kip-ft)	∑DW (kip-ft)
(PSXFR) 74.764	0.00	0.00	193.81	19.07
(Bar Develop.) 75.642	0.00	0.00	129.54	12.79
(SZB) 76.010	0.00	0.00	102.11	10.09
(FoS) 77.014	0.00	0.00	25.83	2.56
(1.0L_s) 77.347	0.00	0.00	0.00	0.00
77.347	0.00	0.00	0.00	0.00
(STLF) 77.764	0.00	0.00	0.00	0.00

Moment - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)	Max (kip-ft)	Min (kip-ft)
(0.0L_s) 0.000	0.00	-79.47	0.00	-1190.00	0.00	-304.40	0.00	-1263.78	0.00	-1269.47	0.00	-304.40	0.00	-1263.78
(STRF) 0.446	0.01	-77.20	7.13	-1162.37	0.00	-302.64	0.00	-1236.83	7.14	-1239.57	0.00	-302.64	0.00	-1236.83
0.863	0.04	-75.12	13.90	-1136.74	0.00	-301.00	0.00	-1211.67	13.94	-1211.86	0.00	-301.00	0.00	-1211.67
(FoS) 1.196	0.08	-73.48	19.41	-1116.35	0.00	-299.69	0.00	-1191.55	19.49	-1189.83	0.00	-299.69	0.00	-1191.55
(SZB) 2.200	0.27	-68.70	36.44	-1055.57	0.00	-295.74	0.00	-1131.82	36.71	-1124.27	0.00	-295.74	0.00	-1131.82
(Bar Develop.) 2.568	0.38	-67.01	42.86	-1033.51	0.00	-294.29	0.00	-1110.00	43.24	-1100.52	0.00	-294.29	0.00	-1110.00
(PSXFR) 3.446	0.69	-63.09	58.58	-981.37	0.00	-290.83	0.00	-1057.97	59.27	-1044.46	0.00	-290.83	0.00	-1057.97
(Bar Develop.) 3.628	0.77	-62.30	61.90	-970.66	0.00	-290.12	0.00	-1047.24	62.67	-1032.96	0.00	-290.12	0.00	-1047.24
(H) 4.696	1.33	-57.85	83.84	-908.65	0.00	-285.91	0.00	-984.53	85.17	-966.49	0.00	-285.91	0.00	-984.53
(SZB) 5.866	2.14	-53.31	118.51	-844.94	0.00	-281.31	0.00	-916.18	120.64	-898.24	0.00	-281.31	0.00	-916.18
(1.5H) 6.446	2.62	-51.19	136.12	-813.84	0.00	-279.03	0.00	-882.33	138.74	-865.03	0.00	-279.03	0.00	-882.33
(0.1L_s) 7.735	3.90	-46.82	175.76	-739.71	17.83	-273.96	0.00	-807.44	179.66	-786.53	17.83	-273.96	0.00	-807.44
(SZB) 11.366	9.27	-37.22	294.46	-590.88	111.99	-259.67	235.61	-706.67	303.73	-628.10	111.99	-259.67	235.61	-706.67
(0.2L_s) 15.469	19.17	-31.90	463.40	-540.67	208.79	-243.52	513.73	-662.72	482.58	-572.56	208.79	-243.52	513.73	-662.72
(SZB) 19.616	30.60	-29.76	646.92	-503.67	295.86	-227.20	748.07	-617.37	677.52	-533.43	295.86	-227.20	748.07	-617.37
(Deck Bar Cutoff) 21.733	35.74	-28.67	731.01	-485.20	334.79	-218.87	852.96	-594.73	766.74	-513.87	334.79	-218.87	852.96	-594.73
(0.3L_s) 23.204	39.02	-27.91	784.35	-472.36	359.49	-213.08	921.67	-579.00	823.37	-500.27	359.49	-213.08	921.67	-579.00
(SZB) 30.616	52.08	-24.09	1008.92	-407.70	452.21	-183.91	1205.03	-499.74	1061.00	-431.79	452.21	-183.91	1205.03	-499.74
(0.4L_s) 30.939	52.52	-23.92	1016.36	-404.88	454.90	-182.64	1214.49	-496.28	1068.87	-428.80	454.90	-182.64	1214.49	-496.28
(HP) 31.373	53.09	-23.70	1026.05	-401.09	458.35	-180.93	1226.87	-491.63	1079.14	-424.79	458.35	-180.93	1226.87	-491.63
(0.5L_s) 38.673	59.66	-19.94	1134.90	-337.40	482.16	-152.20	1385.83	-413.57	1194.56	-357.34	482.16	-152.20	1385.83	-413.57
(0.6L_s) 46.408	60.44	-15.95	1157.60	-269.92	508.91	-121.76	1391.94	-330.85	1218.04	-285.87	508.91	-121.76	1391.94	-330.85
(HP) 46.837	60.30	-15.73	1156.31	-266.18	509.31	-120.07	1386.79	-326.27	1216.60	-281.91	509.31	-120.07	1386.79	-326.27
(SZB) 47.594	60.00	-15.34	1152.94	-259.57	509.57	-117.09	1376.13	-318.17	1212.93	-274.91	509.57	-117.09	1376.13	-318.17
(0.7L_s) 54.143	54.86	-11.96	1066.81	-202.44	483.52	-91.32	1286.66	-248.14	1121.67	-214.40	483.52	-91.32	1286.66	-248.14
(SZB) 58.594	48.77	-9.67	967.69	-163.60	435.35	-73.80	1170.09	-200.54	1016.47	-173.27	435.35	-73.80	1170.09	-200.54
(0.8L_s) 61.878	42.93	-7.97	863.95	-134.96	389.50	-60.88	1040.72	-165.43	906.89	-142.93	389.50	-60.88	1040.72	-165.43
(SZB) 66.844	31.92	-5.41	655.27	-91.63	302.28	-41.33	792.49	-112.31	687.19	-97.04	302.28	-41.33	792.49	-112.31
(0.9L_s) 69.612	24.64	-3.99	511.25	-67.48	238.43	-30.44	623.90	-82.71	535.89	-71.47	238.43	-30.44	623.90	-82.71
(1.5H) 71.764	18.43	-2.88	385.21	-48.71	181.23	-21.97	473.12	-59.71	403.64	-51.59	181.23	-21.97	473.12	-59.71
(SZB) 72.344	16.67	-2.58	349.06	-43.64	164.58	-19.69	429.42	-53.50	365.72	-46.22	164.58	-19.69	429.42	-53.50
(H) 73.514	13.01	-1.98	273.53	-33.44	129.52	-15.09	337.64	-40.99	286.54	-35.42	129.52	-15.09	337.64	-40.99
(Bar Develop.) 74.582	9.54	-1.43	201.33	-24.13	95.68	-10.88	249.27	-29.57	210.87	-25.55	95.68	-10.88	249.27	-29.57
(PSXFR) 74.764	8.94	-1.33	188.72	-22.54	89.74	-10.17	233.78	-27.63	197.65	-23.87	89.74	-10.17	233.78	-27.63
(Bar Develop.) 75.642	5.98	-0.88	126.56	-14.87	60.36	-6.71	157.17	-18.23	132.54	-15.75	60.36	-6.71	157.17	-18.23
(SZB) 76.010	4.71	-0.69	99.91	-11.66	47.70	-5.26	124.19	-14.29	104.62	-12.35	47.70	-5.26	124.19	-14.29
(FoS) 77.014	1.19	-0.17	25.37	-2.91	12.16	-1.31	31.62	-3.56	26.57	-3.08	12.16	-1.31	31.62	-3.56
(1.0L_s) 77.347	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.347	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.764	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Moment, Mu

Location from Left Support (ft)	Design								
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II		
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
(0.0L_s) 0.000	-496.08	-496.08	-248.04	-396.53	-2891.62	-2891.62	-396.53	-2376.15	-2376.15
(STRF) 0.446	-474.76	-476.18	-240.95	-372.69	-2820.13	-2820.13	-385.18	-2320.61	-2320.61
0.863	-454.82	-457.61	-234.38	-350.28	-2753.90	-2753.90	-374.68	-2268.91	-2268.91
(FoS) 1.196	-416.52	-420.41	-218.00	-312.15	-2673.35	-2701.24	-346.25	-2199.75	-2227.64
(SZB) 2.200	-302.38	-309.72	-169.55	-197.91	-2434.37	-2544.66	-262.15	-1994.84	-2105.13
(Bar Develop.) 2.568	-260.94	-269.59	-152.09	-156.19	-2348.03	-2487.96	-231.86	-1920.62	-2060.55
(PSXFR) 3.446	-162.93	-174.78	-111.10	-57.01	-2144.79	-2354.22	-160.73	-1745.25	-1954.68
(Bar Develop.) 3.628	-142.79	-155.32	-102.73	-36.53	-2103.22	-2326.81	-146.21	-1709.30	-1932.90
(H) 4.696	-23.75	-40.78	-54.46	98.24	-1874.72	-2094.48	-50.81	-1512.48	-1732.23
(SZB) 5.866	114.14	90.01	-3.25	280.27	-1655.05	-1936.97	69.15	-1319.97	-1601.89
(1.5H) 6.446	181.84	154.09	21.55	370.02	-1548.37	-1860.32	127.22	-1225.72	-1537.67
(0.1L_s) 7.735	329.76	293.82	101.79	566.87	-1306.18	-1682.76	252.47	-1019.81	-1396.39
(SZB) 11.366	733.19	672.45	382.71	1110.66	-754.97	-1299.01	897.20	-609.80	-1153.84
(0.2L_s) 15.469	1188.57	1092.05	666.18	1746.36	-385.95	-1093.45	1595.38	-278.64	-986.13
(SZB) 19.616	1621.21	1485.70	915.62	2365.72	-84.63	-929.91	2189.95	15.42	-829.86
(Deck Bar Cutoff) 21.733	1815.74	1662.39	1026.69	2657.40	40.47	-864.67	2467.10	136.85	-768.29
(0.3L_s) 23.204	1939.21	1774.53	1097.15	2842.59	121.88	-820.71	2645.96	215.71	-726.89
(SZB) 30.616	2434.82	2222.62	1365.23	3591.52	463.31	-616.74	3361.56	544.30	-535.75
(0.4L_s) 30.939	2450.96	2237.19	1373.39	3616.01	475.60	-608.51	3385.05	556.02	-528.09
(HP) 31.373	2471.96	2256.13	1383.93	3647.90	491.79	-597.53	3415.68	571.46	-517.86

Location from Left Support (ft)	Design									
	Service I (kip-ft)	Service III (kip-ft)	Fatigue I (kip-ft)	Strength I			Strength II			
				Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)	Max (kip-ft)	Min (kip-ft)	* Deck (kip-ft)
($0.5L_s$) 38.673	2700.88	2461.97	1476.41	3998.25	705.49	-427.96	3778.65	772.51	-360.94
($0.6L_s$) 46.408	2707.42	2463.82	1508.06	4021.17	812.31	-279.06	3768.72	865.92	-225.45
(HP) 46.837	2700.92	2457.60	1506.12	4012.37	814.63	-271.74	3755.48	867.50	-218.86
(SZB) 47.594	2687.25	2444.66	1501.51	3993.50	817.82	-259.03	3728.64	869.38	-207.47
($0.7L_s$) 54.143	2453.00	2228.67	1390.94	3653.97	796.11	-161.82	3428.04	836.33	-121.61
(SZB) 58.594	2192.64	1989.34	1241.10	3273.54	730.82	-108.69	3074.34	763.32	-76.19
($0.8L_s$) 61.878	1938.39	1757.01	1100.00	2898.34	656.31	-76.23	2716.26	683.11	-49.42
(SZB) 66.844	1450.77	1313.33	835.22	2173.67	500.79	-37.95	2040.96	518.99	-19.75
($0.9L_s$) 69.612	1124.35	1017.17	651.88	1686.33	391.59	-22.29	1590.78	405.00	-8.88
(1.5H) 71.764	843.13	762.40	491.58	1265.48	295.51	-12.91	1197.82	305.19	-3.23
(SZB) 72.344	763.07	689.93	445.55	1145.53	267.89	-10.80	1085.23	276.56	-2.13
(H) 73.514	596.52	539.21	349.27	895.84	210.09	-7.09	850.21	216.73	-0.45
(Bar Develop.) 74.582	438.12	395.95	257.14	658.18	154.73	-4.33	625.68	159.52	0.46
(PSXFR) 74.764	410.54	371.01	241.05	616.77	145.05	-3.92	586.47	149.53	0.55
(Bar Develop.) 75.642	274.86	248.36	161.70	413.05	97.33	-2.19	393.28	100.28	0.76
(SZB) 76.010	216.83	195.90	127.66	325.87	76.85	-1.59	310.44	79.16	0.73
(FoS) 77.014	54.96	49.65	32.43	82.63	19.53	-0.31	78.82	20.10	0.27
($1.0L_s$) 77.347	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.347	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.764	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Deck moment (Mu) is for negative moment deck design, and is from superimposed dead load and live load only.

Shear

Location from Left Support (ft)	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)
($0.0L_s$) 0.000	0.00	0.00	19.12	12.80
(STRF) 0.446	0.00	0.00	18.94	12.68
0.863	0.00	0.00	18.76	12.66
(FoS) 1.196	0.00	0.00	85.28	12.58
(SZB) 2.200	0.00	0.00	83.02	12.31
(Bar Develop.) 2.568	0.00	0.00	82.19	12.21
(PSXFR) 3.446	0.00	0.00	80.22	11.98
(Bar Develop.) 3.628	0.00	0.00	79.81	11.93
(H) 4.696	0.00	0.00	77.41	11.64
(SZB) 5.866	0.00	0.00	74.79	11.33
(1.5H) 6.446	0.00	0.00	73.50	11.18
($0.1L_s$) 7.735	0.00	0.00	70.62	10.83
(SZB) 11.366	0.00	0.00	62.57	9.86
($0.2L_s$) 15.469	0.00	0.00	53.59	8.77
(SZB) 19.616	0.00	0.00	44.64	7.66
(Deck Bar Cutoff) 21.733	0.00	0.00	40.10	7.10
($0.3L_s$) 23.204	0.00	0.00	36.95	6.71
(SZB) 30.616	0.00	0.00	21.25	4.73
($0.4L_s$) 30.939	0.00	0.00	20.57	4.65
(HP) 31.373	0.00	0.00	19.66	4.53
($0.5L_s$) 38.673	0.00	0.00	4.34	2.58
($0.6L_s$) 46.408	0.00	0.00	-11.83	0.52
(HP) 46.837	0.00	0.00	-12.72	0.41
(SZB) 47.594	0.00	0.00	-14.31	0.21
($0.7L_s$) 54.143	0.00	0.00	-28.04	-1.54
(SZB) 58.594	0.00	0.00	-37.42	-2.73
($0.8L_s$) 61.878	0.00	0.00	-44.38	-3.60
(SZB) 66.844	0.00	0.00	-54.99	-4.93
($0.9L_s$) 69.612	0.00	0.00	-60.96	-5.67
(1.5H) 71.764	0.00	0.00	-65.62	-6.24
(SZB) 72.344	0.00	0.00	-66.89	-6.39
(H) 73.514	0.00	0.00	-69.44	-6.71
(Bar Develop.) 74.582	0.00	0.00	-71.78	-6.99
(PSXFR) 74.764	0.00	0.00	-72.18	-7.04
(Bar Develop.) 75.642	0.00	0.00	-74.11	-7.27
(SZB) 76.010	0.00	0.00	-74.92	-7.37
(FoS) 77.014	0.00	0.00	-77.14	-7.64
($1.0L_s$) 77.347	0.00	0.00	-77.87 -81.89	-7.73
77.347	0.00	0.00	0.00	0.00
(STLF) 77.764	0.00	0.00	0.00	0.00

Shear - Design Vehicles

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.0L_s$) 0.000	5.11	0.00	88.21	0.00	41.81	0.00	113.84	0.00	93.32	0.00	41.81	0.00	113.84	0.00
(STRF) 0.446	5.09	-0.00	87.83	-0.09	41.58	0.00	113.32	0.00	92.92	-0.09	41.58	0.00	113.32	0.00
0.863	5.05	-0.00	87.38	-0.18	41.37	0.00	112.83	0.00	92.43	-0.18	41.37	0.00	112.83	0.00
(FoS) 1.196	5.01	-0.00	87.02	-0.25	41.19	0.00	112.43	0.00	92.03	-0.25	41.19	0.00	112.43	0.00
(SZB) 2.200	4.90	-0.00	85.92	-0.48	40.66	0.00	111.22	0.00	90.82	-0.48	40.66	0.00	111.22	0.00
(Bar Develop.) 2.568	4.87	-0.00	85.51	-0.56	40.46	0.00	110.77	0.00	90.38	-0.56	40.46	0.00	110.77	0.00
(PSXFR) 3.446	4.77	-0.00	84.53	-0.77	39.98	0.00	109.68	0.00	89.30	-0.77	39.98	0.00	109.68	0.00
(Bar Develop.) 3.628	4.76	-0.00	84.32	-0.81	39.88	0.00	109.45	0.00	89.08	-0.82	39.88	0.00	109.45	0.00

Location from Left Support (ft)	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
(H) 4.696	4.65	-0.01	83.12	-1.08	39.28	0.00	108.07	0.00	87.76	-1.09	39.28	0.00	108.07	0.00
(SZB) 5.866	4.53	-0.01	81.78	-1.41	38.62	0.00	106.50	0.00	86.30	-1.42	38.62	0.00	106.50	0.00
(1.5H) 6.446	4.47	-0.02	81.10	-1.63	38.29	0.00	105.71	0.00	85.57	-1.65	38.29	0.00	105.71	0.00
($0.1L_s$) 7.735	4.34	-0.02	79.61	-2.15	37.55	0.00	103.91	0.00	83.95	-2.18	37.55	0.00	103.91	0.00
(SZB) 11.366	3.98	-0.05	75.31	-3.76	35.37	0.00	98.62	0.00	79.29	-3.81	35.37	0.00	98.62	0.00
($0.2L_s$) 15.469	3.59	-0.10	70.30	-5.82	32.79	-0.81	92.11	0.00	73.89	-5.91	32.79	-0.81	92.11	0.00
(SZB) 19.616	3.22	-0.16	65.12	-8.15	30.05	-2.14	85.04	0.00	68.34	-8.31	30.05	-2.14	85.04	0.00
(Deck Bar Cutoff) 21.733	3.03	-0.20	62.42	-9.44	28.61	-2.89	81.21	0.00	65.46	-9.65	28.61	-2.89	81.21	0.00
($0.3L_s$) 23.204	2.91	-0.24	60.55	-10.37	27.59	-3.44	78.49	-0.94	63.46	-10.61	27.59	-3.44	78.49	-0.94
(SZB) 30.616	2.32	-0.44	50.94	-15.98	22.28	-6.55	63.83	-10.04	53.26	-16.42	22.28	-6.55	63.83	-10.04
($0.4L_s$) 30.939	2.30	-0.45	50.52	-16.28	22.04	-6.70	63.16	-10.77	52.82	-16.73	22.04	-6.70	63.16	-10.77
(HP) 31.373	2.26	-0.46	49.95	-16.69	21.72	-6.90	62.25	-11.75	52.22	-17.15	21.72	-6.90	62.25	-11.75
($0.5L_s$) 38.673	1.77	-0.74	40.36	-24.00	16.70	-10.56	46.23	-27.39	42.13	-24.74	16.70	-10.56	46.23	-27.39
($0.6L_s$) 46.408	1.32	-1.12	30.43	-33.07	11.47	-15.11	29.37	-40.56	31.75	-34.18	11.47	-15.11	29.37	-40.56
(HP) 46.837	1.30	-1.14	29.88	-33.61	11.17	-15.38	28.49	-41.26	31.18	-34.75	11.17	-15.38	28.49	-41.26
(SZB) 47.594	1.26	-1.18	28.90	-34.57	10.74	-15.87	26.94	-42.51	30.16	-35.76	10.74	-15.87	26.94	-42.51
($0.7L_s$) 54.143	0.97	-1.59	21.39	-43.29	8.54	-20.24	20.04	-53.80	22.37	-44.88	8.54	-20.24	20.04	-53.80
(SZB) 58.594	0.82	-1.90	17.28	-49.66	6.98	-23.44	15.56	-61.96	18.10	-51.57	6.98	-23.44	15.56	-61.96
($0.8L_s$) 61.878	0.72	-2.16	14.28	-54.58	5.80	-25.89	12.18	-68.23	15.00	-56.74	5.80	-25.89	12.18	-68.23
(SZB) 66.844	0.61	-2.58	9.81	-62.37	4.07	-29.76	11.07	-78.02	10.42	-64.95	4.07	-29.76	11.07	-78.02
($0.9L_s$) 69.612	0.57	-2.83	9.30	-66.90	4.08	-31.98	11.11	-83.67	9.87	-69.72	4.08	-31.98	11.11	-83.67
(1.5H) 71.764	0.54	-3.03	9.21	-70.49	4.09	-33.75	11.14	-88.12	9.75	-73.52	4.09	-33.75	11.14	-88.12
(SZB) 72.344	0.54	-3.09	9.19	-71.47	4.10	-34.23	11.14	-89.32	9.73	-74.56	4.10	-34.23	11.14	-89.32
(H) 73.514	0.53	-3.20	9.16	-73.46	4.10	-35.20	11.16	-91.78	9.69	-76.66	4.10	-35.20	11.16	-91.78
(Bar Develop.) 74.582	0.52	-3.31	9.15	-75.30	4.11	-36.09	11.17	-94.04	9.67	-78.61	4.11	-36.09	11.17	-94.04
(PSXFR) 74.764	0.52	-3.33	9.14	-75.61	4.11	-36.25	11.18	-94.43	9.67	-78.94	4.11	-36.25	11.18	-94.43
(Bar Develop.) 75.642	0.52	-3.42	9.14	-77.14	4.11	-36.98	11.19	-96.30	9.66	-80.56	4.11	-36.98	11.19	-96.30
(SZB) 76.010	0.52	-3.46	9.14	-77.78	4.11	-37.29	11.19	-97.09	9.65	-81.24	4.11	-37.29	11.19	-97.09
(FoS) 77.014	0.52	-3.56	9.14	-79.54	4.12	-38.15	11.20	-99.23	9.66	-83.10	4.12	-38.15	11.20	-99.23
($1.0L_s$) 77.347	0.52	-3.60	9.14	-80.10	4.12	-38.42	11.20	-99.91	9.66	-83.70	4.12	-38.42	11.20	-99.91
77.347	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.764	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Shear, Vu

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
($0.0L_s$) 0.000	125.25	106.58	78.68	206.42	25.53	196.79	25.53
(STRF) 0.446	124.54	105.96	78.18	205.31	25.12	195.67	25.29
0.863	123.85	105.37	77.77	204.20	24.80	194.77	25.12
(FoS) 1.196	189.89	171.48	110.72	286.52	84.49	277.24	84.93
(SZB) 2.200	186.15	167.99	108.66	281.18	81.88	272.38	82.72
(Bar Develop.) 2.568	184.78	166.70	107.90	279.21	80.92	270.59	81.91
(PSXFR) 3.446	181.49	163.63	106.07	274.51	78.63	266.30	79.98
(Bar Develop.) 3.628	180.81	163.00	105.69	273.54	78.15	265.41	79.58
(H) 4.696	176.82	159.26	103.45	267.81	75.33	260.13	77.24
(SZB) 5.866	172.43	155.17	101.00	261.52	72.20	254.27	74.68
(1.5H) 6.446	170.24	153.13	99.77	258.39	70.53	251.34	73.41
($0.1L_s$) 7.735	165.40	148.61	97.06	251.44	66.79	244.81	70.60
(SZB) 11.366	151.73	135.87	89.27	231.77	56.05	226.15	62.73
($0.2L_s$) 15.469	136.25	121.47	80.37	209.45	43.58	204.50	53.93
(SZB) 19.616	120.64	106.97	71.22	186.88	30.61	182.10	45.15
(Deck Bar Cutoff) 21.733	112.65	99.56	66.51	175.32	23.82	170.41	40.70
($0.3L_s$) 23.204	107.12	94.43	63.22	167.31	19.05	162.22	36.35
(SZB) 30.616	79.24	68.59	46.41	126.87	-6.53	119.83	8.65
($0.4L_s$) 30.939	78.03	67.47	45.67	125.11	-7.74	117.95	7.00
(HP) 31.373	76.40	65.96	44.67	122.75	-9.37	115.40	4.77
($0.5L_s$) 38.673	49.05	40.63	28.51	83.03	-37.71	71.71	-31.39
($0.6L_s$) 46.408	20.45	14.10	11.55	45.71	-74.27	29.78	-69.20
(HP) 46.837	18.86	12.63	10.60	43.72	-76.45	27.63	-71.34
(SZB) 47.594	16.06	10.03	9.05	40.22	-80.32	23.80	-75.14
($0.7L_s$) 54.143	-7.21	-11.68	-1.98	12.91	-115.90	0.82	-109.98
(SZB) 58.594	-22.05	-25.67	-9.60	-3.78	-141.11	-14.45	-134.51
($0.8L_s$) 61.878	-32.98	-35.98	-15.29	-16.03	-160.18	-25.85	-152.99
(SZB) 66.844	-49.50	-51.58	-23.86	-34.46	-189.79	-37.75	-181.46
($0.9L_s$) 69.612	-56.76	-58.73	-27.19	-41.28	-206.71	-43.55	-197.65
(1.5H) 71.764	-62.11	-64.06	-29.79	-46.05	-220.05	-48.08	-210.35
(SZB) 72.344	-63.55	-65.50	-30.50	-47.33	-223.68	-49.31	-213.79
(H) 73.514	-66.46	-68.39	-31.92	-49.90	-231.02	-51.79	-220.76
(Bar Develop.) 74.582	-69.10	-71.04	-33.23	-52.23	-237.77	-54.06	-227.16
(PSXFR) 74.764	-69.55	-71.49	-33.45	-52.62	-238.93	-54.45	-228.26
(Bar Develop.) 75.642	-71.73	-73.66	-34.53	-54.53	-244.52	-56.33	-233.56
(SZB) 76.010	-72.64	-74.57	-34.98	-55.33	-246.88	-57.11	-235.78
(FoS) 77.014	-75.12	-77.05	-36.21	-57.49	-253.30	-59.26	-241.84
($1.0L_s$) 77.347	-75.94	-77.88	-36.62	-58.21	-255.40	-59.98	-243.81

Location from Left Support (ft)	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
	-79.96	-81.89	-38.63	-61.83	-260.42	-63.60	-248.83
77.347	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(STLF) 77.764	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Girder Line Pier Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)
Pier 2	0.00	0.00	178.24	25.62
Abutment 3	0.00	0.00	81.89	7.73

Girder Bearing Reactions

	DC (kip)	DW (kip)	ΣDC (kip)	ΣDW (kip)	Service I (kip)
Abutment 3 - Back	0.00	0.00	81.89	7.73	169.71

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.60	-0.52	80.10	-9.14	38.42	-4.12	99.91	-11.20	83.70	-9.66	38.42	-4.12	99.91	-11.20

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	169.71	153.69	102.43	254.12	62.73	248.83	63.60

Live Load Reactions Without Impact

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.60	-0.52	64.40	-7.47	33.41	-3.58	75.12	-8.42	68.00	-7.99	33.41	-3.58	75.12	-8.42

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Stresses

Product Load Stresses

At Release

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF, 0.0L_r) 0.000	0.000	0.000
(PSXFR) 3.000	-0.135	0.137
(0.1L_r) 7.732	-0.326	0.330
(0.2L_r) 15.463	-0.579	0.587
(0.3L_r) 23.195	-0.760	0.770
(HP, 0.4L_r) 30.927	-0.868	0.881
(0.5L_r) 38.659	-0.904	0.917
(HP, 0.6L_r) 46.390	-0.868	0.881
(0.7L_r) 54.122	-0.760	0.770
(0.8L_r) 61.854	-0.579	0.587
(0.9L_r) 69.585	-0.326	0.330
(PSXFR) 74.317	-0.135	0.137
(STLF, 1.0L_r) 77.317	0.000	0.000

During Storage

Location from End of Girder (ft)	f_t Girder (KSI)	f_b Girder (KSI)
(STRF) -0.417	0.000	0.000
(0.0L_{st}) 0.000	0.000	-0.000
(PSXFR) 2.583	-0.115	0.117
(0.1L_{st}) 7.648	-0.318	0.323
(0.2L_{st}) 15.297	-0.566	0.574
(0.3L_{st}) 22.945	-0.743	0.754
(HP) 30.510	-0.849	0.861
(0.4L_{st}) 30.593	-0.849	0.862
(0.5L_{st}) 38.242	-0.885	0.897
(0.6L_{st}) 45.890	-0.849	0.862
(HP) 45.974	-0.849	0.861
(0.7L_{st}) 53.539	-0.743	0.754
(0.8L_{st}) 61.187	-0.566	0.574
(0.9L_{st}) 68.835	-0.318	0.323
(PSXFR) 73.900	-0.115	0.117
(1.0L_{st}) 76.484	0.000	-0.000
(STLF) 76.900	0.000	0.000

Girder Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.052 f_b = -0.222	f_t = 0.022 f_b = -0.093	f_t = 0.043 f_b = -0.181	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.085	f_t = 0.405 f_b = 0.011	f_t = -0.002 f_b = -1.717	f_t = 0.126 f_b = 0.000	f_t = 0.000 f_b = -0.536	f_t = 0.431 f_b = 0.000	f_t = 0.000 f_b = -1.827
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.051 f_b = -0.216	f_t = 0.021 f_b = -0.091	f_t = 0.041 f_b = -0.176	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.396 f_b = 0.021	f_t = -0.005 f_b = -1.679	f_t = 0.126 f_b = 0.000	f_t = 0.000 f_b = -0.534	f_t = 0.422 f_b = 0.000	f_t = 0.000 f_b = -1.790
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.051 f_b = -0.216	f_t = 0.021 f_b = -0.091	f_t = 0.041 f_b = -0.176	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.396 f_b = 0.021	f_t = -0.005 f_b = -1.679	f_t = 0.126 f_b = 0.000	f_t = 0.000 f_b = -0.534	f_t = 0.422 f_b = 0.000	f_t = 0.000 f_b = -1.790
(PSXFR) 2.583	f_t = -0.116 f_b = 0.117	f_t = 0.000 f_b = 0.000	f_t = -0.135 f_b = 0.137	f_t = -0.020 f_b = 0.020	f_t = 0.042 f_b = -0.180	f_t = 0.018 f_b = -0.075	f_t = 0.034 f_b = -0.146	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.069	f_t = 0.342 f_b = 0.087	f_t = -0.020 f_b = -1.450	f_t = 0.122 f_b = 0.000	f_t = 0.000 f_b = -0.515	f_t = 0.368 f_b = 0.000	f_t = 0.000 f_b = -1.563
(0.1L_e) 7.648	f_t = -0.319 f_b = 0.323	f_t = 0.000 f_b = 0.000	f_t = -0.370 f_b = 0.375	f_t = -0.054 f_b = 0.055	f_t = 0.027 f_b = -0.114	f_t = 0.011 f_b = -0.048	f_t = 0.022 f_b = -0.093	f_t = 0.011 f_b = 0.005	f_t = -0.001 f_b = -0.049	f_t = 0.243 f_b = 0.296	f_t = -0.070 f_b = -1.031	f_t = 0.113 f_b = 0.067	f_t = -0.016 f_b = -0.480	f_t = 0.266 f_b = 0.059	f_t = -0.014 f_b = -1.126
(0.2L_e) 15.297	f_t = -0.566	f_t = 0.000	f_t = -0.650	f_t = -0.096	f_t = 0.007	f_t = 0.003	f_t = 0.006	f_t = 0.008	f_t = -0.005	f_t = 0.186	f_t = -0.172	f_t = 0.101	f_t = -0.094	f_t = 0.228	f_t = -0.194

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.574	f_b = 0.000	f_b = 0.660	f_b = 0.098	f_b = -0.030	f_b = -0.013	f_b = -0.024	f_b = 0.023	f_b = -0.035	f_b = 0.732	f_b = -0.790	f_b = 0.397	f_b = -0.427	f_b = 0.821	f_b = -0.968
($0.3L_e$) 22.945	f_t = -0.743	f_t = 0.000	f_t = -0.847	f_t = -0.126	f_t = -0.009	f_t = -0.004	f_t = -0.007	f_t = 0.007	f_t = -0.011	f_t = 0.166	f_t = -0.286	f_t = 0.090	f_t = -0.157	f_t = 0.204	f_t = -0.337
	f_b = 0.754	f_b = 0.000	f_b = 0.859	f_b = 0.128	f_b = 0.036	f_b = 0.015	f_b = 0.030	f_b = 0.044	f_b = -0.030	f_b = 1.193	f_b = -0.692	f_b = 0.656	f_b = -0.374	f_b = 1.405	f_b = -0.849
(HP) 30.510	f_t = -0.849	f_t = 0.000	f_t = -0.961	f_t = -0.144	f_t = -0.021	f_t = -0.009	f_t = -0.017	f_t = 0.006	f_t = -0.014	f_t = 0.146	f_t = -0.373	f_t = 0.079	f_t = -0.200	f_t = 0.179	f_t = -0.446
	f_b = 0.861	f_b = 0.000	f_b = 0.974	f_b = 0.146	f_b = 0.085	f_b = 0.035	f_b = 0.069	f_b = 0.058	f_b = -0.026	f_b = 1.523	f_b = -0.596	f_b = 0.816	f_b = -0.322	f_b = 1.821	f_b = -0.731
($0.4L_e$) 30.593	f_t = -0.849	f_t = 0.000	f_t = -0.961	f_t = -0.144	f_t = -0.021	f_t = -0.009	f_t = -0.017	f_t = 0.006	f_t = -0.014	f_t = 0.146	f_t = -0.374	f_t = 0.079	f_t = -0.200	f_t = 0.179	f_t = -0.447
	f_b = 0.862	f_b = 0.000	f_b = 0.975	f_b = 0.146	f_b = 0.085	f_b = 0.036	f_b = 0.069	f_b = 0.059	f_b = -0.026	f_b = 1.525	f_b = -0.595	f_b = 0.817	f_b = -0.322	f_b = 1.824	f_b = -0.729
($0.5L_e$) 38.242	f_t = -0.885	f_t = 0.000	f_t = -0.998	f_t = -0.150	f_t = -0.029	f_t = -0.012	f_t = -0.023	f_t = 0.005	f_t = -0.016	f_t = 0.123	f_t = -0.419	f_t = 0.067	f_t = -0.213	f_t = 0.151	f_t = -0.512
	f_b = 0.898	f_b = 0.000	f_b = 1.012	f_b = 0.152	f_b = 0.116	f_b = 0.049	f_b = 0.094	f_b = 0.066	f_b = -0.022	f_b = 1.691	f_b = -0.497	f_b = 0.858	f_b = -0.268	f_b = 2.067	f_b = -0.609
($0.6L_e$) 45.890	f_t = -0.849	f_t = 0.000	f_t = -0.956	f_t = -0.144	f_t = -0.032	f_t = -0.013	f_t = -0.026	f_t = 0.004	f_t = -0.017	f_t = 0.099	f_t = -0.426	f_t = 0.053	f_t = -0.225	f_t = 0.121	f_t = -0.512
	f_b = 0.862	f_b = 0.000	f_b = 0.970	f_b = 0.146	f_b = 0.129	f_b = 0.054	f_b = 0.105	f_b = 0.067	f_b = -0.017	f_b = 1.719	f_b = -0.397	f_b = 0.908	f_b = -0.215	f_b = 2.062	f_b = -0.487
(HP) 45.974	f_t = -0.849	f_t = 0.000	f_t = -0.955	f_t = -0.144	f_t = -0.032	f_t = -0.013	f_t = -0.026	f_t = 0.004	f_t = -0.016	f_t = 0.098	f_t = -0.426	f_t = 0.053	f_t = -0.225	f_t = 0.120	f_t = -0.511
	f_b = 0.861	f_b = 0.000	f_b = 0.969	f_b = 0.146	f_b = 0.129	f_b = 0.054	f_b = 0.105	f_b = 0.066	f_b = -0.017	f_b = 1.718	f_b = -0.396	f_b = 0.908	f_b = -0.214	f_b = 2.061	f_b = -0.486
($0.7L_e$) 53.539	f_t = -0.743	f_t = 0.000	f_t = -0.837	f_t = -0.126	f_t = -0.030	f_t = -0.013	f_t = -0.025	f_t = 0.003	f_t = -0.015	f_t = 0.073	f_t = -0.388	f_t = 0.040	f_t = -0.211	f_t = 0.090	f_t = -0.468
	f_b = 0.754	f_b = 0.000	f_b = 0.849	f_b = 0.128	f_b = 0.123	f_b = 0.052	f_b = 0.100	f_b = 0.060	f_b = -0.013	f_b = 1.576	f_b = -0.298	f_b = 0.858	f_b = -0.161	f_b = 1.902	f_b = -0.365
($0.8L_e$) 61.187	f_t = -0.566	f_t = 0.000	f_t = -0.640	f_t = -0.096	f_t = -0.024	f_t = -0.010	f_t = -0.020	f_t = 0.002	f_t = -0.011	f_t = 0.048	f_t = -0.307	f_t = 0.026	f_t = -0.166	f_t = 0.059	f_t = -0.369
	f_b = 0.574	f_b = 0.000	f_b = 0.649	f_b = 0.098	f_b = 0.100	f_b = 0.042	f_b = 0.081	f_b = 0.047	f_b = -0.009	f_b = 1.270	f_b = -0.198	f_b = 0.688	f_b = -0.107	f_b = 1.530	f_b = -0.243
($0.9L_e$) 68.835	f_t = -0.319	f_t = 0.000	f_t = -0.362	f_t = -0.054	f_t = -0.014	f_t = -0.006	f_t = -0.011	f_t = 0.001	f_t = -0.006	f_t = 0.023	f_t = -0.176	f_t = 0.013	f_t = -0.099	f_t = 0.029	f_t = -0.215
	f_b = 0.323	f_b = 0.000	f_b = 0.367	f_b = 0.055	f_b = 0.059	f_b = 0.025	f_b = 0.048	f_b = 0.027	f_b = -0.004	f_b = 0.748	f_b = -0.099	f_b = 0.419	f_b = -0.053	f_b = 0.913	f_b = -0.121
(PSXFR) 73.900	f_t = -0.116	f_t = 0.000	f_t = -0.132	f_t = -0.020	f_t = -0.005	f_t = -0.002	f_t = -0.004	f_t = 0.000	f_t = -0.002	f_t = 0.008	f_t = -0.066	f_t = 0.004	f_t = -0.038	f_t = 0.010	f_t = -0.081
	f_b = 0.117	f_b = 0.000	f_b = 0.134	f_b = 0.020	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.010	f_b = -0.001	f_b = 0.279	f_b = -0.033	f_b = 0.159	f_b = -0.018	f_b = 0.345	f_b = -0.041
($1.0L_e$) 76.484	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
76.484	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(STLF) 76.900	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000

* Live Load values are per lane and include impact.

Deck Stresses

Location from Left Support (ft)	Girder (KSI)	Diaphragm (KSI)	Slab (KSI)	Haunch (KSI)	Sidewalk (KSI)	Railing System (KSI)	Overlay (KSI)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(STRF) -0.417	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.092	f_t = 0.039	f_t = 0.075	f_t = 0.035	f_t = 0.000	f_t = 0.711	f_t = -0.004	f_t = 0.222	f_t = 0.000	f_t = 0.756	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.043	f_b = 0.018	f_b = 0.035	f_b = 0.017	f_b = 0.000	f_b = 0.335	f_b = -0.002	f_b = 0.105	f_b = 0.000	f_b = 0.356	f_b = 0.000
0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.090	f_t = 0.037	f_t = 0.073	f_t = 0.034	f_t = -0.000	f_t = 0.695	f_t = -0.009	f_t = 0.221	f_t = 0.000	f_t = 0.741	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.018	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.327	f_b = -0.004	f_b = 0.104	f_b = 0.000	f_b = 0.349	f_b = 0.000
($0.0L_e$) 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.090	f_t = 0.037	f_t = 0.073	f_t = 0.034	f_t = -0.000	f_t = 0.695	f_t = -0.009	f_t = 0.221	f_t = 0.000	f_t = 0.741	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.042	f_b = 0.018	f_b = 0.034	f_b = 0.016	f_b = 0.000	f_b = 0.327	f_b = -0.004	f_b = 0.104	f_b = 0.000	f_b = 0.349	f_b = 0.000
(PSXFR) 2.583	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.074	f_t = 0.031	f_t = 0.061	f_t = 0.029	f_t = -0.000	f_t = 0.600	f_t = -0.036	f_t = 0.213	f_t = 0.000	f_t = 0.647	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.035	f_b = 0.015	f_b = 0.029	f_b = 0.013	f_b = -0.000	f_b = 0.283	f_b = -0.017	f_b = 0.101	f_b = 0.000	f_b = 0.305	f_b = 0.000
($0.1L_e$) 7.648	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.047	f_t = 0.020	f_t = 0.038	f_t = 0.020	f_t = -0.002	f_t = 0.427	f_t = -0.123	f_t = 0.199	f_t = -0.028	f_t = 0.466	f_t = -0.024
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.022	f_b = 0.009	f_b = 0.018	f_b = 0.009	f_b = -0.001	f_b = 0.201	f_b = -0.058	f_b = 0.094	f_b = -0.013	f_b = 0.220	f_b = -0.011
($0.2L_e$) 15.297	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.012	f_t = 0.005	f_t = 0.010	f_t = 0.014	f_t = -0.010	f_t = 0.327	f_t = -0.303	f_t = 0.177	f_t = -0.164	f_t = 0.401	f_t = -0.340
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.006	f_b = 0.002	f_b = 0.005	f_b = 0.007	f_b = -0.005	f_b = 0.154	f_b = -0.143	f_b = 0.083	f_b = -0.077	f_b = 0.189	f_b = -0.160
($0.3L_e$) 22.945	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.015	f_t = -0.006	f_t = -0.012	f_t = 0.013	f_t = -0.019	f_t = 0.290	f_t = -0.499	f_t = 0.157	f_t = -0.274	f_t = 0.355	f_t = -0.588
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.007	f_b = -0.003	f_b = -0.006	f_b = 0.006	f_b = -0.009	f_b = 0.138	f_b = -0.237	f_b = 0.074	f_b = -0.130	f_b = 0.169	f_b = -0.279
(HP) 30.510	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.036	f_t = -0.015	f_t = -0.029	f_t = 0.011	f_t = -0.025	f_t = 0.252	f_t = -0.645	f_t = 0.136	f_t = -0.346	f_t = 0.309	f_t = -0.771
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.017	f_b = -0.007	f_b = -0.014	f_b = 0.005	f_b = -0.012	f_b = 0.121	f_b = -0.309	f_b = 0.065	f_b = -0.165	f_b = 0.148	f_b = -0.369
($0.4L_e$) 30.593	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.036	f_t = -0.015	f_t = -0.029	f_t = 0.011	f_t = -0.025	f_t = 0.252	f_t = -0.646	f_t = 0.136	f_t = -0.346	f_t = 0.309	f_t = -0.772
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.017	f_b = -0.007	f_b = -0.014	f_b = 0.005	f_b = -0.012	f_b = 0.121	f_b = -0.309	f_b = 0.065	f_b = -0.166	f_b = 0.148	f_b = -0.370
($0.5L_e$) 38.242	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.049	f_t = -0.021	f_t = -0.040	f_t = 0.009	f_t = -0.028	f_t = 0.212	f_t = -0.721	f_t = 0.114	f_t = -0.366	f_t = 0.259	f_t = -0.881
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.024	f_b = -0.010	f_b = -0.019	f_b = 0.004	f_b = -0.014	f_b = 0.102	f_b = -0.347	f_b = 0.055	f_b = -0.176	f_b = 0.125	f_b = -0.424
($0.6L_e$) 45.890	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.055	f_t = -0.023	f_t = -0.045	f_t = 0.007	f_t = -0.028	f_t = 0.169	f_t = -0.733	f_t = 0.092	f_t = -0.387	f_t = 0.208	f_t = -0.879
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.026	f_b = -0.011	f_b = -0.021	f_b = 0.004	f_b = -0.014	f_b = 0.082	f_b = -0.353	f_b = 0.044	f_b = -0.186	f_b = 0.100	f_b = -0.423
(HP) 45.974	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.055	f_t = -0.023	f_t = -0.045	f_t = 0.007	f_t = -0.028	f_t = 0.169	f_t = -0.733	f_t = 0.091	f_t = -0.387	f_t = 0.207	f_t = -0.879
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.026	f_b = -0.011	f_b = -0.021	f_b = 0.004	f_b = -0.014	f_b = 0.081	f_b = -0.353	f_b = 0.044	f_b = -0.186	f_b = 0.100	f_b = -0.423
($0.7L_e$) 53.539	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.052	f_t = -0.022	f_t = -0.043	f_t = 0.006	f_t = -0.026	f_t = 0.126	f_t = -0.669	f_t = 0.068	f_t = -0.364	f_t = 0.155	f_t = -0.807
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.025	f_b = -0.011	f_b = -0.020	f_b = 0.003	f_b = -0.012	f_b = 0.061	f_b = -0.321	f_b = 0.033	f_b = -0.174	f_b = 0.074	f_b = -0.387
($0.8L_e$) 61.187	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.042	f_t = -0.018	f_t = -0.034	f_t = 0.004	f_t = -0.020	f_t = 0.083	f_t = -0.533	f_t = 0.045	f_t = -0.289	f_t = 0.102	f_t = -0.642
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.020	f_b = -0.008	f_b = -0.016	f_b = 0.002	f_b = -0.009	f_b = 0.040	f_b = -0.254	f_b = 0.021	f_b = -0.137	f_b = 0.048	f_b = -0.305
($0.9L_e$) 68.835	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.024	f_t = -0.010	f_t = -0.020	f_t = 0.002	f_t = -0.011	f_t = 0.041	f_t = -0.310	f_t = 0.022	f_t = -0.173	f_t = 0.050	f_t = -0.378
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.011	f_b = -0.005	f_b = -0.009	f_b = 0.001	f_b = -0.005	f_b = 0.019	f_b = -0.146	f_b = 0.010	f_b = -0.082	f_b = 0.024	f_b = -0.178
(PSXFR) 73.900	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = -0.009	f_t = -0.004	f_t = -0.007	f_t = 0.001	f_t = -0.004	f_t = 0.014	f_t = -0.115	f_t = 0.007	f_t = -0.066	f_t = 0.017	f_t = -0.143
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = -0.004	f_b = -0.002	f_b = -0.003	f_b = 0.000	f_b = -0.002	f_b = 0.007	f_b = -0.054	f_b = 0.004	f_b = -0.031	f_b = 0.008	f_b = -0.067
($1.0L_e$) 76.484	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
76.484	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000
(STLF) 76.900	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000	f_t = 0.000
	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000	f_b = 0.000

* Live Load values are per lane and include impact.

Girder Stresses due to User Defined Loads in Interval 11: Cast Deck, Apply User Defined Loads

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
8.512	f_t = -0.009 f_b = 0.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
16.160	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
23.808	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
31.457	f_t = -0.025 f_b = 0.026	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
39.105	f_t = -0.026 f_b = 0.027	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
46.753	f_t = -0.025 f_b = 0.026	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
54.402	f_t = -0.022 f_b = 0.022	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
62.050	f_t = -0.017 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
69.699	f_t = -0.009 f_b = 0.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = -0.031	f_t = 0.000 f_b = 0.000
8.512	f_t = 0.000 f_b = 0.000	f_t = 0.004 f_b = -0.016	f_t = 0.000 f_b = 0.000
16.160	f_t = 0.000 f_b = 0.000	f_t = 0.001 f_b = -0.004	f_t = 0.000 f_b = 0.000
23.808	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = 0.005	f_t = 0.000 f_b = 0.000
31.457	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.012	f_t = 0.000 f_b = 0.000
39.105	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.017	f_t = 0.000 f_b = 0.000
46.753	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = 0.018	f_t = 0.000 f_b = 0.000
54.402	f_t = 0.000 f_b = 0.000	f_t = -0.004 f_b = 0.018	f_t = 0.000 f_b = 0.000
62.050	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = 0.014	f_t = 0.000 f_b = 0.000
69.699	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = 0.008	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Deck Stresses due to User Defined Loads in Interval 15: Apply User Defined Loads, Install Railing System and Overlay

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.013 f_b = 0.006	f_t = 0.000 f_b = 0.000
8.512	f_t = 0.000 f_b = 0.000	f_t = 0.007 f_b = 0.003	f_t = 0.000 f_b = 0.000
16.160	f_t = 0.000 f_b = 0.000	f_t = 0.002 f_b = 0.001	f_t = 0.000 f_b = 0.000
23.808	f_t = 0.000	f_t = -0.002	f_t = 0.000

Location from Left Support (ft)	User DC (KSI)	User DW (KSI)	User LL+IM (KSI)
	f_b = 0.000	f_b = -0.001	f_b = 0.000
31.457	f_t = 0.000 f_b = 0.000	f_t = -0.005 f_b = -0.002	f_t = 0.000 f_b = 0.000
39.105	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.000
46.753	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
54.402	f_t = 0.000 f_b = 0.000	f_t = -0.008 f_b = -0.004	f_t = 0.000 f_b = 0.000
62.050	f_t = 0.000 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.000 f_b = 0.000
69.699	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.002	f_t = 0.000 f_b = 0.000
($1.0L_s$) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 2: Prestress Release

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF, $0.0L_T$) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.750	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(SZB) 1.753	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.121	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000
(PSXFR) 3.000	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.182	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000
(H) 4.250	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000
(SZB) 5.419	f_t = -0.236 f_b = 0.239	f_t = 0.000 f_b = 0.000	f_t = -0.236 f_b = 0.239	f_t = 0.000 f_b = 0.000
(1.5H) 6.000	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000
($0.1L_T$) 7.732	f_t = -0.326 f_b = 0.330	f_t = 0.000 f_b = 0.000	f_t = -0.326 f_b = 0.330	f_t = 0.000 f_b = 0.000
(SZB) 10.919	f_t = -0.439 f_b = 0.445	f_t = 0.000 f_b = 0.000	f_t = -0.439 f_b = 0.445	f_t = 0.000 f_b = 0.000
($0.2L_T$) 15.463	f_t = -0.579 f_b = 0.587	f_t = 0.000 f_b = 0.000	f_t = -0.579 f_b = 0.587	f_t = 0.000 f_b = 0.000
(SZB) 19.169	f_t = -0.674 f_b = 0.684	f_t = 0.000 f_b = 0.000	f_t = -0.674 f_b = 0.684	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 21.286	f_t = -0.722 f_b = 0.732	f_t = 0.000 f_b = 0.000	f_t = -0.722 f_b = 0.732	f_t = 0.000 f_b = 0.000
($0.3L_T$) 23.195	f_t = -0.760 f_b = 0.770	f_t = 0.000 f_b = 0.000	f_t = -0.760 f_b = 0.770	f_t = 0.000 f_b = 0.000
(SZB) 30.169	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000
(HP, $0.4L_T$) 30.927	f_t = -0.868 f_b = 0.881	f_t = 0.000 f_b = 0.000	f_t = -0.868 f_b = 0.881	f_t = 0.000 f_b = 0.000
($0.5L_T$) 38.659	f_t = -0.904 f_b = 0.917	f_t = 0.000 f_b = 0.000	f_t = -0.904 f_b = 0.917	f_t = 0.000 f_b = 0.000
(HP, $0.6L_T$) 46.390	f_t = -0.868 f_b = 0.881	f_t = 0.000 f_b = 0.000	f_t = -0.868 f_b = 0.881	f_t = 0.000 f_b = 0.000
(SZB) 47.148	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000	f_t = -0.861 f_b = 0.873	f_t = 0.000 f_b = 0.000
($0.7L_T$) 54.122	f_t = -0.760 f_b = 0.770	f_t = 0.000 f_b = 0.000	f_t = -0.760 f_b = 0.770	f_t = 0.000 f_b = 0.000
(SZB) 58.148	f_t = -0.674 f_b = 0.684	f_t = 0.000 f_b = 0.000	f_t = -0.674 f_b = 0.684	f_t = 0.000 f_b = 0.000
($0.8L_T$) 61.854	f_t = -0.579 f_b = 0.587	f_t = 0.000 f_b = 0.000	f_t = -0.579 f_b = 0.587	f_t = 0.000 f_b = 0.000
(SZB) 66.398	f_t = -0.439 f_b = 0.445	f_t = 0.000 f_b = 0.000	f_t = -0.439 f_b = 0.445	f_t = 0.000 f_b = 0.000
($0.9L_T$) 69.585	f_t = -0.326 f_b = 0.330	f_t = 0.000 f_b = 0.000	f_t = -0.326 f_b = 0.330	f_t = 0.000 f_b = 0.000
(1.5H) 71.317	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000	f_t = -0.259 f_b = 0.263	f_t = 0.000 f_b = 0.000
(SZB) 71.898				

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_t = -0.236 f_b = 0.239	f_t = 0.000 f_b = 0.000	f_t = -0.236 f_b = 0.239	f_t = 0.000 f_b = 0.000
(H) 73.067	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000	f_t = -0.188 f_b = 0.191	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.135	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000	f_t = -0.143 f_b = 0.145	f_t = 0.000 f_b = 0.000
(PSXFR) 74.317	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000	f_t = -0.135 f_b = 0.137	f_t = 0.000 f_b = 0.000
(Bar Develop.) 75.196	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000	f_t = -0.097 f_b = 0.098	f_t = 0.000 f_b = 0.000
(SZB) 75.564	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000	f_t = -0.080 f_b = 0.081	f_t = 0.000 f_b = 0.000
(FoS) 76.567	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = 0.035	f_t = 0.000 f_b = 0.000
(STLF, 1.0L_t) 77.317	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 11: Cast Deck, Apply User Defined Loads

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(STRF) -0.417	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(0.0L_e) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(FoS) 0.333	f_t = -0.021 f_b = 0.021	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = 0.037	f_t = 0.000 f_b = 0.000
(SZB) 1.337	f_t = -0.083 f_b = 0.085	f_t = 0.000 f_b = 0.000	f_t = -0.144 f_b = 0.146	f_t = 0.000 f_b = 0.000
(Bar Develop.) 1.705	f_t = -0.106 f_b = 0.107	f_t = 0.000 f_b = 0.000	f_t = -0.183 f_b = 0.186	f_t = 0.000 f_b = 0.000
(PSXFR) 2.583	f_t = -0.158 f_b = 0.161	f_t = 0.000 f_b = 0.000	f_t = -0.274 f_b = 0.278	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.765	f_t = -0.169 f_b = 0.171	f_t = 0.000 f_b = 0.000	f_t = -0.292 f_b = 0.297	f_t = 0.000 f_b = 0.000
(H) 3.833	f_t = -0.231 f_b = 0.234	f_t = 0.000 f_b = 0.000	f_t = -0.399 f_b = 0.405	f_t = 0.000 f_b = 0.000
(SZB) 5.003	f_t = -0.296 f_b = 0.300	f_t = 0.000 f_b = 0.000	f_t = -0.512 f_b = 0.519	f_t = 0.000 f_b = 0.000
(1.5H) 5.583	f_t = -0.327 f_b = 0.332	f_t = 0.000 f_b = 0.000	f_t = -0.567 f_b = 0.575	f_t = 0.000 f_b = 0.000
(0.1L_e) 7.648	f_t = -0.434 f_b = 0.440	f_t = 0.000 f_b = 0.000	f_t = -0.752 f_b = 0.763	f_t = 0.000 f_b = 0.000
(SZB) 10.503	f_t = -0.569 f_b = 0.577	f_t = 0.000 f_b = 0.000	f_t = -0.988 f_b = 1.002	f_t = 0.000 f_b = 0.000
(0.2L_e) 15.297	f_t = -0.764 f_b = 0.775	f_t = 0.000 f_b = 0.000	f_t = -1.330 f_b = 1.349	f_t = 0.000 f_b = 0.000
(SZB) 18.753	f_t = -0.880 f_b = 0.893	f_t = 0.000 f_b = 0.000	f_t = -1.535 f_b = 1.557	f_t = 0.000 f_b = 0.000
(Deck Bar Cutoff) 20.870	f_t = -0.942 f_b = 0.955	f_t = 0.000 f_b = 0.000	f_t = -1.644 f_b = 1.668	f_t = 0.000 f_b = 0.000
(0.3L_e) 22.945	f_t = -0.995 f_b = 1.009	f_t = 0.000 f_b = 0.000	f_t = -1.738 f_b = 1.763	f_t = 0.000 f_b = 0.000
(SZB) 29.753	f_t = -1.120 f_b = 1.136	f_t = 0.000 f_b = 0.000	f_t = -1.962 f_b = 1.990	f_t = 0.000 f_b = 0.000
(HP) 30.510	f_t = -1.130 f_b = 1.146	f_t = 0.000 f_b = 0.000	f_t = -1.978 f_b = 2.007	f_t = 0.000 f_b = 0.000
(0.4L_e) 30.593	f_t = -1.131 f_b = 1.147	f_t = 0.000 f_b = 0.000	f_t = -1.980 f_b = 2.009	f_t = 0.000 f_b = 0.000
(0.5L_e) 38.242	f_t = -1.174 f_b = 1.191	f_t = 0.000 f_b = 0.000	f_t = -2.059 f_b = 2.088	f_t = 0.000 f_b = 0.000
(0.6L_e) 45.890	f_t = -1.125 f_b = 1.142	f_t = 0.000 f_b = 0.000	f_t = -1.975 f_b = 2.003	f_t = 0.000 f_b = 0.000
(HP) 45.974	f_t = -1.124 f_b = 1.141	f_t = 0.000 f_b = 0.000	f_t = -1.973 f_b = 2.001	f_t = 0.000 f_b = 0.000
(SZB) 46.731	f_t = -1.115 f_b = 1.131	f_t = 0.000 f_b = 0.000	f_t = -1.956 f_b = 1.984	f_t = 0.000 f_b = 0.000
(0.7L_e) 53.539	f_t = -0.986 f_b = 1.000	f_t = 0.000 f_b = 0.000	f_t = -1.729 f_b = 1.754	f_t = 0.000 f_b = 0.000
(SZB) 57.731	f_t = -0.870 f_b = 0.882	f_t = 0.000 f_b = 0.000	f_t = -1.525 f_b = 1.547	f_t = 0.000 f_b = 0.000
(0.8L_e) 61.187	f_t = -0.753	f_t = 0.000	f_t = -1.319	f_t = 0.000

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.764	f_b = 0.000	f_b = 1.338	f_b = 0.000
(SZB) 65.981	f_t = -0.559 f_b = 0.567	f_t = 0.000 f_b = 0.000	f_t = -0.978 f_b = 0.993	f_t = 0.000 f_b = 0.000
(0.9L_e) 68.835	f_t = -0.426 f_b = 0.432	f_t = 0.000 f_b = 0.000	f_t = -0.744 f_b = 0.755	f_t = 0.000 f_b = 0.000
(1.5H) 70.900	f_t = -0.321 f_b = 0.325	f_t = 0.000 f_b = 0.000	f_t = -0.560 f_b = 0.568	f_t = 0.000 f_b = 0.000
(SZB) 71.481	f_t = -0.290 f_b = 0.294	f_t = 0.000 f_b = 0.000	f_t = -0.506 f_b = 0.513	f_t = 0.000 f_b = 0.000
(H) 72.650	f_t = -0.226 f_b = 0.229	f_t = 0.000 f_b = 0.000	f_t = -0.394 f_b = 0.400	f_t = 0.000 f_b = 0.000
(Bar Develop.) 73.718	f_t = -0.166 f_b = 0.168	f_t = 0.000 f_b = 0.000	f_t = -0.289 f_b = 0.293	f_t = 0.000 f_b = 0.000
(PSXFR) 73.900	f_t = -0.155 f_b = 0.157	f_t = 0.000 f_b = 0.000	f_t = -0.271 f_b = 0.274	f_t = 0.000 f_b = 0.000
(Bar Develop.) 74.779	f_t = -0.104 f_b = 0.105	f_t = 0.000 f_b = 0.000	f_t = -0.181 f_b = 0.183	f_t = 0.000 f_b = 0.000
(SZB) 75.147	f_t = -0.082 f_b = 0.083	f_t = 0.000 f_b = 0.000	f_t = -0.142 f_b = 0.145	f_t = 0.000 f_b = 0.000
(FoS) 76.150	f_t = -0.021 f_b = 0.021	f_t = 0.000 f_b = 0.000	f_t = -0.036 f_b = 0.037	f_t = 0.000 f_b = 0.000
(1.0L_e) 76.484	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
76.484	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 76.900	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Combined Stresses - Interval 17: Open to Traffic

Girder Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.063 f_b = -0.269	f_t = 0.043 f_b = -0.181
(STRF) 0.446	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.074 f_b = -0.315	f_t = 0.050 f_b = -0.213
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.072 f_b = -0.307	f_t = 0.049 f_b = -0.207
(FoS) 1.196	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.034 f_b = -0.263	f_t = 0.048 f_b = -0.202
(SZB) 2.200	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.078 f_b = -0.133	f_t = 0.044 f_b = -0.189
(Bar Develop.) 2.568	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.119 f_b = -0.087	f_t = 0.043 f_b = -0.184
(PSXFR) 3.446	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.214 f_b = 0.023	f_t = 0.041 f_b = -0.172
(Bar Develop.) 3.628	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.233 f_b = 0.045	f_t = 0.040 f_b = -0.170
(H) 4.696	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.345 f_b = 0.174	f_t = 0.037 f_b = -0.156
(SZB) 5.866	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.463 f_b = 0.310	f_t = 0.033 f_b = -0.141
(1.5H) 6.446	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.520 f_b = 0.376	f_t = 0.032 f_b = -0.134
(0.1L_s) 7.735	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.643 f_b = 0.518	f_t = 0.028 f_b = -0.118
(SZB) 11.366	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.961 f_b = 0.888	f_t = 0.018 f_b = -0.077
(0.2L_s) 15.469	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.273 f_b = 1.251	f_t = 0.008 f_b = -0.035
(SZB) 19.616	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.536 f_b = 1.560	f_t = -0.000 f_b = 0.002
(Deck Bar Cutoff) 21.733	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.651 f_b = 1.696	f_t = -0.005 f_b = 0.019
(0.3L_s) 23.204	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.723 f_b = 1.781	f_t = -0.007 f_b = 0.030
(SZB) 30.616	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.990 f_b = 2.104	f_t = -0.019 f_b = 0.077
(0.4L_s) 30.939	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.998 f_b = 2.114	f_t = -0.019 f_b = 0.079
(HP) 31.373	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.008 f_b = 2.127	f_t = -0.020 f_b = 0.081
(0.5L_s) 38.673	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.099 f_b = 2.251	f_t = -0.027 f_b = 0.110

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.6L$_s$) 46.408	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.027 f_b = 2.193	f_t = -0.031 f_b = 0.123
(HP) 46.837	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.018 f_b = 2.184	f_t = -0.031 f_b = 0.123
(SZB) 47.594	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -2.001 f_b = 2.167	f_t = -0.031 f_b = 0.123
(0.7L$_s$) 54.143	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.783 f_b = 1.940	f_t = -0.029 f_b = 0.118
(SZB) 58.594	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.564 f_b = 1.707	f_t = -0.026 f_b = 0.108
(0.8L$_s$) 61.878	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.365 f_b = 1.492	f_t = -0.023 f_b = 0.096
(SZB) 66.844	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -1.004 f_b = 1.101	f_t = -0.017 f_b = 0.073
(0.9L$_s$) 69.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.772 f_b = 0.847	f_t = -0.013 f_b = 0.057
(1.5H) 71.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.575 f_b = 0.632	f_t = -0.010 f_b = 0.043
(SZB) 72.344	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.520 f_b = 0.571	f_t = -0.009 f_b = 0.039
(H) 73.514	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.405 f_b = 0.445	f_t = -0.007 f_b = 0.030
(Bar Develop.) 74.582	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.297 f_b = 0.326	f_t = -0.005 f_b = 0.022
(PSXFR) 74.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.278 f_b = 0.305	f_t = -0.005 f_b = 0.021
(Bar Develop.) 75.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.186 f_b = 0.204	f_t = -0.003 f_b = 0.014
(SZB) 76.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.146 f_b = 0.161	f_t = -0.003 f_b = 0.011
(FoS) 77.014	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.037 f_b = 0.041	f_t = -0.001 f_b = 0.003
(1.0L$_s$) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Girder Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.0L$_s$) 0.000	f_t = 0.017 f_b = 0.000	f_t = 0.000 f_b = -0.072	f_t = 0.254 f_b = 0.000	f_t = 0.000 f_b = -1.079	f_t = 0.065 f_b = 0.000	f_t = 0.000 f_b = -0.276	f_t = 0.271 f_b = 0.000	f_t = 0.000 f_b = -1.151	f_t = 0.065 f_b = 0.000	f_t = 0.000 f_b = -0.276
(STRF) 0.446	f_t = 0.020 f_b = 0.000	f_t = 0.000 f_b = -0.085	f_t = 0.300 f_b = 0.008	f_t = -0.002 f_b = -1.274	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.332	f_t = 0.320 f_b = 0.008	f_t = -0.002 f_b = -1.359	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.332
0.863	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.082	f_t = 0.294 f_b = 0.015	f_t = -0.004 f_b = -1.246	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.330	f_t = 0.313 f_b = 0.015	f_t = -0.004 f_b = -1.328	f_t = 0.078 f_b = 0.000	f_t = 0.000 f_b = -0.330
(FoS) 1.196	f_t = 0.019 f_b = 0.000	f_t = -0.000 f_b = -0.081	f_t = 0.289 f_b = 0.021	f_t = -0.005 f_b = -1.224	f_t = 0.077 f_b = 0.000	f_t = 0.000 f_b = -0.329	f_t = 0.308 f_b = 0.021	f_t = -0.005 f_b = -1.304	f_t = 0.077 f_b = 0.000	f_t = 0.000 f_b = -0.329
(SZB) 2.200	f_t = 0.018 f_b = 0.000	f_t = -0.000 f_b = -0.075	f_t = 0.273 f_b = 0.040	f_t = -0.009 f_b = -1.157	f_t = 0.076 f_b = 0.000	f_t = 0.000 f_b = -0.324	f_t = 0.291 f_b = 0.040	f_t = -0.009 f_b = -1.232	f_t = 0.076 f_b = 0.000	f_t = 0.000 f_b = -0.324
(Bar Develop.) 2.568	f_t = 0.017 f_b = 0.000	f_t = -0.000 f_b = -0.073	f_t = 0.267 f_b = 0.047	f_t = -0.011 f_b = -1.133	f_t = 0.076 f_b = 0.000	f_t = 0.000 f_b = -0.323	f_t = 0.284 f_b = 0.047	f_t = -0.011 f_b = -1.206	f_t = 0.076 f_b = 0.000	f_t = 0.000 f_b = -0.323
(PSXFR) 3.446	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.069	f_t = 0.254 f_b = 0.064	f_t = -0.015 f_b = -1.076	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.319	f_t = 0.270 f_b = 0.065	f_t = -0.015 f_b = -1.145	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.319
(Bar Develop.) 3.628	f_t = 0.016 f_b = 0.001	f_t = -0.000 f_b = -0.068	f_t = 0.251 f_b = 0.068	f_t = -0.016 f_b = -1.064	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.318	f_t = 0.267 f_b = 0.069	f_t = -0.016 f_b = -1.132	f_t = 0.075 f_b = 0.000	f_t = 0.000 f_b = -0.318
(H) 4.696	f_t = 0.015 f_b = 0.001	f_t = -0.000 f_b = -0.063	f_t = 0.235 f_b = 0.092	f_t = -0.022 f_b = -0.996	f_t = 0.074 f_b = 0.000	f_t = 0.000 f_b = -0.313	f_t = 0.250 f_b = 0.093	f_t = -0.022 f_b = -1.059	f_t = 0.074 f_b = 0.000	f_t = 0.000 f_b = -0.313
(SZB) 5.866	f_t = 0.014 f_b = 0.002	f_t = -0.001 f_b = -0.058	f_t = 0.218 f_b = 0.130	f_t = -0.031 f_b = -0.926	f_t = 0.073 f_b = 0.000	f_t = 0.000 f_b = -0.308	f_t = 0.232 f_b = 0.132	f_t = -0.031 f_b = -0.985	f_t = 0.073 f_b = 0.000	f_t = 0.000 f_b = -0.308
(1.5H) 6.446	f_t = 0.013 f_b = 0.003	f_t = -0.001 f_b = -0.056	f_t = 0.210 f_b = 0.149	f_t = -0.035 f_b = -0.892	f_t = 0.072 f_b = 0.000	f_t = 0.000 f_b = -0.306	f_t = 0.224 f_b = 0.152	f_t = -0.036 f_b = -0.948	f_t = 0.072 f_b = 0.000	f_t = 0.000 f_b = -0.306
(0.1L$_s$) 7.735	f_t = 0.012 f_b = 0.004	f_t = -0.001 f_b = -0.051	f_t = 0.191 f_b = 0.193	f_t = -0.045 f_b = -0.811	f_t = 0.071 f_b = 0.020	f_t = -0.005 f_b = -0.300	f_t = 0.203 f_b = 0.197	f_t = -0.046 f_b = -0.862	f_t = 0.071 f_b = 0.020	f_t = -0.005 f_b = -0.300
(SZB) 11.366	f_t = 0.010 f_b = 0.010	f_t = -0.002 f_b = -0.041	f_t = 0.153 f_b = 0.323	f_t = -0.076 f_b = -0.648	f_t = 0.067 f_b = 0.123	f_t = -0.029 f_b = -0.285	f_t = 0.162 f_b = 0.333	f_t = -0.078 f_b = -0.689	f_t = 0.067 f_b = 0.123	f_t = -0.029 f_b = -0.285
(0.2L$_s$) 15.469	f_t = 0.008 f_b = 0.021	f_t = -0.005 f_b = -0.035	f_t = 0.140 f_b = 0.508	f_t = -0.120 f_b = -0.593	f_t = 0.063 f_b = 0.229	f_t = -0.054 f_b = -0.267	f_t = 0.148 f_b = 0.529	f_t = -0.125 f_b = -0.628	f_t = 0.063 f_b = 0.229	f_t = -0.054 f_b = -0.267
(SZB) 19.616	f_t = 0.008 f_b = 0.034	f_t = -0.008 f_b = -0.033	f_t = 0.131 f_b = 0.709	f_t = -0.168 f_b = -0.552	f_t = 0.059 f_b = 0.324	f_t = -0.077 f_b = -0.249	f_t = 0.138 f_b = 0.743	f_t = -0.176 f_b = -0.585	f_t = 0.059 f_b = 0.324	f_t = -0.077 f_b = -0.249
(Deck Bar Cutoff) 21.733	f_t = 0.007	f_t = -0.009	f_t = 0.127	f_t = -0.191	f_t = 0.057	f_t = -0.088	f_t = 0.134	f_t = -0.201	f_t = 0.057	f_t = -0.088

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.039	f_b = -0.031	f_b = 0.802	f_b = -0.533	f_b = 0.367	f_b = -0.240	f_b = 0.842	f_b = -0.564	f_b = 0.367	f_b = -0.240
($0.3L_s$) 23.204	f_t = 0.007 f_b = 0.043	f_t = -0.010 f_b = -0.031	f_t = 0.124 f_b = 0.861	f_t = -0.206 f_b = -0.519	f_t = 0.056 f_b = 0.395	f_t = -0.095 f_b = -0.234	f_t = 0.132 f_b = 0.904	f_t = -0.217 f_b = -0.549	f_t = 0.056 f_b = 0.395	f_t = -0.095 f_b = -0.234
(SZB) 30.616	f_t = 0.006 f_b = 0.057	f_t = -0.014 f_b = -0.027	f_t = 0.110 f_b = 1.111	f_t = -0.272 f_b = -0.449	f_t = 0.050 f_b = 0.498	f_t = -0.122 f_b = -0.202	f_t = 0.116 f_b = 1.168	f_t = -0.286 f_b = -0.475	f_t = 0.050 f_b = 0.498	f_t = -0.122 f_b = -0.202
($0.4L_s$) 30.939	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.109 f_b = 1.119	f_t = -0.274 f_b = -0.446	f_t = 0.049 f_b = 0.501	f_t = -0.123 f_b = -0.201	f_t = 0.116 f_b = 1.177	f_t = -0.288 f_b = -0.472	f_t = 0.049 f_b = 0.501	f_t = -0.123 f_b = -0.201
(HP) 31.373	f_t = 0.006 f_b = 0.058	f_t = -0.014 f_b = -0.026	f_t = 0.108 f_b = 1.130	f_t = -0.277 f_b = -0.442	f_t = 0.049 f_b = 0.505	f_t = -0.124 f_b = -0.199	f_t = 0.115 f_b = 1.188	f_t = -0.291 f_b = -0.468	f_t = 0.049 f_b = 0.505	f_t = -0.124 f_b = -0.199
($0.5L_s$) 38.673	f_t = 0.005 f_b = 0.066	f_t = -0.016 f_b = -0.022	f_t = 0.092 f_b = 1.251	f_t = -0.310 f_b = -0.372	f_t = 0.042 f_b = 0.532	f_t = -0.132 f_b = -0.168	f_t = 0.098 f_b = 1.317	f_t = -0.326 f_b = -0.394	f_t = 0.042 f_b = 0.532	f_t = -0.132 f_b = -0.168
($0.6L_s$) 46.408	f_t = 0.004 f_b = 0.067	f_t = -0.017 f_b = -0.018	f_t = 0.074 f_b = 1.277	f_t = -0.317 f_b = -0.298	f_t = 0.033 f_b = 0.561	f_t = -0.139 f_b = -0.134	f_t = 0.078 f_b = 1.343	f_t = -0.333 f_b = -0.315	f_t = 0.033 f_b = 0.561	f_t = -0.139 f_b = -0.134
(HP) 46.837	f_t = 0.004 f_b = 0.066	f_t = -0.016 f_b = -0.017	f_t = 0.073 f_b = 1.275	f_t = -0.316 f_b = -0.294	f_t = 0.033 f_b = 0.562	f_t = -0.139 f_b = -0.132	f_t = 0.077 f_b = 1.342	f_t = -0.333 f_b = -0.311	f_t = 0.033 f_b = 0.562	f_t = -0.139 f_b = -0.132
(SZB) 47.594	f_t = 0.004 f_b = 0.066	f_t = -0.016 f_b = -0.017	f_t = 0.071 f_b = 1.271	f_t = -0.315 f_b = -0.286	f_t = 0.032 f_b = 0.562	f_t = -0.139 f_b = -0.129	f_t = 0.075 f_b = 1.338	f_t = -0.332 f_b = -0.303	f_t = 0.032 f_b = 0.562	f_t = -0.139 f_b = -0.129
($0.7L_s$) 54.143	f_t = 0.003 f_b = 0.060	f_t = -0.015 f_b = -0.013	f_t = 0.055 f_b = 1.175	f_t = -0.289 f_b = -0.223	f_t = 0.025 f_b = 0.533	f_t = -0.131 f_b = -0.101	f_t = 0.058 f_b = 1.236	f_t = -0.304 f_b = -0.236	f_t = 0.025 f_b = 0.533	f_t = -0.131 f_b = -0.101
(SZB) 58.594	f_t = 0.003 f_b = 0.054	f_t = -0.013 f_b = -0.011	f_t = 0.044 f_b = 1.065	f_t = -0.260 f_b = -0.180	f_t = 0.020 f_b = 0.479	f_t = -0.117 f_b = -0.081	f_t = 0.046 f_b = 1.119	f_t = -0.273 f_b = -0.191	f_t = 0.020 f_b = 0.479	f_t = -0.117 f_b = -0.081
($0.8L_s$) 61.878	f_t = 0.002 f_b = 0.047	f_t = -0.011 f_b = -0.009	f_t = 0.036 f_b = 0.950	f_t = -0.229 f_b = -0.148	f_t = 0.016 f_b = 0.428	f_t = -0.103 f_b = -0.067	f_t = 0.038 f_b = 0.997	f_t = -0.241 f_b = -0.157	f_t = 0.016 f_b = 0.428	f_t = -0.103 f_b = -0.067
(SZB) 66.844	f_t = 0.001 f_b = 0.035	f_t = -0.008 f_b = -0.006	f_t = 0.024 f_b = 0.719	f_t = -0.171 f_b = -0.101	f_t = 0.011 f_b = 0.332	f_t = -0.079 f_b = -0.045	f_t = 0.025 f_b = 0.754	f_t = -0.179 f_b = -0.106	f_t = 0.011 f_b = 0.332	f_t = -0.079 f_b = -0.045
($0.9L_s$) 69.612	f_t = 0.001 f_b = 0.027	f_t = -0.006 f_b = -0.004	f_t = 0.017 f_b = 0.560	f_t = -0.132 f_b = -0.074	f_t = 0.008 f_b = 0.261	f_t = -0.062 f_b = -0.033	f_t = 0.018 f_b = 0.587	f_t = -0.138 f_b = -0.078	f_t = 0.008 f_b = 0.261	f_t = -0.062 f_b = -0.033
(1.5H) 71.764	f_t = 0.001 f_b = 0.020	f_t = -0.005 f_b = -0.003	f_t = 0.013 f_b = 0.422	f_t = -0.100 f_b = -0.053	f_t = 0.006 f_b = 0.199	f_t = -0.047 f_b = -0.024	f_t = 0.013 f_b = 0.442	f_t = -0.104 f_b = -0.057	f_t = 0.006 f_b = 0.199	f_t = -0.047 f_b = -0.024
(SZB) 72.344	f_t = 0.001 f_b = 0.018	f_t = -0.004 f_b = -0.003	f_t = 0.011 f_b = 0.383	f_t = -0.090 f_b = -0.048	f_t = 0.005 f_b = 0.180	f_t = -0.043 f_b = -0.022	f_t = 0.012 f_b = 0.401	f_t = -0.095 f_b = -0.051	f_t = 0.005 f_b = 0.180	f_t = -0.043 f_b = -0.022
(H) 73.514	f_t = 0.001 f_b = 0.014	f_t = -0.003 f_b = -0.002	f_t = 0.009 f_b = 0.300	f_t = -0.071 f_b = -0.037	f_t = 0.004 f_b = 0.142	f_t = -0.033 f_b = -0.017	f_t = 0.009 f_b = 0.314	f_t = -0.074 f_b = -0.039	f_t = 0.004 f_b = 0.142	f_t = -0.033 f_b = -0.017
(Bar Develop.) 74.582	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.002	f_t = 0.006 f_b = 0.221	f_t = -0.052 f_b = -0.026	f_t = 0.003 f_b = 0.105	f_t = -0.025 f_b = -0.012	f_t = 0.007 f_b = 0.231	f_t = -0.054 f_b = -0.028	f_t = 0.003 f_b = 0.105	f_t = -0.025 f_b = -0.012
(PSXFR) 74.764	f_t = 0.000 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.006 f_b = 0.207	f_t = -0.049 f_b = -0.025	f_t = 0.003 f_b = 0.098	f_t = -0.023 f_b = -0.011	f_t = 0.006 f_b = 0.217	f_t = -0.051 f_b = -0.026	f_t = 0.003 f_b = 0.098	f_t = -0.023 f_b = -0.011
(Bar Develop.) 75.642	f_t = 0.000 f_b = 0.007	f_t = -0.002 f_b = -0.001	f_t = 0.004 f_b = 0.139	f_t = -0.033 f_b = -0.016	f_t = 0.002 f_b = 0.066	f_t = -0.016 f_b = -0.007	f_t = 0.004 f_b = 0.145	f_t = -0.034 f_b = -0.017	f_t = 0.002 f_b = 0.066	f_t = -0.016 f_b = -0.007
(SZB) 76.010	f_t = 0.000 f_b = 0.005	f_t = -0.001 f_b = -0.001	f_t = 0.003 f_b = 0.110	f_t = -0.026 f_b = -0.013	f_t = 0.001 f_b = 0.052	f_t = -0.012 f_b = -0.006	f_t = 0.003 f_b = 0.115	f_t = -0.027 f_b = -0.014	f_t = 0.001 f_b = 0.052	f_t = -0.012 f_b = -0.006
(FoS) 77.014	f_t = 0.000 f_b = 0.001	f_t = -0.000 f_b = -0.000	f_t = 0.001 f_b = 0.028	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.013	f_t = -0.003 f_b = -0.001	f_t = 0.001 f_b = 0.029	f_t = -0.007 f_b = -0.003	f_t = 0.000 f_b = 0.013	f_t = -0.003 f_b = -0.001
($1.0L_s$) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Girder Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.0L_s$) 0.000	f_t = 0.377 f_b = -0.450	f_t = 0.106 f_b = -1.601	f_t = 0.323 f_b = -0.450	f_t = 0.106 f_b = -1.371	f_t = 0.151 f_b = -0.225	f_t = 0.053 f_b = -0.639
(STRF) 0.446	f_t = 0.445 f_b = -0.520	f_t = 0.123 f_b = -1.887	f_t = 0.381 f_b = -0.522	f_t = 0.123 f_b = -1.615	f_t = 0.180 f_b = -0.264	f_t = 0.062 f_b = -0.762
0.863	f_t = 0.434 f_b = -0.499	f_t = 0.118 f_b = -1.842	f_t = 0.372 f_b = -0.502	f_t = 0.118 f_b = -1.577	f_t = 0.177 f_b = -0.257	f_t = 0.061 f_b = -0.752
(FoS) 1.196	f_t = 0.389 f_b = -0.444	f_t = 0.077 f_b = -1.770	f_t = 0.328 f_b = -0.448	f_t = 0.078 f_b = -1.509	f_t = 0.157 f_b = -0.233	f_t = 0.041 f_b = -0.725
(SZB) 2.200	f_t = 0.257 f_b = -0.282	f_t = -0.043 f_b = -1.555	f_t = 0.199 f_b = -0.290	f_t = -0.041 f_b = -1.308	f_t = 0.098 f_b = -0.161	f_t = -0.017 f_b = -0.647
(Bar Develop.) 2.568	f_t = 0.209 f_b = -0.223	f_t = -0.087 f_b = -1.477	f_t = 0.152 f_b = -0.233	f_t = -0.084 f_b = -1.236	f_t = 0.076 f_b = -0.135	f_t = -0.038 f_b = -0.619
(PSXFR) 3.446	f_t = 0.097 f_b = -0.084	f_t = -0.188 f_b = -1.294	f_t = 0.043 f_b = -0.097	f_t = -0.185 f_b = -1.065	f_t = 0.026 f_b = -0.075	f_t = -0.087 f_b = -0.553
(Bar Develop.) 3.628	f_t = 0.074 f_b = -0.056	f_t = -0.209 f_b = -1.257	f_t = 0.021 f_b = -0.070	f_t = -0.206 f_b = -1.031	f_t = 0.016 f_b = -0.062	f_t = -0.097 f_b = -0.539
(H) 4.696	f_t = -0.058 f_b = 0.111	f_t = -0.330 f_b = -1.042	f_t = -0.108 f_b = 0.092	f_t = -0.325 f_b = -0.830	f_t = -0.043 f_b = 0.009	f_t = -0.154 f_b = -0.461

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 5.866	f_t = -0.197 f_b = 0.301	f_t = -0.461 f_b = -0.816	f_t = -0.244 f_b = 0.275	f_t = -0.454 f_b = -0.619	f_t = -0.106 f_b = 0.084	f_t = -0.215 f_b = -0.378
(1.5H) 6.446	f_t = -0.265 f_b = 0.394	f_t = -0.524 f_b = -0.706	f_t = -0.309 f_b = 0.364	f_t = -0.517 f_b = -0.517	f_t = -0.136 f_b = 0.121	f_t = -0.244 f_b = -0.338
(0.1L_s) 7.735	f_t = -0.411 f_b = 0.597	f_t = -0.661 f_b = -0.463	f_t = -0.452 f_b = 0.557	f_t = -0.652 f_b = -0.290	f_t = -0.201 f_b = 0.229	f_t = -0.314 f_b = -0.251
(SZB) 11.366	f_t = -0.781 f_b = 1.143	f_t = -1.021 f_b = 0.122	f_t = -0.813 f_b = 1.077	f_t = -1.006 f_b = 0.260	f_t = -0.371 f_b = 0.589	f_t = -0.515 f_b = -0.022
(0.2L_s) 15.469	f_t = -1.116 f_b = 1.745	f_t = -1.389 f_b = 0.588	f_t = -1.146 f_b = 1.639	f_t = -1.364 f_b = 0.713	f_t = -0.538 f_b = 0.951	f_t = -0.713 f_b = 0.207
(SZB) 19.616	f_t = -1.398 f_b = 2.305	f_t = -1.712 f_b = 0.977	f_t = -1.426 f_b = 2.157	f_t = -1.677 f_b = 1.094	f_t = -0.680 f_b = 1.268	f_t = -0.883 f_b = 0.407
(Deck Bar Cutoff) 21.733	f_t = -1.521 f_b = 2.557	f_t = -1.856 f_b = 1.151	f_t = -1.548 f_b = 2.388	f_t = -1.816 f_b = 1.264	f_t = -0.742 f_b = 1.409	f_t = -0.959 f_b = 0.497
(0.3L_s) 23.204	f_t = -1.598 f_b = 2.716	f_t = -1.947 f_b = 1.262	f_t = -1.625 f_b = 2.535	f_t = -1.903 f_b = 1.372	f_t = -0.781 f_b = 1.498	f_t = -1.007 f_b = 0.555
(SZB) 30.616	f_t = -1.892 f_b = 3.349	f_t = -2.294 f_b = 1.706	f_t = -1.915 f_b = 3.116	f_t = -2.237 f_b = 1.801	f_t = -0.930 f_b = 1.837	f_t = -1.187 f_b = 0.787
(0.4L_s) 30.939	f_t = -1.901 f_b = 3.370	f_t = -2.305 f_b = 1.721	f_t = -1.924 f_b = 3.134	f_t = -2.247 f_b = 1.815	f_t = -0.935 f_b = 1.848	f_t = -1.192 f_b = 0.795
(HP) 31.373	f_t = -1.913 f_b = 3.396	f_t = -2.319 f_b = 1.740	f_t = -1.936 f_b = 3.158	f_t = -2.261 f_b = 1.834	f_t = -0.941 f_b = 1.861	f_t = -1.199 f_b = 0.805
(0.5L_s) 38.673	f_t = -2.028 f_b = 3.678	f_t = -2.452 f_b = 1.966	f_t = -2.048 f_b = 3.414	f_t = -2.387 f_b = 2.045	f_t = -1.001 f_b = 1.978	f_t = -1.261 f_b = 0.928
(0.6L_s) 46.408	f_t = -1.980 f_b = 3.659	f_t = -2.391 f_b = 2.001	f_t = -1.995 f_b = 3.391	f_t = -2.325 f_b = 2.064	f_t = -0.979 f_b = 2.000	f_t = -1.238 f_b = 0.956
(HP) 46.837	f_t = -1.972 f_b = 3.649	f_t = -2.382 f_b = 1.996	f_t = -1.987 f_b = 3.381	f_t = -2.315 f_b = 2.058	f_t = -0.975 f_b = 1.996	f_t = -1.233 f_b = 0.955
(SZB) 47.594	f_t = -1.957 f_b = 3.628	f_t = -2.363 f_b = 1.987	f_t = -1.972 f_b = 3.360	f_t = -2.297 f_b = 2.048	f_t = -0.968 f_b = 1.988	f_t = -1.225 f_b = 0.951
(0.7L_s) 54.143	f_t = -1.754 f_b = 3.295	f_t = -2.116 f_b = 1.823	f_t = -1.766 f_b = 3.048	f_t = -2.055 f_b = 1.870	f_t = -0.869 f_b = 1.829	f_t = -1.103 f_b = 0.879
(SZB) 58.594	f_t = -1.544 f_b = 2.933	f_t = -1.863 f_b = 1.624	f_t = -1.553 f_b = 2.709	f_t = -1.808 f_b = 1.662	f_t = -0.765 f_b = 1.626	f_t = -0.970 f_b = 0.785
(0.8L_s) 61.878	f_t = -1.350 f_b = 2.586	f_t = -1.629 f_b = 1.432	f_t = -1.358 f_b = 2.386	f_t = -1.581 f_b = 1.463	f_t = -0.670 f_b = 1.437	f_t = -0.849 f_b = 0.694
(SZB) 66.844	f_t = -0.996 f_b = 1.927	f_t = -1.200 f_b = 1.067	f_t = -1.001 f_b = 1.777	f_t = -1.165 f_b = 1.088	f_t = -0.495 f_b = 1.084	f_t = -0.629 f_b = 0.519
(0.9L_s) 69.612	f_t = -0.766 f_b = 1.491	f_t = -0.923 f_b = 0.825	f_t = -0.770 f_b = 1.373	f_t = -0.896 f_b = 0.841	f_t = -0.381 f_b = 0.844	f_t = -0.485 f_b = 0.402
(1.5H) 71.764	f_t = -0.572 f_b = 1.117	f_t = -0.689 f_b = 0.618	f_t = -0.575 f_b = 1.028	f_t = -0.669 f_b = 0.629	f_t = -0.284 f_b = 0.635	f_t = -0.363 f_b = 0.301
(SZB) 72.344	f_t = -0.517 f_b = 1.010	f_t = -0.623 f_b = 0.559	f_t = -0.519 f_b = 0.930	f_t = -0.604 f_b = 0.569	f_t = -0.257 f_b = 0.575	f_t = -0.328 f_b = 0.272
(H) 73.514	f_t = -0.403 f_b = 0.789	f_t = -0.486 f_b = 0.437	f_t = -0.405 f_b = 0.727	f_t = -0.471 f_b = 0.444	f_t = -0.200 f_b = 0.451	f_t = -0.256 f_b = 0.213
(Bar Develop.) 74.582	f_t = -0.295 f_b = 0.580	f_t = -0.356 f_b = 0.320	f_t = -0.297 f_b = 0.533	f_t = -0.346 f_b = 0.326	f_t = -0.147 f_b = 0.332	f_t = -0.188 f_b = 0.156
(PSXFR) 74.764	f_t = -0.277 f_b = 0.543	f_t = -0.334 f_b = 0.300	f_t = -0.278 f_b = 0.500	f_t = -0.324 f_b = 0.305	f_t = -0.137 f_b = 0.311	f_t = -0.176 f_b = 0.146
(Bar Develop.) 75.642	f_t = -0.185 f_b = 0.363	f_t = -0.223 f_b = 0.201	f_t = -0.186 f_b = 0.334	f_t = -0.216 f_b = 0.204	f_t = -0.092 f_b = 0.208	f_t = -0.118 f_b = 0.098
(SZB) 76.010	f_t = -0.146 f_b = 0.287	f_t = -0.176 f_b = 0.158	f_t = -0.146 f_b = 0.264	f_t = -0.171 f_b = 0.161	f_t = -0.072 f_b = 0.164	f_t = -0.093 f_b = 0.077
(FoS) 77.014	f_t = -0.037 f_b = 0.073	f_t = -0.045 f_b = 0.040	f_t = -0.037 f_b = 0.067	f_t = -0.043 f_b = 0.041	f_t = -0.018 f_b = 0.042	f_t = -0.024 f_b = 0.020
(1.0L_s) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.

Deck Stresses

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
(0.0L_s) 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.111 f_b = 0.052	f_t = 0.075 f_b = 0.035
(STRF) 0.446	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.131 f_b = 0.062	f_t = 0.088 f_b = 0.041
0.863	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.127 f_b = 0.060	f_t = 0.086 f_b = 0.040
(FoS) 1.196	f_t = 0.000	f_t = 0.000	f_t = 0.124	f_t = 0.084

Location from Left Support (ft)	DC (KSI)	DW (KSI)	∑DC (KSI)	∑DW (KSI)
	f_b = 0.000	f_b = 0.000	f_b = 0.059	f_b = 0.039
(SZB) 2.200	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.116 f_b = 0.055	f_t = 0.078 f_b = 0.037
(Bar Develop.) 2.568	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.113 f_b = 0.053	f_t = 0.076 f_b = 0.036
(PSXFR) 3.446	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.106 f_b = 0.050	f_t = 0.071 f_b = 0.034
(Bar Develop.) 3.628	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.104 f_b = 0.049	f_t = 0.070 f_b = 0.033
(H) 4.696	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.096 f_b = 0.045	f_t = 0.065 f_b = 0.030
(SZB) 5.866	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.087 f_b = 0.041	f_t = 0.058 f_b = 0.028
(1.5H) 6.446	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.082 f_b = 0.039	f_t = 0.055 f_b = 0.026
(0.1L_s) 7.735	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.073 f_b = 0.034	f_t = 0.049 f_b = 0.023
(SZB) 11.366	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.047 f_b = 0.022	f_t = 0.032 f_b = 0.015
(0.2L_s) 15.469	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.022 f_b = 0.010	f_t = 0.015 f_b = 0.007
(SZB) 19.616	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.001 f_b = -0.001	f_t = -0.001 f_b = -0.000
(Deck Bar Cutoff) 21.733	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.012 f_b = -0.006	f_t = -0.008 f_b = -0.004
(0.3L_s) 23.204	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(SZB) 30.616	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.048 f_b = -0.023	f_t = -0.033 f_b = -0.016
(0.4L_s) 30.939	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.049 f_b = -0.024	f_t = -0.033 f_b = -0.016
(HP) 31.373	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.051 f_b = -0.024	f_t = -0.034 f_b = -0.016
(0.5L_s) 38.673	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.069 f_b = -0.033	f_t = -0.047 f_b = -0.022
(0.6L_s) 46.408	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.078 f_b = -0.037	f_t = -0.052 f_b = -0.025
(HP) 46.837	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.078 f_b = -0.037	f_t = -0.053 f_b = -0.025
(SZB) 47.594	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.078 f_b = -0.038	f_t = -0.053 f_b = -0.025
(0.7L_s) 54.143	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.075 f_b = -0.036	f_t = -0.050 f_b = -0.024
(SZB) 58.594	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.067 f_b = -0.032	f_t = -0.046 f_b = -0.022
(0.8L_s) 61.878	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.060 f_b = -0.029	f_t = -0.040 f_b = -0.019
(SZB) 66.844	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.045 f_b = -0.021	f_t = -0.030 f_b = -0.014
(0.9L_s) 69.612	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.035 f_b = -0.016	f_t = -0.024 f_b = -0.011
(1.5H) 71.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.026 f_b = -0.012	f_t = -0.018 f_b = -0.008
(SZB) 72.344	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.024 f_b = -0.011	f_t = -0.016 f_b = -0.008
(H) 73.514	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.019 f_b = -0.009	f_t = -0.013 f_b = -0.006
(Bar Develop.) 74.582	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.014 f_b = -0.006	f_t = -0.009 f_b = -0.004
(PSXFR) 74.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.013 f_b = -0.006	f_t = -0.009 f_b = -0.004
(Bar Develop.) 75.642	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.009 f_b = -0.004	f_t = -0.006 f_b = -0.003
(SZB) 76.010	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.007 f_b = -0.003	f_t = -0.005 f_b = -0.002
(FoS) 77.014	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = -0.001 f_b = -0.001
(1.0L_s) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

Deck Stresses - Design Vehicles - Interval 17 Open to Traffic

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
($0.0L_s$) 0.000	f_t = 0.030 f_b = 0.014	f_t = 0.000 f_b = 0.000	f_t = 0.447 f_b = 0.210	f_t = 0.000 f_b = 0.000	f_t = 0.114 f_b = 0.054	f_t = 0.000 f_b = 0.000	f_t = 0.476 f_b = 0.224	f_t = 0.000 f_b = 0.000	f_t = 0.114 f_b = 0.054	f_t = 0.000 f_b = 0.000
(STRF) 0.446	f_t = 0.035 f_b = 0.017	f_t = 0.000 f_b = 0.000	f_t = 0.528 f_b = 0.248	f_t = -0.003 f_b = -0.002	f_t = 0.137 f_b = 0.065	f_t = 0.000 f_b = 0.000	f_t = 0.563 f_b = 0.265	f_t = -0.003 f_b = -0.002	f_t = 0.137 f_b = 0.065	f_t = 0.000 f_b = 0.000
0.863	f_t = 0.034 f_b = 0.016	f_t = -0.000 f_b = 0.000	f_t = 0.516 f_b = 0.243	f_t = -0.006 f_b = -0.003	f_t = 0.137 f_b = 0.064	f_t = 0.000 f_b = 0.000	f_t = 0.550 f_b = 0.259	f_t = -0.006 f_b = -0.003	f_t = 0.137 f_b = 0.064	f_t = 0.000 f_b = 0.000
(FoS) 1.196	f_t = 0.033 f_b = 0.016	f_t = -0.000 f_b = -0.000	f_t = 0.507 f_b = 0.239	f_t = -0.009 f_b = -0.004	f_t = 0.136 f_b = 0.064	f_t = 0.000 f_b = 0.000	f_t = 0.540 f_b = 0.254	f_t = -0.009 f_b = -0.004	f_t = 0.136 f_b = 0.064	f_t = 0.000 f_b = 0.000
(SZB) 2.200	f_t = 0.031 f_b = 0.015	f_t = -0.000 f_b = -0.000	f_t = 0.479 f_b = 0.226	f_t = -0.017 f_b = -0.008	f_t = 0.134 f_b = 0.063	f_t = 0.000 f_b = 0.000	f_t = 0.510 f_b = 0.240	f_t = -0.017 f_b = -0.008	f_t = 0.134 f_b = 0.063	f_t = 0.000 f_b = 0.000
(Bar Develop.) 2.568	f_t = 0.030 f_b = 0.014	f_t = -0.000 f_b = -0.000	f_t = 0.469 f_b = 0.221	f_t = -0.019 f_b = -0.009	f_t = 0.134 f_b = 0.063	f_t = 0.000 f_b = 0.000	f_t = 0.499 f_b = 0.235	f_t = -0.020 f_b = -0.009	f_t = 0.134 f_b = 0.063	f_t = 0.000 f_b = 0.000
(PSXFR) 3.446	f_t = 0.029 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.445 f_b = 0.210	f_t = -0.027 f_b = -0.013	f_t = 0.132 f_b = 0.062	f_t = 0.000 f_b = 0.000	f_t = 0.474 f_b = 0.223	f_t = -0.027 f_b = -0.013	f_t = 0.132 f_b = 0.062	f_t = 0.000 f_b = 0.000
(Bar Develop.) 3.628	f_t = 0.028 f_b = 0.013	f_t = -0.000 f_b = -0.000	f_t = 0.441 f_b = 0.207	f_t = -0.028 f_b = -0.013	f_t = 0.132 f_b = 0.062	f_t = 0.000 f_b = 0.000	f_t = 0.469 f_b = 0.221	f_t = -0.028 f_b = -0.013	f_t = 0.132 f_b = 0.062	f_t = 0.000 f_b = 0.000
(H) 4.696	f_t = 0.026 f_b = 0.012	f_t = -0.001 f_b = -0.000	f_t = 0.412 f_b = 0.194	f_t = -0.038 f_b = -0.018	f_t = 0.130 f_b = 0.061	f_t = 0.000 f_b = 0.000	f_t = 0.439 f_b = 0.207	f_t = -0.039 f_b = -0.018	f_t = 0.130 f_b = 0.061	f_t = 0.000 f_b = 0.000
(SZB) 5.866	f_t = 0.024 f_b = 0.011	f_t = -0.001 f_b = -0.000	f_t = 0.383 f_b = 0.181	f_t = -0.054 f_b = -0.025	f_t = 0.128 f_b = 0.060	f_t = 0.000 f_b = 0.000	f_t = 0.408 f_b = 0.192	f_t = -0.055 f_b = -0.026	f_t = 0.128 f_b = 0.060	f_t = 0.000 f_b = 0.000
(1.5H) 6.446	f_t = 0.023 f_b = 0.011	f_t = -0.001 f_b = -0.001	f_t = 0.369 f_b = 0.174	f_t = -0.062 f_b = -0.029	f_t = 0.127 f_b = 0.060	f_t = 0.000 f_b = 0.000	f_t = 0.393 f_b = 0.185	f_t = -0.063 f_b = -0.030	f_t = 0.127 f_b = 0.060	f_t = 0.000 f_b = 0.000
($0.1L_s$) 7.735	f_t = 0.021 f_b = 0.010	f_t = -0.002 f_b = -0.001	f_t = 0.336 f_b = 0.158	f_t = -0.080 f_b = -0.038	f_t = 0.124 f_b = 0.059	f_t = -0.008 f_b = -0.004	f_t = 0.357 f_b = 0.168	f_t = -0.082 f_b = -0.038	f_t = 0.124 f_b = 0.059	f_t = -0.008 f_b = -0.004
(SZB) 11.366	f_t = 0.017 f_b = 0.008	f_t = -0.004 f_b = -0.002	f_t = 0.268 f_b = 0.126	f_t = -0.134 f_b = -0.063	f_t = 0.118 f_b = 0.056	f_t = -0.051 f_b = -0.024	f_t = 0.285 f_b = 0.134	f_t = -0.138 f_b = -0.065	f_t = 0.118 f_b = 0.056	f_t = -0.051 f_b = -0.024
($0.2L_s$) 15.469	f_t = 0.014 f_b = 0.007	f_t = -0.009 f_b = -0.004	f_t = 0.245 f_b = 0.116	f_t = -0.210 f_b = -0.099	f_t = 0.111 f_b = 0.052	f_t = -0.095 f_b = -0.045	f_t = 0.260 f_b = 0.122	f_t = -0.219 f_b = -0.103	f_t = 0.111 f_b = 0.052	f_t = -0.095 f_b = -0.045
(SZB) 19.616	f_t = 0.014 f_b = 0.006	f_t = -0.014 f_b = -0.007	f_t = 0.229 f_b = 0.108	f_t = -0.294 f_b = -0.139	f_t = 0.103 f_b = 0.049	f_t = -0.135 f_b = -0.063	f_t = 0.243 f_b = 0.114	f_t = -0.308 f_b = -0.145	f_t = 0.103 f_b = 0.049	f_t = -0.135 f_b = -0.063
(Deck Bar Cutoff) 21.733	f_t = 0.013 f_b = 0.006	f_t = -0.016 f_b = -0.008	f_t = 0.222 f_b = 0.105	f_t = -0.334 f_b = -0.158	f_t = 0.100 f_b = 0.047	f_t = -0.153 f_b = -0.072	f_t = 0.235 f_b = 0.111	f_t = -0.351 f_b = -0.166	f_t = 0.100 f_b = 0.047	f_t = -0.153 f_b = -0.072
($0.3L_s$) 23.204	f_t = 0.013 f_b = 0.006	f_t = -0.018 f_b = -0.008	f_t = 0.217 f_b = 0.103	f_t = -0.360 f_b = -0.171	f_t = 0.098 f_b = 0.046	f_t = -0.165 f_b = -0.078	f_t = 0.230 f_b = 0.109	f_t = -0.378 f_b = -0.179	f_t = 0.098 f_b = 0.046	f_t = -0.165 f_b = -0.078
(SZB) 30.616	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.012	f_t = 0.190 f_b = 0.091	f_t = -0.470 f_b = -0.225	f_t = 0.086 f_b = 0.041	f_t = -0.211 f_b = -0.101	f_t = 0.201 f_b = 0.096	f_t = -0.494 f_b = -0.236	f_t = 0.086 f_b = 0.041	f_t = -0.211 f_b = -0.101
($0.4L_s$) 30.939	f_t = 0.011 f_b = 0.005	f_t = -0.024 f_b = -0.012	f_t = 0.189 f_b = 0.090	f_t = -0.474 f_b = -0.227	f_t = 0.085 f_b = 0.041	f_t = -0.212 f_b = -0.101	f_t = 0.200 f_b = 0.096	f_t = -0.498 f_b = -0.238	f_t = 0.085 f_b = 0.041	f_t = -0.212 f_b = -0.101
(HP) 31.373	f_t = 0.011 f_b = 0.005	f_t = -0.025 f_b = -0.012	f_t = 0.187 f_b = 0.090	f_t = -0.478 f_b = -0.229	f_t = 0.084 f_b = 0.040	f_t = -0.214 f_b = -0.102	f_t = 0.198 f_b = 0.095	f_t = -0.503 f_b = -0.241	f_t = 0.084 f_b = 0.040	f_t = -0.214 f_b = -0.102
($0.5L_s$) 38.673	f_t = 0.009 f_b = 0.005	f_t = -0.028 f_b = -0.013	f_t = 0.159 f_b = 0.076	f_t = -0.533 f_b = -0.256	f_t = 0.072 f_b = 0.034	f_t = -0.227 f_b = -0.109	f_t = 0.168 f_b = 0.081	f_t = -0.561 f_b = -0.270	f_t = 0.072 f_b = 0.034	f_t = -0.227 f_b = -0.109
($0.6L_s$) 46.408	f_t = 0.008 f_b = 0.004	f_t = -0.028 f_b = -0.014	f_t = 0.127 f_b = 0.061	f_t = -0.544 f_b = -0.262	f_t = 0.057 f_b = 0.028	f_t = -0.239 f_b = -0.115	f_t = 0.134 f_b = 0.065	f_t = -0.573 f_b = -0.276	f_t = 0.057 f_b = 0.028	f_t = -0.239 f_b = -0.115
(HP) 46.837	f_t = 0.007 f_b = 0.004	f_t = -0.028 f_b = -0.014	f_t = 0.125 f_b = 0.060	f_t = -0.544 f_b = -0.262	f_t = 0.056 f_b = 0.027	f_t = -0.240 f_b = -0.115	f_t = 0.133 f_b = 0.064	f_t = -0.572 f_b = -0.275	f_t = 0.056 f_b = 0.027	f_t = -0.240 f_b = -0.115
(SZB) 47.594	f_t = 0.007 f_b = 0.003	f_t = -0.028 f_b = -0.014	f_t = 0.122 f_b = 0.059	f_t = -0.542 f_b = -0.261	f_t = 0.055 f_b = 0.026	f_t = -0.240 f_b = -0.115	f_t = 0.129 f_b = 0.062	f_t = -0.570 f_b = -0.274	f_t = 0.055 f_b = 0.026	f_t = -0.240 f_b = -0.115
($0.7L_s$) 54.143	f_t = 0.006 f_b = 0.003	f_t = -0.026 f_b = -0.012	f_t = 0.095 f_b = 0.045	f_t = -0.499 f_b = -0.239	f_t = 0.043 f_b = 0.020	f_t = -0.226 f_b = -0.108	f_t = 0.100 f_b = 0.048	f_t = -0.524 f_b = -0.251	f_t = 0.043 f_b = 0.020	f_t = -0.226 f_b = -0.108
(SZB) 58.594	f_t = 0.004 f_b = 0.002	f_t = -0.023 f_b = -0.011	f_t = 0.076 f_b = 0.036	f_t = -0.449 f_b = -0.215	f_t = 0.034 f_b = 0.016	f_t = -0.202 f_b = -0.097	f_t = 0.080 f_b = 0.038	f_t = -0.472 f_b = -0.225	f_t = 0.034 f_b = 0.016	f_t = -0.202 f_b = -0.097
($0.8L_s$) 61.878	f_t = 0.004 f_b = 0.002	f_t = -0.020 f_b = -0.009	f_t = 0.062 f_b = 0.030	f_t = -0.399 f_b = -0.190	f_t = 0.028 f_b = 0.013	f_t = -0.180 f_b = -0.086	f_t = 0.066 f_b = 0.031	f_t = -0.418 f_b = -0.199	f_t = 0.028 f_b = 0.013	f_t = -0.180 f_b = -0.086
(SZB) 66.844	f_t = 0.002 f_b = 0.001	f_t = -0.015 f_b = -0.007	f_t = 0.042 f_b = 0.020	f_t = -0.299 f_b = -0.141	f_t = 0.019 f_b = 0.009	f_t = -0.138 f_b = -0.065	f_t = 0.044 f_b = 0.021	f_t = -0.313 f_b = -0.148	f_t = 0.019 f_b = 0.009	f_t = -0.138 f_b = -0.065
($0.9L_s$) 69.612	f_t = 0.002 f_b = 0.001	f_t = -0.011 f_b = -0.005	f_t = 0.031 f_b = 0.014	f_t = -0.232 f_b = -0.109	f_t = 0.014 f_b = 0.007	f_t = -0.108 f_b = -0.051	f_t = 0.032 f_b = 0.015	f_t = -0.243 f_b = -0.115	f_t = 0.014 f_b = 0.007	f_t = -0.108 f_b = -0.051
(1.5H) 71.764	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.022 f_b = 0.010	f_t = -0.175 f_b = -0.082	f_t = 0.010 f_b = 0.005	f_t = -0.082 f_b = -0.039	f_t = 0.023 f_b = 0.011	f_t = -0.183 f_b = -0.086	f_t = 0.010 f_b = 0.005	f_t = -0.082 f_b = -0.039
(SZB) 72.344	f_t = 0.001 f_b = 0.001	f_t = -0.008 f_b = -0.004	f_t = 0.020 f_b = 0.009	f_t = -0.158 f_b = -0.075	f_t = 0.009 f_b = 0.004	f_t = -0.075 f_b = -0.035	f_t = 0.021 f_b = 0.010	f_t = -0.166 f_b = -0.078	f_t = 0.009 f_b = 0.004	f_t = -0.075 f_b = -0.035
(H) 73.514	f_t = 0.001 f_b = 0.000	f_t = -0.006 f_b = -0.003	f_t = 0.015 f_b = 0.007	f_t = -0.124 f_b = -0.058	f_t = 0.007 f_b = 0.003	f_t = -0.059 f_b = -0.028	f_t = 0.016 f_b = 0.008	f_t = -0.130 f_b = -0.061	f_t = 0.007 f_b = 0.003	f_t = -0.059 f_b = -0.028
(Bar Develop.) 74.582	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.011 f_b = 0.005	f_t = -0.091 f_b = -0.043	f_t = 0.005 f_b = 0.002	f_t = -0.043 f_b = -0.020	f_t = 0.012 f_b = 0.005	f_t = -0.096 f_b = -0.045	f_t = 0.005 f_b = 0.002	f_t = -0.043 f_b = -0.020
(PSXFR) 74.764	f_t = 0.001 f_b = 0.000	f_t = -0.004 f_b = -0.002	f_t = 0.010 f_b = 0.005	f_t = -0.086 f_b = -0.040	f_t = 0.005 f_b = 0.002	f_t = -0.041 f_b = -0.019	f_t = 0.011 f_b = 0.005	f_t = -0.090 f_b = -0.042	f_t = 0.005 f_b = 0.002	f_t = -0.041 f_b = -0.019
(Bar Develop.) 75.642	f_t = 0.000 f_b = 0.000	f_t = -0.003 f_b = -0.001	f_t = 0.007 f_b = 0.003	f_t = -0.057 f_b = -0.027	f_t = 0.003 f_b = 0.001	f_t = -0.027 f_b = -0.013	f_t = 0.007 f_b = 0.003	f_t = -0.060 f_b = -0.028	f_t = 0.003 f_b = 0.001	f_t = -0.027 f_b = -0.013
(SZB) 76.010	f_t = 0.000 f_b = 0.000	f_t = -0.002 f_b = -0.001	f_t = 0.005 f_b = 0.002	f_t = -0.045 f_b = -0.021	f_t = 0.002 f_b = 0.001	f_t = -0.022 f_b = -0.010	f_t = 0.006 f_b = 0.003	f_t = -0.047 f_b = -0.022	f_t = 0.002 f_b = 0.001	f_t = -0.022 f_b = -0.010
(FoS) 77.014	f_t = 0.000	f_t = -0.001	f_t = 0.001	f_t = -0.012	f_t = 0.001	f_t = -0.006	f_t = 0.001	f_t = -0.012	f_t = 0.001	f_t = -0.006

Location from Left Support (ft)	* PL		Vehicles (LL+IM)				Total Live Load (PL and LL+IM)			
			* Design		* Fatigue		* Design[1]		* Fatigue[2]	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
	f_b = 0.000	f_b = -0.000	f_b = 0.001	f_b = -0.005	f_b = 0.000	f_b = -0.003	f_b = 0.001	f_b = -0.006	f_b = 0.000	f_b = -0.003
(1.0L_s) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads

Deck Stresses

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(0.0L_s) 0.000	f_t = 0.663 f_b = 0.312	f_t = 0.186 f_b = 0.088	f_t = 0.567 f_b = 0.267	f_t = 0.186 f_b = 0.088	f_t = 0.264 f_b = 0.125	f_t = 0.093 f_b = 0.044
(STRF) 0.446	f_t = 0.781 f_b = 0.368	f_t = 0.215 f_b = 0.101	f_t = 0.669 f_b = 0.315	f_t = 0.216 f_b = 0.102	f_t = 0.315 f_b = 0.149	f_t = 0.109 f_b = 0.052
0.863	f_t = 0.763 f_b = 0.359	f_t = 0.206 f_b = 0.097	f_t = 0.653 f_b = 0.307	f_t = 0.208 f_b = 0.098	f_t = 0.311 f_b = 0.147	f_t = 0.106 f_b = 0.050
(FoS) 1.196	f_t = 0.748 f_b = 0.352	f_t = 0.199 f_b = 0.094	f_t = 0.640 f_b = 0.301	f_t = 0.201 f_b = 0.095	f_t = 0.308 f_b = 0.145	f_t = 0.104 f_b = 0.049
(SZB) 2.200	f_t = 0.704 f_b = 0.332	f_t = 0.177 f_b = 0.083	f_t = 0.602 f_b = 0.284	f_t = 0.181 f_b = 0.085	f_t = 0.298 f_b = 0.140	f_t = 0.097 f_b = 0.046
(Bar Develop.) 2.568	f_t = 0.688 f_b = 0.324	f_t = 0.169 f_b = 0.080	f_t = 0.588 f_b = 0.277	f_t = 0.173 f_b = 0.082	f_t = 0.295 f_b = 0.139	f_t = 0.094 f_b = 0.044
(PSXFR) 3.446	f_t = 0.651 f_b = 0.307	f_t = 0.150 f_b = 0.071	f_t = 0.556 f_b = 0.262	f_t = 0.155 f_b = 0.073	f_t = 0.286 f_b = 0.135	f_t = 0.088 f_b = 0.042
(Bar Develop.) 3.628	f_t = 0.643 f_b = 0.303	f_t = 0.146 f_b = 0.069	f_t = 0.549 f_b = 0.259	f_t = 0.152 f_b = 0.071	f_t = 0.285 f_b = 0.134	f_t = 0.087 f_b = 0.041
(H) 4.696	f_t = 0.599 f_b = 0.282	f_t = 0.122 f_b = 0.057	f_t = 0.511 f_b = 0.241	f_t = 0.129 f_b = 0.061	f_t = 0.275 f_b = 0.129	f_t = 0.080 f_b = 0.038
(SZB) 5.866	f_t = 0.553 f_b = 0.260	f_t = 0.090 f_b = 0.043	f_t = 0.471 f_b = 0.222	f_t = 0.101 f_b = 0.048	f_t = 0.264 f_b = 0.124	f_t = 0.073 f_b = 0.034
(1.5H) 6.446	f_t = 0.530 f_b = 0.250	f_t = 0.075 f_b = 0.035	f_t = 0.452 f_b = 0.213	f_t = 0.087 f_b = 0.041	f_t = 0.259 f_b = 0.122	f_t = 0.069 f_b = 0.032
(0.1L_s) 7.735	f_t = 0.479 f_b = 0.225	f_t = 0.040 f_b = 0.019	f_t = 0.407 f_b = 0.192	f_t = 0.057 f_b = 0.027	f_t = 0.247 f_b = 0.117	f_t = 0.049 f_b = 0.023
(SZB) 11.366	f_t = 0.364 f_b = 0.172	f_t = -0.058 f_b = -0.028	f_t = 0.307 f_b = 0.145	f_t = -0.031 f_b = -0.015	f_t = 0.216 f_b = 0.102	f_t = -0.037 f_b = -0.017
(0.2L_s) 15.469	f_t = 0.296 f_b = 0.140	f_t = -0.183 f_b = -0.086	f_t = 0.244 f_b = 0.115	f_t = -0.139 f_b = -0.065	f_t = 0.184 f_b = 0.087	f_t = -0.124 f_b = -0.058
(SZB) 19.616	f_t = 0.240 f_b = 0.113	f_t = -0.310 f_b = -0.146	f_t = 0.192 f_b = 0.091	f_t = -0.248 f_b = -0.117	f_t = 0.154 f_b = 0.073	f_t = -0.203 f_b = -0.096
(Deck Bar Cutoff) 21.733	f_t = 0.215 f_b = 0.102	f_t = -0.370 f_b = -0.175	f_t = 0.168 f_b = 0.080	f_t = -0.300 f_b = -0.142	f_t = 0.140 f_b = 0.066	f_t = -0.240 f_b = -0.113
(0.3L_s) 23.204	f_t = 0.198 f_b = 0.094	f_t = -0.409 f_b = -0.194	f_t = 0.152 f_b = 0.072	f_t = -0.334 f_b = -0.158	f_t = 0.131 f_b = 0.062	f_t = -0.263 f_b = -0.125
(SZB) 30.616	f_t = 0.120 f_b = 0.057	f_t = -0.575 f_b = -0.275	f_t = 0.080 f_b = 0.038	f_t = -0.476 f_b = -0.228	f_t = 0.088 f_b = 0.042	f_t = -0.356 f_b = -0.171
(0.4L_s) 30.939	f_t = 0.117 f_b = 0.056	f_t = -0.581 f_b = -0.278	f_t = 0.077 f_b = 0.037	f_t = -0.481 f_b = -0.230	f_t = 0.086 f_b = 0.041	f_t = -0.359 f_b = -0.172
(HP) 31.373	f_t = 0.113 f_b = 0.054	f_t = -0.588 f_b = -0.282	f_t = 0.073 f_b = 0.035	f_t = -0.488 f_b = -0.233	f_t = 0.084 f_b = 0.040	f_t = -0.363 f_b = -0.174
(0.5L_s) 38.673	f_t = 0.052 f_b = 0.025	f_t = -0.677 f_b = -0.326	f_t = 0.018 f_b = 0.009	f_t = -0.565 f_b = -0.272	f_t = 0.049 f_b = 0.024	f_t = -0.398 f_b = -0.191
(0.6L_s) 46.408	f_t = 0.004 f_b = 0.002	f_t = -0.703 f_b = -0.338	f_t = -0.023 f_b = -0.011	f_t = -0.588 f_b = -0.283	f_t = 0.021 f_b = 0.010	f_t = -0.424 f_b = -0.204
(HP) 46.837	f_t = 0.002 f_b = 0.001	f_t = -0.703 f_b = -0.338	f_t = -0.024 f_b = -0.012	f_t = -0.588 f_b = -0.283	f_t = 0.020 f_b = 0.009	f_t = -0.424 f_b = -0.204
(SZB) 47.594	f_t = -0.001 f_b = -0.001	f_t = -0.701 f_b = -0.337	f_t = -0.027 f_b = -0.013	f_t = -0.587 f_b = -0.282	f_t = 0.017 f_b = 0.008	f_t = -0.425 f_b = -0.204
(0.7L_s) 54.143	f_t = -0.025 f_b = -0.012	f_t = -0.649 f_b = -0.311	f_t = -0.045 f_b = -0.021	f_t = -0.544 f_b = -0.261	f_t = 0.002 f_b = 0.001	f_t = -0.401 f_b = -0.193
(SZB) 58.594	f_t = -0.033 f_b = -0.016	f_t = -0.585 f_b = -0.279	f_t = -0.049 f_b = -0.023	f_t = -0.491 f_b = -0.234	f_t = -0.005 f_b = -0.002	f_t = -0.360 f_b = -0.172
(0.8L_s) 61.878	f_t = -0.034 f_b = -0.016	f_t = -0.519 f_b = -0.247	f_t = -0.048 f_b = -0.023	f_t = -0.435 f_b = -0.207	f_t = -0.008 f_b = -0.004	f_t = -0.320 f_b = -0.152
(SZB) 66.844	f_t = -0.031 f_b = -0.015	f_t = -0.389 f_b = -0.184	f_t = -0.040 f_b = -0.019	f_t = -0.326 f_b = -0.154	f_t = -0.009 f_b = -0.004	f_t = -0.244 f_b = -0.115
(0.9L_s) 69.612	f_t = -0.026 f_b = -0.012	f_t = -0.302 f_b = -0.142	f_t = -0.032 f_b = -0.015	f_t = -0.253 f_b = -0.119	f_t = -0.008 f_b = -0.004	f_t = -0.191 f_b = -0.090
(1.5H) 71.764	f_t = -0.021 f_b = -0.010	f_t = -0.227 f_b = -0.107	f_t = -0.025 f_b = -0.012	f_t = -0.190 f_b = -0.090	f_t = -0.007 f_b = -0.003	f_t = -0.145 f_b = -0.068

Location from Left Support (ft)	Design					
	Service I		Service III		Fatigue I	
	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)	Max (KSI)	Min (KSI)
(SZB) 72.344	f_t = -0.019 f_b = -0.009	f_t = -0.206 f_b = -0.097	f_t = -0.023 f_b = -0.011	f_t = -0.173 f_b = -0.081	f_t = -0.006 f_b = -0.003	f_t = -0.132 f_b = -0.062
(H) 73.514	f_t = -0.015 f_b = -0.007	f_t = -0.161 f_b = -0.076	f_t = -0.018 f_b = -0.009	f_t = -0.135 f_b = -0.064	f_t = -0.005 f_b = -0.003	f_t = -0.104 f_b = -0.049
(Bar Develop.) 74.582	f_t = -0.011 f_b = -0.005	f_t = -0.119 f_b = -0.056	f_t = -0.014 f_b = -0.006	f_t = -0.099 f_b = -0.047	f_t = -0.004 f_b = -0.002	f_t = -0.077 f_b = -0.036
(PSXFR) 74.764	f_t = -0.011 f_b = -0.005	f_t = -0.111 f_b = -0.052	f_t = -0.013 f_b = -0.006	f_t = -0.093 f_b = -0.044	f_t = -0.004 f_b = -0.002	f_t = -0.072 f_b = -0.034
(Bar Develop.) 75.642	f_t = -0.007 f_b = -0.003	f_t = -0.075 f_b = -0.035	f_t = -0.009 f_b = -0.004	f_t = -0.063 f_b = -0.029	f_t = -0.003 f_b = -0.001	f_t = -0.048 f_b = -0.023
(SZB) 76.010	f_t = -0.006 f_b = -0.003	f_t = -0.059 f_b = -0.028	f_t = -0.007 f_b = -0.003	f_t = -0.049 f_b = -0.023	f_t = -0.002 f_b = -0.001	f_t = -0.038 f_b = -0.018
(FoS) 77.014	f_t = -0.001 f_b = -0.001	f_t = -0.015 f_b = -0.007	f_t = -0.002 f_b = -0.001	f_t = -0.013 f_b = -0.006	f_t = -0.001 f_b = -0.000	f_t = -0.010 f_b = -0.005
($1.0L_s$) 77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
77.347	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000
(STLF) 77.764	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000	f_t = 0.000 f_b = 0.000

* Live Load values are per girder and include impact.

Stress due to Prestress

Span 2 Girder L

Girder Stresses

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STRF, $0.0L_r$) 0.000	(STRF) -0.417	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI
0.417	0.000	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.79 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.79 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.79 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI
0.417	($0.0L_e$) 0.000	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 134.79 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI Service III P_e (permanent) = 134.79 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI (Fatigue I) P_e (permanent) = 134.79 kip e_p = 7.142 in f_t = -0.075 KSI f_b = -0.339 KSI
(PSXFR) 3.000	(PSXFR) 2.583	P_e (permanent) = 1147.55 kip e_p = 7.977 in f_t = -0.508 KSI f_b = -3.019 KSI	P_e (permanent) = 981.27 kip e_p = 7.977 in f_t = -0.434 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 972.23 kip e_p = 7.977 in f_t = -0.430 KSI f_b = -2.558 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				Service III P_e (permanent) = 972.23 kip e_p = 7.977 in f_t = -0.430 KSI f_b = -2.558 KSI (Fatigue I) P_e (permanent) = 972.23 kip e_p = 7.977 in f_t = -0.430 KSI f_b = -2.558 KSI
($0.1L_r$) 7.732	7.315	P_e (permanent) = 1143.90 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 982.10 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.792 KSI	Service I P_e (permanent) = 975.72 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.774 KSI Service III P_e (permanent) = 975.72 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.774 KSI (Fatigue I) P_e (permanent) = 975.72 kip e_p = 9.507 in f_t = -0.228 KSI f_b = -2.774 KSI
8.065	($0.1L_e$) 7.648	P_e (permanent) = 1143.62 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.16 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.807 KSI	Service I P_e (permanent) = 975.97 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI Service III P_e (permanent) = 975.97 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI (Fatigue I) P_e (permanent) = 975.97 kip e_p = 9.615 in f_t = -0.214 KSI f_b = -2.789 KSI
($0.2L_r$) 15.463	15.047	P_e (permanent) = 1136.36 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.623 KSI	P_e (permanent) = 983.01 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.134 KSI	Service I P_e (permanent) = 981.05 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.128 KSI Service III P_e (permanent) = 981.05 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.128 KSI (Fatigue I) P_e (permanent) = 981.05 kip e_p = 12.007 in f_t = 0.104 KSI f_b = -3.128 KSI
15.713	($0.2L_e$) 15.297	P_e (permanent) = 1136.08 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.635 KSI	P_e (permanent) = 983.01 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.145 KSI	Service I P_e (permanent) = 981.20 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.139 KSI Service III P_e (permanent) = 981.20 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.139 KSI (Fatigue I) P_e (permanent) = 981.20 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.139 KSI
($0.3L_r$) 23.195	22.778	P_e (permanent) = 1126.20 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 981.65 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.469 KSI	Service I P_e (permanent) = 983.96 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.477 KSI Service III P_e (permanent) = 983.96 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 14.507 in f_t = 0.440 KSI f_b = -3.477 KSI (Fatigue I) P_e (permanent) = 983.96 kip e_p = 14.507 in f_t = 0.440 KSI f_b = -3.477 KSI
23.362	($0.3L_e$) 22.945	P_e (permanent) = 1125.95 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.987 KSI	P_e (permanent) = 981.59 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.476 KSI	Service I P_e (permanent) = 983.98 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.484 KSI Service III P_e (permanent) = 983.98 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.484 KSI (Fatigue I) P_e (permanent) = 983.98 kip e_p = 14.561 in f_t = 0.447 KSI f_b = -3.484 KSI
(HP, $0.4L_t$) 30.927	(HP) 30.510	P_e (permanent) = 1112.75 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 976.22 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.787 KSI	Service I P_e (permanent) = 982.31 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.810 KSI Service III P_e (permanent) = 982.31 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.810 KSI (Fatigue I) P_e (permanent) = 982.31 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.810 KSI
31.010	($0.4L_e$) 30.593	P_e (permanent) = 1112.77 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 976.27 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.787 KSI	Service I P_e (permanent) = 982.39 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI Service III P_e (permanent) = 982.39 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI (Fatigue I) P_e (permanent) = 982.39 kip e_p = 17.007 in f_t = 0.774 KSI f_b = -3.811 KSI
($0.5L_t$) 38.659	($0.5L_e$) 38.242	P_e (permanent) = 1113.74 kip e_p = 17.007 in f_t = 0.877 KSI f_b = -4.320 KSI	P_e (permanent) = 978.46 kip e_p = 17.007 in f_t = 0.771 KSI f_b = -3.795 KSI	Service I P_e (permanent) = 986.80 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.828 KSI Service III P_e (permanent) = 986.80 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.828 KSI (Fatigue I) P_e (permanent) = 986.80 kip e_p = 17.007 in f_t = 0.777 KSI f_b = -3.828 KSI
46.307	($0.6L_e$) 45.890	P_e (permanent) = 1112.77 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 976.12 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.786 KSI	Service I P_e (permanent) = 985.38 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.822 KSI Service III P_e (permanent) = 985.38 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.822 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				(Fatigue I) P_e (permanent) = 985.38 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.822 KSI
(HP, 0.6L_r) 46.390	(HP) 45.974	P_e (permanent) = 1112.75 kip e_p = 17.007 in f_t = 0.876 KSI f_b = -4.316 KSI	P_e (permanent) = 976.07 kip e_p = 17.007 in f_t = 0.769 KSI f_b = -3.786 KSI	Service I P_e (permanent) = 985.33 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.822 KSI Service III P_e (permanent) = 985.33 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.822 KSI (Fatigue I) P_e (permanent) = 985.33 kip e_p = 17.007 in f_t = 0.776 KSI f_b = -3.822 KSI
53.955	(0.7L_e) 53.539	P_e (permanent) = 1125.95 kip e_p = 14.561 in f_t = 0.512 KSI f_b = -3.987 KSI	P_e (permanent) = 981.36 kip e_p = 14.561 in f_t = 0.446 KSI f_b = -3.475 KSI	Service I P_e (permanent) = 989.51 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.504 KSI Service III P_e (permanent) = 989.51 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.504 KSI (Fatigue I) P_e (permanent) = 989.51 kip e_p = 14.561 in f_t = 0.450 KSI f_b = -3.504 KSI
(0.7L_r) 54.122	53.705	P_e (permanent) = 1126.20 kip e_p = 14.507 in f_t = 0.503 KSI f_b = -3.979 KSI	P_e (permanent) = 981.43 kip e_p = 14.507 in f_t = 0.439 KSI f_b = -3.468 KSI	Service I P_e (permanent) = 989.54 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.497 KSI Service III P_e (permanent) = 989.54 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.497 KSI (Fatigue I) P_e (permanent) = 989.54 kip e_p = 14.507 in f_t = 0.442 KSI f_b = -3.497 KSI
61.604	(0.8L_e) 61.187	P_e (permanent) = 1136.08 kip e_p = 12.088 in f_t = 0.133 KSI f_b = -3.635 KSI	P_e (permanent) = 982.79 kip e_p = 12.088 in f_t = 0.115 KSI f_b = -3.144 KSI	Service I P_e (permanent) = 988.80 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.163 KSI Service III P_e (permanent) = 988.80 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.163 KSI (Fatigue I) P_e (permanent) = 988.80 kip e_p = 12.088 in f_t = 0.116 KSI f_b = -3.163 KSI
(0.8L_r) 61.854	61.437	P_e (permanent) = 1136.36 kip e_p = 12.007 in f_t = 0.121 KSI f_b = -3.623 KSI	P_e (permanent) = 982.79 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.133 KSI	Service I P_e (permanent) = 988.72 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.152 KSI Service III P_e (permanent) = 988.72 kip e_p = 12.007 in f_t = 0.105 KSI f_b = -3.152 KSI (Fatigue I) P_e (permanent) = 988.72 kip

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
				e_p = 12.007 in f_t = 0.105 KSI f_b = -3.152 KSI
69.252	($0.9L_e$) 68.835	P_e (permanent) = 1143.62 kip e_p = 9.615 in f_t = -0.251 KSI f_b = -3.268 KSI	P_e (permanent) = 982.03 kip e_p = 9.615 in f_t = -0.215 KSI f_b = -2.806 KSI	Service I P_e (permanent) = 985.22 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.815 KSI Service III P_e (permanent) = 985.22 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.815 KSI (Fatigue I) P_e (permanent) = 985.22 kip e_p = 9.615 in f_t = -0.216 KSI f_b = -2.815 KSI
($0.9L_r$) 69.585	69.169	P_e (permanent) = 1143.90 kip e_p = 9.507 in f_t = -0.268 KSI f_b = -3.252 KSI	P_e (permanent) = 981.98 kip e_p = 9.507 in f_t = -0.230 KSI f_b = -2.791 KSI	Service I P_e (permanent) = 985.03 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.800 KSI Service III P_e (permanent) = 985.03 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.800 KSI (Fatigue I) P_e (permanent) = 985.03 kip e_p = 9.507 in f_t = -0.231 KSI f_b = -2.800 KSI
(PSXFR) 74.317	(PSXFR) 73.900	P_e (permanent) = 1147.55 kip e_p = 7.977 in f_t = -0.508 KSI f_b = -3.019 KSI	P_e (permanent) = 981.23 kip e_p = 7.977 in f_t = -0.434 KSI f_b = -2.582 KSI	Service I P_e (permanent) = 982.33 kip e_p = 7.977 in f_t = -0.435 KSI f_b = -2.585 KSI Service III P_e (permanent) = 982.33 kip e_p = 7.977 in f_t = -0.435 KSI f_b = -2.585 KSI (Fatigue I) P_e (permanent) = 982.33 kip e_p = 7.977 in f_t = -0.435 KSI f_b = -2.585 KSI
76.900	($1.0L_e$) 76.484	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI
76.900	76.484	P_e (permanent) = 159.63 kip e_p = 7.142 in f_t = -0.089 KSI f_b = -0.402 KSI	P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI	Service I P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI Service III P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI (Fatigue I) P_e (permanent) = 136.24 kip e_p = 7.142 in f_t = -0.076 KSI f_b = -0.343 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	Interval 2 Prestress Release	Interval 11 Cast Deck, Apply User Defined Loads	Interval 17 Open to Traffic
(STLF, 1.0L_r) 77.317	(STLF) 76.900	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI	Service I P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI Service III P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI (Fatigue I) P_e (permanent) = 0.00 kip e_p = 7.007 in f_t = 0.000 KSI f_b = 0.000 KSI

Prestressing Force and Strand Stresses

Straight strands: N_s = 18, P_{jack} = 790.97 kip, A_{ps} = 3.906 in^2

Harped strands: N_h = 10, P_{jack} = 439.43 kip, A_{ps} = 2.170 in^2

A_{ps} = 6.076 in^2

P_{jack} = 1230.39 kip

Prestress Transfer Length = 36.000 in

Effective Prestress at Mid-Span

Loss Stage	Permanent Strand			
	Effective Force (kip)	Time-Dependent Effects (KSI)	Instantaneous Effects (KSI)	f_{pe} (KSI)
At Jacking	1230.39	0.000	0.000	202.500
Before Prestress Transfer	1230.39	0.000	0.000	202.500
After Prestress Transfer	1113.74	0.000	19.198	183.302
At Lifting	1113.74	0.000	19.198	183.302
At Shipping	1066.95	7.700	19.198	175.601
After Erection	1066.95	7.700	19.198	175.601
After Deck Placement	978.46	27.711	13.753	161.036
After Superimposed Dead Loads	986.80	27.711	12.380	162.409
Final (permanent loads only)	986.80	27.711	12.380	162.409
Final with Live Load (Service I)	986.80	27.711	12.380	162.409
Final with Live Load (Service III)	986.80	27.711	12.380	162.409
Final with Live Load (Fatigue I)	986.80	27.711	12.380	162.409

Time-Dependent Effects = change in strand stress due to creep, shrinkage, and relaxation
Instantaneous Effects = change in strand stress due to elastic shortening and externally applied loads
$f_{pe} = f_{pj}$ - Time-Dependent Effects - Instantaneous Effects

Specification Check Summary

The Specification Check was Successful

Specification Checks

Specification: CDOT

Stress Limitations on Prestressing Tendons [5.9.2.2]

Strand Stresses

Loss Stage	Stress Limit (KSI)	Straight		Harped	
		Strand Stress (KSI)	Status (C/D)	Strand Stress (KSI)	Status (C/D)
At Jacking (f_{pj})	202.500	202.500	Pass (1.00)	202.500	Pass (1.00)
After All Losses and Elastic Gains including Live Load (f_{pe})	194.400	162.409	Pass (1.20)	162.409	Pass (1.20)

Required Concrete Strengths

Required f'_{ci} = 5.286 KSI ⇒ 5.300 KSI

Actual f'_{ci} = 6.000 KSI

Required f'_c = 6.421 KSI ⇒ 6.500 KSI

Actual f'_c = 8.000 KSI

Continuity [5.12.3.3.5]

	f_b (KSI)	Boundary Condition	Is Compressive?
Abut 1	0.000	Hinged	No
Pier 2	-1.135	Continuous	Yes
Abut 3	0.000	Hinged	No

f_b is the calcuated stress at the bottom of the continuity diaphragm for the combination of superimposed permanent loads and 50% live load
Continuous connections are fully effective.
Continuity is accounted for in Service and Strength Limit States.

Interval 2: Prestress Release : Service I Compression

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Compression Stresses [5.9.2.3.1a]

f'_{ci} = 6.000 KSI

Compression stress limit = -0.65f'_{ci} = -3.900 KSI

Concrete strength required to satisfy this requirement = 5.286 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
(STRF) 0.446	(STRF, 0.0L_r) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
										(∞)
(PSXFR) 3.446	(PSXFR) 3.000	-0.508	-3.019	-0.135	0.137	-0.643	-2.883	No	Yes	Pass (1.35)
8.178	(0.1L_t) 7.732	-0.268	-3.252	-0.326	0.330	-0.593	-2.922	No	Yes	Pass (1.33)
15.910	(0.2L_t) 15.463	0.121	-3.623	-0.579	0.587	-0.458	-3.036	No	Yes	Pass (1.28)
23.642	(0.3L_t) 23.195	0.503	-3.979	-0.760	0.770	-0.256	-3.209	No	Yes	Pass (1.22)
(HP) 31.373	(HP, 0.4L_t) 30.927	0.876	-4.316	-0.868	0.881	0.008	-3.436	No	Yes	Pass (1.14)
39.105	(0.5L_t) 38.659	0.877	-4.320	-0.904	0.917	-0.027	-3.403	No	Yes	Pass (1.15)
(HP) 46.837	(HP, 0.6L_t) 46.390	0.876	-4.316	-0.868	0.881	0.008	-3.436	No	Yes	Pass (1.14)
54.568	(0.7L_t) 54.122	0.503	-3.979	-0.760	0.770	-0.256	-3.209	No	Yes	Pass (1.22)
62.300	(0.8L_t) 61.854	0.121	-3.623	-0.579	0.587	-0.458	-3.036	No	Yes	Pass (1.28)
70.032	(0.9L_t) 69.585	-0.268	-3.252	-0.326	0.330	-0.593	-2.922	No	Yes	Pass (1.33)
(PSXFR) 74.764	(PSXFR) 74.317	-0.508	-3.019	-0.135	0.137	-0.643	-2.883	No	Yes	Pass (1.35)
(STLF) 77.764	(STLF, 1.0L_t) 77.317	0.000	0.000	0.000	0.000	0.000	0.000	No	Yes	Pass (∞)

Interval 2: Prestress Release : Service I Tension

Service I
For Temporary Stresses before Losses [5.9.2.3.1]
Tension Stresses [5.9.2.3.1b]

f'_{ci} = 6.000 KSI

Tension stress limit in areas other than the precompressed tensile zone = $0.0948\lambda\sqrt{f'_{ci}}$ but not more than 0.200 KSI = 0.200 KSI

Tension stress limit in areas with sufficient bonded reinforcement = $0.2400\lambda\sqrt{f'_{ci}}$ = 0.588 KSI

Concrete strength required to satisfy this requirement = 5.286 KSI

Location from Left Support (ft)	Location from End of Girder (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
		f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
(STRF) 0.446	(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)
(PSXFR) 3.446	(PSXFR) 3.000	-0.508	-3.019	-0.135	0.137	-0.643	-2.883	0.200	-	No	Yes	Pass (-)
8.178	(0.1L_t) 7.732	-0.268	-3.252	-0.326	0.330	-0.593	-2.922	0.200	-	No	Yes	Pass (-)
15.910	(0.2L_t) 15.463	0.121	-3.623	-0.579	0.587	-0.458	-3.036	0.200	-	No	Yes	Pass (-)
23.642	(0.3L_t) 23.195	0.503	-3.979	-0.760	0.770	-0.256	-3.209	0.200	-	No	Yes	Pass (-)
(HP) 31.373	(HP, 0.4L_t) 30.927	0.876	-4.316	-0.868	0.881	0.008	-3.436	0.200	-	No	Yes	Pass (10+)
39.105	(0.5L_t) 38.659	0.877	-4.320	-0.904	0.917	-0.027	-3.403	0.200	-	No	Yes	Pass (-)
(HP) 46.837	(HP, 0.6L_t) 46.390	0.876	-4.316	-0.868	0.881	0.008	-3.436	0.200	-	No	Yes	Pass (10+)
54.568	(0.7L_t) 54.122	0.503	-3.979	-0.760	0.770	-0.256	-3.209	0.200	-	No	Yes	Pass (-)
62.300	(0.8L_t) 61.854	0.121	-3.623	-0.579	0.587	-0.458	-3.036	0.200	-	No	Yes	Pass (-)
70.032	(0.9L_t) 69.585	-0.268	-3.252	-0.326	0.330	-0.593	-2.922	0.200	-	No	Yes	Pass (-)
(PSXFR) 74.764	(PSXFR) 74.317	-0.508	-3.019	-0.135	0.137	-0.643	-2.883	0.200	-	No	Yes	Pass (-)
(STLF) 77.764	(STLF, 1.0L_t) 77.317	0.000	0.000	0.000	0.000	0.000	0.000	0.200	-	No	Yes	Pass (∞)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.45f'_c$ = -3.600 KSI

Concrete strength required to satisfy this requirement = 5.128 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.863	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
(PSXFR) 3.446	-0.434	-2.582	-0.274	0.278	-0.708	-2.304	No	Yes	Pass (1.56)
(0.1L_s) 7.735	-0.249	-2.772	-0.684	0.694	-0.933	-2.078	No	Yes	Pass (1.73)
(0.2L_s) 15.469	0.086	-3.115	-1.285	1.303	-1.199	-1.811	No	Yes	Pass (1.99)
(0.3L_s) 23.204	0.420	-3.450	-1.712	1.737	-1.292	-1.714	No	Yes	Pass (2.10)
(0.4L_s) 30.939	0.750	-3.769	-1.969	1.997	-1.218	-1.772	No	Yes	Pass (2.03)
(HP) 31.373	0.769	-3.787	-1.978	2.007	-1.210	-1.780	No	Yes	Pass (2.02)
(0.5L_s) 38.673	0.771	-3.795	-2.059	2.088	-1.288	-1.707	No	Yes	Pass (2.11)

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.6L_s$) 46.408	0.769	-3.787	-1.982	2.011	-1.213	-1.776	No	Yes	Pass (2.03)
(HP) 46.837	0.769	-3.786	-1.973	2.001	-1.204	-1.785	No	Yes	Pass (2.02)
($0.7L_s$) 54.143	0.457	-3.486	-1.740	1.765	-1.283	-1.721	No	Yes	Pass (2.09)
($0.8L_s$) 61.878	0.123	-3.152	-1.330	1.350	-1.207	-1.802	No	Yes	Pass (2.00)
($0.9L_s$) 69.612	-0.212	-2.810	-0.752	0.762	-0.963	-2.048	No	Yes	Pass (1.76)
(PSXFR) 74.764	-0.434	-2.582	-0.271	0.274	-0.705	-2.307	No	Yes	Pass (1.56)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)

Interval 11: Cast Deck, Apply User Defined Loads : Service I Tension

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]
f'_c = 8.000 KSI
Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI
Concrete strength required to satisfy this requirement = 5.128 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Tension Limit		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top (KSI)	Bottom (KSI)	Top	Bottom	
0.863	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
(PSXFR) 3.446	-0.434	-2.582	-0.274	0.278	-0.708	-2.304	-	0.537	No	Yes	Pass (-)
($0.1L_s$) 7.735	-0.249	-2.772	-0.684	0.694	-0.933	-2.078	-	0.537	No	Yes	Pass (-)
($0.2L_s$) 15.469	0.086	-3.115	-1.285	1.303	-1.199	-1.811	-	0.537	No	Yes	Pass (-)
($0.3L_s$) 23.204	0.420	-3.450	-1.712	1.737	-1.292	-1.714	-	0.537	No	Yes	Pass (-)
($0.4L_s$) 30.939	0.750	-3.769	-1.969	1.997	-1.218	-1.772	-	0.537	No	Yes	Pass (-)
(HP) 31.373	0.769	-3.787	-1.978	2.007	-1.210	-1.780	-	0.537	No	Yes	Pass (-)
($0.5L_s$) 38.673	0.771	-3.795	-2.059	2.088	-1.288	-1.707	-	0.537	No	Yes	Pass (-)
($0.6L_s$) 46.408	0.769	-3.787	-1.982	2.011	-1.213	-1.776	-	0.537	No	Yes	Pass (-)
(HP) 46.837	0.769	-3.786	-1.973	2.001	-1.204	-1.785	-	0.537	No	Yes	Pass (-)
($0.7L_s$) 54.143	0.457	-3.486	-1.740	1.765	-1.283	-1.721	-	0.537	No	Yes	Pass (-)
($0.8L_s$) 61.878	0.123	-3.152	-1.330	1.350	-1.207	-1.802	-	0.537	No	Yes	Pass (-)
($0.9L_s$) 69.612	-0.212	-2.810	-0.752	0.762	-0.963	-2.048	-	0.537	No	Yes	Pass (-)
(PSXFR) 74.764	-0.434	-2.582	-0.271	0.274	-0.705	-2.307	-	0.537	No	Yes	Pass (-)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)
77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	-	0.537	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service I Compression without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]
f'_c = 8.000 KSI
Compression stress limit = $-0.45f'_c$ = -3.600 KSI
Concrete strength required to satisfy this requirement = 6.421 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.863	-0.075	-0.339	0.121	-0.596	0.046	-0.935	No	Yes	Pass (3.85)
(PSXFR) 3.446	-0.430	-2.558	-0.173	-0.219	-0.603	-2.777	No	Yes	Pass (1.30)
($0.1L_s$) 7.735	-0.247	-2.753	-0.616	0.348	-0.863	-2.405	No	Yes	Pass (1.50)
($0.2L_s$) 15.469	0.085	-3.108	-1.269	1.181	-1.184	-1.927	No	Yes	Pass (1.87)
($0.3L_s$) 23.204	0.421	-3.457	-1.740	1.781	-1.319	-1.676	No	Yes	Pass (2.15)
($0.4L_s$) 30.939	0.755	-3.792	-2.031	2.166	-1.276	-1.626	No	Yes	Pass (2.21)
(HP) 31.373	0.774	-3.810	-2.042	2.182	-1.268	-1.629	No	Yes	Pass (2.21)
($0.5L_s$) 38.673	0.777	-3.827	-2.142	2.338	-1.365	-1.489	No	Yes	Pass (2.42)
($0.6L_s$) 46.408	0.776	-3.823	-2.074	2.298	-1.298	-1.525	No	Yes	Pass (2.36)
(HP) 46.837	0.776	-3.822	-2.065	2.290	-1.289	-1.532	No	Yes	Pass (2.35)
	0.461	-3.515	-1.827	2.046	-1.366	-1.469	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
($0.7L_s$) 54.143									(2.45)
($0.8L_s$) 61.878	0.124	-3.171	-1.400	1.580	-1.276	-1.591	No	Yes	Pass (2.26)
($0.9L_s$) 69.612	-0.212	-2.819	-0.791	0.899	-1.004	-1.920	No	Yes	Pass (1.87)
(PSXFR) 74.764	-0.435	-2.585	-0.285	0.325	-0.720	-2.260	No	Yes	Pass (1.59)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)

Interval 17: Open to Traffic : Service I Compression

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.6f'_c$ = -4.800 KSI

Concrete strength required to satisfy this requirement = 6.421 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.863	-0.075	-0.339	0.118	-1.842	0.043	-2.181	No	Yes	Pass (2.20)
(PSXFR) 3.446	-0.430	-2.558	-0.188	-1.294	-0.619	-3.853	No	Yes	Pass (1.25)
($0.1L_s$) 7.735	-0.247	-2.753	-0.661	-0.463	-0.908	-3.216	No	Yes	Pass (1.49)
($0.2L_s$) 15.469	0.085	-3.108	-1.389	0.588	-1.304	-2.520	No	Yes	Pass (1.91)
($0.3L_s$) 23.204	0.421	-3.457	-1.947	1.262	-1.526	-2.195	No	Yes	Pass (2.19)
($0.4L_s$) 30.939	0.755	-3.792	-2.305	1.721	-1.550	-2.072	No	Yes	Pass (2.32)
(HP) 31.373	0.774	-3.810	-2.319	1.740	-1.545	-2.070	No	Yes	Pass (2.32)
($0.5L_s$) 38.673	0.777	-3.827	-2.452	1.966	-1.675	-1.861	No	Yes	Pass (2.58)
($0.6L_s$) 46.408	0.776	-3.823	-2.391	2.001	-1.615	-1.822	No	Yes	Pass (2.63)
(HP) 46.837	0.776	-3.822	-2.382	1.996	-1.606	-1.826	No	Yes	Pass (2.63)
($0.7L_s$) 54.143	0.461	-3.515	-2.116	1.823	-1.655	-1.692	No	Yes	Pass (2.84)
($0.8L_s$) 61.878	0.124	-3.171	-1.629	1.432	-1.505	-1.740	No	Yes	Pass (2.76)
($0.9L_s$) 69.612	-0.212	-2.819	-0.923	0.825	-1.136	-1.994	No	Yes	Pass (2.41)
(PSXFR) 74.764	-0.435	-2.585	-0.334	0.300	-0.769	-2.285	No	Yes	Pass (2.10)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)
77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (10+)

Interval 17: Open to Traffic : Service I Tension without live load

Service I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.0000\lambda\sqrt{f'_c}$ = 0.000 KSI

Concrete strength required to satisfy this requirement = 6.421 KSI

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.863	-0.075	-0.339	0.141	-0.514	0.066	-0.853	No	Yes	Pass (-)
(PSXFR) 3.446	-0.430	-2.558	-0.157	-0.149	-0.587	-2.707	No	Yes	Pass (-)
($0.1L_s$) 7.735	-0.247	-2.753	-0.602	0.404	-0.850	-2.349	No	Yes	Pass (-)
($0.2L_s$) 15.469	0.085	-3.108	-1.256	1.237	-1.171	-1.871	No	Yes	Pass (-)
($0.3L_s$) 23.204	0.421	-3.457	-1.723	1.855	-1.302	-1.603	No	Yes	Pass (-)
($0.4L_s$) 30.939	0.755	-3.792	-2.010	2.251	-1.255	-1.542	No	Yes	Pass (-)
(HP) 31.373	0.774	-3.810	-2.021	2.266	-1.248	-1.544	No	Yes	Pass (-)
($0.5L_s$) 38.673	0.777	-3.827	-2.121	2.426	-1.344	-1.401	No	Yes	Pass (-)
($0.6L_s$) 46.408	0.776	-3.823	-2.053	2.382	-1.277	-1.440	No	Yes	Pass (-)
(HP) 46.837	0.776	-3.822	-2.045	2.374	-1.269	-1.448	No	Yes	Pass (-)
($0.7L_s$) 54.143	0.461	-3.515	-1.809	2.119	-1.348	-1.396	No	Yes	Pass (-)
($0.8L_s$) 61.878	0.124	-3.171	-1.386	1.636	-1.262	-1.535	No	Yes	Pass (-)
($0.9L_s$) 69.612	-0.212	-2.819	-0.784	0.930	-0.996	-1.889	No	Yes	Pass

Location from Left Support (ft)	Pre-tension		Service I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
									(-)
(PSXFR) 74.764	-0.435	-2.585	-0.282	0.336	-0.717	-2.249	No	Yes	Pass (-)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)

Interval 17: Open to Traffic : Service III Tension

Service III
Stresses at Service Limit State after Losses [5.9.2.3.2]
Tension Stresses [5.9.2.3.2b]

f'_c = 8.000 KSI

Tension stress limit in the precompressed tensile zone = $0.1900\lambda\sqrt{f'_c}$ but not more than 0.600 KSI = 0.537 KSI

Location from Left Support (ft)	Pre-tension		Service III		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.863	-0.075	-0.339	0.372	-0.502	0.297	-0.841	No	Yes	Pass (-)
(PSXFR) 3.446	-0.430	-2.558	0.043	-0.097	-0.387	-2.656	No	Yes	Pass (-)
($0.1L_s$) 7.735	-0.247	-2.753	-0.452	0.557	-0.699	-2.196	No	Yes	Pass (-)
($0.2L_s$) 15.469	0.085	-3.108	-1.146	1.639	-1.060	-1.469	No	Yes	Pass (-)
($0.3L_s$) 23.204	0.421	-3.457	-1.625	2.535	-1.204	-0.922	No	Yes	Pass (-)
($0.4L_s$) 30.939	0.755	-3.792	-1.924	3.134	-1.169	-0.658	No	Yes	Pass (-)
(HP) 31.373	0.774	-3.810	-1.936	3.158	-1.162	-0.652	No	Yes	Pass (-)
($0.5L_s$) 38.673	0.777	-3.827	-2.048	3.414	-1.271	-0.413	No	Yes	Pass (-)
($0.6L_s$) 46.408	0.776	-3.823	-1.995	3.391	-1.219	-0.432	No	Yes	Pass (-)
(HP) 46.837	0.776	-3.822	-1.987	3.381	-1.211	-0.441	No	Yes	Pass (-)
($0.7L_s$) 54.143	0.461	-3.515	-1.766	3.048	-1.305	-0.467	No	Yes	Pass (-)
($0.8L_s$) 61.878	0.124	-3.171	-1.358	2.386	-1.234	-0.785	No	Yes	Pass (-)
($0.9L_s$) 69.612	-0.212	-2.819	-0.770	1.373	-0.983	-1.446	No	Yes	Pass (-)
(PSXFR) 74.764	-0.435	-2.585	-0.278	0.500	-0.713	-2.085	No	Yes	Pass (-)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)
77.347	-0.076	-0.343	0.000	0.000	-0.076	-0.343	No	Yes	Pass (-)

Interval 17: Open to Traffic : Fatigue I Compression

Fatigue I
Stresses at Service Limit State after Losses [5.9.2.3.2]
Compression Stresses [5.9.2.3.2a]

f'_c = 8.000 KSI

Compression stress limit = $-0.4f'_c$ = -3.200 KSI

Concrete strength required to satisfy this requirement = 4.580 KSI

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
0.863	-0.075	-0.339	0.061	-0.752	0.023	-0.921	No	Yes	Pass (3.47)
(PSXFR) 3.446	-0.430	-2.558	-0.087	-0.553	-0.302	-1.832	No	Yes	Pass (1.75)
($0.1L_s$) 7.735	-0.247	-2.753	-0.314	-0.251	-0.438	-1.627	No	Yes	Pass (1.97)
($0.2L_s$) 15.469	0.085	-3.108	-0.713	0.207	-0.670	-1.346	No	Yes	Pass (2.38)
($0.3L_s$) 23.204	0.421	-3.457	-1.007	0.555	-0.796	-1.174	No	Yes	Pass (2.73)
($0.4L_s$) 30.939	0.755	-3.792	-1.192	0.795	-0.815	-1.101	No	Yes	Pass (2.91)
(HP) 31.373	0.774	-3.810	-1.199	0.805	-0.813	-1.100	No	Yes	Pass (2.91)
($0.5L_s$) 38.673	0.777	-3.827	-1.261	0.928	-0.872	-0.985	No	Yes	Pass (3.25)
($0.6L_s$) 46.408	0.776	-3.823	-1.238	0.956	-0.850	-0.955	No	Yes	Pass (3.35)
(HP) 46.837	0.776	-3.822	-1.233	0.955	-0.846	-0.956	No	Yes	Pass (3.35)
($0.7L_s$) 54.143	0.461	-3.515	-1.103	0.879	-0.872	-0.879	No	Yes	Pass (3.64)
($0.8L_s$) 61.878	0.124	-3.171	-0.849	0.694	-0.787	-0.892	No	Yes	Pass (3.59)
($0.9L_s$) 69.612	-0.212	-2.819	-0.485	0.402	-0.591	-1.008	No	Yes	Pass (3.17)
(PSXFR) 74.764	-0.435	-2.585	-0.176	0.146	-0.394	-1.146	No	Yes	Pass (2.79)
($1.0L_s$) 77.347	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)

Location from Left Support (ft)	Pre-tension		Fatigue I		Demand		Precompressed Tensile Zone		Status (C/D)
	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	f_t (KSI)	f_b (KSI)	Top	Bottom	
77.347	-0.076	-0.343	0.000	0.000	-0.038	-0.171	No	Yes	Pass (10+)

Principal Tensile Stresses in Webs

LRFD 5.9.2.3.3 - Principal Tensile Stresses in Webs limitations are not applicable.

Ultimate Moment Capacity

Positive Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-396.53	1891.00	-527.38	Pass (-)	Pass (-)
($0.1L_s$) 7.735	566.87	4364.35	753.94	Pass (5.79)	Pass (7.70)
($0.2L_s$) 15.469	1746.36	5377.53	2322.66	Pass (2.32)	Pass (3.08)
($0.3L_s$) 23.204	2842.59	5725.70	3780.65	Pass (1.51)	Pass (2.01)
($0.4L_s$) 30.939	3616.01	6069.44	4165.44	Pass (1.46)	Pass (1.68)
($0.5L_s$) 38.673	3998.25	6083.55	4168.67	Pass (1.46)	Pass (1.52)
($0.6L_s$) 46.408	4021.17	6082.77	4187.26	Pass (1.45)	Pass (1.51)
($0.7L_s$) 54.143	3653.97	5751.87	3957.84	Pass (1.45)	Pass (1.57)
($0.8L_s$) 61.878	2898.34	5405.48	3747.58	Pass (1.44)	Pass (1.87)
($0.9L_s$) 69.612	1686.33	4498.93	2242.82	Pass (2.01)	Pass (2.67)
($1.0L_s$) 77.347	0.00	2143.07	0.00	Pass (∞)	Pass (∞)

Positive Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-396.53	1891.00	-527.38	Pass (-)	Pass (-)
($0.1L_s$) 7.735	252.47	4364.35	753.94	Pass (5.79)	Pass (10+)
($0.2L_s$) 15.469	1595.38	5377.53	2322.66	Pass (2.32)	Pass (3.37)
($0.3L_s$) 23.204	2645.96	5725.70	3780.65	Pass (1.51)	Pass (2.16)
($0.4L_s$) 30.939	3385.05	6069.44	4165.44	Pass (1.46)	Pass (1.79)
($0.5L_s$) 38.673	3778.65	6083.55	4168.67	Pass (1.46)	Pass (1.61)
($0.6L_s$) 46.408	3768.72	6082.77	4187.26	Pass (1.45)	Pass (1.61)
($0.7L_s$) 54.143	3428.04	5751.87	3957.84	Pass (1.45)	Pass (1.68)
($0.8L_s$) 61.878	2716.26	5405.48	3747.58	Pass (1.44)	Pass (1.99)
($0.9L_s$) 69.612	1590.78	4498.93	2242.82	Pass (2.01)	Pass (2.83)
($1.0L_s$) 77.347	0.00	2143.07	0.00	Pass (∞)	Pass (∞)

Negative Moment Capacity for Strength I Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min $\le \phi M_n$ ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-2891.62	-3963.13	-1196.60	Pass (3.31)	Pass (1.37)
(FoS) 1.196	-2701.24	-6578.39	-1196.60	Pass (5.50)	Pass (2.44)
($0.1L_s$) 7.735	-1682.76	-6469.37	-1196.60	Pass (5.41)	Pass (3.84)
($0.2L_s$) 15.469	-1093.45	-6296.26	-1196.60	Pass (5.26)	Pass (5.76)
(Deck Bar Cutoff) 21.733	-864.67	-3348.59	-1150.01	Pass (2.91)	Pass (3.87)
($0.3L_s$) 23.204	-820.71	-3342.51	-1091.55	Pass (3.06)	Pass (4.07)
($0.4L_s$) 30.939	-608.51	-3319.12	-809.32	Pass (4.10)	Pass (5.45)
($0.5L_s$) 38.673	-427.96	-3114.88	-569.19	Pass (5.47)	Pass (7.28)
($0.6L_s$) 46.408	-279.06	-3121.93	-371.15	Pass (8.41)	Pass (10+)
($0.7L_s$) 54.143	-161.82	-3143.27	-215.22	Pass (10+)	Pass (10+)
($0.8L_s$) 61.878	-76.23	-3377.94	-101.38	Pass (10+)	Pass (10+)

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.9L_s$) 69.612	-22.29	-3426.78	-29.64	Pass (10+)	Pass (10+)
(FoS) 77.014	-0.31	-3485.78	-0.41	Pass (10+)	Pass (10+)
($1.0L_s$) 77.347	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)

Negative Moment Capacity for Strength II Limit State [5.6]

Location from Left Support (ft)	M_u (kip-ft)	ϕM_n (kip-ft)	ϕM_n Min (kip-ft)	Status	
				ϕM_n Min ≤ ϕM_n ($\phi M_n/\phi M_n$ Min)	$M_u \le \phi M_n$ ($\phi M_n/M_u$)
($0.0L_s$) 0.000	-2376.15	-3963.13	-1196.60	Pass (3.31)	Pass (1.67)
(FoS) 1.196	-2227.64	-6578.39	-1196.60	Pass (5.50)	Pass (2.95)
($0.1L_s$) 7.735	-1396.39	-6469.37	-1196.60	Pass (5.41)	Pass (4.63)
($0.2L_s$) 15.469	-986.13	-6296.26	-1196.60	Pass (5.26)	Pass (6.38)
(Deck Bar Cutoff) 21.733	-768.29	-3348.59	-1150.01	Pass (2.91)	Pass (4.36)
($0.3L_s$) 23.204	-726.89	-3342.51	-1091.55	Pass (3.06)	Pass (4.60)
($0.4L_s$) 30.939	-528.09	-3319.12	-809.32	Pass (4.10)	Pass (6.29)
($0.5L_s$) 38.673	-360.94	-3114.88	-569.19	Pass (5.47)	Pass (8.63)
($0.6L_s$) 46.408	-225.45	-3121.93	-371.15	Pass (8.41)	Pass (10+)
($0.7L_s$) 54.143	-121.61	-3143.27	-215.22	Pass (10+)	Pass (10+)
($0.8L_s$) 61.878	-49.42	-3377.94	-101.38	Pass (10+)	Pass (10+)
($0.9L_s$) 69.612	-8.88	-3426.78	-29.64	Pass (10+)	Pass (10+)
(FoS) 77.014	0.27	-3485.78	-0.41	Pass (10+)	Pass (-)
($1.0L_s$) 77.347	0.00	-3488.75	0.00	Pass (∞)	Pass (∞)

Ultimate Shear Capacity

Ultimate Shears for Strength I Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\lvert V_u \rvert$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(CS) 4.984	Yes	Yes	266.27	541.05	Pass (2.03)
(SZB) 5.866	Yes	Yes	261.52	405.25	Pass (1.55)
(1.5H) 6.446	Yes	Yes	258.39	400.87	Pass (1.55)
($0.1L_s$) 7.735	Yes	Yes	251.44	407.55	Pass (1.62)
(SZB) 11.366	Yes	Yes	231.77	323.29	Pass (1.39)
($0.2L_s$) 15.469	Yes	Yes	209.45	328.72	Pass (1.57)
(SZB) 19.616	Yes	Yes	186.88	283.67	Pass (1.52)
(Deck Bar Cutoff) 21.733	Yes	Yes	175.32	283.98	Pass (1.62)
($0.3L_s$) 23.204	Yes	Yes	167.31	284.60	Pass (1.70)
(SZB) 30.616	Yes	Yes	126.87	243.44	Pass (1.92)
($0.4L_s$) 30.939	Yes	Yes	125.11	243.80	Pass (1.95)
(HP) 31.373	Yes	Yes	122.75	244.29	Pass (1.99)
($0.5L_s$) 38.673	Yes	Yes	83.03	210.02	Pass (2.53)
($0.6L_s$) 46.408	Yes	Yes	74.27	211.28	Pass (2.84)
(HP) 46.837	Yes	Yes	76.45	241.38	Pass (3.16)
(SZB) 47.594	Yes	Yes	80.32	239.97	Pass (2.99)
($0.7L_s$) 54.143	Yes	Yes	115.90	276.14	Pass (2.38)
(SZB) 58.594	Yes	Yes	141.11	270.62	Pass (1.92)
($0.8L_s$) 61.878	Yes	Yes	160.18	311.83	Pass (1.95)
(SZB) 66.844	Yes	Yes	189.79	305.85	Pass (1.61)
($0.9L_s$) 69.612	Yes	Yes	206.71	404.12	Pass (1.95)
(1.5H) 71.764	Yes	Yes	220.05	420.02	Pass (1.91)
(SZB) 72.344	Yes	Yes	223.68	416.85	Pass (1.86)
(CS) 73.423	Yes	Yes	230.45	569.22	Pass

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
					(2.47)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Ultimate Shears for Strength II Limit State [5.8]

Location from Left Support (ft)	Stirrups Required	Stirrups Provided	$\|V_u\|$ (kip)	ϕV_n (kip)	Status ($\phi V_n/V_u$)
(SZB) 5.866	Yes	Yes	254.27	414.98	Pass (1.63)
(1.5H) 6.446	Yes	Yes	251.34	410.02	Pass (1.63)
($0.1L_s$) 7.735	Yes	Yes	244.81	416.21	Pass (1.70)
(SZB) 11.366	Yes	Yes	226.15	328.34	Pass (1.45)
($0.2L_s$) 15.469	Yes	Yes	204.50	332.32	Pass (1.63)
(SZB) 19.616	Yes	Yes	182.10	287.22	Pass (1.58)
(Deck Bar Cutoff) 21.733	Yes	Yes	170.41	287.65	Pass (1.69)
($0.3L_s$) 23.204	Yes	Yes	162.22	288.30	Pass (1.78)
(SZB) 30.616	Yes	Yes	119.83	247.28	Pass (2.06)
($0.4L_s$) 30.939	Yes	Yes	117.95	247.65	Pass (2.10)
(HP) 31.373	Yes	Yes	115.40	248.17	Pass (2.15)
($0.5L_s$) 38.673	Yes	Yes	71.71	219.77	Pass (3.06)
($0.6L_s$) 46.408	Yes	Yes	69.20	220.02	Pass (3.18)
(HP) 46.837	No	Yes	71.34	245.37	Pass (3.44)
(SZB) 47.594	Yes	Yes	75.14	244.07	Pass (3.25)
($0.7L_s$) 54.143	Yes	Yes	109.98	279.94	Pass (2.55)
(SZB) 58.594	Yes	Yes	134.51	274.15	Pass (2.04)
($0.8L_s$) 61.878	Yes	Yes	152.99	315.45	Pass (2.06)
(SZB) 66.844	Yes	Yes	181.46	308.68	Pass (1.70)
($0.9L_s$) 69.612	Yes	Yes	197.65	406.67	Pass (2.06)
(1.5H) 71.764	Yes	Yes	210.35	422.12	Pass (2.01)
(SZB) 72.344	Yes	Yes	213.79	418.76	Pass (1.96)

[LRFD 5.8.3.2] The reaction introduces compression into the end of the girder. Load between the CSS and the support is transferred directly to the support by compressive arching action without causing additional stresses in the stirrups. Hence, A_V/S in this region must be equal or greater than A_V/S at the critical section.

Longitudinal Reinforcement for Shear Check - Strength I [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad \text{5.7.3.5-1}$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad \text{5.7.3.5-2}$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 1.196	1949.42	985.98	5.7.3.5-1	Pass (1.98)
(SZB) 2.200	1988.77	918.27	5.7.3.5-1	Pass (2.17)
(Bar Develop.) 2.568	2003.20	893.72	5.7.3.5-1	Pass (2.24)
(Bar Develop.) 3.628	2020.80	823.86	5.7.3.5-1	Pass (2.45)
(H) 4.696	2020.80	758.39	5.7.3.5-1	Pass (2.66)
(CS) 4.984	2020.80	742.73	5.7.3.5-1	Pass (2.72)
(SZB) 5.866	2020.80	692.22	5.7.3.5-1	Pass (2.92)
(1.5H) 6.446	2020.80	657.29	5.7.3.5-1	Pass (3.07)
($0.1L_s$) 7.735	2020.80	582.51	5.7.3.5-1	Pass (3.47)
(SZB) 11.366	1337.61	591.41	5.7.3.5-1	Pass (2.26)
($0.2L_s$) 15.469	1652.20	729.81	5.7.3.5-1	Pass (2.26)
(SZB) 19.616	1656.44	888.83	5.7.3.5-1	Pass (1.86)
(Deck Bar Cutoff) 21.733	1658.27	936.30	5.7.3.5-1	Pass (1.77)
($0.3L_s$) 23.204	1659.53	963.10	5.7.3.5-1	Pass (1.72)

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(SZB) 30.616	1663.75	1083.19	5.7.3.5-1	Pass (1.54)
(0.4L_s) 30.939	1663.86	1083.83	5.7.3.5-1	Pass (1.54)
(HP) 31.373	1664.01	1084.36	5.7.3.5-1	Pass (1.53)
(0.5L_s) 38.673	1663.82	1160.14	5.7.3.5-1	Pass (1.43)
(0.6L_s) 46.408	1663.78	1157.88	5.7.3.5-1	Pass (1.44)
(HP) 46.837	1663.79	1110.53	5.7.3.5-1	Pass (1.50)
(SZB) 47.594	1663.50	1115.17	5.7.3.5-1	Pass (1.49)
(0.7L_s) 54.143	1659.26	1107.12	5.7.3.5-1	Pass (1.50)
(SZB) 58.594	1655.26	1063.80	5.7.3.5-1	Pass (1.56)
(0.8L_s) 61.878	1652.28	986.81	5.7.3.5-1	Pass (1.67)
(SZB) 66.844	1337.48	831.21	5.7.3.5-1	Pass (1.61)
(0.9L_s) 69.612	1127.26	665.67	5.7.3.5-1	Pass (1.69)
(1.5H) 71.764	955.77	540.70	5.7.3.5-1	Pass (1.77)
(SZB) 72.344	845.33	509.20	5.7.3.5-1	Pass (1.66)
(CS) 73.423	813.21	440.17	5.7.3.5-1	Pass (1.85)
(H) 73.514	810.52	186.38	5.7.3.5-2	Pass (4.35)
(Bar Develop.) 74.582	778.78	186.38	5.7.3.5-2	Pass (4.18)
(Bar Develop.) 75.642	644.08	186.38	5.7.3.5-2	Pass (3.46)
(SZB) 76.010	584.89	186.38	5.7.3.5-2	Pass (3.14)
(FoS) 77.014	423.00	186.38	5.7.3.5-2	Pass (2.27)

Longitudinal Reinforcement for Shear Check - Strength II [5.7.3.5]

$$A_s f_y + A_{ps} f_{ps} \geq \left| \frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right| \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
(FoS) 1.196	1949.42	843.89	5.7.3.5-1	Pass (2.31)
(SZB) 2.200	1988.77	785.77	5.7.3.5-1	Pass (2.53)
(Bar Develop.) 2.568	2003.20	764.64	5.7.3.5-1	Pass (2.62)
(Bar Develop.) 3.628	2020.80	704.26	5.7.3.5-1	Pass (2.87)
(H) 4.696	2020.80	647.79	5.7.3.5-1	Pass (3.12)
(SZB) 5.866	2020.80	589.40	5.7.3.5-1	Pass (3.43)
(1.5H) 6.446	2020.80	558.11	5.7.3.5-1	Pass (3.62)
(0.1L_s) 7.735	2020.80	493.80	5.7.3.5-1	Pass (4.09)
(SZB) 11.366	1337.61	514.49	5.7.3.5-1	Pass (2.60)
(0.2L_s) 15.469	1652.20	673.88	5.7.3.5-1	Pass (2.45)
(SZB) 19.616	1656.44	827.67	5.7.3.5-1	Pass (2.00)
(Deck Bar Cutoff) 21.733	1658.27	871.42	5.7.3.5-1	Pass (1.90)
(0.3L_s) 23.204	1659.53	896.59	5.7.3.5-1	Pass (1.85)
(SZB) 30.616	1663.75	1006.74	5.7.3.5-1	Pass (1.65)
(0.4L_s) 30.939	1663.86	1006.96	5.7.3.5-1	Pass (1.65)
(HP) 31.373	1664.01	1006.96	5.7.3.5-1	Pass (1.65)
(0.5L_s) 38.673	1663.82	1090.71	5.7.3.5-1	Pass (1.53)
(0.6L_s) 46.408	1663.78	1085.63	5.7.3.5-1	Pass (1.53)
(HP) 46.837	1663.79	1036.28	5.7.3.5-1	Pass (1.61)
(SZB) 47.594	1663.50	1038.33	5.7.3.5-1	Pass (1.60)
(0.7L_s) 54.143	1659.26	1037.27	5.7.3.5-1	Pass (1.60)
(SZB) 58.594	1655.26	991.73	5.7.3.5-1	Pass (1.67)
(0.8L_s) 61.878	1652.28	925.17	5.7.3.5-1	Pass

Location from Left Support (ft)	Capacity (kip)	Demand (kip)	Equation	Status (C/D)
				(1.79)
(SZB) 66.844	1337.48	773.46	5.7.3.5-1	Pass (1.73)
(0.9L_s) 69.612	1127.26	628.33	5.7.3.5-1	Pass (1.79)
(1.5H) 71.764	955.77	511.66	5.7.3.5-1	Pass (1.87)
(SZB) 72.344	845.33	482.11	5.7.3.5-1	Pass (1.75)
(H) 73.514	810.52	176.26	5.7.3.5-2	Pass (4.60)
(Bar Develop.) 74.582	778.78	176.26	5.7.3.5-2	Pass (4.42)
(Bar Develop.) 75.642	644.08	176.26	5.7.3.5-2	Pass (3.65)
(SZB) 76.010	584.89	176.26	5.7.3.5-2	Pass (3.32)
(FoS) 77.014	423.00	176.26	5.7.3.5-2	Pass (2.40)

Horizontal Interface Shears/Length for Strength I Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\|v_{ui}\|$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\|v_{ui}\|$)
0.863	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.615	Pass (1.98)
(FoS) 1.196	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.613	Pass (1.98)
(SZB) 2.200	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.608	Pass (1.98)
(Bar Develop.) 2.568	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.607	Pass (1.98)
(Bar Develop.) 3.628	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.602	Pass (1.98)
(H) 4.696	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.597	Pass (1.98)
(CS) 4.984	12.000	48.000	Pass	0.220	0.000	Pass	72.101	142.596	Pass (1.98)
(SZB) 5.866	12.000	48.000	Pass	0.220	0.000	Pass	70.815	142.592	Pass (2.01)
(1.5H) 6.446	12.000	48.000	Pass	0.220	0.000	Pass	69.967	142.590	Pass (2.04)
(0.1L_s) 7.735	12.000	48.000	Pass	0.220	0.000	Pass	68.085	142.584	Pass (2.09)
(SZB) 11.366	9.000	48.000	Pass	0.293	0.000	Pass	62.760	146.531	Pass (2.33)
(0.2L_s) 15.469	9.000	48.000	Pass	0.293	0.000	Pass	56.716	146.517	Pass (2.58)
(SZB) 19.616	12.000	48.000	Pass	0.220	0.000	Pass	50.577	142.545	Pass (2.82)
(Deck Bar Cutoff) 21.733	12.000	48.000	Pass	0.220	0.000	Pass	47.371	142.539	Pass (3.01)
(0.3L_s) 23.204	12.000	48.000	Pass	0.220	0.000	Pass	45.157	142.536	Pass (3.16)
(SZB) 30.616	18.000	48.000	Pass	0.147	0.000	Pass	34.094	138.562	Pass (4.06)
(0.4L_s) 30.939	18.000	48.000	Pass	0.147	0.000	Pass	33.617	138.561	Pass (4.12)
(HP) 31.373	18.000	48.000	Pass	0.147	0.000	Pass	32.976	138.561	Pass (4.20)
(0.5L_s) 38.673	18.000	48.000	Pass	0.147	0.000	Pass	22.254	138.554	Pass (6.23)
(0.6L_s) 46.408	18.000	48.000	Pass	0.147	0.000	Pass	19.900	138.553	Pass (6.96)
(HP) 46.837	18.000	48.000	Pass	0.147	0.000	Pass	20.485	138.553	Pass (6.76)
(SZB) 47.594	18.000	48.000	Pass	0.147	0.000	Pass	21.525	138.553	Pass (6.44)
(0.7L_s) 54.143	12.000	48.000	Pass	0.220	0.000	Pass	31.110	142.518	Pass (4.58)
(SZB) 58.594	12.000	48.000	Pass	0.220	0.000	Pass	37.955	142.525	Pass (3.76)
(0.8L_s) 61.878	9.000	48.000	Pass	0.293	0.000	Pass	43.164	146.491	Pass (3.39)
(SZB) 66.844	9.000	48.000	Pass	0.293	0.000	Pass	51.324	146.502	Pass (2.85)
(0.9L_s) 69.612	12.000	48.000	Pass	0.220	0.000	Pass	55.975	142.550	Pass (2.55)
(1.5H) 71.764	12.000	48.000	Pass	0.220	0.000	Pass	59.586	142.556	Pass (2.39)
(SZB) 72.344	12.000	48.000	Pass	0.220	0.000	Pass	60.568	142.558	Pass (2.35)
(CS) 73.423	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.561	Pass (2.28)
(H) 73.514	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.562	Pass (2.28)
(Bar Develop.) 74.582	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.565	Pass (2.28)
(Bar Develop.) 75.642	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.569	Pass (2.28)
(SZB) 76.010	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.570	Pass (2.28)
(FoS) 77.014	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.574	Pass (2.28)
(1.0L_s) 77.347	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.575	Pass

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\lvert v_{ui}\rvert$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\lvert v_{ui}\rvert$)
									(2.28)
77.347	12.000	48.000	Pass	0.220	0.000	Pass	62.402	142.575	Pass (2.28)

Horizontal Interface Shears/Length for Strength II Limit State [5.7.4]

Location from Left Support (ft)	5.7.4.5			5.7.4.2			5.7.4.1		
	s (in)	s_{max} (in)	Status	a_{vf} (in^2/ft)	$a_{vf\ min}$ (in^2/ft)	Status	$\lvert v_{ui}\rvert$ (kip/ft)	ϕv_{ni} (kip/ft)	Status ($\phi v_{ni}/\lvert v_{ui}\rvert$)
0.863	12.000	48.000	Pass	0.220	0.000	Pass	70.050	142.615	Pass (2.04)
(FoS) 1.196	12.000	48.000	Pass	0.220	0.000	Pass	70.050	142.613	Pass (2.04)
(SZB) 2.200	12.000	48.000	Pass	0.220	0.000	Pass	70.050	142.608	Pass (2.04)
(Bar Develop.) 2.568	12.000	48.000	Pass	0.220	0.000	Pass	70.050	142.607	Pass (2.04)
(Bar Develop.) 3.628	12.000	48.000	Pass	0.220	0.000	Pass	70.050	142.602	Pass (2.04)
(H) 4.696	12.000	48.000	Pass	0.220	0.000	Pass	70.050	142.597	Pass (2.04)
(SZB) 5.866	12.000	48.000	Pass	0.220	0.000	Pass	68.853	142.592	Pass (2.07)
(1.5H) 6.446	12.000	48.000	Pass	0.220	0.000	Pass	68.059	142.590	Pass (2.10)
($0.1L_s$) 7.735	12.000	48.000	Pass	0.220	0.000	Pass	66.291	142.584	Pass (2.15)
(SZB) 11.366	9.000	48.000	Pass	0.293	0.000	Pass	61.238	146.531	Pass (2.39)
($0.2L_s$) 15.469	9.000	48.000	Pass	0.293	0.000	Pass	55.376	146.517	Pass (2.65)
(SZB) 19.616	12.000	48.000	Pass	0.220	0.000	Pass	49.283	142.545	Pass (2.89)
(Deck Bar Cutoff) 21.733	12.000	48.000	Pass	0.220	0.000	Pass	46.044	142.539	Pass (3.10)
($0.3L_s$) 23.204	12.000	48.000	Pass	0.220	0.000	Pass	43.784	142.536	Pass (3.26)
(SZB) 30.616	18.000	48.000	Pass	0.147	0.000	Pass	32.204	138.562	Pass (4.30)
($0.4L_s$) 30.939	18.000	48.000	Pass	0.147	0.000	Pass	31.692	138.561	Pass (4.37)
(HP) 31.373	18.000	48.000	Pass	0.147	0.000	Pass	31.002	138.561	Pass (4.47)
($0.5L_s$) 38.673	18.000	48.000	Pass	0.147	0.000	Pass	19.221	138.554	Pass (7.21)
($0.6L_s$) 46.408	18.000	48.000	Pass	0.147	0.000	Pass	18.541	138.553	Pass (7.47)
(HP) 46.837	18.000	48.000	Pass	0.147	0.000	Pass	19.116	138.553	Pass (7.25)
(SZB) 47.594	18.000	48.000	Pass	0.147	0.000	Pass	20.136	138.553	Pass (6.88)
($0.7L_s$) 54.143	12.000	48.000	Pass	0.220	0.000	Pass	29.523	142.518	Pass (4.83)
(SZB) 58.594	12.000	48.000	Pass	0.220	0.000	Pass	36.179	142.525	Pass (3.94)
($0.8L_s$) 61.878	9.000	48.000	Pass	0.293	0.000	Pass	41.228	146.491	Pass (3.55)
(SZB) 66.844	9.000	48.000	Pass	0.293	0.000	Pass	49.072	146.502	Pass (2.99)
($0.9L_s$) 69.612	12.000	48.000	Pass	0.220	0.000	Pass	53.522	142.550	Pass (2.66)
(1.5H) 71.764	12.000	48.000	Pass	0.220	0.000	Pass	56.958	142.556	Pass (2.50)
(SZB) 72.344	12.000	48.000	Pass	0.220	0.000	Pass	57.890	142.558	Pass (2.46)
(H) 73.514	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.562	Pass (2.39)
(Bar Develop.) 74.582	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.565	Pass (2.39)
(Bar Develop.) 75.642	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.569	Pass (2.39)
(SZB) 76.010	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.570	Pass (2.39)
(FoS) 77.014	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.574	Pass (2.39)
($1.0L_s$) 77.347	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.575	Pass (2.39)
77.347	12.000	48.000	Pass	0.220	0.000	Pass	59.631	142.575	Pass (2.39)

Live Load Deflection Check [2.5.2.6.2]
Allowable deflection span ratio = L/800
Allowable maximum deflection = ± 1.160 in
Minimum live load deflection along girder = -0.225 in
Maximum live load deflection along girder = 0.095 in
Status = Pass

Constructability Checks

Girder Dimensions Detailing Check [5.12.3.2.2]

Dimension	Minimum (in)	Actual (in)	Status
Top Flange Thickness	2.000	3.500	Pass
Web Thickness	5.000	7.000	Pass
Bottom Flange Thickness	5.000	6.500	Pass

Stirrup Detailing Check: Strength I [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.863	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 1.196	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 2.200	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.568	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 3.628	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 4.696	#4	4.000	18.000	1.500	1.200	0.125	Pass
(CS) 4.984	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.866	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 6.446	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.735	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 11.366	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.469	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 19.616	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 21.733	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.204	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 30.616	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.939	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 31.373	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.673	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.408	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.837	#4	18.000	18.000	1.500	0.267	0.125	Pass
(SZB) 47.594	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 54.143	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 58.594	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.878	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.844	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.612	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.764	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 72.344	#4	6.000	18.000	1.500	0.800	0.125	Pass
(CS) 73.423	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 73.514	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.582	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 75.642	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 76.010	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 77.014	#4	3.000	18.000	1.500	1.600	0.125	Pass
($1.0L_s$) 77.347	#4	3.000	18.000	1.500	1.600	0.125	Pass
77.347	#4	3.000	18.000	1.500	1.600	0.000	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Stirrup Detailing Check: Strength II [5.7.2.5, 5.7.2.6, 5.10.3.1.2]

Location from Left Support (ft)	Bar Size	S (in)	S_{max} (in)	S_{min} (in)	A_V/S (in^2/ft)	A_V/S_{min} (in^2/ft)*	Status
0.863	#4	3.000	18.000	1.500	1.600	0.125	Pass
(FoS) 1.196	#4	3.000	18.000	1.500	1.600	0.125	Pass
(SZB) 2.200	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 2.568	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 3.628	#4	4.000	18.000	1.500	1.200	0.125	Pass
(H) 4.696	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 5.866	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 6.446	#4	6.000	18.000	1.500	0.800	0.125	Pass
($0.1L_s$) 7.735	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 11.366	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.2L_s$) 15.469	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 19.616	#4	12.000	18.000	1.500	0.400	0.125	Pass
(Deck Bar Cutoff) 21.733	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.3L_s$) 23.204	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 30.616	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.4L_s$) 30.939	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 31.373	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.5L_s$) 38.673	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.6L_s$) 46.408	#4	18.000	18.000	1.500	0.267	0.125	Pass
(HP) 46.837	#4	18.000	18.000	1.500	0.267	0.000	Pass
(SZB) 47.594	#4	18.000	18.000	1.500	0.267	0.125	Pass
($0.7L_s$) 54.143	#4	12.000	18.000	1.500	0.400	0.125	Pass
(SZB) 58.594	#4	12.000	18.000	1.500	0.400	0.125	Pass
($0.8L_s$) 61.878	#4	9.000	18.000	1.500	0.533	0.125	Pass
(SZB) 66.844	#4	9.000	18.000	1.500	0.533	0.125	Pass
($0.9L_s$) 69.612	#4	6.000	18.000	1.500	0.800	0.125	Pass
(1.5H) 71.764	#4	6.000	18.000	1.500	0.800	0.125	Pass
(SZB) 72.344	#4	6.000	18.000	1.500	0.800	0.125	Pass
(H) 73.514	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 74.582	#4	4.000	18.000	1.500	1.200	0.125	Pass
(Bar Develop.) 75.642	#4	4.000	18.000	1.500	1.200	0.125	Pass
(SZB) 76.010	#4	4.000	18.000	1.500	1.200	0.125	Pass
(FoS) 77.014	#4	3.000	18.000	1.500	1.600	0.125	Pass
($1.0L_s$) 77.347	#4	3.000	18.000	1.500	1.600	0.125	Pass
77.347	#4	3.000	18.000	1.500	1.600	0.000	Pass

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [Eqn 5.7.2.3-1]

Hold Down Force

Hold Down Force (kip/strand)	Hold Down Force Limit (kip/strand)	Status
3.31	4.00	Pass

Haunch Geometry Checks

Note: Specification Checks for Haunch Geometry are Disabled in the Project Criteria. All Status values will be reported as N/A.

Slab Offset ("A" Dimension)

This table compares the input slab offset to the rounded computed slab offset required to have the least haunch depth be equal to the Fillet dimension. A failed status indicates that the top of the girder will encroach into the deck slab and the Slab Offset dimension should be refined.

Span	Girder	Provided (in)	Required (in)	Status	Notes
2	L	11.000	12.000	N/A	

Minimum Fillet Depth

This table compares the provided Fillet dimension to the minimum Fillet dimension specified in the girder library. A failed status indicates that the Fillet dimension is too small.

Span	Girder	Provided (in)	Required (in)	Status
2	L	1.000	1.000	N/A

Camber

	Camber (in)
Screed Camber, C at mid-span	1.105
Lower Bound Camber at 60 days, 50% of D_{60}	1.665
Average Camber at 60 days, 75% of D_{60}	2.497
Upper Bound Camber at 60 days, D_{60}	3.329

Bridge Description Details

Span 2 Girder L

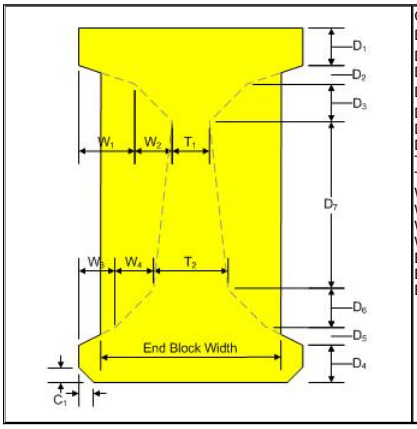
Deck and Roadway Widths

Location from Left Support (ft)	Station	Deck Width (ft)	Exterior Curb-Curb Width (ft)	Interior Curb-Curb Width (ft)	Overlay Toe-Toe Width (ft)
($0.0L_s$) 0.000	94+49.92	94.000	91.000	74.000	74.000
0.863	94+50.84	94.000	91.000	74.000	74.000
($0.1L_s$) 7.735	94+58.10	94.000	91.000	74.000	74.000
($0.2L_s$) 15.469	94+66.28	94.000	91.000	74.000	74.000
($0.3L_s$) 23.204	94+74.47	94.000	91.000	74.000	74.000
($0.4L_s$) 30.939	94+82.66	94.000	91.000	74.000	74.000
($0.5L_s$) 38.673	94+90.86	94.000	91.000	74.000	74.000
($0.6L_s$) 46.408	94+99.06	94.000	91.000	74.000	74.000
($0.7L_s$) 54.143	95+07.25	94.000	91.000	74.000	74.000
($0.8L_s$) 61.878	95+15.45	94.000	91.000	74.000	74.000
($0.9L_s$) 69.612	95+23.64	94.000	91.000	74.000	74.000
($1.0L_s$) 77.347	95+31.82	94.000	91.000	74.000	74.000
77.347	95+31.82	94.000	91.000	74.000	74.000

Intermediate Diaphragms

No intermediate diaphragms defined

BT-42 CDOT Dimensions



C1 = 0.000 in (0")
D1 = 3.500 in ($3^1/_2$")
D2 = 2.000 in (2")
D3 = 2.000 in (2")
D4 = 6.500 in ($6^1/_2$")
D5 = 6.000 in (6")
D6 = 0.000 in (0")
D7 = 22.000 in (1'-10")
T1 = 7.000 in (7")
T2 = 7.000 in (7")
W1 = 16.000 in (1'-4")
W2 = 2.000 in (2")
W3 = 10.000 in (10")
W4 = 0.000 in (0")
EndBlockWidth = 0.000 in (0")
EndBlockLength = 0.000 ft (0")
EndBlockTransition = 0.000 ft (0")

Strand Locations

X = 0 is at CL Girder, Y = 0 is at Top of Girder

Straight Strands

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
1	-3.000	-40.000	-3.000	-40.000	•	•
2	3.000	-40.000	3.000	-40.000	•	•
3	-5.000	-40.000	-5.000	-40.000	•	•
4	5.000	-40.000	5.000	-40.000	•	•
5	-7.000	-40.000	-7.000	-40.000	•	•
6	7.000	-40.000	7.000	-40.000	•	•
7	-9.000	-40.000	-9.000	-40.000	•	•

Strand	Left End		Right End		Extended Left End	Extended Right End
	X (in)	Y (in)	X (in)	Y (in)		
8	9.000	-40.000	9.000	-40.000	•	•
9	-3.000	-38.000	-3.000	-38.000		
10	3.000	-38.000	3.000	-38.000		
11	-5.000	-38.000	-5.000	-38.000		
12	5.000	-38.000	5.000	-38.000		
13	-7.000	-38.000	-7.000	-38.000		
14	7.000	-38.000	7.000	-38.000		
15	-9.000	-38.000	-9.000	-38.000		
16	9.000	-38.000	9.000	-38.000		
17	-11.000	-38.000	-11.000	-38.000		
18	11.000	-38.000	11.000	-38.000		

No Temporary Strands in Girder

Harped Strand Locations at Ends of Girder

Strand	X (in)	Y (in)
1	-1.000	-12.000
2	1.000	-12.000
3	-1.000	-10.000
4	1.000	-10.000
5	-1.000	-8.000
6	1.000	-8.000
7	-1.000	-6.000
8	1.000	-6.000
9	-1.000	-4.000
10	1.000	-4.000

Harped Strand Locations at Harping Points

Strand	X (in)	Y (in)
1	-1.000	-40.000
2	1.000	-40.000
3	-1.000	-38.000
4	1.000	-38.000
5	-1.000	-36.000
6	1.000	-36.000
7	-1.000	-34.000
8	1.000	-34.000
9	-1.000	-32.000
10	1.000	-32.000

Strand Eccentricity

Strand Eccentricity: Interval 2 Prestress Release

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	18.069	-12.820	7.037	13.2544	13.2544
0.417	0.000	18.070	-12.442	7.173	13.2544	13.2544
0.417	(0.0L_e) 0.000	18.070	-12.442	7.173	13.2544	13.2544
(FoS) 0.750	(FoS) 0.333	18.071	-12.139	7.282	13.2544	13.2544
(SZB) 1.753	(SZB) 1.337	18.074	-11.227	7.609	13.2544	13.2544
(Bar Develop.) 2.121	(Bar Develop.) 1.705	18.075	-10.893	7.729	13.2544	13.2544
(PSXFR) 3.000	(PSXFR) 2.583	18.078	-10.095	8.016	13.2544	13.2544
(Bar Develop.) 3.182	(Bar Develop.) 2.765	18.078	-9.930	8.076	13.2544	13.2544
(H) 4.250	(H) 3.833	18.082	-8.959	8.424	13.2544	13.2544
(CS) 4.537	(CS) 4.121	18.083	-8.698	8.518	13.2544	13.2544
(SZB) 5.419	(SZB) 5.003	18.085	-7.897	8.806	13.2544	13.2544
(1.5H) 6.000	(1.5H) 5.583	18.087	-7.370	8.995	13.2544	13.2544
(0.1L_t) 7.732	7.315	18.092	-5.797	9.561	13.2544	13.2544
8.065	(0.1L_e) 7.648	18.093	-5.494	9.669	13.2544	13.2544
(SZB) 10.919	(SZB) 10.503	18.102	-2.901	10.601	13.2544	13.2544
(0.2L_t) 15.463	15.047	18.116	1.227	12.084	13.2544	13.2544
15.713	(0.2L_e) 15.297	18.117	1.454	12.166	13.2544	13.2544
(SZB) 19.169	(SZB) 18.753	18.127	4.593	13.294	13.2544	13.2544
(Deck Bar Cutoff) 21.286	(Deck Bar Cutoff) 20.870	18.134	6.516	13.985	13.2544	13.2544
(0.3L_t) 23.195	22.778	18.139	8.250	14.608	13.2544	13.2544
23.362	(0.3L_e) 22.945	18.140	8.402	14.662	13.2544	13.2544
(SZB) 30.169	(SZB) 29.753	18.161	14.586	16.884	13.2544	13.2544
(HP, 0.4L_t) 30.927	(HP) 30.510	18.163	15.274	17.131	13.2544	13.2544
31.010	(0.4L_e) 30.593	18.163	15.274	17.131	∞	∞
(0.5L_t) 38.659	(0.5L_e) 38.242	18.163	15.274	17.131	∞	∞
46.307	(0.6L_e) 45.890	18.163	15.274	17.131	∞	∞
(HP, 0.6L_t) 46.390	(HP) 45.974	18.163	15.274	17.131	13.2544	13.2544
(SZB) 47.148	(SZB) 46.731	18.161	14.586	16.884	13.2544	13.2544
53.955	(0.7L_e) 53.539	18.140	8.402	14.662	13.2544	13.2544
(0.7L_t) 54.122	53.705	18.139	8.250	14.608	13.2544	13.2544
(SZB) 58.148	(SZB) 57.731	18.127	4.593	13.294	13.2544	13.2544
61.604	(0.8L_e) 61.187	18.117	1.454	12.166	13.2544	13.2544
(0.8L_t) 61.854	61.437	18.116	1.227	12.084	13.2544	13.2544
(SZB) 66.398	(SZB) 65.981	18.102	-2.901	10.601	13.2544	13.2544
69.252	(0.9L_e) 68.835	18.093	-5.494	9.669	13.2544	13.2544
(0.9L_t) 69.585	69.169	18.092	-5.797	9.561	13.2544	13.2544
(1.5H) 71.317	(1.5H) 70.900	18.087	-7.370	8.995	13.2544	13.2544
(SZB) 71.898	(SZB) 71.481	18.085	-7.897	8.806	13.2544	13.2544
(CS) 72.977	(CS) 72.560	18.082	-8.877	8.454	13.2544	13.2544
(H) 73.067	(H) 72.650	18.082	-8.959	8.424	13.2544	13.2544
(Bar Develop.) 74.135	(Bar Develop.) 73.718	18.078	-9.930	8.076	13.2544	13.2544
(PSXFR) 74.317	(PSXFR) 73.900	18.078	-10.095	8.016	13.2544	13.2544
(Bar Develop.) 75.196	(Bar Develop.) 74.779	18.075	-10.893	7.729	13.2544	13.2544
(SZB) 75.564	(SZB) 75.147	18.074	-11.227	7.609	13.2544	13.2544
(FoS) 76.567	(FoS) 76.150	18.071	-12.139	7.282	13.2544	13.2544

Location from End of Girder (ft)	Location from Left Support (ft)	Eccentricity			Strand Slope	
		Straight e_s (in)	Harped e_h (in)	All Strands e_p (in)	Average (1:n)	Maximum (1:n)
76.900	($1.0L_e$) 76.484	18.070	-12.442	7.173	13.2544	13.2544
76.900	76.484	18.070	-12.442	7.173	13.2544	13.2544
(STLF, $1.0L_t$) 77.317	(STLF) 76.900	18.069	-12.820	7.037	13.2544	13.2544

Eccentricities are based on the gross non-composite girder section
Eccentricities measured from neutral axis of non-composite section based on material properties at time of prestress release
Positive e_y values indicate strands are below the centroid

Debonding Criteria
Maximum number of debonded strands = 25% of total number of strands
Maximum number of debonded strands per row = 40% of strands in any row
Maximum number of debonded strands per section. The greater of 4 strands or 40% of strands debonded at any section
Maximum distance between debond sections = 3.000 ft

Deflection Multipliers
The factors below are multiplied by the specified load case's deflections when computing deflections and excess camber

Load Cases	Factor
Erection (Girder, Prestress)	1.000
Creep	1.000
Diaphragm, Construction, Shear key	1.000
Deck Panels	1.000
Slab, User Defined Loads at Cast Deck, Apply User Defined Loads	1.000
Haunch	1.000
Railing System (Traffic Barrier, Sidewalks), Overlay, User Defined Loads at Apply User Defined Loads, Install Railing System and Overlay	1.000

Transverse Reinforcement Stirrup Zones

Primary Bars

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Vertical Legs	# Legs Extended into Deck*	Confinement Bar Size
1	0.000	1.750	#4	3.000	2	0	(None)
2	1.750	5.416	#4	4.000	2	0	(None)
3	5.416	10.916	#4	6.000	2	0	(None)
4	10.916	19.166	#4	9.000	2	0	(None)
5	19.166	30.166	#4	12.000	2	0	(None)
6	30.166	47.151	#4	18.000	2	0	(None)
7	47.151	58.151	#4	12.000	2	0	(None)
8	58.151	66.401	#4	9.000	2	0	(None)
9	66.401	71.901	#4	6.000	2	0	(None)
10	71.901	75.567	#4	4.000	2	0	(None)
11	75.567	77.317	#4	3.000	2	0	(None)

* Bars add to horizontal interface shear capacity

Additional Bars for Horizontal Interface Shear Capacity

Zone	Zone Start (ft)	Zone End (ft)	Bar Size	Bar Spacing (in)	# of Legs
1	0.000	10.917	#3	12.000	2
2	10.917	19.167	#3	9.000	2
3	19.167	30.167	#3	12.000	2
4	30.167	47.150	#3	18.000	2
5	47.150	58.150	#3	12.000	2
6	58.150	66.400	#3	9.000	2
7	66.400	77.317	#3	12.000	2

Additional Splitting Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)	# of Legs
0.500	#6	4.000	2

Additional Bottom Flange Confinement Stirrups

Zone Length (ft)	Bar Size	Bar Spacing (in)
6.500	#3	4.000

Longitudinal Rebar Locations
Bar start and end locations measured from left end of girder

Row	Bar Start (ft)	Bar End (ft)	Girder Face	Cover (in)	Bar Size	# of Bars	Spacing (in)
1	0.000	77.317	Top	2.375	#4	4	6.000
2	0.000	77.317	Bottom	2.500	#4	2	24.000
3	0.000	77.317	Top	2.375	#6	2	36.000

Materials

Permanent Strands

Name	Grade 270 Low Relaxation 0.6"
Type	Low Relaxation
f_{pu}	270.000 KSI
f_{py}	243.000 KSI
E_{ps}	28500.000 KSI
A_{ps}	0.217 in^2

Deck Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Transverse Reinforcing Material (Stirrups, Confinement, and Horizontal Interface Shear Bars)

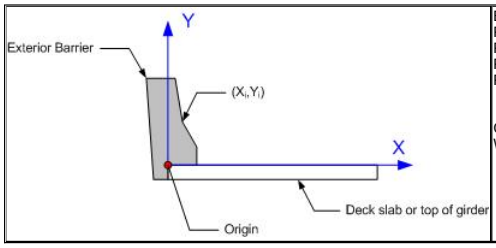
Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

Longitudinal Girder Reinforcing Material

Type	AASHTO M31 (A615) - Grade 60
f_y	60.000 KSI

f_u	90.000 KSI	f_u	90.000 KSI	f_u	90.000 KSI

Parker Rail Dimensions



Barrier Points
Point 1= (0.000 in, 0.000 in)
Point 2= (0.000 in, 30.000 in)
Point 3= (18.000 in, 30.000 in)
Point 4= (18.000 in, 0.000 in)

Curb Offset = 0.000 in
Weight = 0.700 kip/ft/barrier

Project Criteria

Name: CDOT
Description: AASHTO LRFD Bridge Design Spec, 8th Ed. 2017, US Units, CDOT stress requirements
Based on: AASHTO LRFD Bridge Design Specification, Eighth Edition 2017 - US Units
Section Properties: Gross
Effective Flange Width computed in accordance with LRFD 4.6.2.6

Load Modifiers		Environmental		Structural Analysis
Ductility - η_D	1	Exposure Condition	Normal	Simple Spans Made Continuous
Importance - η_I	1	Relative Humidity	55%	
Redundancy - η_R	1			

Casting Yard Criteria

Max. Strand slope is not checked
Permissible hold down force per strand = 4.00 kip
The hold down force includes 0.00 % friction
Max. girder weight in casting yard is not checked
Girder was cured using Normal method
1 day of steam or radiant heat curing is equal to 7 days of normal curing

Concrete Stress Limits - Service I (5.9.2.3.1)
- Compressive Stress = -3.900 KSI
- Tensile Stress (w/o mild rebar) = 0.200 KSI
- Tensile Stress (w/ mild rebar) = 0.588 KSI
Splitting checks (5.9.4.4.1) are disabled.
Confinement checks (5.9.4.4.2) are disabled.

Temporary Strand Removal Criteria

Compression Stress Limits
- Service I = -5.200 KSI
Tension Stress Limits
- Service I (w/o mild rebar) = 0.537 KSI
- Service I (w/ mild rebar) = 0.679 KSI

Deck and Diaphragm Placement Stage Criteria

Compression Stress Limits
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.537 KSI

Final without Live Load Criteria

Railing system weight is distributed to 6 nearest girders
Compression Stress Limits (5.9.2.3.2a)
- Service I = -3.600 KSI
Tension Stress Limits
- Service I = 0.000 KSI

Effective Flange Width computed in accordance with LRFD 4.6.2.6

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1

Final with Live Load Stage Criteria

Compression Stress Limits (5.9.2.3.2a)
- Service I (permanent + live load) = -4.800 KSI
Tension Stress Limits (5.9.2.3.2b)
- Service III = 0.000 KSI
Allowable Compressive Concrete Stresses (5.5.3.1)
- Fatigue I = -3.200 KSI
LL Distribution factors are calculated in accordance with LRFD 4.6.2.2
Haunch Geometry check is disabled.

Moment Capacity Criteria

Modulus of rupture = 0.679 KSI

Shear Capacity Criteria

Shear capacity computed in accordance with LRFD 5.7.3.4.2 (General method)
Modulus of rupture = 0.566 KSI
Maximum Spacing of Transverse Reinforcement (LRFD 5.7.2.6)
Eqn 5.7.2.6-1: If $v_u < 0.125f'_c$ then $S_{max} = 0.8d_v \leq 18.000$ in
Eqn 5.7.2.6-2: If $v_u \geq 0.125f'_c$ then $S_{max} = 0.4d_v \leq 12.000$ in
Longitudinal reinforcement requirements computed in accordance with LRFD 5.7.3.5
Shear stress at girder/deck interface computed using the classical shear flow formula: $V_{ui} = (V_u Q)/(Ib)$
Maximum spacing of interface shear connectors (LRFD 5.7.4.5): 48.000 in, or the depth of the member.
Interface shear compressive force normal to shear plane, Pc, for use in LRFD Eq 5.7.4.3-3 is computed from the deck weight.

Haunch And Assumed Excess Camber Criteria

Haunch dead load is computed assuming that the top of the girder is flat (Zero assumed excess camber)
Composite section properties and capacities are computed assuming a Constant Haunch Depth equal to the Fillet value

Creep Criteria

Creep is calculated in accordance with LRFD (5.4.2.3.2)
# of hours from stressing to prestress transfer : 24
# of days from prestress transfer until removal of temporary strands / diaphram casting : 1 Min, 1 Max
# of days from prestress transfer until slab-girder continuity is achieved : 60 Min, 60 Max

Variability between upper and lower bound camber : 50

Losses Criteria

Losses calculated per Approximate Lump Sum Method in accordance with AASHTO LRFD 5.9.3.3
Assumed time at shipping = 10 day
Contribution to Elastic Gains
Slab = 100%

Haunch = 100%
Diaphragms = 100%
User DC (Before Deck Placement) = 100%
User DW (Before Deck Placement) = 100%
Railing System = 100%
Overlay = 100%
User DC (After Deck Placement) = 100%
User DW (After Deck Placement) = 100%

Stress Limits for Prestressing Tendons

Stress Limit at Jacking
- Stress Relieved Strand = $0.7f_{pu}$
- Low Relaxation Strand = $0.75f_{pu}$

Stress Limit at service limit state after all losses
- Stress Relieved Strand = $0.8f_{py}$
- Low Relaxation Strand = $0.8f_{py}$

Deflection Criteria
Live Load Deflection Limit: $L_{span}/800$

Loading Details

Uniform Loads Applied Along the Entire Girder

Load Type	w (kip/ft)
Girder	0.740
Sidewalk	0.279
Traffic Barrier	0.117
Pedestrian Live Load	0.106

Slab Load Applied Along Girder
Tributary width used to compute slab load is measured from top CL girder
Slab load is approximated with linear load segments applied along the length of the girder. Segments located outside of bearings are applied as point loads/moments at bearings.
Unit weight of Slab material is 0.150 kip/ft^3
Haunch weight includes effects of roadway geometry, and is measured along the centerline of the girder, but does not include a reduction for camber.

Location From Left Bearing (ft)	Casting Region	Main Slab Weight (kip/ft)	Assumed Haunch Depth (in)	Haunch Weight (kip/ft)	Total Slab Weight (kip/ft)
-0.417	1	0.967	3.005	0.135	1.101
0.000	1	0.965	3.000	0.134	1.099
7.648	1	0.938	2.913	0.130	1.068
15.297	1	0.882	2.846	0.127	1.009
22.945	1	0.846	2.797	0.125	0.971
30.593	1	0.822	2.768	0.124	0.946
38.242	1	0.810	2.759	0.124	0.933
45.890	1	0.809	2.768	0.124	0.933
53.539	1	0.819	2.797	0.125	0.944
61.187	1	0.841	2.846	0.127	0.968
68.835	1	0.874	2.913	0.130	1.005
76.484	1	0.919	3.000	0.134	1.054
76.484	1	0.919	3.000	0.134	1.054
76.900	1	0.922	3.005	0.135	1.057

Slab Cantilever Loads

Location	Main Slab		Haunch	
	Point Load (kip)	Point Moment (kip-ft)	Point Load (kip)	Point Moment (kip-ft)
Back Bearing	0.40	0.00	0.06	0.00
Ahead Bearing	0.38	0.00	0.06	0.00

Slab Haunch Load Details

Location From Left Bearing (ft)	Station	Offset (ft)	Casting Region	Top Slab Elevation (ft)	Girder Chord Elevation (ft)	Top Girder Elevation (ft)	Slab Thickness (in)	Assumed Haunch Depth (in)	Haunch Load (kip/ft)
-0.417	94+50.40	42.218 R	1	-0.844	-1.761	-1.761	8.000	3.005	0.135
0.000	94+50.84	42.242 R	1	-0.845	-1.762	-1.762	8.000	3.000	0.134
7.648	94+58.92	42.653 R	1	-0.853	-1.762	-1.762	8.000	2.913	0.130
15.297	94+67.01	42.983 R	1	-0.860	-1.763	-1.763	8.000	2.846	0.127
22.945	94+75.11	43.233 R	1	-0.865	-1.764	-1.764	8.000	2.797	0.125
30.593	94+83.21	43.402 R	1	-0.868	-1.765	-1.765	8.000	2.768	0.124
38.242	94+91.32	43.491 R	1	-0.870	-1.766	-1.766	8.000	2.759	0.124
45.890	94+99.42	43.500 R	1	-0.870	-1.767	-1.767	8.000	2.768	0.124
53.539	95+07.53	43.428 R	1	-0.869	-1.768	-1.768	8.000	2.797	0.125
61.187	95+15.63	43.275 R	1	-0.866	-1.769	-1.769	8.000	2.846	0.127
68.835	95+23.73	43.042 R	1	-0.861	-1.770	-1.770	8.000	2.913	0.130
76.484	95+31.82	42.729 R	1	-0.855	-1.771	-1.771	8.000	3.000	0.134
76.484	95+31.82	42.729 R	1	-0.855	-1.771	-1.771	8.000	3.000	0.134
76.900	95+32.26	42.710 R	1	-0.854	-1.771	-1.771	8.000	3.005	0.135

Overlay
Overlay load is uniform along entire girder length.

Load Type	W_{cc} (ft)	w (kip/ft)
Overlay Weight	74.000	0.227

Overlay load is distributed uniformly among all girders per LRFD 4.6.2.2.1
W_{cc} is the curb to curb width

Distribution of Uniform Barrier, Sidewalk, and Pedestrian Loads to Girder

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Left Ext. Barrier	0.700	0.000	0.000
Left Sidewalk	1.672	0.000	0.000
Left Pedestrian Live	0.637	0.000	0.000
Right Sidewalk	1.672	0.167	0.279
Right Ext. Barrier	0.700	0.167	0.117

Load Type	Total Weight (kip/ft)	Fraction to Girder	Girder Load (kip/ft)
Right Pedestrian Live	0.637	0.167	0.106

Span 2

Pier Diaphragm Loads

Pier	Location	P (kip)	Moment Arm (ft)	M (kip-ft)
2	Back Bearing	2.50	0.000	0.00
	Ahead Bearing	2.45	0.000	0.00
3	Back Bearing	3.10	0.000	0.00

User Defined Loads

Point loads were not defined for this girder

Distributed Loads

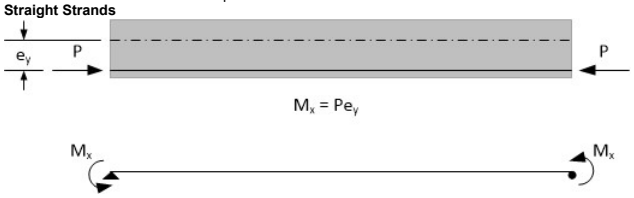
Interval	Load Case	Start Location (ft)	End Location (ft)	Start Magnitude (kip/ft)	End Magnitude (kip/ft)	Description
Interval 11: Cast Deck, Apply User Defined Loads	DC	0.000	77.347	0.022	0.022	SIP Forms
Interval 15: Apply User Defined Loads, Install Railing System and Overlay	DW	0.000	77.347	0.040	0.040	Utility Load

Moment loads were not defined for this girder

Equivalent Pretension Loading

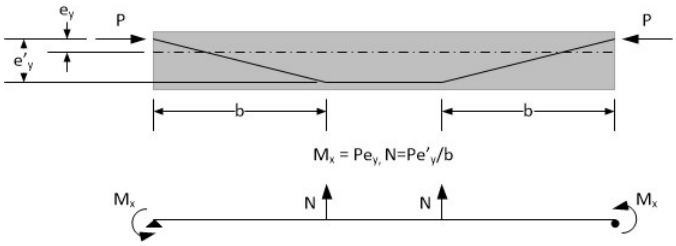
These loads are used to determine girder deflections due to pretension forces
Loads and eccentricities shown in positive directions

Straight Strands



M_x = (715.98 kip)(18.039 in) = 1076.27 kip-ft at 0.000 ft
M_x = (-715.98 kip)(18.039 in) = -1076.27 kip-ft at 77.317 ft

Harped Strands



M_x = (397.76 kip)(-12.850 in) = -425.94 kip-ft at 0.000 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.76 kip)(28.000 in)/(30.927 ft) = 30.01 kip at 30.927 ft
e'_y = (15.150 in - -12.850 in) = 28.000 in
N = (397.76 kip)(28.000 in)/(30.927 ft) = 30.01 kip at 46.390 ft
M_x = (-397.76 kip)(-12.850 in) = 425.94 kip-ft at 77.317 ft

Live Loads

The following live loads were applied to the design (Service and Strength I) limit states:
HL-93

The following live loads were applied to the fatigue (Fatigue I) limit states:
Fatigue

The following live loads were applied to the permit (Strength II) limit states:
CDOT Permit

Limit State Load Factors

Limit State	γ_{DC}	γ_{DW}	γ_{LL}
Service I	1.00	1.00	1.00
Service III	1.00	1.00	0.80
Fatigue I	0.50	0.50	1.50
Strength I	1.25/ 0.90	1.50/ 0.65	1.75
Strength II	1.25/ 0.90	1.50/ 0.65	1.35

Live Load Details

Live Loads used for Design

The following live loads were applied to the design (Service and Strength I) limit states:
AASHTO LRFD 3.6.1.2: HL-93 Design Vehicular Live Load
Pedestrian live load was applied concurrently with vehicular live loads.

Live Loads Used for Fatigue Limit States

The following live loads were applied to the Fatigue I limit state:
AASHTO LRFD 3.6.1.4: Fatigue Vehicular Live Load
Pedestrian live load was not applied.

Live Loads Used for Design Permit Limit State

The following live loads were applied to the design permit (Strength II) limit state:
User-defined vehicular live load: CDOT Permit
Configuration: Truck applied only (no lane)
Usage: Use for all actions at all locations

Axle	Weight (kip)	Spacing (ft)
1	27.00	
2	25.00	14.000
3	25.00	4.000
4	25.00	12.000

Axle	Weight (kip)	Spacing (ft)
5	25.00	4.000
6	21.70	35.000
7	21.70	4.000
8	21.70	4.000

Pedestrian live load was not applied.

Transfer and Development Length Details

Transfer Length [5.9.4.3.1]

$l_t = 60d_b$

$d_b = 0.600$ in

$l_t = 36.000$ in

Development Length [5.9.4.3.2]

$$l_d \geq \kappa\left(f_{ps} - \frac{2}{3}f_{pe}\right)d_b$$

$$\frac{f_{px}}{f_{ps}} = \begin{cases} \dfrac{f_{pe}l_{px}}{f_{ps}l_t} \; for \; l_{px} < l_t \\ \dfrac{f_{pe} + \dfrac{(l_{px} - l_t)}{(l_d - l_t)}(f_{ps} - f_{pe})}{f_{ps}} \; for \; l_t < l_{px} \leq l_d \\ 1.0 \; for \; l_d < l_{px} \end{cases}$$

f_{px}/f_{ps} = Development Length Reduction Factor (See LRFD Eqn. 5.9.4.3.2-2 and -3)

Location from Left Support (ft)	Bonded Strands κ = 1.6						Debonded Strands κ = 2					
	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}	f_{ps} (KSI)	f_{pe} (KSI)	d_b (in)	l_d (in)	l_{px} (in)	f_{px}/f_{ps}
0.000	93.254	22.184	0.600	75.326	5.000	0.033	93.254	22.184	0.600	94.158	5.000	0.033
($0.0L_e$) 0.000	93.254	22.184	0.600	75.326	5.000	0.033	93.254	22.184	0.600	94.158	5.000	0.033
(FoS) 0.333	106.122	39.941	0.600	76.315	9.000	0.094	106.122	39.941	0.600	95.394	9.000	0.094
(SZB) 1.337	144.661	93.433	0.600	79.078	21.039	0.377	144.661	93.433	0.600	98.847	21.039	0.377
(Bar Develop.) 1.705	158.746	113.075	0.600	80.028	25.456	0.504	158.746	113.075	0.600	100.036	25.456	0.504
(PSXFR) 2.583	191.842	160.012	0.600	81.761	36.000	0.834	191.842	160.012	0.600	102.201	36.000	0.834
(Bar Develop.) 2.765	193.225	160.033	0.600	83.075	38.184	0.836	193.225	160.033	0.600	103.844	38.184	0.834
(H) 3.833	201.350	160.159	0.600	90.794	51.000	0.851	201.350	160.159	0.600	113.493	51.000	0.835
(CS) 4.121	203.539	160.194	0.600	92.873	54.449	0.856	203.539	160.194	0.600	116.091	54.449	0.836
(SZB) 5.003	210.260	160.301	0.600	99.258	65.031	0.871	210.260	160.301	0.600	124.072	65.031	0.841
(1.5H) 5.583	214.681	160.372	0.600	103.456	72.000	0.882	214.681	160.372	0.600	129.320	72.000	0.845
($0.1L_e$) 7.648	230.424	160.626	0.600	118.406	96.780	0.921	230.424	160.626	0.600	148.008	96.780	0.861
(SZB) 10.503	252.229	160.972	0.600	139.118	131.031	0.972	252.229	160.972	0.600	173.897	131.031	0.888
($0.2L_e$) 15.297	268.094	161.487	0.600	154.018	188.561	1.000	268.094	161.487	0.600	192.523	188.561	0.990
(SZB) 18.753	268.671	161.765	0.600	154.394	230.031	1.000	268.671	161.765	0.600	192.993	230.031	1.000
(Deck Bar Cutoff) 20.870	268.971	161.881	0.600	154.609	255.434	1.000	268.971	161.881	0.600	193.261	255.434	1.000
($0.3L_e$) 22.945	269.261	161.946	0.600	154.845	280.341	1.000	269.261	161.946	0.600	193.557	280.341	1.000
(SZB) 29.753	269.873	161.740	0.600	155.564	362.031	1.000	269.873	161.740	0.600	194.455	362.031	1.000
(HP) 30.510	269.917	161.671	0.600	155.651	371.122	1.000	269.917	161.671	0.600	194.563	371.122	1.000
($0.4L_e$) 30.593	269.916	161.684	0.600	155.642	372.122	1.000	269.916	161.684	0.600	194.552	372.122	1.000
($0.5L_e$) 38.242	269.884	162.409	0.600	155.147	463.902	1.000	269.884	162.409	0.600	193.933	463.902	1.000
($0.6L_e$) 45.890	269.879	162.176	0.600	155.291	372.122	1.000	269.879	162.176	0.600	194.114	372.122	1.000
(HP) 45.974	269.879	162.168	0.600	155.297	371.122	1.000	269.879	162.168	0.600	194.121	371.122	1.000
(SZB) 46.731	269.832	162.282	0.600	155.178	362.031	1.000	269.832	162.282	0.600	193.973	362.031	1.000
($0.7L_e$) 53.539	269.097	162.855	0.600	154.106	280.341	1.000	269.097	162.855	0.600	192.632	280.341	1.000
(SZB) 57.731	268.476	162.871	0.600	153.500	230.031	1.000	268.476	162.871	0.600	191.874	230.031	1.000
($0.8L_e$) 61.187	267.959	162.739	0.600	153.088	188.561	1.000	267.959	162.739	0.600	191.360	188.561	0.993
(SZB) 65.981	252.205	162.403	0.600	138.179	131.031	0.975	252.205	162.403	0.600	172.724	131.031	0.891
($0.9L_e$) 68.835	230.438	162.150	0.600	117.445	96.780	0.925	230.438	162.150	0.600	146.806	96.780	0.866
(1.5H) 70.900	214.694	161.956	0.600	102.455	72.000	0.887	214.694	161.956	0.600	128.069	72.000	0.850
(SZB) 71.481	210.273	161.901	0.600	98.246	65.031	0.877	210.273	161.901	0.600	122.807	65.031	0.847
(CS) 72.560	202.051	161.799	0.600	90.418	52.086	0.860	202.051	161.799	0.600	113.022	52.086	0.842
(H) 72.650	201.362	161.790	0.600	89.762	51.000	0.858	201.362	161.790	0.600	112.202	51.000	0.842
(Bar Develop.) 73.718	193.237	161.690	0.600	82.025	38.184	0.844	193.237	161.690	0.600	102.532	38.184	0.842
(PSXFR) 73.900	191.854	161.674	0.600	80.709	36.000	0.843	191.854	161.674	0.600	100.886	36.000	0.843
(Bar Develop.) 74.779	158.751	114.264	0.600	79.272	25.456	0.509	158.751	114.264	0.600	99.089	25.456	0.509
(SZB) 75.147	144.663	94.420	0.600	78.448	21.039	0.381	144.663	94.420	0.600	98.060	21.039	0.381
(FoS) 76.150	106.122	40.368	0.600	76.041	9.000	0.095	106.122	40.368	0.600	95.052	9.000	0.095
($1.0L_e$) 76.484	93.254	22.423	0.600	75.173	5.000	0.033	93.254	22.423	0.600	93.967	5.000	0.033
76.484	93.254	22.423	0.600	75.173	5.000	0.033	93.254	22.423	0.600	93.967	5.000	0.033

Development Length of Longitudinal Rebar [5.10.8.2.1]

$$\ell_d = \ell_{db}\left(\frac{\lambda_{rl} \times \lambda_{cf} \times \lambda_{rc} \times \lambda_{er}}{\lambda}\right)$$

$$where \; \ell_{db} = 2.4d_b\frac{f_y}{\sqrt{f'_c}}$$

$$and \; \lambda_{cf} = \lambda_{rc} = \lambda_{er} = 1.0$$

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#4	0.200	0.500	60.000	8.000	1.000	1.000	1.000	25.456
#6	0.440	0.750	60.000	8.000	1.000	1.000	1.000	38.184

Development Length of Longitudinal Rebar [5.10.8.2.1] in Deck Slab

Full-length deck bars are considered to be developed along entire length of girder.
Partial-length longitudinal rebar specified using A_s are considered to be developed along entire specified bar length.

Bar Size	A_b (in^2)	d_b (in)	f_y (KSI)	f'_c (KSI)	λ_{rl}	λ	Modification Factor	l_d (in)
#9	1.000	1.128	60.000	4.500	1.000	1.000	1.000	76.571

Prestress Loss Details

Approximate Estimate of Time-Dependent Losses [5.9.3.3]

Elastic Shortening - LRFD 5.9.3.2.3a

$$f_{cgp}(Permanent\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_p}{I_g} - \frac{M_g e_p}{I_g}$$

$$f_{cgp}(Temporary\ Strands) = \frac{P}{A_g} + \frac{Pe_{ps}e_t}{I_g} - \frac{M_g e_t}{I_g}$$

$$\Delta f_{pES} = \frac{E_p}{E_{ci}} f_{cgp}$$

A_g = 654.000 in^2
I_g = 153070.0 in^4
E_p = 28500.000 KSI
E_{ci} = 4557.295 KSI

Location from End of Girder (ft)	Location from Left Support (ft)	P (kip)	e_{ps} (in)	M_g (kip-ft)	e_p (in)	f_{cgp} (KSI)	Δf_{pES} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	1149.59	7.007	0.00	7.007	2.127	13.299
0.417	0.417	0.000(0.0L_e) 0.000	1149.32	7.142	11.86	7.142	2.134	13.343
(FoS) 0.750	(FoS) 0.333	1149.10	7.249	21.26	7.249	2.139	13.380	
(SZB) 1.753	(SZB) 1.337	1148.42	7.574	49.04	7.574	2.157	13.491	
(Bar Develop.) 2.121	(Bar Develop.) 1.705	1148.17	7.693	59.04	7.693	2.164	13.532	
(PSXFR) 3.000	(PSXFR) 2.583	1147.55	7.977	82.52	7.977	2.180	13.634	
(Bar Develop.) 3.182	(Bar Develop.) 2.765	1147.42	8.036	87.32	8.036	2.184	13.655	
(H) 4.250	(H) 3.833	1146.65	8.381	114.94	8.381	2.204	13.783	
(CS) 4.537	(CS) 4.121	1146.43	8.474	122.23	8.474	2.210	13.818	
(SZB) 5.419	(SZB) 5.003	1145.76	8.759	144.22	8.759	2.227	13.928	
(1.5H) 6.000	(1.5H) 5.583	1145.31	8.947	158.39	8.947	2.239	14.003	
7.288	6.872	1144.27	9.364	188.92	9.364	2.266	14.173	
(0.1L_t) 7.732	7.315	1143.90	9.507	199.14	9.507	2.276	14.234	
8.065	(0.1L_e) 7.648	1143.62	9.615	206.73	9.615	2.284	14.280	
(SZB) 10.919	(SZB) 10.503	1141.06	10.538	268.36	10.538	2.351	14.701	
15.023	14.606	1136.86	11.865	346.40	11.865	2.462	15.394	
(0.2L_t) 15.463	15.047	1136.36	12.007	354.03	12.007	2.475	15.475	
15.713	(0.2L_e) 15.297	1136.08	12.088	358.30	12.088	2.482	15.522	
(SZB) 19.169	(SZB) 18.753	1131.86	13.205	412.58	13.205	2.593	16.216	
(Deck Bar Cutoff) 21.286	(Deck Bar Cutoff) 20.870	1128.99	13.890	441.47	13.890	2.669	16.688	
22.758	22.341	1126.86	14.366	459.59	14.366	2.725	17.039	
(0.3L_t) 23.195	22.778	1126.20	14.507	464.67	14.507	2.742	17.147	
23.362	(0.3L_e) 22.945	1125.95	14.561	466.57	14.561	2.749	17.189	
(SZB) 30.169	(SZB) 29.753	1114.23	16.762	526.50	16.762	3.057	19.118	
30.492	30.076	1113.60	16.866	528.49	16.866	3.074	19.221	
(HP, 0.4L_t) 30.927	(HP) 30.510	1112.75	17.007	531.05	17.007	3.096	19.362	
31.010	(0.4L_e) 30.593	1112.77	17.007	531.52	17.007	3.095	19.358	
38.227	37.810	1113.74	17.007	553.11	17.007	3.070	19.199	
(0.5L_t) 38.659	(0.5L_e) 38.242	1113.74	17.007	553.18	17.007	3.070	19.198	
45.962	45.545	1112.86	17.007	533.43	17.007	3.093	19.344	
46.307	(0.6L_e) 45.890	1112.77	17.007	531.52	17.007	3.095	19.358	
(HP, 0.6L_t) 46.390	(HP) 45.974	1112.75	17.007	531.05	17.007	3.096	19.362	
(SZB) 47.148	(SZB) 46.731	1114.23	16.762	526.50	16.762	3.057	19.118	
53.696	53.280	1125.55	14.645	469.47	14.645	2.759	17.254	
53.955	(0.7L_e) 53.539	1125.95	14.561	466.57	14.561	2.749	17.189	
(0.7L_t) 54.122	53.705	1126.20	14.507	464.67	14.507	2.742	17.147	
(SZB) 58.148	(SZB) 57.731	1131.86	13.205	412.58	13.205	2.593	16.216	
61.431	61.014	1135.88	12.144	361.22	12.144	2.487	15.555	
61.604	(0.8L_e) 61.187	1136.08	12.088	358.30	12.088	2.482	15.522	
(0.8L_t) 61.854	61.437	1136.36	12.007	354.03	12.007	2.475	15.475	
(SZB) 66.398	(SZB) 65.981	1141.06	10.538	268.36	10.538	2.351	14.701	
69.166	68.749	1143.55	9.643	208.69	9.643	2.285	14.292	
69.252	(0.9L_e) 68.835	1143.62	9.615	206.73	9.615	2.284	14.280	
(0.9L_t) 69.585	69.169	1143.90	9.507	199.14	9.507	2.276	14.234	
(1.5H) 71.317	(1.5H) 70.900	1145.31	8.947	158.39	8.947	2.239	14.003	
(SZB) 71.898	(SZB) 71.481	1145.76	8.759	144.22	8.759	2.227	13.928	
(CS) 72.977	(CS) 72.560	1146.58	8.410	117.24	8.410	2.206	13.794	
(H) 73.067	(H) 72.650	1146.65	8.381	114.94	8.381	2.204	13.783	
(Bar Develop.) 74.135	(Bar Develop.) 73.718	1147.42	8.036	87.32	8.036	2.184	13.655	
(PSXFR) 74.317	(PSXFR) 73.900	1147.55	7.977	82.52	7.977	2.180	13.634	
(Bar Develop.) 75.196	(Bar Develop.) 74.779	1148.17	7.693	59.04	7.693	2.164	13.532	
(SZB) 75.564	(SZB) 75.147	1148.42	7.574	49.04	7.574	2.157	13.491	
(FoS) 76.567	(FoS) 76.150	1149.10	7.249	21.26	7.249	2.139	13.380	
76.900	76.900	(1.0L_e) 76.484	76.484	1149.32	7.142	11.86	7.142	2.134	13.343
(STLF, 1.0L_t) 77.317	(STLF) 76.900	1149.59	7.007	0.00	7.007	2.127	13.299	

P is the prestressing force after transfer : $P = A_{ps}(f_{pj} - \Delta f_{pES})$

A_{ps} = area of prestressing strands
e_p = eccentricty of permanent prestressing strands
e_{ps} = eccentricty of all prestressing strands

Approximate Lump Sum Estimate of Time Dependent Losses at Hauling

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 3\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 3\gamma_h\gamma_{st} + \frac{\Delta f_{pR}}{4}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLTH} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	7.700

Losses at Hauling

$\Delta f_{pH} = \Delta f_{pES} + \Delta f_{pLTH}$

Location from End of Girder (ft)	Location from Left Support (ft)	Δf_{pES} (KSI)	Δf_{pLTH} (KSI)	Δf_{pH} (KSI)
(STRF, 0.0L_t) 0.000	(STRF) -0.417	13.299	7.700	20.999
0.417 0.417	0.000(0.0L_e) 0.000	13.343	7.700	21.044
(FoS) 0.750	(FoS) 0.333	13.380	7.700	21.080
(SZB) 1.753	(SZB) 1.337	13.491	7.700	21.191
(Bar Develop.) 2.121	(Bar Develop.) 1.705	13.532	7.700	21.233
(PSXFR) 3.000	(PSXFR) 2.583	13.634	7.700	21.334
(Bar Develop.) 3.182	(Bar Develop.) 2.765	13.655	7.700	21.356
(H) 4.250	(H) 3.833	13.783	7.700	21.483
(CS) 4.537	(CS) 4.121	13.818	7.700	21.519
(SZB) 5.419	(SZB) 5.003	13.928	7.700	21.629
(1.5H) 6.000	(1.5H) 5.583	14.003	7.700	21.703
7.288	6.872	14.173	7.700	21.874
(0.1L_t) 7.732	7.315	14.234	7.700	21.935
8.065	(0.1L_e) 7.648	14.280	7.700	21.981
(SZB) 10.919	(SZB) 10.503	14.701	7.700	22.402
15.023	14.606	15.394	7.700	23.095
(0.2L_t) 15.463	15.047	15.475	7.700	23.176
15.713	(0.2L_e) 15.297	15.522	7.700	23.222
(SZB) 19.169	(SZB) 18.753	16.216	7.700	23.916
(Deck Bar Cutoff) 21.286	(Deck Bar Cutoff) 20.870	16.688	7.700	24.389
22.758	22.341	17.039	7.700	24.740
(0.3L_t) 23.195	22.778	17.147	7.700	24.848
23.362	(0.3L_e) 22.945	17.189	7.700	24.889
(SZB) 30.169	(SZB) 29.753	19.118	7.700	26.818
30.492	30.076	19.221	7.700	26.922
(HP, 0.4L_t) 30.927	(HP) 30.510	19.362	7.700	27.062
31.010	(0.4L_e) 30.593	19.358	7.700	27.059
38.227	37.810	19.199	7.700	26.899
(0.5L_t) 38.659	(0.5L_e) 38.242	19.198	7.700	26.899
45.962	45.545	19.344	7.700	27.045
46.307	(0.6L_e) 45.890	19.358	7.700	27.059
(HP, 0.6L_t) 46.390	(HP) 45.974	19.362	7.700	27.062
(SZB) 47.148	(SZB) 46.731	19.118	7.700	26.818
53.696	53.280	17.254	7.700	24.955
53.955	(0.7L_e) 53.539	17.189	7.700	24.889
(0.7L_t) 54.122	53.705	17.147	7.700	24.848
(SZB) 58.148	(SZB) 57.731	16.216	7.700	23.916
61.431	61.014	15.555	7.700	23.255
61.604	(0.8L_e) 61.187	15.522	7.700	23.222
(0.8L_t) 61.854	61.437	15.475	7.700	23.176
(SZB) 66.398	(SZB) 65.981	14.701	7.700	22.402
69.166	68.749	14.292	7.700	21.993
69.252	(0.9L_e) 68.835	14.280	7.700	21.981
(0.9L_t) 69.585	69.169	14.234	7.700	21.935
(1.5H) 71.317	(1.5H) 70.900	14.003	7.700	21.703
(SZB) 71.898	(SZB) 71.481	13.928	7.700	21.629
(CS) 72.977	(CS) 72.560	13.794	7.700	21.494
(H) 73.067	(H) 72.650	13.783	7.700	21.483
(Bar Develop.) 74.135	(Bar Develop.) 73.718	13.655	7.700	21.356
(PSXFR) 74.317	(PSXFR) 73.900	13.634	7.700	21.334
(Bar Develop.) 75.196	(Bar Develop.) 74.779	13.532	7.700	21.233
(SZB) 75.564	(SZB) 75.147	13.491	7.700	21.191
(FoS) 76.567	(FoS) 76.150	13.380	7.700	21.080
76.900 76.900	(1.0L_e) 76.484 76.484	13.343	7.700	21.044
(STLF, 1.0L_t) 77.317	(STLF) 76.900	13.299	7.700	20.999

Approximate Lump Sum Estimate of Time Dependent Losses

$\gamma_h = 1.7 - 0.01H$

$\gamma_{st} = \frac{5}{1 + f'_{ci}}$

$\Delta f_{pLT} = 10\frac{f_{pi}A_{ps}}{A_g}\gamma_h\gamma_{st} + 12\gamma_h\gamma_{st} + \Delta f_{pR}$

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)

f'_{ci} (KSI)	γ_{st}	Relative Humidity (%)	γ_h	f_{pi} (KSI)	A_{ps} (in^2)	A_g (in^2)	Δf_{pR} (KSI)	Δf_{pLT} (KSI)
6.000	0.71	55	1.1	202.500	6.076	654.000	2.400	27.711

Elastic Gain Due to Additional Dead Load

Change in strand stress due to loads applied to the non-composite girder

$$M_{adl} = K_s M_{slab} + K_h M_{haunch} + K_d M_{diaphragm} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$M_{Diaphragm}$ includes shear key dead load if applicable

$$\Delta f'_{cd} = \frac{M_{adl} e_p}{I_g}$$

$$\Delta f_{pED} = \frac{E_p}{E_c} \Delta f'_{cd}$$

E_p = 28500.000 KSI

E_c = 5011.145 KSI

I_g = 153070.0 in^4

Slab: K_s = 1.00

Haunch: K_h = 1.00

Diaphragms: K_d = 1.00

User DC: K_{dc} = 1.00

User DW: K_{dw} = 1.00

Location from Left Support (ft)	M_{Slab} (kip-ft)	M_{Haunch} (kip-ft)	$M_{Diaphragm}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{adl} (kip-ft)	e_p (in)	$\Delta f'_{cd}$ (KSI)	Δf_{pED} (KSI)
(STRF) -0.417	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000
0.000	0.00	0.00	0.00	-0.00	0.00	-0.00	7.142	0.000	-0.000
($0.0L_e$) 0.000	0.00	0.00	0.00	-0.00	0.00	-0.00	7.142	0.000	-0.000
(FoS) 0.333	11.03	1.61	0.00	0.28	0.00	12.92	7.249	0.007	0.042
(SZB) 1.337	43.57	6.38	0.00	1.10	0.00	51.05	7.574	0.030	0.172
(Bar Develop.) 1.705	55.26	8.10	0.00	1.40	0.00	64.76	7.693	0.039	0.222
(PSXFR) 2.583	82.66	12.12	0.00	2.10	0.00	96.88	7.977	0.061	0.345
(Bar Develop.) 2.765	88.24	12.94	0.00	2.24	0.00	103.42	8.036	0.065	0.371
(H) 3.833	120.36	17.67	0.00	3.06	0.00	141.09	8.381	0.093	0.527
(CS) 4.121	128.82	18.92	0.00	3.28	0.00	151.01	8.474	0.100	0.571
(SZB) 5.003	154.28	22.67	0.00	3.93	0.00	180.88	8.759	0.124	0.706
(1.5H) 5.583	170.65	25.09	0.00	4.35	0.00	200.09	8.947	0.140	0.798
6.872	205.81	30.29	0.00	5.26	0.00	241.36	9.364	0.177	1.008
7.315	217.56	32.03	0.00	5.56	0.00	255.16	9.507	0.190	1.082
($0.1L_e$) 7.648	226.27	33.32	0.00	5.79	0.00	265.38	9.615	0.200	1.138
(SZB) 10.503	296.58	43.79	0.00	7.62	0.00	347.99	10.538	0.287	1.635
14.606	384.63	57.00	0.00	9.94	0.00	451.57	11.865	0.420	2.389
15.047	393.19	58.29	0.00	10.17	0.00	461.64	12.007	0.435	2.471
($0.2L_e$) 15.297	397.96	59.01	0.00	10.29	0.00	467.26	12.088	0.443	2.518
(SZB) 18.753	458.41	68.15	0.00	11.91	0.00	538.47	13.205	0.557	3.170
(Deck Bar Cutoff) 20.870	490.33	73.01	0.00	12.76	0.00	576.10	13.890	0.627	3.568
22.341	510.24	76.05	0.00	13.30	0.00	599.60	14.366	0.675	3.840
22.778	515.81	76.91	0.00	13.45	0.00	606.17	14.507	0.689	3.921
($0.3L_e$) 22.945	517.89	77.22	0.00	13.51	0.00	608.63	14.561	0.695	3.951
(SZB) 29.753	582.86	87.26	0.00	15.29	0.00	685.41	16.762	0.901	5.122
30.076	584.98	87.60	0.00	15.35	0.00	687.93	16.866	0.910	5.173
(HP) 30.510	587.71	88.03	0.00	15.43	0.00	691.16	17.007	0.922	5.241
($0.4L_e$) 30.593	588.21	88.10	0.00	15.44	0.00	691.76	17.007	0.922	5.245
37.810	610.35	91.71	0.00	16.08	0.00	718.14	17.007	0.957	5.445
($0.5L_e$) 38.242	610.33	91.72	0.00	16.08	0.00	718.13	17.007	0.957	5.445
45.545	587.13	88.42	0.00	15.50	0.00	691.06	17.007	0.921	5.240
($0.6L_e$) 45.890	584.97	88.10	0.00	15.44	0.00	688.52	17.007	0.918	5.221
(HP) 45.974	584.43	88.03	0.00	15.43	0.00	687.89	17.007	0.917	5.216
(SZB) 46.731	579.29	87.26	0.00	15.29	0.00	681.85	16.762	0.896	5.096
53.280	515.44	77.71	0.00	13.60	0.00	606.75	14.645	0.697	3.962
($0.7L_e$) 53.539	512.20	77.22	0.00	13.51	0.00	602.94	14.561	0.688	3.914
53.705	510.08	76.91	0.00	13.46	0.00	600.44	14.507	0.683	3.884
(SZB) 57.731	452.01	68.15	0.00	11.91	0.00	532.07	13.205	0.551	3.133
61.014	394.68	59.50	0.00	10.38	0.00	464.56	12.144	0.442	2.515
($0.8L_e$) 61.187	391.42	59.01	0.00	10.29	0.00	460.72	12.088	0.437	2.483
61.437	386.64	58.29	0.00	10.17	0.00	455.10	12.007	0.428	2.436
(SZB) 65.981	290.68	43.79	0.00	7.62	0.00	342.10	10.538	0.283	1.607
68.749	223.54	33.66	0.00	5.85	0.00	263.04	9.643	0.199	1.131
($0.9L_e$) 68.835	221.33	33.32	0.00	5.79	0.00	260.45	9.615	0.196	1.117
69.169	212.77	32.03	0.00	5.57	0.00	250.37	9.507	0.187	1.061
(1.5H) 70.900	166.73	25.09	0.00	4.35	0.00	196.17	8.947	0.138	0.783
(SZB) 71.481	150.69	22.67	0.00	3.93	0.00	177.29	8.759	0.122	0.692
(CS) 72.560	120.10	18.06	0.00	3.13	0.00	141.30	8.410	0.093	0.530
(H) 72.650	117.49	17.67	0.00	3.06	0.00	138.22	8.381	0.091	0.517
(Bar Develop.) 73.718	86.09	12.94	0.00	2.24	0.00	101.28	8.036	0.064	0.363
(PSXFR) 73.900	80.64	12.12	0.00	2.10	0.00	94.87	7.977	0.059	0.337
(Bar Develop.) 74.779	53.90	8.10	0.00	1.40	0.00	63.40	7.693	0.038	0.217
(SZB) 75.147	42.48	6.38	0.00	1.10	0.00	49.97	7.574	0.030	0.169
(FoS) 76.150	10.75	1.61	0.00	0.28	0.00	12.64	7.249	0.007	0.041
($1.0L_e$) 76.484	0.00	0.00	0.00	0.00	0.00	0.00	7.142	0.000	0.000
76.484	0.00	0.00	0.00	0.00	0.00	0.00	7.142	0.000	0.000
(STLF) 76.900	0.00	0.00	0.00	0.00	0.00	0.00	7.007	0.000	0.000

Elastic Gain Due to Superimposed Dead Load

Change in strand stress due to loads applied to the composite girder

$$M_{sidl} = K_r M_{railing\ system} + K_r M_{sidewalk} + K_o M_{overlay} + K_{dc} M_{UserDC} + K_{dw} M_{UserDW}$$

$$\Delta f''_{cd} = \frac{M_{sidl}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pSIDL} = \frac{E_p}{E_c} \Delta f''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

Railing System: K_r = 1.00
Overlay: K_o = 1.00
User DC: K_{dc} = 1.00
User DW: K_{dw} = 1.00

Location from Left Support (ft)	$M_{Railing\ System}$ (kip-ft)	$M_{Sidewalk}$ (kip-ft)	$M_{Overlay}$ (kip-ft)	$M_{User\ DC}$ (kip-ft)	$M_{User\ DW}$ (kip-ft)	M_{sidl} (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''_{cd}$ (KSI)	Δf_{pSIDL} (KSI)
(STRF) -0.417	-202.86	-84.94	-164.97	0.00	-29.12	-481.89	7.007	372053.3	33.987	21.150	-0.308	-1.754
0.000	-197.33	-82.62	-160.49	0.00	-28.33	-468.76	7.142	372053.3	33.987	21.150	-0.302	-1.718
(0.0L_e) 0.000	-197.33	-82.62	-160.49	0.00	-28.33	-468.76	7.142	372053.3	33.987	21.150	-0.302	-1.718
(FoS) 0.333	-192.93	-80.78	-156.91	0.00	-27.70	-458.31	7.249	372053.3	33.987	21.150	-0.297	-1.689
(SZB) 1.337	-179.88	-75.32	-146.30	0.00	-25.82	-427.32	7.574	372053.3	33.987	21.150	-0.281	-1.600
(Bar Develop.) 1.705	-175.17	-73.34	-142.46	0.00	-25.15	-416.12	7.693	372053.3	33.987	21.150	-0.276	-1.567
(PSXFR) 2.583	-164.06	-68.69	-133.43	0.00	-23.55	-389.74	7.977	372053.3	33.987	21.150	-0.262	-1.488
(Bar Develop.) 2.765	-161.79	-67.74	-131.58	0.00	-23.23	-384.34	8.036	372053.3	33.987	21.150	-0.259	-1.472
(H) 3.833	-148.63	-62.23	-120.89	0.00	-21.34	-353.09	8.381	372053.3	33.987	21.150	-0.242	-1.374
(CS) 4.121	-145.15	-60.77	-118.05	0.00	-20.84	-344.81	8.474	372053.3	33.987	21.150	-0.237	-1.348
(SZB) 5.003	-134.60	-56.36	-109.47	0.00	-19.32	-319.74	8.759	372053.3	33.987	21.150	-0.223	-1.267
(1.5H) 5.583	-127.77	-53.50	-103.91	0.00	-18.34	-303.52	8.947	372053.3	33.987	21.150	-0.213	-1.213
6.872	-112.95	-47.29	-91.87	0.00	-16.21	-268.32	9.364	372053.3	33.987	21.150	-0.192	-1.093
7.315	-107.96	-45.20	-87.80	0.00	-15.50	-256.46	9.507	372053.3	33.987	21.150	-0.185	-1.051
(0.1L_e) 7.648	-104.24	-43.65	-84.78	0.00	-14.96	-247.63	9.615	372053.3	33.987	21.150	-0.179	-1.020
(SZB) 10.503	-73.68	-30.85	-59.93	0.00	-10.58	-175.03	10.538	372053.3	33.987	21.150	-0.132	-0.751
14.606	-33.72	-14.12	-27.43	0.00	-4.84	-80.11	11.865	372053.3	33.987	21.150	-0.064	-0.363
15.047	-29.71	-12.44	-24.16	0.00	-4.27	-70.58	12.007	372053.3	33.987	21.150	-0.057	-0.322
(0.2L_e) 15.297	-27.46	-11.50	-22.33	0.00	-3.94	-65.23	12.088	372053.3	33.987	21.150	-0.052	-0.298
(SZB) 18.753	1.89	0.79	1.54	0.00	0.27	4.49	13.205	371743.2	33.969	21.150	0.004	0.021
(Deck Bar Cutoff) 20.870	18.22	7.63	14.82	0.00	2.62	43.29	13.890	370805.6	33.916	21.150	0.037	0.212
22.341	28.84	12.07	23.45	0.00	4.14	68.51	14.366	370200.7	33.882	21.150	0.060	0.342
22.778	31.88	13.35	25.93	0.00	4.58	75.73	14.507	370028.3	33.872	21.150	0.067	0.380
(0.3L_e) 22.945	33.02	13.83	26.86	0.00	4.74	78.45	14.561	369963.5	33.868	21.150	0.069	0.395
(SZB) 29.753	73.15	30.63	59.49	0.00	10.50	173.76	16.762	367758.6	33.743	21.150	0.166	0.947
30.076	74.73	31.29	60.78	0.00	10.73	177.52	16.866	367675.8	33.738	21.150	0.171	0.971
(HP) 30.510	76.81	32.16	62.47	0.00	11.03	182.47	17.007	367567.5	33.732	21.150	0.176	1.002
(0.4L_e) 30.593	77.21	32.33	62.79	0.00	11.08	183.41	17.007	367547.2	33.731	21.150	0.177	1.008
37.810	103.95	43.52	84.54	0.00	14.92	246.94	17.007	366300.5	33.660	21.150	0.239	1.358
(0.5L_e) 38.242	105.09	44.00	85.47	0.00	15.09	249.64	17.007	366258.6	33.658	21.150	0.241	1.373
45.545	116.50	48.78	94.75	0.00	16.72	276.75	17.007	366115.5	33.649	21.150	0.268	1.522
(0.6L_e) 45.890	116.67	48.85	94.89	0.00	16.75	277.16	17.007	366135.2	33.651	21.150	0.268	1.524
(HP) 45.974	116.71	48.86	94.92	0.00	16.75	277.25	17.007	366140.3	33.651	21.150	0.268	1.525
(SZB) 46.731	116.95	48.97	95.12	0.00	16.79	277.82	16.762	366193.2	33.654	21.150	0.266	1.515
53.280	112.38	47.05	91.40	0.00	16.13	266.96	14.645	367126.2	33.707	21.150	0.237	1.350
(0.7L_e) 53.539	111.95	46.87	91.05	0.00	16.07	265.95	14.561	367180.5	33.710	21.150	0.236	1.341
53.705	111.67	46.76	90.82	0.00	16.03	265.28	14.507	367216.1	33.712	21.150	0.235	1.335
(SZB) 57.731	102.45	42.90	83.32	0.00	14.71	243.38	13.205	368239.8	33.770	21.150	0.205	1.165
61.014	91.59	38.35	74.49	0.00	13.15	217.58	12.144	369302.7	33.831	21.150	0.176	0.998
(0.8L_e) 61.187	90.94	38.07	73.96	0.00	13.05	216.02	12.088	369364.2	33.834	21.150	0.174	0.989
61.437	89.97	37.67	73.18	0.00	12.92	213.74	12.007	369454.1	33.839	21.150	0.171	0.975
(SZB) 65.981	69.45	29.08	56.49	0.00	9.97	164.98	10.538	371286.8	33.944	21.150	0.124	0.708
68.749	54.13	22.66	44.02	0.00	7.77	128.59	9.643	372053.3	33.987	21.150	0.093	0.530
(0.9L_e) 68.835	53.62	22.45	43.61	0.00	7.70	127.37	9.615	372053.3	33.987	21.150	0.092	0.525
69.169	51.62	21.61	41.98	0.00	7.41	122.63	9.507	372053.3	33.987	21.150	0.088	0.503
(1.5H) 70.900	40.75	17.06	33.14	0.00	5.85	96.80	8.947	372053.3	33.987	21.150	0.068	0.387
(SZB) 71.481	36.91	15.46	30.02	0.00	5.30	87.69	8.759	372053.3	33.987	21.150	0.061	0.347
(CS) 72.560	29.54	12.37	24.03	0.00	4.24	70.18	8.410	372053.3	33.987	21.150	0.048	0.274
(H) 72.650	28.91	12.10	23.51	0.00	4.15	68.68	8.381	372053.3	33.987	21.150	0.047	0.267
(Bar Develop.) 73.718	21.27	8.90	17.30	0.00	3.05	50.52	8.036	372053.3	33.987	21.150	0.034	0.193
(PSXFR) 73.900	19.93	8.35	16.21	0.00	2.86	47.35	7.977	372053.3	33.987	21.150	0.032	0.181
(Bar Develop.) 74.779	13.36	5.59	10.87	0.00	1.92	31.74	7.693	372053.3	33.987	21.150	0.021	0.120
(SZB) 75.147	10.55	4.42	8.58	0.00	1.51	25.05	7.574	372053.3	33.987	21.150	0.016	0.094
(FoS) 76.150	2.68	1.12	2.18	0.00	0.38	6.36	7.249	372053.3	33.987	21.150	0.004	0.023
(1.0L_e) 76.484	0.00	0.00	0.00	0.00	0.00	0.00	7.142	372053.3	33.987	21.150	0.000	0.000
76.484	0.00	0.00	0.00	0.00	0.00	0.00	7.142	372053.3	33.987	21.150	0.000	0.000
(STLF) 76.900	0.00	0.00	0.00	0.00	0.00	0.00	7.007	372053.3	33.987	21.150	0.000	0.000

Elastic Gain Due to Live Load

Change in strand stress due to live load applied to the composite girder

$$\Delta f'''_{cd} = \frac{K_{llim} M_{llim}\left(Y_{bc} - Y_{bg} + e_p\right)}{I_c}$$

$$\Delta f_{pLL} = \frac{E_p}{E_c} \Delta f'''_{cd}$$

E_p = 28500.000 KSI
E_c = 5011.145 KSI

K_{llim} = 0.00

Location from Left Support (ft)	M_{llim} Design (kip-ft)	M_{llim} Fatigue (kip-ft)	e_p (in)	I_c (in^4)	Y_{bc} (in)	Y_{bg} (in)	$\Delta f''''_{cd}$ Design (KSI)	Δf_{pLL} Design (KSI)	$\Delta f''''_{cd}$ Fatigue (KSI)	Δf_{pLL} Fatigue (KSI)
(STRF) -0.417	0.00	0.00	7.007	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
0.000	0.00	0.00	7.142	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.00	0.00	7.142	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(FoS) 0.333	0.00	0.00	7.249	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(SZB) 1.337	0.00	0.00	7.574	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 1.705	0.00	0.00	7.693	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(PSXFR) 2.583	0.00	0.00	7.977	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 2.765	0.00	0.00	8.036	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(H) 3.833	0.00	0.00	8.381	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(CS) 4.121	0.00	0.00	8.474	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(SZB) 5.003	0.00	0.00	8.759	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(1.5H) 5.583	0.00	0.00	8.947	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
6.872	0.00	0.00	9.364	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
7.315	0.00	0.00	9.507	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
($0.1L_e$) 7.648	0.00	0.00	9.615	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(SZB) 10.503	0.00	0.00	10.538	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
14.606	0.00	0.00	11.865	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
15.047	0.00	0.00	12.007	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
($0.2L_e$) 15.297	0.00	0.00	12.088	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(SZB) 18.753	0.00	0.00	13.205	371743.2	33.969	21.150	0.000	0.000	0.000	0.000
(Deck Bar Cutoff) 20.870	0.00	0.00	13.890	370805.6	33.916	21.150	0.000	0.000	0.000	0.000
22.341	0.00	0.00	14.366	370200.7	33.882	21.150	0.000	0.000	0.000	0.000
22.778	0.00	0.00	14.507	370028.3	33.872	21.150	0.000	0.000	0.000	0.000
($0.3L_e$) 22.945	0.00	0.00	14.561	369963.5	33.868	21.150	0.000	0.000	0.000	0.000
(SZB) 29.753	0.00	0.00	16.762	367758.6	33.743	21.150	0.000	0.000	0.000	0.000
30.076	0.00	0.00	16.866	367675.8	33.738	21.150	0.000	0.000	0.000	0.000
(HP) 30.510	0.00	0.00	17.007	367567.5	33.732	21.150	0.000	0.000	0.000	0.000
($0.4L_e$) 30.593	0.00	0.00	17.007	367547.2	33.731	21.150	0.000	0.000	0.000	0.000
37.810	0.00	0.00	17.007	366300.5	33.660	21.150	0.000	0.000	0.000	0.000
($0.5L_e$) 38.242	0.00	0.00	17.007	366258.6	33.658	21.150	0.000	0.000	0.000	0.000
45.545	0.00	0.00	17.007	366115.5	33.649	21.150	0.000	0.000	0.000	0.000
($0.6L_e$) 45.890	0.00	0.00	17.007	366135.2	33.651	21.150	0.000	0.000	0.000	0.000
(HP) 45.974	0.00	0.00	17.007	366140.3	33.651	21.150	0.000	0.000	0.000	0.000
(SZB) 46.731	0.00	0.00	16.762	366193.2	33.654	21.150	0.000	0.000	0.000	0.000
53.280	0.00	0.00	14.645	367126.2	33.707	21.150	0.000	0.000	0.000	0.000
($0.7L_e$) 53.539	0.00	0.00	14.561	367180.5	33.710	21.150	0.000	0.000	0.000	0.000
53.705	0.00	0.00	14.507	367216.1	33.712	21.150	0.000	0.000	0.000	0.000
(SZB) 57.731	0.00	0.00	13.205	368239.8	33.770	21.150	0.000	0.000	0.000	0.000
61.014	0.00	0.00	12.144	369302.7	33.831	21.150	0.000	0.000	0.000	0.000
($0.8L_e$) 61.187	0.00	0.00	12.088	369364.2	33.834	21.150	0.000	0.000	0.000	0.000
61.437	0.00	0.00	12.007	369454.1	33.839	21.150	0.000	0.000	0.000	0.000
(SZB) 65.981	0.00	0.00	10.538	371286.8	33.944	21.150	0.000	0.000	0.000	0.000
68.749	0.00	0.00	9.643	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
($0.9L_e$) 68.835	0.00	0.00	9.615	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
69.169	0.00	0.00	9.507	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(1.5H) 70.900	0.00	0.00	8.947	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(SZB) 71.481	0.00	0.00	8.759	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(CS) 72.560	0.00	0.00	8.410	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(H) 72.650	0.00	0.00	8.381	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 73.718	0.00	0.00	8.036	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(PSXFR) 73.900	0.00	0.00	7.977	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(Bar Develop.) 74.779	0.00	0.00	7.693	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(SZB) 75.147	0.00	0.00	7.574	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(FoS) 76.150	0.00	0.00	7.249	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
($1.0L_e$) 76.484	0.00	0.00	7.142	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
76.484	0.00	0.00	7.142	372053.3	33.987	21.150	0.000	0.000	0.000	0.000
(STLF) 76.900	0.00	0.00	7.007	372053.3	33.987	21.150	0.000	0.000	0.000	0.000

Effective Prestress

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL}$

$f_{pe} = f_{pj} - \Delta f_{pT} + \Delta f_{pED} + \Delta f_{pSIDL} + \Delta f_{pLL}$

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(STRF) -0.417	202.500	13.299	27.711	0.000	-1.754	42.764	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	202.500	13.343	27.711	-0.000	-1.718	42.772	0.139	22.184	0.000	0.000	22.184	22.184	22.184
($0.0L_e$) 0.000	202.500	13.343	27.711	-0.000	-1.718	42.772	0.139	22.184	0.000	0.000	22.184	22.184	22.184
(FoS) 0.333	202.500	13.380	27.711	0.042	-1.689	42.738	0.250	39.941	0.000	0.000	39.941	39.941	39.941
(SZB) 1.337	202.500	13.491	27.711	0.172	-1.600	42.629	0.584	93.433	0.000	0.000	93.433	93.433	93.433
(Bar Develop.) 1.705	202.500	13.532	27.711	0.222	-1.567	42.588	0.707	113.075	0.000	0.000	113.075	113.075	113.075
(PSXFR) 2.583	202.500	13.634	27.711	0.345	-1.488	42.488	1.000	160.012	0.000	0.000	160.012	160.012	160.012
(Bar Develop.) 2.765	202.500	13.655	27.711	0.371	-1.472	42.467	1.000	160.033	0.000	0.000	160.033	160.033	160.033
(H) 3.833	202.500	13.783	27.711	0.527	-1.374	42.341	1.000	160.159	0.000	0.000	160.159	160.159	160.159
(CS) 4.121	202.500	13.818	27.711	0.571	-1.348	42.306	1.000	160.194	0.000	0.000	160.194	160.194	160.194
(SZB) 5.003	202.500	13.928	27.711	0.706	-1.267	42.199	1.000	160.301	0.000	0.000	160.301	160.301	160.301
(1.5H) 5.583	202.500	14.003	27.711	0.798	-1.213	42.128	1.000	160.372	0.000	0.000	160.372	160.372	160.372
6.872	202.500	14.173	27.711	1.008	-1.093	41.969	1.000	160.531	0.000	0.000	160.531	160.531	160.531
7.315	202.500	14.234	27.711	1.082	-1.051	41.915	1.000	160.585	0.000	0.000	160.585	160.585	160.585
($0.1L_e$) 7.648	202.500	14.280	27.711	1.138	-1.020	41.874	1.000	160.626	0.000	0.000	160.626	160.626	160.626

Location from Left Support (ft)	f_{pj} (KSI)	Δf_{pES} (KSI)	Δf_{pLT} (KSI)	Δf_{pED} (KSI)	Δf_{pSIDL} (KSI)	Δf_{pT} (KSI)	Xfer Length Factor	f_{pe} (KSI)	Δf_{pLL} Design (KSI)	Δf_{pLL} Fatigue (KSI)	f_{pe} with Live Load Service I (KSI)	f_{pe} with Live Load Service III (KSI)	f_{pe} with Live Load Fatigue I (KSI)
(SZB) 10.503	202.500	14.701	27.711	1.635	-0.751	41.528	1.000	160.972	0.000	0.000	160.972	160.972	160.972
14.606	202.500	15.394	27.711	2.389	-0.363	41.079	1.000	161.421	0.000	0.000	161.421	161.421	161.421
15.047	202.500	15.475	27.711	2.471	-0.322	41.037	1.000	161.463	0.000	0.000	161.463	161.463	161.463
($0.2L_e$) 15.297	202.500	15.522	27.711	2.518	-0.298	41.013	1.000	161.487	0.000	0.000	161.487	161.487	161.487
(SZB) 18.753	202.500	16.216	27.711	3.170	0.021	40.735	1.000	161.765	0.000	0.000	161.765	161.765	161.765
(Deck Bar Cutoff) 20.870	202.500	16.688	27.711	3.568	0.212	40.619	1.000	161.881	0.000	0.000	161.881	161.881	161.881
22.341	202.500	17.039	27.711	3.840	0.342	40.568	1.000	161.932	0.000	0.000	161.932	161.932	161.932
22.778	202.500	17.147	27.711	3.921	0.380	40.557	1.000	161.943	0.000	0.000	161.943	161.943	161.943
($0.3L_e$) 22.945	202.500	17.189	27.711	3.951	0.395	40.554	1.000	161.946	0.000	0.000	161.946	161.946	161.946
(SZB) 29.753	202.500	19.118	27.711	5.122	0.947	40.760	1.000	161.740	0.000	0.000	161.740	161.740	161.740
30.076	202.500	19.221	27.711	5.173	0.971	40.788	1.000	161.712	0.000	0.000	161.712	161.712	161.712
(HP) 30.510	202.500	19.362	27.711	5.241	1.002	40.829	1.000	161.671	0.000	0.000	161.671	161.671	161.671
($0.4L_e$) 30.593	202.500	19.358	27.711	5.245	1.008	40.816	1.000	161.684	0.000	0.000	161.684	161.684	161.684
37.810	202.500	19.199	27.711	5.445	1.358	40.106	1.000	162.394	0.000	0.000	162.394	162.394	162.394
($0.5L_e$) 38.242	202.500	19.198	27.711	5.445	1.373	40.091	1.000	162.409	0.000	0.000	162.409	162.409	162.409
45.545	202.500	19.344	27.711	5.240	1.522	40.293	1.000	162.207	0.000	0.000	162.207	162.207	162.207
($0.6L_e$) 45.890	202.500	19.358	27.711	5.221	1.524	40.324	1.000	162.176	0.000	0.000	162.176	162.176	162.176
(HP) 45.974	202.500	19.362	27.711	5.216	1.525	40.332	1.000	162.168	0.000	0.000	162.168	162.168	162.168
(SZB) 46.731	202.500	19.118	27.711	5.096	1.515	40.218	1.000	162.282	0.000	0.000	162.282	162.282	162.282
53.280	202.500	17.254	27.711	3.962	1.350	39.653	1.000	162.847	0.000	0.000	162.847	162.847	162.847
($0.7L_e$) 53.539	202.500	17.189	27.711	3.914	1.341	39.645	1.000	162.855	0.000	0.000	162.855	162.855	162.855
53.705	202.500	17.147	27.711	3.884	1.335	39.640	1.000	162.860	0.000	0.000	162.860	162.860	162.860
(SZB) 57.731	202.500	16.216	27.711	3.133	1.165	39.629	1.000	162.871	0.000	0.000	162.871	162.871	162.871
61.014	202.500	15.555	27.711	2.515	0.998	39.752	1.000	162.748	0.000	0.000	162.748	162.748	162.748
($0.8L_e$) 61.187	202.500	15.522	27.711	2.483	0.989	39.761	1.000	162.739	0.000	0.000	162.739	162.739	162.739
61.437	202.500	15.475	27.711	2.436	0.975	39.775	1.000	162.725	0.000	0.000	162.725	162.725	162.725
(SZB) 65.981	202.500	14.701	27.711	1.607	0.708	40.097	1.000	162.403	0.000	0.000	162.403	162.403	162.403
68.749	202.500	14.292	27.711	1.131	0.530	40.342	1.000	162.158	0.000	0.000	162.158	162.158	162.158
($0.9L_e$) 68.835	202.500	14.280	27.711	1.117	0.525	40.350	1.000	162.150	0.000	0.000	162.150	162.150	162.150
69.169	202.500	14.234	27.711	1.061	0.503	40.381	1.000	162.119	0.000	0.000	162.119	162.119	162.119
(1.5H) 70.900	202.500	14.003	27.711	0.783	0.387	40.544	1.000	161.956	0.000	0.000	161.956	161.956	161.956
(SZB) 71.481	202.500	13.928	27.711	0.692	0.347	40.599	1.000	161.901	0.000	0.000	161.901	161.901	161.901
(CS) 72.560	202.500	13.794	27.711	0.530	0.274	40.701	1.000	161.799	0.000	0.000	161.799	161.799	161.799
(H) 72.650	202.500	13.783	27.711	0.517	0.267	40.710	1.000	161.790	0.000	0.000	161.790	161.790	161.790
(Bar Develop.) 73.718	202.500	13.655	27.711	0.363	0.193	40.810	1.000	161.690	0.000	0.000	161.690	161.690	161.690
(PSXFR) 73.900	202.500	13.634	27.711	0.337	0.181	40.826	1.000	161.674	0.000	0.000	161.674	161.674	161.674
(Bar Develop.) 74.779	202.500	13.532	27.711	0.217	0.120	40.906	0.707	114.264	0.000	0.000	114.264	114.264	114.264
(SZB) 75.147	202.500	13.491	27.711	0.169	0.094	40.939	0.584	94.420	0.000	0.000	94.420	94.420	94.420
(FoS) 76.150	202.500	13.380	27.711	0.041	0.023	41.026	0.250	40.368	0.000	0.000	40.368	40.368	40.368
($1.0L_e$) 76.484	202.500	13.343	27.711	0.000	0.000	41.054	0.139	22.423	0.000	0.000	22.423	22.423	22.423
76.484	202.500	13.343	27.711	0.000	0.000	41.054	0.139	22.423	0.000	0.000	22.423	22.423	22.423
(STLF) 76.900	202.500	13.299	27.711	0.000	0.000	41.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Prestress Loss

% Loss Initial = $(\Delta f_{pES})/f_{pj}$

% Loss Final (Time dependent losses only) = $(\Delta f_{pLT})/f_{pj}$

% Loss Total (Time dependent losses and instantaneous effects) = $(f_{pj} - f_{pe})/f_{pj}$

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
(STRF) -0.417	13.299	100.0	27.711	100.0	42.764	0.000	100.0
0.000	13.343	87.0	27.711	88.0	42.772	22.184	89.0
($0.0L_e$) 0.000	13.343	87.0	27.711	88.0	42.772	22.184	89.0
(FoS) 0.333	13.380	76.7	27.711	78.4	42.738	39.941	80.3
(SZB) 1.337	13.491	45.5	27.711	49.6	42.629	93.433	53.9
(Bar Develop.) 1.705	13.532	34.0	27.711	39.0	42.588	113.075	44.2
(PSXFR) 2.583	13.634	6.7	27.711	13.7	42.488	160.012	21.0
(Bar Develop.) 2.765	13.655	6.7	27.711	13.7	42.467	160.033	21.0
(H) 3.833	13.783	6.8	27.711	13.7	42.341	160.159	20.9
(CS) 4.121	13.818	6.8	27.711	13.7	42.306	160.194	20.9
(SZB) 5.003	13.928	6.9	27.711	13.7	42.199	160.301	20.8
(1.5H) 5.583	14.003	6.9	27.711	13.7	42.128	160.372	20.8
6.872	14.173	7.0	27.711	13.7	41.969	160.531	20.7
7.315	14.234	7.0	27.711	13.7	41.915	160.585	20.7
($0.1L_e$) 7.648	14.280	7.1	27.711	13.7	41.874	160.626	20.7
(SZB) 10.503	14.701	7.3	27.711	13.7	41.528	160.972	20.5
14.606	15.394	7.6	27.711	13.7	41.079	161.421	20.3
15.047	15.475	7.6	27.711	13.7	41.037	161.463	20.3
($0.2L_e$) 15.297	15.522	7.7	27.711	13.7	41.013	161.487	20.3
(SZB) 18.753	16.216	8.0	27.711	13.7	40.735	161.765	20.1
(Deck Bar Cutoff) 20.870	16.688	8.2	27.711	13.7	40.619	161.881	20.1
22.341	17.039	8.4	27.711	13.7	40.568	161.932	20.0
22.778	17.147	8.5	27.711	13.7	40.557	161.943	20.0
($0.3L_e$) 22.945	17.189	8.5	27.711	13.7	40.554	161.946	20.0
(SZB) 29.753	19.118	9.4	27.711	13.7	40.760	161.740	20.1
30.076	19.221	9.5	27.711	13.7	40.788	161.712	20.1
(HP) 30.510	19.362	9.6	27.711	13.7	40.829	161.671	20.2
($0.4L_e$) 30.593	19.358	9.6	27.711	13.7	40.816	161.684	20.2
37.810	19.199	9.5	27.711	13.7	40.106	162.394	19.8
($0.5L_e$) 38.242	19.198	9.5	27.711	13.7	40.091	162.409	19.8

Location from Left Support (ft)	Δf_{pES} (KSI)	% Loss Initial	Δf_{pLT} (KSI)	% Loss Final	Δf_{pT} (KSI)	f_{pe} (KSI)	% Loss Total
45.545	19.344	9.6	27.711	13.7	40.293	162.207	19.9
(0.6L_e) 45.890	19.358	9.6	27.711	13.7	40.324	162.176	19.9
(HP) 45.974	19.362	9.6	27.711	13.7	40.332	162.168	19.9
(SZB) 46.731	19.118	9.4	27.711	13.7	40.218	162.282	19.9
53.280	17.254	8.5	27.711	13.7	39.653	162.847	19.6
(0.7L_e) 53.539	17.189	8.5	27.711	13.7	39.645	162.855	19.6
53.705	17.147	8.5	27.711	13.7	39.640	162.860	19.6
(SZB) 57.731	16.216	8.0	27.711	13.7	39.629	162.871	19.6
61.014	15.555	7.7	27.711	13.7	39.752	162.748	19.6
(0.8L_e) 61.187	15.522	7.7	27.711	13.7	39.761	162.739	19.6
61.437	15.475	7.6	27.711	13.7	39.775	162.725	19.6
(SZB) 65.981	14.701	7.3	27.711	13.7	40.097	162.403	19.8
68.749	14.292	7.1	27.711	13.7	40.342	162.158	19.9
(0.9L_e) 68.835	14.280	7.1	27.711	13.7	40.350	162.150	19.9
69.169	14.234	7.0	27.711	13.7	40.381	162.119	19.9
(1.5H) 70.900	14.003	6.9	27.711	13.7	40.544	161.956	20.0
(SZB) 71.481	13.928	6.9	27.711	13.7	40.599	161.901	20.0
(CS) 72.560	13.794	6.8	27.711	13.7	40.701	161.799	20.1
(H) 72.650	13.783	6.8	27.711	13.7	40.710	161.790	20.1
(Bar Develop.) 73.718	13.655	6.7	27.711	13.7	40.810	161.690	20.2
(PSXFR) 73.900	13.634	6.7	27.711	13.7	40.826	161.674	20.2
(Bar Develop.) 74.779	13.532	34.0	27.711	39.0	40.906	114.264	43.6
(SZB) 75.147	13.491	45.5	27.711	49.6	40.939	94.420	53.4
(FoS) 76.150	13.380	76.7	27.711	78.4	41.026	40.368	80.1
(1.0L_e) 76.484	13.343	87.0	27.711	88.0	41.054	22.423	88.9
76.484	13.343	87.0	27.711	88.0	41.054	22.423	88.9
(STLF) 76.900	13.299	100.0	27.711	100.0	41.010	0.000	100.0

Reinforcement Requirements for Tension Limits

Minimum amount of bonded reinforcement sufficent to resist the tensile force in the concrete [5.9.2.3][C5.9.2.3.1b]

Reinforcement required for tension stress limit, Interval 2 - Prestress Release, [C5.9.2.3.1b]

Location from End of Girder (ft)	Y_{na} (in)	f_t (KSI)	f_b (KSI)	A_t (in^2)	T (kip)	A_s Provided* (in^2)	A_s Required** (in^2)
(STRF, 0.0L_t) 0.000	0.000	0.000	0.000	0.000	0.00	0.000	-
(PSXFR) 3.000	12.050	-0.643	-2.883	0.000	0.00	0.000	-
(0.1L_t) 7.732	10.702	-0.593	-2.922	0.000	0.00	0.000	-
(0.2L_t) 15.463	7.457	-0.458	-3.036	0.000	0.00	0.000	-
(0.3L_t) 23.195	3.643	-0.256	-3.209	0.000	0.00	0.000	-
(HP, 0.4L_t) 30.927	-0.101	0.008	-3.436	4.345	0.02	0.000	0.000
(0.5L_t) 38.659	0.337	-0.027	-3.403	0.000	0.00	0.000	-
(HP, 0.6L_t) 46.390	-0.101	0.008	-3.436	4.345	0.02	0.000	0.000
(0.7L_t) 54.122	3.643	-0.256	-3.209	0.000	0.00	0.000	-
(0.8L_t) 61.854	7.457	-0.458	-3.036	0.000	0.00	0.000	-
(0.9L_t) 69.585	10.702	-0.593	-2.922	0.000	0.00	0.000	-
(PSXFR) 74.317	12.050	-0.643	-2.883	0.000	0.00	0.000	-
(STLF, 1.0L_t) 77.317	0.000	0.000	0.000	0.000	0.00	0.000	-

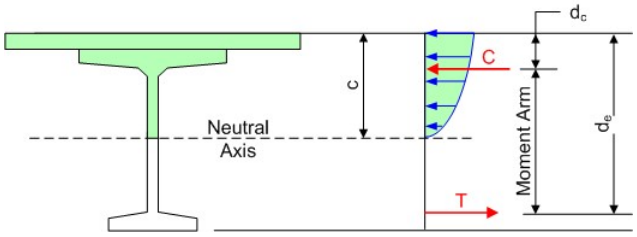
Y_{na}, the location of the neutral axis, is measured from the top of the non-composite girder

* to be considered sufficient, reinforcement must be fully developed and lie within the tension area of the section

** minimum area of sufficiently bonded reinforcement needed to use the alternative tensile stress limit

Moment Capacity Details

Positive Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(0.0L_s) 0.000	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
(STRF) 0.446	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00
0.863	1.420	0.710	46.097	48.811	48.000	0.098	22.184	0.778	93.254	1.000	45.387	566.61	566.61	2143.07
0.863	1.420	0.710	46.097	48.811	48.000	0.098	22.184	0.778	93.254	1.000	45.387	566.61	566.61	2143.07
(FoS) 1.196	1.616	0.808	44.457	48.683	48.000	0.086	39.941	1.401	106.122	1.000	43.649	644.80	644.80	2345.37
2.196	2.201	1.101	41.479	48.390	48.000	0.062	93.258	3.272	144.535	1.000	40.378	878.20	878.20	2955.01
(SZB) 2.200	2.203	1.101	41.472	48.389	48.000	0.062	93.433	3.278	144.661	1.000	40.371	878.96	878.96	2957.02
(Bar Develop.) 2.568	2.417	1.209	40.803	48.306	48.000	0.057	113.075	3.968	158.746	1.000	39.594	964.54	964.54	3182.50
(PSXFR) 3.446	3.317	1.405	39.752	48.141	48.000	0.040	160.012	5.614	191.842	1.000	38.347	1165.63	1165.63	3724.85
3.488	3.325	1.408	39.753	48.140	48.000	0.040	160.017	5.615	192.159	1.000	38.345	1167.56	1167.56	3730.85

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_e (Shear *) (in)	d_t (in)	ε_t	f_{pe} (KSI)	ε_{psi} x 1000	$f_{ps,avg}$ (KSI)	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(Bar Develop.) 3.628	3.353	1.417	39.757	48.135	48.000	0.040	160.033	5.615	193.225	1.000	38.340	1174.04	1174.04	3751.07
(H) 4.696	3.554	1.487	39.806	48.102	48.000	0.038	160.159	5.620	201.350	1.000	38.319	1223.40	1223.40	3906.65
(CS) 4.984	3.606	1.506	39.825	48.093	48.000	0.037	160.194	5.621	203.539	1.000	38.318	1236.70	1236.70	3949.03
5.446	3.687	1.538	39.859	46.202	48.000	0.036	160.250	5.623	207.064	1.000	38.321	1258.12	1258.12	4017.72
(SZB) 5.866	3.760	1.568	39.896	46.201	48.000	0.035	160.301	5.625	210.260	1.000	38.328	1277.54	1277.54	4080.48
(1.5H) 6.446	3.866	1.613	39.954	46.202	48.000	0.034	160.372	5.627	214.681	1.000	38.341	1304.40	1304.40	4167.68
($0.1L_s$) 7.735	4.091	1.717	40.111	44.549	48.000	0.032	160.531	5.633	224.498	1.000	38.395	1364.05	1364.05	4364.35
8.178	4.166	1.752	40.174	44.572	48.000	0.032	160.585	5.635	227.881	1.000	38.421	1384.60	1384.60	4433.16
8.512	4.221	1.779	40.223	44.591	48.000	0.031	160.626	5.636	230.424	1.000	38.443	1400.06	1400.06	4485.25
9.578	4.394	1.865	40.394	44.660	48.000	0.030	160.757	5.641	238.568	1.000	38.529	1449.54	1449.54	4654.11
(SZB) 11.366	4.671	2.009	40.726	43.379	48.000	0.028	160.972	5.648	252.229	1.000	38.717	1532.54	1532.54	4944.58
12.178	4.793	2.073	40.892	42.165	48.000	0.027	161.067	5.651	258.442	1.000	38.819	1570.30	1570.30	5079.73
($0.2L_s$) 15.469	4.976	2.172	41.805	41.805	48.000	0.026	161.421	5.664	267.973	1.000	39.633	1628.20	1628.20	5377.53
15.910	4.977	2.173	41.942	41.942	48.000	0.026	161.463	5.665	268.050	1.000	39.769	1628.67	1628.67	5397.60
16.160	4.978	2.173	42.020	42.020	48.000	0.026	161.487	5.666	268.094	1.000	39.847	1628.94	1628.94	5409.01
16.960	4.981	2.174	42.270	42.270	48.000	0.026	161.560	5.669	268.232	1.000	40.096	1629.78	1629.78	5445.57
18.910	4.987	2.178	42.881	42.881	48.000	0.026	161.717	5.674	268.569	1.000	40.704	1631.82	1631.82	5535.08
(SZB) 19.616	5.004	2.187	43.104	43.104	48.000	0.026	161.765	5.676	268.671	1.000	40.917	1632.44	1632.44	5566.27
(Deck Bar Cutoff) 21.733	5.054	2.214	43.774	43.774	48.000	0.025	161.881	5.680	268.971	1.000	41.560	1634.27	1634.27	5660.05
21.738	5.054	2.214	43.776	43.776	48.000	0.025	161.881	5.680	268.972	1.000	41.562	1634.27	1634.27	5660.27
($0.3L_s$) 23.204	5.086	2.232	44.241	44.241	48.000	0.025	161.932	5.682	269.179	1.000	42.010	1635.53	1635.53	5725.70
23.642	5.095	2.237	44.381	44.381	48.000	0.025	161.943	5.682	269.240	1.000	42.144	1635.90	1635.90	5745.30
23.808	5.099	2.238	44.434	44.434	48.000	0.025	161.946	5.682	269.261	1.000	42.195	1636.03	1636.03	5752.73
24.342	5.110	2.244	44.604	44.604	48.000	0.025	161.954	5.683	269.322	1.000	42.359	1636.40	1636.40	5776.40
25.642	5.135	2.258	45.019	45.019	48.000	0.025	161.958	5.683	269.469	1.000	42.761	1637.30	1637.30	5834.31
(SZB) 30.616	5.215	2.302	46.615	46.615	48.000	0.025	161.740	5.675	269.873	1.000	44.313	1639.75	1639.75	6055.13
($0.4L_s$) 30.939	5.220	2.305	46.719	46.719	48.000	0.025	161.712	5.674	269.891	1.000	44.414	1639.86	1639.86	6069.44
(HP) 31.373	5.225	2.308	46.859	46.859	48.000	0.025	161.671	5.673	269.917	1.000	44.551	1640.01	1640.01	6088.71
31.378	5.226	2.308	46.859	46.859	48.000	0.025	161.671	5.673	269.917	1.000	44.551	1640.01	1640.01	6088.71
31.457	5.226	2.308	46.859	46.859	48.000	0.025	161.684	5.673	269.916	1.000	44.551	1640.01	1640.01	6088.63
31.723	5.229	2.310	46.859	46.859	48.000	0.025	161.725	5.675	269.914	1.000	44.549	1640.00	1640.00	6088.37
32.373	5.237	2.314	46.859	46.859	48.000	0.024	161.821	5.678	269.911	1.000	44.545	1639.98	1639.98	6087.76
($0.5L_s$) 38.673	5.286	2.341	46.859	46.859	48.000	0.024	162.394	5.698	269.885	1.000	44.519	1639.82	1639.82	6083.55
39.105	5.288	2.342	46.860	46.860	48.000	0.024	162.409	5.699	269.884	1.000	44.518	1639.81	1639.81	6083.38
45.837	5.296	2.346	46.860	46.860	48.000	0.024	162.255	5.693	269.878	1.000	44.513	1639.78	1639.78	6082.66
($0.6L_s$) 46.408	5.295	2.346	46.860	46.860	48.000	0.024	162.207	5.691	269.879	1.000	44.514	1639.78	1639.78	6082.77
46.487	5.294	2.346	46.860	46.860	48.000	0.024	162.200	5.691	269.879	1.000	44.514	1639.78	1639.78	6082.78
46.753	5.294	2.345	46.860	46.860	48.000	0.024	162.176	5.690	269.879	1.000	44.514	1639.79	1639.79	6082.85
46.832	5.293	2.345	46.860	46.860	48.000	0.024	162.169	5.690	269.879	1.000	44.515	1639.79	1639.79	6082.87
(HP) 46.837	5.293	2.345	46.860	46.860	48.000	0.024	162.168	5.690	269.879	1.000	44.515	1639.79	1639.79	6082.87
(SZB) 47.594	5.290	2.343	46.616	46.616	48.000	0.024	162.282	5.694	269.832	1.000	44.273	1639.50	1639.50	6048.75
52.568	5.250	2.321	45.021	45.021	48.000	0.024	162.774	5.711	269.350	1.000	42.700	1636.57	1636.57	5823.48
53.868	5.235	2.313	44.607	44.607	48.000	0.025	162.837	5.714	269.176	1.000	42.294	1635.51	1635.51	5764.38
($0.7L_s$) 54.143	5.232	2.311	44.520	44.520	48.000	0.025	162.847	5.714	269.135	1.000	42.209	1635.26	1635.26	5751.87
54.402	5.228	2.309	44.437	44.437	48.000	0.025	162.855	5.714	269.097	1.000	42.128	1635.03	1635.03	5740.09
54.568	5.226	2.308	44.385	44.385	48.000	0.025	162.860	5.714	269.072	1.000	42.076	1634.88	1634.88	5732.50
(SZB) 58.594	5.166	2.275	43.110	43.110	48.000	0.025	162.871	5.715	268.476	1.000	40.835	1631.26	1631.26	5551.09
59.300	5.154	2.268	42.888	42.888	48.000	0.025	162.853	5.714	268.371	1.000	40.620	1630.62	1630.62	5519.62
61.250	5.118	2.249	42.276	42.276	48.000	0.025	162.779	5.712	268.080	1.000	40.027	1628.85	1628.85	5433.15
($0.8L_s$) 61.878	5.106	2.242	42.079	42.079	48.000	0.025	162.748	5.710	267.985	1.000	39.837	1628.28	1628.28	5405.48
62.050	5.102	2.240	42.025	42.025	48.000	0.025	162.739	5.710	267.959	1.000	39.785	1628.12	1628.12	5397.88
62.300	5.097	2.238	41.947	41.947	48.000	0.025	162.725	5.710	267.921	1.000	39.709	1627.89	1627.89	5386.88
66.032	4.844	2.101	40.894	42.167	48.000	0.027	162.469	5.701	258.400	1.000	38.793	1570.04	1570.04	5075.60
(SZB) 66.844	4.706	2.027	40.727	43.380	48.000	0.028	162.403	5.698	252.205	1.000	38.700	1532.40	1532.40	4941.93
68.632	4.394	1.866	40.394	44.659	48.000	0.030	162.247	5.693	238.582	1.000	38.528	1449.63	1449.63	4654.26
($0.9L_s$) 69.612	4.236	1.786	40.235	44.596	48.000	0.031	162.158	5.690	231.097	1.000	38.448	1404.14	1404.14	4498.93
69.699	4.222	1.780	40.222	44.590	48.000	0.031	162.150	5.689	230.438	1.000	38.442	1400.14	1400.14	4485.39
70.032	4.166	1.753	40.173	44.572	48.000	0.032	162.119	5.688	227.895	1.000	38.420	1384.69	1384.69	4433.30
(1.5H) 71.764	3.866	1.613	39.953	46.202	48.000	0.034	161.956	5.683	214.694	1.000	38.340	1304.48	1304.48	4167.80
(SZB) 72.344	3.760	1.568	39.895	46.201	48.000	0.035	161.901	5.681	210.273	1.000	38.327	1277.62	1277.62	4080.60
72.764	3.688	1.538	39.858	46.202	48.000	0.036	161.861	5.679	207.076	1.000	38.320	1258.20	1258.20	4017.83
(CS) 73.423	3.571	1.493	39.810	48.099	48.000	0.037	161.799	5.677	202.051	1.000	38.317	1227.66	1227.66	3920.07
(H) 73.514	3.554	1.487	39.805	48.102	48.000	0.038	161.790	5.677	201.362	1.000	38.318	1223.48	1223.48	3906.75
(Bar Develop.) 74.582	3.353	1.417	39.756	48.135	48.000	0.040	161.690	5.673	193.237	1.000	38.339	1174.11	1174.11	3751.17
74.722	3.326	1.408	39.752	48.140	48.000	0.040	161.677	5.673	192.170	1.000	38.344	1167.63	1167.63	3730.94
(PSXFR) 74.764	3.317	1.405	39.751	48.141	48.000	0.040	161.674	5.673	191.854	1.000	38.345	1165.70	1165.70	3724.95
(Bar Develop.) 75.642	2.418	1.209	40.802	48.306	48.000	0.057	114.264	4.009	158.751	1.000	39.593	964.57	964.57	3182.54
(SZB) 76.010	2.203	1.102	41.472	48.389	48.000	0.062	94.420	3.313	144.663	1.000	40.370	878.97	878.97	2957.04
76.014	2.201	1.101	41.479	48.390	48.000	0.062	94.244	3.307	144.538	1.000	40.378	878.21	878.21	2955.03
(FoS) 77.014	1.616	0.808	44.457	48.683	48.000	0.086	40.368	1.416	106.122	1.000	43.649	644.80	644.80	2345.37
($1.0L_s$) 77.347	1.420	0.710	46.097	48.811	48.000	0.098	22.423	0.787	93.254	1.000	45.387	566.61	566.61	2143.07
77.347	1.420	0.710	46.097	48.811	48.000	0.098	22.423	0.787	93.254	1.000	45.387	566.61	566.61	2143.07
(STLF) 77.764	1.175	0.587	49.000	49.000	48.000	0.120	0.000	0.000	77.143	1.000	48.413	468.72	468.72	1891.00

* Used to compute d_v for shear. Depth to resultant tension force for strands in tension. See PCI Bridge Design Manual, 3rd Edition, MNL-133-11, §8.4.1.2

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.25(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 1.0$$

Positive Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($0.0L_s$) 0.000	0.509	0.000	13235.8	13235.8	0.00	898.48
(STRF) 0.446	0.679	0.000	7237.4	10946.9	0.00	990.80
0.863	0.679	0.339	7237.4	10946.9	-0.00	1331.09
0.863	0.679	0.339	7237.4	10946.9	-0.00	1331.09
(FoS) 1.196	0.679	0.614	7237.4	10946.9	22.31	1595.65
2.196	0.679	1.459	7237.4	10946.9	88.02	2410.06
(SZB) 2.200	0.679	1.462	7237.4	10946.9	88.23	2412.78
(Bar Develop.) 2.568	0.679	1.781	7237.4	10946.9	111.94	2720.40
(PSXFR) 3.446	0.679	2.558	7237.4	10946.9	167.54	3471.98
3.488	0.679	2.560	7237.4	10946.9	170.14	3472.54
(Bar Develop.) 3.628	0.679	2.566	7237.4	10946.9	178.88	3474.44
(H) 4.696	0.679	2.615	7237.4	10946.9	244.17	3489.60
(CS) 4.984	0.679	2.628	7237.4	10946.9	261.38	3493.88
5.446	0.679	2.649	7237.4	10946.9	288.77	3500.96
(SZB) 5.866	0.679	2.668	7237.4	10946.9	313.24	3507.57
(1.5H) 6.446	0.679	2.695	7237.4	10946.9	346.61	3517.02
($0.1L_s$) 7.735	0.679	2.753	7237.4	10946.9	418.42	3539.23
8.178	0.679	2.774	7237.4	10946.9	442.44	3547.26
8.512	0.679	2.789	7237.4	10946.9	460.25	3553.43
9.578	0.679	2.838	7237.4	10946.9	515.89	3573.90
(SZB) 11.366	0.679	2.920	7237.4	10946.9	604.49	3610.67
12.178	0.679	2.957	7237.4	10946.9	642.85	3628.38
($0.2L_s$) 15.469	0.679	3.108	7237.4	10946.9	786.10	3706.19
15.910	0.679	3.128	7237.4	10946.9	803.81	3717.32
16.160	0.679	3.139	7237.4	10946.9	813.71	3723.70
16.960	0.679	3.176	7237.4	10946.9	844.63	3744.48
18.910	0.679	3.264	7237.4	10946.9	915.28	3797.26
(SZB) 19.616	0.679	3.296	7237.4	10943.5	939.20	3816.18
(Deck Bar Cutoff) 21.733	0.679	3.392	7237.4	10933.0	1005.71	3875.06
21.738	0.679	3.392	7237.4	10933.0	1005.85	3875.20
($0.3L_s$) 23.204	0.679	3.457	7237.4	10926.2	1047.33	3917.93
23.642	0.679	3.477	7237.4	10924.3	1058.98	3930.97
23.808	0.679	3.484	7237.4	10923.6	1063.33	3935.97
24.342	0.679	3.508	7237.4	10921.3	1076.93	3952.10
25.642	0.679	3.565	7237.4	10916.0	1108.01	3992.18
(SZB) 30.616	0.679	3.779	7237.4	10898.8	1200.06	4154.47
($0.4L_s$) 30.939	0.679	3.792	7237.4	10897.9	1204.56	4165.44
(HP) 31.373	0.679	3.810	7237.4	10896.7	1210.35	4180.27
31.378	0.679	3.810	7237.4	10896.7	1210.41	4180.25
31.457	0.679	3.811	7237.4	10896.4	1211.42	4179.98
31.723	0.679	3.812	7237.4	10895.7	1214.77	4179.06
32.373	0.679	3.814	7237.4	10894.0	1222.43	4176.99
($0.5L_s$) 38.673	0.679	3.827	7237.4	10882.4	1259.39	4168.67
39.105	0.679	3.828	7237.4	10881.9	1259.45	4168.87
45.837	0.679	3.824	7237.4	10880.0	1219.55	4184.81
($0.6L_s$) 46.408	0.679	3.823	7237.4	10880.3	1212.63	4187.26
46.487	0.679	3.823	7237.4	10880.3	1211.64	4187.62
46.753	0.679	3.822	7237.4	10880.5	1208.18	4188.83
46.832	0.679	3.822	7237.4	10880.5	1207.14	4189.20
(HP) 46.837	0.679	3.822	7237.4	10880.5	1207.07	4189.22
(SZB) 47.594	0.679	3.791	7237.4	10881.1	1196.49	4164.11
52.568	0.679	3.583	7237.4	10888.3	1102.80	4005.42
53.868	0.679	3.527	7237.4	10891.1	1071.37	3966.03
($0.7L_s$) 54.143	0.679	3.515	7237.4	10891.7	1064.37	3957.84
54.402	0.679	3.504	7237.4	10892.3	1057.64	3950.15
54.568	0.679	3.497	7237.4	10892.7	1053.25	3945.22
(SZB) 58.594	0.679	3.319	7237.4	10904.2	932.79	3831.64
59.300	0.679	3.287	7237.4	10906.6	908.80	3812.87
61.250	0.679	3.200	7237.4	10913.7	838.08	3763.00
($0.8L_s$) 61.878	0.679	3.171	7237.4	10916.2	813.92	3747.58
62.050	0.679	3.163	7237.4	10916.9	807.16	3743.40
62.300	0.679	3.152	7237.4	10917.9	797.27	3737.38
66.032	0.679	2.983	7237.4	10934.4	636.76	3653.88
(SZB) 66.844	0.679	2.946	7237.4	10938.4	598.60	3637.36
68.632	0.679	2.864	7237.4	10946.9	510.55	3603.03
($0.9L_s$) 69.612	0.679	2.819	7237.4	10946.9	459.87	3584.12
69.699	0.679	2.815	7237.4	10946.9	455.32	3582.49
70.032	0.679	2.800	7237.4	10946.9	437.65	3576.29
(1.5H) 71.764	0.679	2.721	7237.4	10946.9	342.69	3545.74
(SZB) 72.344	0.679	2.695	7237.4	10946.9	309.66	3536.13
72.764	0.679	2.676	7237.4	10946.9	285.43	3529.40
(CS) 73.423	0.679	2.646	7237.4	10946.9	246.68	3519.16
(H) 73.514	0.679	2.642	7237.4	10946.9	241.31	3517.79
(Bar Develop.) 74.582	0.679	2.593	7237.4	10946.9	176.74	3502.21
74.722	0.679	2.587	7237.4	10946.9	168.10	3500.25
(PSXFR) 74.764	0.679	2.585	7237.4	10946.9	165.53	3499.67
(Bar Develop.) 75.642	0.679	1.800	7237.4	10946.9	110.58	2739.90
(SZB) 76.010	0.679	1.478	7237.4	10946.9	87.15	2428.84
76.014	0.679	1.475	7237.4	10946.9	86.94	2426.09
(FoS) 77.014	0.679	0.621	7237.4	10946.9	22.04	1602.39
($1.0L_s$) 77.347	0.679	0.343	7237.4	10946.9	0.00	1334.75
77.347	0.679	0.343	7237.4	10946.9	0.00	1334.75

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
(STLF) 77.764	0.679	0.000	7237.4	10946.9	0.00	990.80

Flexural cracking variability factor, γ_1 = 1.6
Prestress variability factor, γ_2 = 1.1
Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement,γ_3 = 1

$$M_{cr} = \gamma_3\left[\left(\gamma_1 f_r + \gamma_2 f_{cpe}\right)S_c - M_{dnc}\left(\frac{S_c}{S_{nc}} - 1\right)\right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$
f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.
S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads
S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads
M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

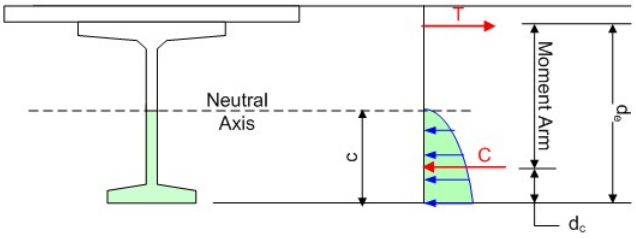
Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
($0.0L_s$) 0.000	898.48	Strength II	-396.53	-527.38	-527.38
(STRF) 0.446	990.80	Strength II	-385.18	-512.29	-512.29
0.863	1331.09	Strength II	-374.68	-498.33	-498.33
0.863	1331.09	Strength II	-374.68	-498.33	-498.33
(FoS) 1.196	1595.65	Strength II	-346.25	-460.51	-460.51
2.196	2410.06	Strength II	-262.42	-349.02	-349.02
(SZB) 2.200	2412.78	Strength II	-262.15	-348.66	-348.66
(Bar Develop.) 2.568	2720.40	Strength II	-231.86	-308.37	-308.37
(PSXFR) 3.446	3471.98	Strength II	-160.73	-213.77	-213.77
3.488	3472.54	Strength II	-157.40	-209.34	-209.34
(Bar Develop.) 3.628	3474.44	Strength II	-146.21	-194.46	-194.46
(H) 4.696	3489.60	Strength I	98.24	130.66	130.66
(CS) 4.984	3493.88	Strength I	143.18	190.43	190.43
5.446	3500.96	Strength I	215.15	286.15	286.15
(SZB) 5.866	3507.57	Strength I	280.27	372.76	372.76
(1.5H) 6.446	3517.02	Strength I	370.02	492.13	492.13
($0.1L_s$) 7.735	3539.23	Strength I	566.87	753.94	753.94
8.178	3547.26	Strength I	634.14	843.41	843.41
8.512	3553.43	Strength I	684.86	910.86	910.86
9.578	3573.90	Strength I	845.70	1124.78	1124.78
(SZB) 11.366	3610.67	Strength I	1110.66	1477.18	1477.18
12.178	3628.38	Strength I	1230.15	1636.11	1636.11
($0.2L_s$) 15.469	3706.19	Strength I	1746.36	2322.66	2322.66
15.910	3717.32	Strength I	1816.16	2415.49	2415.49
16.160	3723.70	Strength I	1855.24	2467.47	2467.47
16.960	3744.48	Strength I	1978.24	2631.05	2631.05
18.910	3797.26	Strength I	2265.15	3012.65	3012.65
(SZB) 19.616	3816.18	Strength I	2365.72	3146.41	3146.41
(Deck Bar Cutoff) 21.733	3875.06	Strength I	2657.40	3534.35	3534.35
21.738	3875.20	Strength I	2658.05	3535.20	3535.20
($0.3L_s$) 23.204	3917.93	Strength I	2842.59	3780.65	3780.65
23.642	3930.97	Strength I	2895.56	3851.09	3851.09
23.808	3935.97	Strength I	2915.58	3877.73	3877.73
24.342	3952.10	Strength I	2978.45	3961.34	3952.10
25.642	3992.18	Strength I	3125.76	4157.26	3992.18
(SZB) 30.616	4154.47	Strength I	3591.52	4776.72	4154.47
($0.4L_s$) 30.939	4165.44	Strength I	3616.01	4809.30	4165.44
(HP) 31.373	4180.27	Strength I	3647.90	4851.70	4180.27
31.378	4180.25	Strength I	3648.25	4852.17	4180.25
31.457	4179.98	Strength I	3653.86	4859.64	4179.98
31.723	4179.06	Strength I	3672.63	4884.59	4179.06
32.373	4176.99	Strength I	3716.83	4943.38	4176.99
($0.5L_s$) 38.673	4168.67	Strength I	3998.25	5317.67	4168.67
39.105	4168.87	Strength I	4007.52	5330.00	4168.87
45.837	4184.81	Strength I	4031.25	5361.56	4184.81
($0.6L_s$) 46.408	4187.26	Strength I	4021.17	5348.16	4187.26
46.487	4187.62	Strength I	4019.66	5346.14	4187.62
46.753	4188.83	Strength I	4014.19	5338.87	4188.83
46.832	4189.20	Strength I	4012.48	5336.60	4189.20
(HP) 46.837	4189.22	Strength I	4012.37	5336.45	4189.22
(SZB) 47.594	4164.11	Strength I	3993.50	5311.36	4164.11
52.568	4005.42	Strength I	3763.84	5005.91	4005.42
53.868	3966.03	Strength I	3674.42	4886.98	3966.03
($0.7L_s$) 54.143	3957.84	Strength I	3653.97	4859.78	3957.84
54.402	3950.15	Strength I	3635.03	4834.59	3950.15
54.568	3945.22	Strength I	3623.20	4818.86	3945.22
(SZB) 58.594	3831.64	Strength I	3273.54	4353.80	3831.64
59.300	3812.87	Strength I	3199.60	4255.47	3812.87
61.250	3763.00	Strength I	2976.24	3958.40	3763.00
($0.8L_s$) 61.878	3747.58	Strength I	2898.34	3854.79	3747.58
62.050	3743.40	Strength I	2876.39	3825.59	3743.40
62.300	3737.38	Strength I	2844.18	3782.76	3737.38
66.032	3653.88	Strength I	2305.39	3066.17	3066.17
(SZB) 66.844	3637.36	Strength I	2173.67	2890.98	2890.98

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
68.632	3603.03	Strength I	1865.84	2481.57	2481.57
(0.9L_s) 69.612	3584.12	Strength I	1686.33	2242.82	2242.82
69.699	3582.49	Strength I	1670.16	2221.31	2221.31
70.032	3576.29	Strength I	1607.14	2137.50	2137.50
(1.5H) 71.764	3545.74	Strength I	1265.48	1683.09	1683.09
(SZB) 72.344	3536.13	Strength I	1145.53	1523.56	1523.56
72.764	3529.40	Strength I	1057.25	1406.14	1406.14
(CS) 73.423	3519.16	Strength I	915.54	1217.67	1217.67
(H) 73.514	3517.79	Strength I	895.84	1191.46	1191.46
(Bar Develop.) 74.582	3502.21	Strength I	658.18	875.38	875.38
74.722	3500.25	Strength I	626.27	832.94	832.94
(PSXFR) 74.764	3499.67	Strength I	616.77	820.30	820.30
(Bar Develop.) 75.642	2739.90	Strength I	413.05	549.35	549.35
(SZB) 76.010	2428.84	Strength I	325.87	433.40	433.40
76.014	2426.09	Strength I	325.08	432.36	432.36
(FoS) 77.014	1602.39	Strength I	82.63	109.89	109.89
(1.0L_s) 77.347	1334.75	Strength II	0.00	0.00	0.00
77.347	1334.75	Strength II	0.00	0.00	0.00
(STLF) 77.764	990.80	Strength II	0.00	0.00	0.00

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Negative Moment Capacity Details



Moment Capacity [5.6.3.2.4] - Interval 17 - Open to Traffic

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
(0.0L_s) 0.000	32.950	9.458	51.011	51.011	0.002	0.750	41.553	1526.01	1526.01	-5284.17
(STRF) 0.446	16.059	5.274	51.055	51.055	0.007	0.900	45.780	1920.00	1920.00	-7324.86
0.863	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.18
0.863	16.059	5.274	51.000	51.000	0.007	0.900	45.726	1920.00	1920.00	-7316.18
(FoS) 1.196	16.059	5.274	50.957	50.957	0.007	0.900	45.683	1920.00	1920.00	-7309.32
2.196	16.059	5.273	50.831	50.831	0.006	0.900	45.557	1920.00	1920.00	-7289.15
(SZB) 2.200	16.059	5.273	50.830	50.830	0.006	0.900	45.557	1920.00	1920.00	-7289.08
(Bar Develop.) 2.568	16.059	5.273	50.785	50.785	0.006	0.900	45.511	1920.00	1920.00	-7281.81
(PSXFR) 3.446	16.059	5.273	50.678	50.678	0.006	0.900	45.405	1920.00	1920.00	-7264.79
3.488	16.059	5.273	50.673	50.673	0.006	0.900	45.400	1920.00	1920.00	-7264.00
(Bar Develop.) 3.628	16.059	5.273	50.656	50.656	0.006	0.900	45.383	1920.00	1920.00	-7261.33
(H) 4.696	16.058	5.273	50.531	50.531	0.006	0.900	45.259	1920.00	1920.00	-7241.38
(CS) 4.984	16.058	5.272	50.498	50.498	0.006	0.900	45.226	1920.00	1920.00	-7236.12
5.446	16.058	5.272	50.446	50.446	0.006	0.900	45.174	1920.00	1920.00	-7227.76
(SZB) 5.866	16.058	5.272	50.399	50.399	0.006	0.900	45.127	1920.00	1920.00	-7220.29
(1.5H) 6.446	16.058	5.272	50.335	50.335	0.006	0.900	45.063	1920.00	1920.00	-7210.11
(0.1L_s) 7.735	16.058	5.272	50.198	50.198	0.006	0.900	44.926	1920.00	1920.00	-7188.19
8.178	16.058	5.271	50.152	50.152	0.006	0.900	44.880	1920.00	1920.00	-7180.85
8.512	16.058	5.271	50.118	50.118	0.006	0.900	44.846	1920.00	1920.00	-7175.41
9.578	16.058	5.271	50.011	50.011	0.006	0.900	44.740	1920.00	1920.00	-7158.39
(SZB) 11.366	16.057	5.271	49.841	49.841	0.006	0.900	44.570	1920.00	1920.00	-7131.21
12.178	16.057	5.270	49.767	49.767	0.006	0.900	44.496	1920.00	1920.00	-7119.40
(0.2L_s) 15.469	15.643	5.193	49.488	49.488	0.006	0.900	44.295	1895.24	1895.24	-6995.84
15.910	14.538	4.986	49.454	49.454	0.007	0.900	44.468	1824.29	1824.29	-6760.20
16.160	13.963	4.874	49.434	49.434	0.008	0.900	44.560	1784.04	1784.04	-6624.71
16.960	12.351	4.505	49.373	49.373	0.009	0.900	44.869	1655.23	1655.23	-6188.97
18.910	9.360	3.668	49.234	49.234	0.013	0.900	45.565	1341.40	1341.40	-5093.41
(SZB) 19.616	8.437	3.315	49.186	49.186	0.014	0.900	45.871	1227.84	1227.84	-4693.54
(Deck Bar Cutoff) 21.733	6.377	2.544	49.052	49.052	0.020	0.900	46.508	960.00	960.00	-3720.66
21.738	6.377	2.544	49.052	49.052	0.020	0.900	46.508	960.00	960.00	-3720.63
(0.3L_s) 23.204	6.379	2.544	48.968	48.968	0.020	0.900	46.424	960.00	960.00	-3713.90
23.642	6.379	2.544	48.944	48.944	0.020	0.900	46.400	960.00	960.00	-3712.00
23.808	6.380	2.544	48.935	48.935	0.020	0.900	46.391	960.00	960.00	-3711.29
24.342	6.380	2.544	48.907	48.907	0.020	0.900	46.363	960.00	960.00	-3709.06
25.642	6.381	2.544	48.843	48.843	0.020	0.900	46.299	960.00	960.00	-3703.94
(SZB) 30.616	6.385	2.544	48.652	48.652	0.020	0.900	46.108	960.00	960.00	-3688.65
(0.4L_s) 30.939	6.385	2.544	48.643	48.643	0.020	0.900	46.099	960.00	960.00	-3687.91
(HP) 31.373	6.385	2.544	48.631	48.631	0.020	0.900	46.087	960.00	960.00	-3686.95
31.378	6.385	2.544	48.631	48.631	0.020	0.900	46.087	960.00	960.00	-3686.94
31.457	6.385	2.544	48.629	48.629	0.020	0.900	46.085	960.00	960.00	-3686.77
31.723	6.385	2.544	48.622	48.622	0.020	0.900	46.078	960.00	960.00	-3686.22
32.373	5.925	2.388	48.606	48.606	0.022	0.900	46.219	900.00	900.00	-3466.40
(0.5L_s) 38.673	5.927	2.387	48.534	48.534	0.022	0.900	46.146	900.00	900.00	-3460.98
39.105	5.927	2.387	48.534	48.534	0.022	0.900	46.147	900.00	900.00	-3461.00

Location from Left Support (ft)	c (in)	d_c (in)	d_e (in)	d_t (in)	ε_t	ϕ	Moment Arm (in)	C (kip)	T (kip)	M_n (kip-ft)
45.837	5.925	2.388	48.623	48.623	0.022	0.900	46.236	900.00	900.00	-3467.69
($0.6L_s$) 46.408	5.925	2.388	48.639	48.639	0.022	0.900	46.251	900.00	900.00	-3468.82
46.487	5.925	2.388	48.641	48.641	0.022	0.900	46.253	900.00	900.00	-3468.98
46.753	5.925	2.388	48.648	48.648	0.022	0.900	46.261	900.00	900.00	-3469.54
46.832	5.925	2.388	48.650	48.650	0.022	0.900	46.263	900.00	900.00	-3469.71
(HP) 46.837	5.925	2.388	48.651	48.651	0.022	0.900	46.263	900.00	900.00	-3469.72
(SZB) 47.594	5.924	2.388	48.674	48.674	0.022	0.900	46.286	900.00	900.00	-3471.45
52.568	5.920	2.388	48.875	48.875	0.022	0.900	46.486	900.00	900.00	-3486.49
53.868	5.919	2.388	48.941	48.941	0.022	0.900	46.552	900.00	900.00	-3491.42
($0.7L_s$) 54.143	5.918	2.388	48.955	48.955	0.022	0.900	46.567	900.00	900.00	-3492.52
54.402	5.918	2.388	48.969	48.969	0.022	0.900	46.581	900.00	900.00	-3493.57
54.568	5.918	2.388	48.978	48.978	0.022	0.900	46.590	900.00	900.00	-3494.25
(SZB) 58.594	6.374	2.544	49.224	49.224	0.020	0.900	46.680	960.00	960.00	-3734.40
59.300	6.373	2.544	49.272	49.272	0.020	0.900	46.728	960.00	960.00	-3738.25
61.250	6.371	2.544	49.412	49.412	0.020	0.900	46.868	960.00	960.00	-3749.47
($0.8L_s$) 61.878	6.370	2.544	49.460	49.460	0.020	0.900	46.916	960.00	960.00	-3753.27
62.050	6.369	2.544	49.473	49.473	0.020	0.900	46.929	960.00	960.00	-3754.33
62.300	6.369	2.544	49.493	49.493	0.020	0.900	46.948	960.00	960.00	-3755.87
66.032	6.363	2.544	49.803	49.803	0.020	0.900	47.259	960.00	960.00	-3780.69
(SZB) 66.844	6.362	2.544	49.876	49.876	0.021	0.900	47.331	960.00	960.00	-3786.51
68.632	6.358	2.544	50.043	50.043	0.021	0.900	47.499	960.00	960.00	-3799.88
($0.9L_s$) 69.612	6.357	2.544	50.139	50.139	0.021	0.900	47.594	960.00	960.00	-3807.53
69.699	6.356	2.544	50.147	50.147	0.021	0.900	47.603	960.00	960.00	-3808.22
70.032	6.356	2.544	50.180	50.180	0.021	0.900	47.636	960.00	960.00	-3810.88
(1.5H) 71.764	6.352	2.545	50.359	50.359	0.021	0.900	47.814	960.00	960.00	-3825.14
(SZB) 72.344	6.351	2.545	50.421	50.421	0.021	0.900	47.876	960.00	960.00	-3830.10
72.764	6.350	2.545	50.466	50.466	0.021	0.900	47.922	960.00	960.00	-3833.72
(CS) 73.423	6.349	2.545	50.539	50.539	0.021	0.900	47.994	960.00	960.00	-3839.52
(H) 73.514	6.349	2.545	50.549	50.549	0.021	0.900	48.004	960.00	960.00	-3840.32
(Bar Develop.) 74.582	6.346	2.545	50.669	50.669	0.021	0.900	48.125	960.00	960.00	-3849.97
74.722	6.346	2.545	50.686	50.686	0.021	0.900	48.141	960.00	960.00	-3851.26
(PSXFR) 74.764	6.346	2.545	50.690	50.690	0.021	0.900	48.146	960.00	960.00	-3851.65
(Bar Develop.) 75.642	6.344	2.545	50.793	50.793	0.021	0.900	48.248	960.00	960.00	-3859.86
(SZB) 76.010	6.343	2.545	50.837	50.837	0.021	0.900	48.292	960.00	960.00	-3863.36
76.014	6.343	2.545	50.837	50.837	0.021	0.900	48.292	960.00	960.00	-3863.39
(FoS) 77.014	6.341	2.545	50.959	50.959	0.021	0.900	48.414	960.00	960.00	-3873.09
($1.0L_s$) 77.347	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
77.347	6.340	2.545	51.000	51.000	0.021	0.900	48.455	960.00	960.00	-3876.38
(STLF) 77.764	6.339	2.545	51.052	51.052	0.021	0.900	48.507	960.00	960.00	-3880.55

$\varepsilon_{cl} = 0.002$

$\varepsilon_{tl} = 0.005$

$$0.75 \le \phi = 0.75 + \frac{0.15(\varepsilon_t - \varepsilon_{cl})}{(\varepsilon_{tl} - \varepsilon_{cl})} \le 0.9$$

Negative Cracking Moment Details [5.6.3.3] - Interval 17 - Open to Traffic

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
($0.0L_s$) 0.000	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(STRF) 0.446	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
0.863	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
0.863	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(FoS) 1.196	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
2.196	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(SZB) 2.200	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(Bar Develop.) 2.568	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(PSXFR) 3.446	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
3.488	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(Bar Develop.) 3.628	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(H) 4.696	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(CS) 4.984	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
5.446	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(SZB) 5.866	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(1.5H) 6.446	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
($0.1L_s$) 7.735	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
8.178	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
8.512	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
9.578	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(SZB) 11.366	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
12.178	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
($0.2L_s$) 15.469	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
15.910	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
16.160	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
16.960	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
18.910	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(SZB) 19.616	0.509	0.000	-26392.1	-26392.1	0.00	-1194.37
(Deck Bar Cutoff) 21.733	0.509	0.000	-26243.4	-26243.4	0.00	-1187.64
21.738	0.509	0.000	-26243.1	-26243.1	0.00	-1187.63
($0.3L_s$) 23.204	0.509	0.000	-26148.0	-26148.0	0.00	-1183.32
23.642	0.509	0.000	-26120.9	-26120.9	0.00	-1182.10
23.808	0.509	0.000	-26110.7	-26110.7	0.00	-1181.64

Location from Left Support (ft)	f_r (KSI)	f_{cpe} (KSI)	S_{nc} (in^3)	S_c (in^3)	M_{dnc} (kip-ft)	M_{cr} (kip-ft)
24.342	0.509	0.000	-26078.7	-26078.7	0.00	-1180.19
25.642	0.509	0.000	-26004.2	-26004.2	0.00	-1176.82
(SZB) 30.616	0.509	0.000	-25766.5	-25766.5	0.00	-1166.06
($0.4L_s$) 30.939	0.509	0.000	-25753.7	-25753.7	0.00	-1165.48
(HP) 31.373	0.509	0.000	-25736.9	-25736.9	0.00	-1164.72
31.378	0.509	0.000	-25736.8	-25736.8	0.00	-1164.71
31.457	0.509	0.000	-25733.8	-25733.8	0.00	-1164.58
31.723	0.509	0.000	-25723.9	-25723.9	0.00	-1164.13
32.373	0.509	0.000	-25700.5	-25700.5	0.00	-1163.07
($0.5L_s$) 38.673	0.509	0.000	-25541.6	-25541.6	0.00	-1155.88
39.105	0.509	0.000	-25535.2	-25535.2	0.00	-1155.59
45.837	0.509	0.000	-25509.0	-25509.0	0.00	-1154.41
($0.6L_s$) 46.408	0.509	0.000	-25513.2	-25513.2	0.00	-1154.60
46.487	0.509	0.000	-25513.9	-25513.9	0.00	-1154.63
46.753	0.509	0.000	-25516.3	-25516.3	0.00	-1154.73
46.832	0.509	0.000	-25517.0	-25517.0	0.00	-1154.77
(HP) 46.837	0.509	0.000	-25517.0	-25517.0	0.00	-1154.77
(SZB) 47.594	0.509	0.000	-25525.1	-25525.1	0.00	-1155.14
52.568	0.509	0.000	-25622.2	-25622.2	0.00	-1159.53
53.868	0.509	0.000	-25660.1	-25660.1	0.00	-1161.24
($0.7L_s$) 54.143	0.509	0.000	-25668.7	-25668.7	0.00	-1161.63
54.402	0.509	0.000	-25677.1	-25677.1	0.00	-1162.01
54.568	0.509	0.000	-25682.6	-25682.6	0.00	-1162.26
(SZB) 58.594	0.509	0.000	-25841.2	-25841.2	0.00	-1169.44
59.300	0.509	0.000	-25874.1	-25874.1	0.00	-1170.93
61.250	0.509	0.000	-25972.8	-25972.8	0.00	-1175.40
($0.8L_s$) 61.878	0.509	0.000	-26007.0	-26007.0	0.00	-1176.94
62.050	0.509	0.000	-26016.7	-26016.7	0.00	-1177.38
62.300	0.509	0.000	-26030.7	-26030.7	0.00	-1178.02
66.032	0.509	0.000	-26263.4	-26263.4	0.00	-1188.55
(SZB) 66.844	0.509	0.000	-26319.6	-26319.6	0.00	-1191.09
68.632	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
($0.9L_s$) 69.612	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
69.699	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
70.032	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(1.5H) 71.764	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(SZB) 72.344	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
72.764	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(CS) 73.423	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(H) 73.514	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(Bar Develop.) 74.582	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
74.722	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(PSXFR) 74.764	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(Bar Develop.) 75.642	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(SZB) 76.010	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
76.014	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(FoS) 77.014	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
($1.0L_s$) 77.347	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
77.347	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60
(STLF) 77.764	0.509	0.000	-26441.5	-26441.5	0.00	-1196.60

Flexural cracking variability factor, γ_1 = 1.6

Prestress variability factor, γ_2 = 1.1

Ratio of specified minimum yield strength to ultimate tensile strength of the reinforcement, γ_3 = 0.67

$$M_{cr} = \gamma_3 \left[(\gamma_1 f_r + \gamma_2 f_{cpe}) S_c - M_{dnc} \left(\frac{S_c}{S_{nc}} - 1 \right) \right]$$

Segment 1 $f_r = 0.2400\lambda\sqrt{f'_c}$

f_{cpe} = compressive stress in concrete due to effective prestress force only (after allowance for all prestress losses) at extreme fiber of section where tensile stress is caused by externally applied loads.

S_{nc} = section modulus for the extreme fiber of the monolithic or noncomposite section where tensile stress is caused by externally applied loads

S_c = section modulus for the extreme fiber of the composite section where tensile stress is caused by externally applied loads

M_{dnc} = total unfactored dead load moment acting on the monolithic or noncomposite section

Minimum Reinforcement [5.6.3.3] - Interval 17 - Open to Traffic

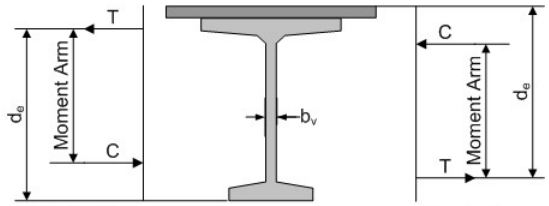
Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
($0.0L_s$) 0.000	-1196.60	Strength I	-2891.62	-3845.86	-1196.60
(STRF) 0.446	-1196.60	Strength I	-2820.14	-3750.78	-1196.60
0.863	-1196.60	Strength I	-2753.90	-3662.68	-1196.60
0.863	-1196.60	Strength I	-2753.90	-3662.68	-1196.60
(FoS) 1.196	-1196.60	Strength I	-2701.24	-3592.64	-1196.60
2.196	-1196.60	Strength I	-2545.17	-3385.08	-1196.60
(SZB) 2.200	-1196.60	Strength I	-2544.66	-3384.40	-1196.60
(Bar Develop.) 2.568	-1196.60	Strength I	-2487.96	-3308.99	-1196.60
(PSXFR) 3.446	-1196.60	Strength I	-2354.22	-3131.11	-1196.60
3.488	-1196.60	Strength I	-2347.94	-3122.75	-1196.60
(Bar Develop.) 3.628	-1196.60	Strength I	-2326.81	-3094.66	-1196.60
(H) 4.696	-1196.60	Strength I	-2094.48	-2785.65	-1196.60
(CS) 4.984	-1196.60	Strength I	-2055.37	-2733.64	-1196.60
5.446	-1196.60	Strength I	-1992.95	-2650.63	-1196.60
(SZB) 5.866	-1196.60	Strength I	-1936.97	-2576.16	-1196.60

Location from Left Support (ft)	M_{cr} (kip-ft)	Loading	M_u (kip-ft)	$1.33M_u$ (kip-ft)	ϕM_n Min (kip-ft)
(1.5H) 6.446	-1196.60	Strength I	-1860.32	-2474.23	-1196.60
($0.1L_s$) 7.735	-1196.60	Strength I	-1682.76	-2238.07	-1196.60
8.178	-1196.60	Strength I	-1625.03	-2161.29	-1196.60
8.512	-1196.60	Strength I	-1582.07	-2104.16	-1196.60
9.578	-1196.60	Strength I	-1458.22	-1939.43	-1196.60
(SZB) 11.366	-1196.60	Strength I	-1299.01	-1727.69	-1196.60
12.178	-1196.60	Strength I	-1252.63	-1665.99	-1196.60
($0.2L_s$) 15.469	-1196.60	Strength I	-1093.45	-1454.28	-1196.60
15.910	-1196.60	Strength I	-1075.43	-1430.33	-1196.60
16.160	-1196.60	Strength I	-1065.28	-1416.82	-1196.60
16.960	-1196.60	Strength I	-1033.10	-1374.02	-1196.60
18.910	-1196.60	Strength I	-956.68	-1272.38	-1196.60
(SZB) 19.616	-1194.37	Strength I	-929.91	-1236.78	-1194.37
(Deck Bar Cutoff) 21.733	-1187.64	Strength I	-864.67	-1150.01	-1150.01
21.738	-1187.63	Strength I	-864.52	-1149.81	-1149.81
($0.3L_s$) 23.204	-1183.32	Strength I	-820.71	-1091.55	-1091.55
23.642	-1182.10	Strength I	-807.87	-1074.46	-1074.46
23.808	-1181.64	Strength I	-803.00	-1067.99	-1067.99
24.342	-1180.19	Strength I	-787.52	-1047.40	-1047.40
25.642	-1176.82	Strength I	-750.42	-998.06	-998.06
(SZB) 30.616	-1166.06	Strength I	-616.74	-820.26	-820.26
($0.4L_s$) 30.939	-1165.48	Strength I	-608.51	-809.32	-809.32
(HP) 31.373	-1164.72	Strength I	-597.53	-794.71	-794.71
31.378	-1164.71	Strength I	-597.40	-794.55	-794.55
31.457	-1164.58	Strength I	-595.43	-791.93	-791.93
31.723	-1164.13	Strength I	-588.75	-783.04	-783.04
32.373	-1163.07	Strength I	-572.63	-761.60	-761.60
($0.5L_s$) 38.673	-1155.88	Strength I	-427.96	-569.19	-569.19
39.105	-1155.59	Strength I	-418.82	-557.03	-557.03
45.837	-1154.41	Strength I	-288.98	-384.34	-384.34
($0.6L_s$) 46.408	-1154.60	Strength I	-279.06	-371.15	-371.15
46.487	-1154.63	Strength I	-277.71	-369.36	-369.36
46.753	-1154.73	Strength I	-273.15	-363.29	-363.29
46.832	-1154.77	Strength I	-271.82	-361.52	-361.52
(HP) 46.837	-1154.77	Strength I	-271.74	-361.41	-361.41
(SZB) 47.594	-1155.14	Strength I	-259.03	-344.51	-344.51
52.568	-1159.53	Strength I	-183.12	-243.55	-243.55
53.868	-1161.24	Strength I	-165.43	-220.03	-220.03
($0.7L_s$) 54.143	-1161.63	Strength I	-161.82	-215.22	-215.22
54.402	-1162.01	Strength I	-158.44	-210.72	-210.72
54.568	-1162.26	Strength I	-156.28	-207.86	-207.86
(SZB) 58.594	-1169.44	Strength I	-108.69	-144.56	-144.56
59.300	-1170.93	Strength I	-101.23	-134.64	-134.64
61.250	-1175.40	Strength I	-81.99	-109.04	-109.04
($0.8L_s$) 61.878	-1176.94	Strength I	-76.23	-101.38	-101.38
62.050	-1177.38	Strength I	-74.68	-99.32	-99.32
62.300	-1178.02	Strength I	-72.46	-96.37	-96.37
66.032	-1188.55	Strength I	-43.32	-57.61	-57.61
(SZB) 66.844	-1191.09	Strength I	-37.95	-50.48	-50.48
68.632	-1196.60	Strength I	-27.37	-36.40	-36.40
($0.9L_s$) 69.612	-1196.60	Strength I	-22.29	-29.64	-29.64
69.699	-1196.60	Strength I	-21.86	-29.08	-29.08
70.032	-1196.60	Strength I	-20.26	-26.95	-26.95
(1.5H) 71.764	-1196.60	Strength I	-12.91	-17.17	-17.17
(SZB) 72.344	-1196.60	Strength I	-10.80	-14.36	-14.36
72.764	-1196.60	Strength I	-9.39	-12.48	-12.48
(CS) 73.423	-1196.60	Strength I	-7.35	-9.78	-9.78
(H) 73.514	-1196.60	Strength I	-7.09	-9.43	-9.43
(Bar Develop.) 74.582	-1196.60	Strength I	-4.33	-5.76	-5.76
74.722	-1196.60	Strength I	-4.02	-5.34	-5.34
(PSXFR) 74.764	-1196.60	Strength I	-3.92	-5.22	-5.22
(Bar Develop.) 75.642	-1196.60	Strength I	-2.19	-2.92	-2.92
(SZB) 76.010	-1196.60	Strength I	-1.59	-2.11	-2.11
76.014	-1196.60	Strength I	-1.58	-2.11	-2.11
(FoS) 77.014	-1196.60	Strength I	-0.31	-0.41	-0.41
($1.0L_s$) 77.347	-1196.60	Strength II	0.00	0.00	0.00
77.347	-1196.60	Strength II	0.00	0.00	0.00
(STLF) 77.764	-1196.60	Strength II	0.00	0.00	0.00

ϕM_n Min = min(M_{cr}, $1.33M_u$)

Shear Capacity Details

Effective Shear Dimensions for Strength I [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 4.984	7.000	50.498	51.000	45.448	36.720	45.226	45.448	Top
5.446	7.000	50.446	51.000	45.401	36.720	45.174	45.401	Top
(SZB) 5.866	7.000	50.399	51.000	45.359	36.720	45.127	45.359	Top
(1.5H) 6.446	7.000	50.335	51.000	45.302	36.720	45.063	45.302	Top
($0.1L_s$) 7.735	7.000	50.198	51.000	45.178	36.720	44.926	45.178	Top
8.178	7.000	50.152	51.000	45.137	36.720	44.880	45.137	Top
8.512	7.000	50.118	51.000	45.106	36.720	44.846	45.106	Top
9.578	7.000	50.011	51.000	45.010	36.720	44.740	45.010	Top
(SZB) 11.366	7.000	43.379	51.000	39.041	36.720	38.717	39.041	Bottom
12.178	7.000	42.165	51.000	37.949	36.720	38.819	38.819	Bottom
($0.2L_s$) 15.469	7.000	41.805	51.000	37.624	36.720	39.633	39.633	Bottom
15.910	7.000	41.942	51.000	37.748	36.720	39.769	39.769	Bottom
16.160	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
16.960	7.000	42.270	51.000	38.043	36.720	40.096	40.096	Bottom
18.910	7.000	42.881	51.000	38.593	36.720	40.704	40.704	Bottom
(SZB) 19.616	7.000	43.104	51.000	38.794	36.720	40.917	40.917	Bottom
(Deck Bar Cutoff) 21.733	7.000	43.774	51.000	39.397	36.720	41.560	41.560	Bottom
21.738	7.000	43.776	51.000	39.398	36.720	41.562	41.562	Bottom
($0.3L_s$) 23.204	7.000	44.241	51.000	39.817	36.720	42.010	42.010	Bottom
23.642	7.000	44.381	51.000	39.943	36.720	42.144	42.144	Bottom
23.808	7.000	44.434	51.000	39.990	36.720	42.195	42.195	Bottom
24.342	7.000	44.604	51.000	40.143	36.720	42.359	42.359	Bottom
25.642	7.000	45.019	51.000	40.517	36.720	42.761	42.761	Bottom
(SZB) 30.616	7.000	46.615	51.000	41.953	36.720	44.313	44.313	Bottom
($0.4L_s$) 30.939	7.000	46.719	51.000	42.047	36.720	44.414	44.414	Bottom
(HP) 31.373	7.000	46.859	51.000	42.173	36.720	44.551	44.551	Bottom
31.378	7.000	46.859	51.000	42.173	36.720	44.551	44.551	Bottom
31.457	7.000	46.859	51.000	42.173	36.720	44.551	44.551	Bottom
31.723	7.000	46.859	51.000	42.173	36.720	44.549	44.549	Bottom
32.373	7.000	46.859	51.000	42.173	36.720	44.545	44.545	Bottom
($0.5L_s$) 38.673	7.000	46.859	51.000	42.174	36.720	44.519	44.519	Bottom
39.105	7.000	46.860	51.000	42.174	36.720	44.518	44.518	Bottom
45.837	7.000	46.860	51.000	42.174	36.720	44.513	44.513	Bottom
($0.6L_s$) 46.408	7.000	46.860	51.000	42.174	36.720	44.514	44.514	Bottom
46.487	7.000	46.860	51.000	42.174	36.720	44.514	44.514	Bottom
46.753	7.000	46.860	51.000	42.174	36.720	44.514	44.514	Bottom
46.832	7.000	46.860	51.000	42.174	36.720	44.515	44.515	Bottom
(HP) 46.837	7.000	46.860	51.000	42.174	36.720	44.515	44.515	Bottom
(SZB) 47.594	7.000	46.616	51.000	41.954	36.720	44.273	44.273	Bottom
52.568	7.000	45.021	51.000	40.519	36.720	42.700	42.700	Bottom
53.868	7.000	44.607	51.000	40.146	36.720	42.294	42.294	Bottom
($0.7L_s$) 54.143	7.000	44.520	51.000	40.068	36.720	42.209	42.209	Bottom
54.402	7.000	44.437	51.000	39.994	36.720	42.128	42.128	Bottom
54.568	7.000	44.385	51.000	39.946	36.720	42.076	42.076	Bottom
(SZB) 58.594	7.000	43.110	51.000	38.799	36.720	40.835	40.835	Bottom
59.300	7.000	42.888	51.000	38.599	36.720	40.620	40.620	Bottom
61.250	7.000	42.276	51.000	38.048	36.720	40.027	40.027	Bottom
($0.8L_s$) 61.878	7.000	42.079	51.000	37.871	36.720	39.837	39.837	Bottom
62.050	7.000	42.025	51.000	37.823	36.720	39.785	39.785	Bottom
62.300	7.000	41.947	51.000	37.752	36.720	39.709	39.709	Bottom
66.032	7.000	42.167	51.000	37.950	36.720	38.793	38.793	Bottom
(SZB) 66.844	7.000	43.380	51.000	39.042	36.720	38.700	39.042	Bottom
68.632	7.000	44.659	51.000	40.193	36.720	38.528	40.193	Bottom
($0.9L_s$) 69.612	7.000	44.596	51.000	40.136	36.720	38.448	40.136	Bottom
69.699	7.000	44.590	51.000	40.131	36.720	38.442	40.131	Bottom
70.032	7.000	44.572	51.000	40.114	36.720	38.420	40.114	Bottom
(1.5H) 71.764	7.000	46.202	51.000	41.582	36.720	38.340	41.582	Bottom
(SZB) 72.344	7.000	46.201	51.000	41.581	36.720	38.327	41.581	Bottom
72.764	7.000	46.202	51.000	41.582	36.720	38.320	41.582	Bottom
(CS) 73.423	7.000	48.099	51.000	43.289	36.720	38.317	43.289	Bottom

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength I

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 4.984	0.9	266.27	26.15	45.448	7.000	0.848
5.446	0.9	263.78	26.16	45.401	7.000	0.840
(SZB) 5.866	0.9	261.52	26.17	45.359	7.000	0.833
(1.5H) 6.446	0.9	258.39	26.18	45.302	7.000	0.823
($0.1L_s$) 7.735	0.9	251.44	26.21	45.178	7.000	0.801
8.178	0.9	249.04	26.22	45.137	7.000	0.793
8.512	0.9	247.23	26.22	45.106	7.000	0.787
9.578	0.9	241.46	26.24	45.010	7.000	0.768
(SZB) 11.366	0.9	231.77	26.28	39.041	7.000	0.846
12.178	0.9	227.35	26.30	38.819	7.000	0.833
($0.2L_s$) 15.469	0.9	209.45	26.35	39.633	7.000	0.744
15.910	0.9	207.06	26.36	39.769	7.000	0.732
16.160	0.9	205.71	26.36	39.847	7.000	0.725
16.960	0.9	201.36	26.38	40.096	7.000	0.703
18.910	0.9	190.74	26.40	40.704	7.000	0.651
(SZB) 19.616	0.9	186.88	26.41	40.917	7.000	0.633
(Deck Bar Cutoff) 21.733	0.9	175.32	26.43	41.560	7.000	0.579
21.738	0.9	175.29	26.43	41.562	7.000	0.579
($0.3L_s$) 23.204	0.9	167.31	26.44	42.010	7.000	0.542
23.642	0.9	164.93	26.44	42.144	7.000	0.532
23.808	0.9	164.02	26.44	42.195	7.000	0.527
24.342	0.9	161.12	26.44	42.359	7.000	0.515
25.642	0.9	154.02	26.44	42.761	7.000	0.483
(SZB) 30.616	0.9	126.87	26.41	44.313	7.000	0.369
($0.4L_s$) 30.939	0.9	125.11	26.40	44.414	7.000	0.362
(HP) 31.373	0.9	122.75	26.39	44.551	7.000	0.353
31.378	0.9	122.72	0.00	44.551	7.000	0.437
31.457	0.9	122.30	0.00	44.551	7.000	0.436
31.723	0.9	120.85	0.00	44.549	7.000	0.431
32.373	0.9	117.30	0.00	44.545	7.000	0.418
($0.5L_s$) 38.673	0.9	83.03	0.00	44.519	7.000	0.296
39.105	0.9	80.71	0.00	44.518	7.000	0.288
45.837	0.9	71.38	0.00	44.513	7.000	0.255
($0.6L_s$) 46.408	0.9	74.27	0.00	44.514	7.000	0.265
46.487	0.9	74.67	0.00	44.514	7.000	0.266
46.753	0.9	76.03	0.00	44.514	7.000	0.271
46.832	0.9	76.43	0.00	44.515	7.000	0.273
(HP) 46.837	0.9	76.45	26.47	44.515	7.000	0.188
(SZB) 47.594	0.9	80.32	26.49	44.273	7.000	0.202
52.568	0.9	107.14	26.57	42.700	7.000	0.309
53.868	0.9	114.36	26.58	42.294	7.000	0.339
($0.7L_s$) 54.143	0.9	115.90	26.59	42.209	7.000	0.346
54.402	0.9	117.35	26.59	42.128	7.000	0.352
54.568	0.9	118.28	26.59	42.076	7.000	0.356
(SZB) 58.594	0.9	141.11	26.59	40.835	7.000	0.455
59.300	0.9	145.17	26.59	40.620	7.000	0.474
61.250	0.9	156.49	26.57	40.027	7.000	0.526
($0.8L_s$) 61.878	0.9	160.18	26.57	39.837	7.000	0.543
62.050	0.9	161.19	26.57	39.785	7.000	0.548
62.300	0.9	162.67	26.57	39.709	7.000	0.555
66.032	0.9	184.89	26.52	38.793	7.000	0.659
(SZB) 66.844	0.9	189.79	26.51	39.042	7.000	0.675
68.632	0.9	200.68	26.49	40.193	7.000	0.698
($0.9L_s$) 69.612	0.9	206.71	26.47	40.136	7.000	0.723
69.699	0.9	207.24	26.47	40.131	7.000	0.725
70.032	0.9	209.30	26.47	40.114	7.000	0.734
(1.5H) 71.764	0.9	220.05	26.44	41.582	7.000	0.749
(SZB) 72.344	0.9	223.68	26.43	41.581	7.000	0.763
72.764	0.9	226.30	26.42	41.582	7.000	0.773
(CS) 73.423	0.9	230.45	26.41	43.289	7.000	0.758

f_{po} - Strength I

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength I

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_s A_s + E_p A_{ps} + E_c A_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\lvert V_u - V_p \rvert$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 4.984	1820.13	266.27	26.15	240.12	45.448	33.680	29000.000	1.858	28500.000	946.467	5011.145	0.359
5.446	1733.06	263.78	26.16	237.62	45.401	33.680	29000.000	1.875	28500.000	946.467	5011.145	0.331
(SZB) 5.866	1655.05	261.52	26.17	235.35	45.359	33.680	29000.000	1.891	28500.000	946.467	5011.145	0.306
(1.5H) 6.446	1548.37	258.39	26.18	232.20	45.302	33.680	29000.000	1.531	28500.000	946.467	5011.145	0.346
	1306.18	251.44	26.21	225.23	45.178	33.680	29000.000	1.573	28500.000	946.467	5011.145	0.269

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.1L_s$) 7.735												
8.178	1226.84	249.04	26.22	222.82	45.137	33.680	29000.000	1.190	28500.000	946.467	5011.145	0.321
8.512	1167.85	247.23	26.22	221.01	45.106	33.680	29000.000	1.199	28500.000	946.467	5011.145	0.302
9.578	993.91	241.46	26.24	215.22	45.010	33.680	29000.000	1.224	28500.000	946.467	5011.145	0.246
(SZB) 11.366	1110.66	231.77	26.28	205.49	39.041	0.400	29000.000	5.109	28500.000	365.000	5011.145	-0.211
12.178	1230.15	227.35	26.30	201.05	38.819	0.400	29000.000	5.157	28500.000	365.000	5011.145	-0.198
($0.2L_s$) 15.469	1746.36	209.45	26.35	183.10	39.633	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.217
15.910	1816.16	207.06	26.36	180.70	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.208
16.160	1855.24	205.71	26.36	179.34	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.204
16.960	1978.24	201.36	26.38	174.99	40.096	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.189
18.910	2265.15	190.74	26.40	164.34	40.704	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.157
(SZB) 19.616	2365.72	186.88	26.41	160.47	40.917	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.146
(Deck Bar Cutoff) 21.733	2657.40	175.32	26.43	148.89	41.560	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.115
21.738	2658.05	175.29	26.43	148.87	41.562	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.115
($0.3L_s$) 23.204	2842.59	167.31	26.44	140.87	42.010	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0971
23.642	2895.56	164.93	26.44	138.49	42.144	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0921
23.808	2915.58	164.02	26.44	137.58	42.195	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0902
24.342	2978.45	161.12	26.44	134.68	42.359	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0844
25.642	3125.76	154.02	26.44	127.58	42.761	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0713
(SZB) 30.616	3591.52	126.87	26.41	100.46	44.313	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0374
($0.4L_s$) 30.939	3616.01	125.11	26.40	98.71	44.414	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0361
(HP) 31.373	3647.90	122.75	26.39	96.35	44.551	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0345
31.378	3648.25	122.72	0.00	122.72	44.551	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0213
31.457	3653.86	122.30	0.00	122.30	44.551	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0208
31.723	3672.63	120.85	0.00	120.85	44.549	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.019
32.373	3716.83	117.30	0.00	117.30	44.545	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0148
($0.5L_s$) 38.673	3998.25	83.03	0.00	83.03	44.519	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0671
39.105	4007.52	80.71	0.00	80.71	44.518	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0682
45.837	4031.25	71.38	0.00	71.38	44.513	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0529
($0.6L_s$) 46.408	4021.17	74.27	0.00	74.27	44.514	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0537
46.487	4019.66	74.67	0.00	74.67	44.514	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0537
46.753	4014.19	76.03	0.00	76.03	44.514	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.053
46.832	4012.48	76.43	0.00	76.43	44.515	0.400	29000.000	6.076	28500.000	365.000	5011.145	0.0526
(HP) 46.837	4012.37	76.45	26.47	49.98	44.515	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00832
(SZB) 47.594	3993.50	80.32	26.49	53.83	44.273	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00601
52.568	3763.84	107.14	26.57	80.56	42.700	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00499
53.868	3674.42	114.36	26.58	87.78	42.294	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.00897
($0.7L_s$) 54.143	3653.97	115.90	26.59	89.31	42.209	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.01
54.402	3635.03	117.35	26.59	90.76	42.128	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.011
54.568	3623.20	118.28	26.59	91.69	42.076	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0116
(SZB) 58.594	3273.54	141.11	26.59	114.52	40.835	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0357
59.300	3199.60	145.17	26.59	118.58	40.620	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.042
61.250	2976.24	156.49	26.57	129.92	40.027	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0627
($0.8L_s$) 61.878	2898.34	160.18	26.57	133.61	39.837	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0704
62.050	2876.39	161.19	26.57	134.62	39.785	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0726
62.300	2844.18	162.67	26.57	136.10	39.709	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0759
66.032	2305.39	184.89	26.52	158.37	38.793	0.400	29000.000	5.169	28500.000	365.000	5011.145	-0.053
(SZB) 66.844	2173.67	189.79	26.51	163.28	39.042	0.400	29000.000	5.122	28500.000	365.000	5011.145	-0.0688
68.632	1865.84	200.68	26.49	174.20	40.193	0.400	29000.000	4.604	28500.000	365.000	5011.145	-0.0704
($0.9L_s$) 69.612	1686.33	206.71	26.47	180.24	40.136	0.400	29000.000	4.550	28500.000	365.000	5011.145	-0.0891
69.699	1670.16	207.24	26.47	180.77	40.131	0.400	29000.000	4.546	28500.000	365.000	5011.145	-0.0908
70.032	1607.14	209.30	26.47	182.84	40.114	0.400	29000.000	4.527	28500.000	365.000	5011.145	-0.0975
(1.5H) 71.764	1265.48	220.05	26.44	193.61	41.582	0.400	29000.000	4.047	28500.000	365.000	5011.145	-0.105
(SZB) 72.344	1145.53	223.68	26.43	197.24	41.581	0.400	29000.000	3.640	28500.000	365.000	5011.145	-0.0823
72.764	1057.25	226.30	26.42	199.88	41.582	0.400	29000.000	3.624	28500.000	365.000	5011.145	-0.0926
(CS) 73.423	915.54	230.45	26.41	204.03	43.289	0.400	29000.000	3.601	28500.000	365.000	5011.145	-0.115

Shear Parameter Summary - Strength I [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

a_g = 0.750 in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 4.984	Yes	1	---	---	0.106	0.359	3.78	30.26
5.446	Yes	1	---	---	0.105	0.331	3.84	30.16
(SZB) 5.866	Yes	1	---	---	0.104	0.306	3.9	30.07
(1.5H) 6.446	Yes	1	---	---	0.103	0.346	3.81	30.21
($0.1L_s$) 7.735	Yes	1	---	---	0.1	0.269	3.99	29.94
8.178	Yes	1	---	---	0.0991	0.321	3.87	30.12
8.512	Yes	1	---	---	0.0984	0.302	3.91	30.06
9.578	Yes	1	---	---	0.096	0.246	4.05	29.86
(SZB) 11.366	Yes	1	---	---	0.106	-0.211	5.7	28.26
12.178	Yes	1	---	---	0.104	-0.198	5.64	28.31
($0.2L_s$) 15.469	Yes	1	---	---	0.093	-0.217	5.73	28.24

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
15.910	Yes	1	---	---	0.0915	-0.208	5.69	28.27
16.160	Yes	1	---	---	0.0906	-0.204	5.67	28.29
16.960	Yes	1	---	---	0.0879	-0.189	5.59	28.34
18.910	Yes	1	---	---	0.0814	-0.157	5.44	28.45
(SZB) 19.616	Yes	1	---	---	0.0791	-0.146	5.39	28.49
(Deck Bar Cutoff) 21.733	Yes	1	---	---	0.0723	-0.115	5.25	28.60
21.738	Yes	1	---	---	0.0723	-0.115	5.25	28.60
($0.3L_s$) 23.204	Yes	1	---	---	0.0678	-0.0971	5.18	28.66
23.642	Yes	1	---	---	0.0664	-0.0921	5.16	28.68
23.808	Yes	1	---	---	0.0659	-0.0902	5.15	28.68
24.342	Yes	1	---	---	0.0643	-0.0844	5.12	28.70
25.642	Yes	1	---	---	0.0604	-0.0713	5.07	28.75
(SZB) 30.616	Yes	1	---	---	0.0462	-0.0374	4.94	28.87
($0.4L_s$) 30.939	Yes	1	---	---	0.0453	-0.0361	4.93	28.87
(HP) 31.373	Yes	1	---	---	0.0441	-0.0345	4.93	28.88
31.378	Yes	1	---	---	0.0547	-0.0213	4.88	28.93
31.457	Yes	1	---	---	0.0545	-0.0208	4.88	28.93
31.723	Yes	1	---	---	0.0538	-0.019	4.87	28.93
32.373	Yes	1	---	---	0.0522	-0.0148	4.85	28.95
($0.5L_s$) 38.673	Yes	1	---	---	0.037	0.0671	4.57	29.23
39.105	Yes	1	---	---	0.036	0.0682	4.57	29.24
45.837	Yes	1	---	---	0.0318	0.0529	4.62	29.19
($0.6L_s$) 46.408	Yes	1	---	---	0.0331	0.0537	4.61	29.19
46.487	Yes	1	---	---	0.0333	0.0537	4.61	29.19
46.753	Yes	1	---	---	0.0339	0.053	4.62	29.19
46.832	Yes	1	---	---	0.0341	0.0526	4.62	29.18
(HP) 46.837	Yes	1	---	---	0.0235	-0.00832	4.83	28.97
(SZB) 47.594	Yes	1	---	---	0.0253	-0.00601	4.82	28.98
52.568	Yes	1	---	---	0.0387	-0.00499	4.82	28.98
53.868	Yes	1	---	---	0.0424	-0.00897	4.83	28.97
($0.7L_s$) 54.143	Yes	1	---	---	0.0432	-0.01	4.84	28.96
54.402	Yes	1	---	---	0.044	-0.011	4.84	28.96
54.568	Yes	1	---	---	0.0445	-0.0116	4.84	28.96
(SZB) 58.594	Yes	1	---	---	0.0569	-0.0357	4.93	28.88
59.300	Yes	1	---	---	0.0592	-0.042	4.96	28.85
61.250	Yes	1	---	---	0.0657	-0.0627	5.04	28.78
($0.8L_s$) 61.878	Yes	1	---	---	0.0679	-0.0704	5.07	28.75
62.050	Yes	1	---	---	0.0685	-0.0726	5.08	28.75
62.300	Yes	1	---	---	0.0693	-0.0759	5.09	28.73
66.032	Yes	1	---	---	0.0824	-0.053	5	28.81
(SZB) 66.844	Yes	1	---	---	0.0843	-0.0688	5.06	28.76
68.632	Yes	1	---	---	0.0873	-0.0704	5.07	28.75
($0.9L_s$) 69.612	Yes	1	---	---	0.0904	-0.0891	5.14	28.69
69.699	Yes	1	---	---	0.0907	-0.0908	5.15	28.68
70.032	Yes	1	---	---	0.0917	-0.0975	5.18	28.66
(1.5H) 71.764	Yes	1	---	---	0.0936	-0.105	5.21	28.63
(SZB) 72.344	Yes	1	---	---	0.0954	-0.0823	5.12	28.71
72.764	Yes	1	---	---	0.0966	-0.0926	5.16	28.68
(CS) 73.423	Yes	1	---	---	0.0947	-0.115	5.25	28.60

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength I

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 4.984	3.78	8.000	-	7.000	45.448	107.54
5.446	3.84	8.000	-	7.000	45.401	109.21
(SZB) 5.866	3.9	8.000	-	7.000	45.359	110.76
(1.5H) 6.446	3.81	8.000	-	7.000	45.302	108.02
($0.1L_s$) 7.735	3.99	8.000	-	7.000	45.178	112.89
8.178	3.87	8.000	-	7.000	45.137	109.28
8.512	3.91	8.000	-	7.000	45.106	110.45
9.578	4.05	8.000	-	7.000	45.010	114.11
(SZB) 11.366	5.7	8.000	-	7.000	39.041	139.27
12.178	5.64	8.000	-	7.000	38.819	136.90
($0.2L_s$) 15.469	5.73	8.000	-	7.000	39.633	142.13
15.910	5.69	8.000	-	7.000	39.769	141.56
16.160	5.67	8.000	-	7.000	39.847	141.25
16.960	5.59	8.000	-	7.000	40.096	140.34
18.910	5.44	8.000	-	7.000	40.704	138.56
(SZB) 19.616	5.39	8.000	-	7.000	40.917	137.99
(Deck Bar Cutoff) 21.733	5.25	8.000	-	7.000	41.560	136.62
21.738	5.25	8.000	-	7.000	41.562	136.62
($0.3L_s$) 23.204	5.18	8.000	-	7.000	42.010	136.07
23.642	5.16	8.000	-	7.000	42.144	135.95
23.808	5.15	8.000	-	7.000	42.195	135.91
24.342	5.12	8.000	-	7.000	42.359	135.80
25.642	5.07	8.000	-	7.000	42.761	135.67
(SZB) 30.616	4.94	8.000	-	7.000	44.313	136.92
	4.93	8.000	-	7.000	44.414	137.09

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(0.4L_s) 30.939						
(HP) 31.373	4.93	8.000	-	7.000	44.551	137.34
31.378	4.88	8.000	-	7.000	44.551	135.97
31.457	4.88	8.000	-	7.000	44.551	135.91
31.723	4.87	8.000	-	7.000	44.549	135.72
32.373	4.85	8.000	-	7.000	44.545	135.27
(0.5L_s) 38.673	4.57	8.000	-	7.000	44.519	127.29
39.105	4.57	8.000	-	7.000	44.518	127.18
45.837	4.62	8.000	-	7.000	44.513	128.58
(0.6L_s) 46.408	4.61	8.000	-	7.000	44.514	128.50
46.487	4.61	8.000	-	7.000	44.514	128.51
46.753	4.62	8.000	-	7.000	44.514	128.57
46.832	4.62	8.000	-	7.000	44.515	128.61
(HP) 46.837	4.83	8.000	-	7.000	44.515	134.52
(SZB) 47.594	4.82	8.000	-	7.000	44.273	133.56
52.568	4.82	8.000	-	7.000	42.700	128.72
53.868	4.83	8.000	-	7.000	42.294	127.87
(0.7L_s) 54.143	4.84	8.000	-	7.000	42.209	127.72
54.402	4.84	8.000	-	7.000	42.128	127.57
54.568	4.84	8.000	-	7.000	42.076	127.47
(SZB) 58.594	4.93	8.000	-	7.000	40.835	126.01
59.300	4.96	8.000	-	7.000	40.620	125.95
61.250	5.04	8.000	-	7.000	40.027	126.13
(0.8L_s) 61.878	5.07	8.000	-	7.000	39.837	126.30
62.050	5.08	8.000	-	7.000	39.785	126.36
62.300	5.09	8.000	-	7.000	39.709	126.45
66.032	5	8.000	-	7.000	38.793	121.32
(SZB) 66.844	5.06	8.000	-	7.000	39.042	123.62
68.632	5.07	8.000	-	7.000	40.193	127.44
(0.9L_s) 69.612	5.14	8.000	-	7.000	40.136	129.17
69.699	5.15	8.000	-	7.000	40.131	129.33
70.032	5.18	8.000	-	7.000	40.114	129.97
(1.5H) 71.764	5.21	8.000	-	7.000	41.582	135.59
(SZB) 72.344	5.12	8.000	-	7.000	41.581	133.09
72.764	5.16	8.000	-	7.000	41.582	134.19
(CS) 73.423	5.25	8.000	-	7.000	43.289	142.24

Shear Resistance Provided By Shear Reinforcement - Strength I

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 4.984	60.000	0.400	4.000	1.200	45.448	30.26	90.00	467.47
5.446	60.000	0.400	4.000	1.200	45.401	30.16	90.00	468.80
(SZB) 5.866	60.000	0.400	6.000	0.800	45.359	30.07	90.00	313.34
(1.5H) 6.446	60.000	0.400	6.000	0.800	45.302	30.21	90.00	311.21
(0.1L_s) 7.735	60.000	0.400	6.000	0.800	45.178	29.94	90.00	313.74
8.178	60.000	0.400	6.000	0.800	45.137	30.12	90.00	311.18
8.512	60.000	0.400	6.000	0.800	45.106	30.06	90.00	311.79
9.578	60.000	0.400	6.000	0.800	45.010	29.86	90.00	313.59
(SZB) 11.366	60.000	0.400	9.000	0.533	39.041	28.26	90.00	193.66
12.178	60.000	0.400	9.000	0.533	38.819	28.31	90.00	192.19
(0.2L_s) 15.469	60.000	0.400	9.000	0.533	39.633	28.24	90.00	196.77
15.910	60.000	0.400	9.000	0.533	39.769	28.27	90.00	197.20
16.160	60.000	0.400	9.000	0.533	39.847	28.29	90.00	197.45
16.960	60.000	0.400	9.000	0.533	40.096	28.34	90.00	198.27
18.910	60.000	0.400	9.000	0.533	40.704	28.45	90.00	200.32
(SZB) 19.616	60.000	0.400	12.000	0.400	40.917	28.49	90.00	150.79
(Deck Bar Cutoff) 21.733	60.000	0.400	12.000	0.400	41.560	28.60	90.00	152.48
21.738	60.000	0.400	12.000	0.400	41.562	28.60	90.00	152.48
(0.3L_s) 23.204	60.000	0.400	12.000	0.400	42.010	28.66	90.00	153.72
23.642	60.000	0.400	12.000	0.400	42.144	28.68	90.00	154.10
23.808	60.000	0.400	12.000	0.400	42.195	28.68	90.00	154.24
24.342	60.000	0.400	12.000	0.400	42.359	28.70	90.00	154.71
25.642	60.000	0.400	12.000	0.400	42.761	28.75	90.00	155.88
(SZB) 30.616	60.000	0.400	18.000	0.267	44.313	28.87	90.00	107.17
(0.4L_s) 30.939	60.000	0.400	18.000	0.267	44.414	28.87	90.00	107.39
(HP) 31.373	60.000	0.400	18.000	0.267	44.551	28.88	90.00	107.70
31.378	60.000	0.400	18.000	0.267	44.551	28.93	90.00	107.49
31.457	60.000	0.400	18.000	0.267	44.551	28.93	90.00	107.48
31.723	60.000	0.400	18.000	0.267	44.549	28.93	90.00	107.45
32.373	60.000	0.400	18.000	0.267	44.545	28.95	90.00	107.38
(0.5L_s) 38.673	60.000	0.400	18.000	0.267	44.519	29.23	90.00	106.06
39.105	60.000	0.400	18.000	0.267	44.518	29.24	90.00	106.04
45.837	60.000	0.400	18.000	0.267	44.513	29.19	90.00	106.26
(0.6L_s) 46.408	60.000	0.400	18.000	0.267	44.514	29.19	90.00	106.25
46.487	60.000	0.400	18.000	0.267	44.514	29.19	90.00	106.25
46.753	60.000	0.400	18.000	0.267	44.514	29.19	90.00	106.26
46.832	60.000	0.400	18.000	0.267	44.515	29.18	90.00	106.27
(HP) 46.837	60.000	0.400	18.000	0.267	44.515	28.97	90.00	107.20

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(SZB) 47.594	60.000	0.400	18.000	0.267	44.273	28.98	90.00	106.59
52.568	60.000	0.400	12.000	0.400	42.700	28.98	90.00	154.18
53.868	60.000	0.400	12.000	0.400	42.294	28.97	90.00	152.80
($0.7L_s$) 54.143	60.000	0.400	12.000	0.400	42.209	28.96	90.00	152.51
54.402	60.000	0.400	12.000	0.400	42.128	28.96	90.00	152.24
54.568	60.000	0.400	12.000	0.400	42.076	28.96	90.00	152.07
(SZB) 58.594	60.000	0.400	12.000	0.400	40.835	28.88	90.00	148.10
59.300	60.000	0.400	9.000	0.533	40.620	28.85	90.00	196.60
61.250	60.000	0.400	9.000	0.533	40.027	28.78	90.00	194.31
($0.8L_s$) 61.878	60.000	0.400	9.000	0.533	39.837	28.75	90.00	193.61
62.050	60.000	0.400	9.000	0.533	39.785	28.75	90.00	193.41
62.300	60.000	0.400	9.000	0.533	39.709	28.73	90.00	193.14
66.032	60.000	0.400	9.000	0.533	38.793	28.81	90.00	188.06
(SZB) 66.844	60.000	0.400	9.000	0.533	39.042	28.76	90.00	189.70
68.632	60.000	0.400	6.000	0.800	40.193	28.75	90.00	293.01
($0.9L_s$) 69.612	60.000	0.400	6.000	0.800	40.136	28.69	90.00	293.38
69.699	60.000	0.400	6.000	0.800	40.131	28.68	90.00	293.42
70.032	60.000	0.400	6.000	0.800	40.114	28.66	90.00	293.58
(1.5H) 71.764	60.000	0.400	6.000	0.800	41.582	28.63	90.00	304.67
(SZB) 72.344	60.000	0.400	6.000	0.800	41.581	28.71	90.00	303.64
72.764	60.000	0.400	4.000	1.200	41.582	28.68	90.00	456.16
(CS) 73.423	60.000	0.400	4.000	1.200	43.289	28.60	90.00	476.42

Nominal Shear Resistance - Strength I

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 4.984	8.000	7.000	45.448	26.15	107.54	467.47	601.16	662.43	601.16	0.9	541.05
5.446	8.000	7.000	45.401	26.16	109.21	468.80	604.17	661.78	604.17	0.9	543.75
(SZB) 5.866	8.000	7.000	45.359	26.17	110.76	313.34	450.27	661.20	450.27	0.9	405.25
(1.5H) 6.446	8.000	7.000	45.302	26.18	108.02	311.21	445.41	660.40	445.41	0.9	400.87
($0.1L_s$) 7.735	8.000	7.000	45.178	26.21	112.89	313.74	452.84	658.70	452.84	0.9	407.55
8.178	8.000	7.000	45.137	26.22	109.28	311.18	446.68	658.13	446.68	0.9	402.01
8.512	8.000	7.000	45.106	26.22	110.45	311.79	448.46	657.71	448.46	0.9	403.62
9.578	8.000	7.000	45.010	26.24	114.11	313.59	453.95	656.38	453.95	0.9	408.56
(SZB) 11.366	8.000	7.000	39.041	26.28	139.27	193.66	359.21	572.85	359.21	0.9	323.29
12.178	8.000	7.000	38.819	26.30	136.90	192.19	355.38	569.76	355.38	0.9	319.84
($0.2L_s$) 15.469	8.000	7.000	39.633	26.35	142.13	196.77	365.24	581.21	365.24	0.9	328.72
15.910	8.000	7.000	39.769	26.36	141.56	197.20	365.12	583.13	365.12	0.9	328.61
16.160	8.000	7.000	39.847	26.36	141.25	197.45	365.06	584.22	365.06	0.9	328.56
16.960	8.000	7.000	40.096	26.38	140.34	198.27	364.98	587.71	364.98	0.9	328.48
18.910	8.000	7.000	40.704	26.40	138.56	200.32	365.28	596.25	365.28	0.9	328.75
(SZB) 19.616	8.000	7.000	40.917	26.41	137.99	150.79	315.19	599.25	315.19	0.9	283.67
(Deck Bar Cutoff) 21.733	8.000	7.000	41.560	26.43	136.62	152.48	315.53	608.27	315.53	0.9	283.98
21.738	8.000	7.000	41.562	26.43	136.62	152.48	315.53	608.29	315.53	0.9	283.98
($0.3L_s$) 23.204	8.000	7.000	42.010	26.44	136.07	153.72	316.22	614.57	316.22	0.9	284.60
23.642	8.000	7.000	42.144	26.44	135.95	154.10	316.49	616.45	316.49	0.9	284.84
23.808	8.000	7.000	42.195	26.44	135.91	154.24	316.59	617.17	316.59	0.9	284.93
24.342	8.000	7.000	42.359	26.44	135.80	154.71	316.96	619.47	316.96	0.9	285.26
25.642	8.000	7.000	42.761	26.44	135.67	155.88	317.99	625.09	317.99	0.9	286.19
(SZB) 30.616	8.000	7.000	44.313	26.41	136.92	107.17	270.49	646.78	270.49	0.9	243.44
($0.4L_s$) 30.939	8.000	7.000	44.414	26.40	137.09	107.39	270.88	648.20	270.88	0.9	243.80
(HP) 31.373	8.000	7.000	44.551	26.39	137.34	107.70	271.44	650.11	271.44	0.9	244.29
31.378	8.000	7.000	44.551	0.00	135.97	107.49	243.46	623.72	243.46	0.9	219.12
31.457	8.000	7.000	44.551	0.00	135.91	107.48	243.39	623.71	243.39	0.9	219.05
31.723	8.000	7.000	44.549	0.00	135.72	107.45	243.17	623.69	243.17	0.9	218.85
32.373	8.000	7.000	44.545	0.00	135.27	107.38	242.65	623.63	242.65	0.9	218.39
($0.5L_s$) 38.673	8.000	7.000	44.519	0.00	127.29	106.06	233.35	623.26	233.35	0.9	210.02
39.105	8.000	7.000	44.518	0.00	127.18	106.04	233.22	623.25	233.22	0.9	209.90
45.837	8.000	7.000	44.513	0.00	128.58	106.26	234.84	623.18	234.84	0.9	211.36
($0.6L_s$) 46.408	8.000	7.000	44.514	0.00	128.50	106.25	234.75	623.19	234.75	0.9	211.28
46.487	8.000	7.000	44.514	0.00	128.51	106.25	234.76	623.20	234.76	0.9	211.28
46.753	8.000	7.000	44.514	0.00	128.57	106.26	234.84	623.20	234.84	0.9	211.35
46.832	8.000	7.000	44.515	0.00	128.61	106.27	234.87	623.20	234.87	0.9	211.39
(HP) 46.837	8.000	7.000	44.515	26.47	134.52	107.20	268.20	649.68	268.20	0.9	241.38
(SZB) 47.594	8.000	7.000	44.273	26.49	133.56	106.59	266.64	646.31	266.64	0.9	239.97
52.568	8.000	7.000	42.700	26.57	128.72	154.18	309.47	624.38	309.47	0.9	278.52
53.868	8.000	7.000	42.294	26.58	127.87	152.80	307.26	618.70	307.26	0.9	276.53
($0.7L_s$) 54.143	8.000	7.000	42.209	26.59	127.72	152.51	306.82	617.51	306.82	0.9	276.14
54.402	8.000	7.000	42.128	26.59	127.57	152.24	306.40	616.38	306.40	0.9	275.76
54.568	8.000	7.000	42.076	26.59	127.47	152.07	306.13	615.66	306.13	0.9	275.51
(SZB) 58.594	8.000	7.000	40.835	26.59	126.01	148.10	300.69	598.29	300.69	0.9	270.62
59.300	8.000	7.000	40.620	26.59	125.95	196.60	349.14	595.26	349.14	0.9	314.22
61.250	8.000	7.000	40.027	26.57	126.13	194.31	347.02	586.95	347.02	0.9	312.32
($0.8L_s$) 61.878	8.000	7.000	39.837	26.57	126.30	193.61	346.48	584.29	346.48	0.9	311.83
62.050	8.000	7.000	39.785	26.57	126.36	193.41	346.34	583.56	346.34	0.9	311.70
62.300	8.000	7.000	39.709	26.57	126.45	193.14	346.15	582.50	346.15	0.9	311.54
66.032	8.000	7.000	38.793	26.52	121.32	188.06	335.91	569.63	335.91	0.9	302.32
(SZB) 66.844	8.000	7.000	39.042	26.51	123.62	189.70	339.83	573.10	339.83	0.9	305.85
68.632	8.000	7.000	40.193	26.49	127.44	293.01	446.93	589.19	446.93	0.9	402.24
($0.9L_s$) 69.612	8.000	7.000	40.136	26.47	129.17	293.38	449.02	588.38	449.02	0.9	404.12

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1}[$] (kip)	V_{n2}[#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
69.699	8.000	7.000	40.131	26.47	129.33	293.42	449.22	588.31	449.22	0.9	404.30
70.032	8.000	7.000	40.114	26.47	129.97	293.58	450.02	588.07	450.02	0.9	405.02
(1.5H) 71.764	8.000	7.000	41.582	26.44	135.59	304.67	466.69	608.58	466.69	0.9	420.02
(SZB) 72.344	8.000	7.000	41.581	26.43	133.09	303.64	463.16	608.56	463.16	0.9	416.85
72.764	8.000	7.000	41.582	26.42	134.19	456.16	616.78	608.57	608.57	0.9	547.71
(CS) 73.423	8.000	7.000	43.289	26.41	142.24	476.42	645.07	632.47	632.47	0.9	569.22

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength I

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

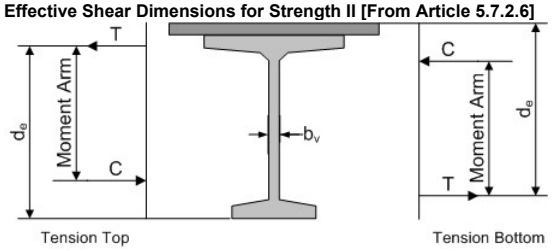
Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_V/S (in^2/ft)
(CS) 4.984	295.85	107.54	26.15	162.16	60.000	45.448	30.26	0.416
5.446	293.09	109.21	26.16	157.72	60.000	45.401	30.16	0.404
(SZB) 5.866	290.58	110.76	26.17	153.64	60.000	45.359	30.07	0.392
(1.5H) 6.446	287.10	108.02	26.18	152.89	60.000	45.302	30.21	0.393
($0.1L_s$) 7.735	279.37	112.89	26.21	140.28	60.000	45.178	29.94	0.358
8.178	276.71	109.28	26.22	141.21	60.000	45.137	30.12	0.363
8.512	274.70	110.45	26.22	138.03	60.000	45.106	30.06	0.354
9.578	268.29	114.11	26.24	127.93	60.000	45.010	29.86	0.326
(SZB) 11.366	257.52	139.27	26.28	91.97	60.000	39.041	28.26	0.253
12.178	252.61	136.90	26.30	89.42	60.000	38.819	28.31	0.248
($0.2L_s$) 15.469	232.72	142.13	26.35	64.24	60.000	39.633	28.24	0.174
15.910	230.07	141.56	26.36	62.15	60.000	39.769	28.27	0.168
16.160	228.56	141.25	26.36	60.95	60.000	39.847	28.29	0.165
16.960	223.74	140.34	26.38	57.02	60.000	40.096	28.34	0.153
18.910	211.93	138.56	26.40	46.98	60.000	40.704	28.45	0.125
(SZB) 19.616	207.64	137.99	26.41	43.24	60.000	40.917	28.49	0.115
(Deck Bar Cutoff) 21.733	194.80	136.62	26.43	31.75	60.000	41.560	28.60	0.083
21.738	194.77	136.62	26.43	31.72	60.000	41.562	28.60	0.083
($0.3L_s$) 23.204	185.90	136.07	26.44	23.39	60.000	42.010	28.66	0.061
23.642	183.25	135.95	26.44	20.86	60.000	42.144	28.68	0.054
23.808	182.24	135.91	26.44	19.90	60.000	42.195	28.68	0.052
24.342	179.02	135.80	26.44	16.78	60.000	42.359	28.70	0.043
25.642	171.14	135.67	26.44	9.03	60.000	42.761	28.75	0.023
(SZB) 30.616	140.96	136.92	26.41	0.00	60.000	44.313	28.87	0.000
($0.4L_s$) 30.939	139.01	137.09	26.40	0.00	60.000	44.414	28.87	0.000
(HP) 31.373	136.39	137.34	26.39	0.00	60.000	44.551	28.88	0.000
31.378	136.36	135.97	0.00	0.39	60.000	44.551	28.93	0.001
31.457	135.88	135.91	0.00	0.00	60.000	44.551	28.93	0.000
31.723	134.27	135.72	0.00	0.00	60.000	44.549	28.93	0.000
32.373	130.34	135.27	0.00	0.00	60.000	44.545	28.95	0.000
($0.5L_s$) 38.673	92.25	127.29	0.00	0.00	60.000	44.519	29.23	0.000
39.105	89.68	127.18	0.00	0.00	60.000	44.518	29.24	0.000
45.837	79.31	128.58	0.00	0.00	60.000	44.513	29.19	0.000
($0.6L_s$) 46.408	82.52	128.50	0.00	0.00	60.000	44.514	29.19	0.000
46.487	82.96	128.51	0.00	0.00	60.000	44.514	29.19	0.000
46.753	84.47	128.57	0.00	0.00	60.000	44.514	29.19	0.000
46.832	84.92	128.61	0.00	0.00	60.000	44.515	29.18	0.000
(HP) 46.837	84.95	134.52	26.47	0.00	60.000	44.515	28.97	0.000
(SZB) 47.594	89.25	133.56	26.49	0.00	60.000	44.273	28.98	0.000
52.568	119.04	128.72	26.57	0.00	60.000	42.700	28.98	0.000
53.868	127.07	127.87	26.58	0.00	60.000	42.294	28.97	0.000
($0.7L_s$) 54.143	128.77	127.72	26.59	0.00	60.000	42.209	28.96	0.000
54.402	130.39	127.57	26.59	0.00	60.000	42.128	28.96	0.000
54.568	131.42	127.47	26.59	0.00	60.000	42.076	28.96	0.000
(SZB) 58.594	156.79	126.01	26.59	4.20	60.000	40.835	28.88	0.011
59.300	161.30	125.95	26.59	8.76	60.000	40.620	28.85	0.024
61.250	173.88	126.13	26.57	21.18	60.000	40.027	28.78	0.058
($0.8L_s$) 61.878	177.97	126.30	26.57	25.10	60.000	39.837	28.75	0.069
62.050	179.10	126.36	26.57	26.18	60.000	39.785	28.75	0.072
62.300	180.74	126.45	26.57	27.73	60.000	39.709	28.73	0.077
66.032	205.43	121.32	26.52	57.58	60.000	38.793	28.81	0.163
(SZB) 66.844	210.88	123.62	26.51	60.74	60.000	39.042	28.76	0.171
68.632	222.98	127.44	26.49	69.06	60.000	40.193	28.75	0.189
($0.9L_s$) 69.612	229.68	129.17	26.47	74.04	60.000	40.136	28.69	0.202
69.699	230.27	129.33	26.47	74.47	60.000	40.131	28.68	0.203
70.032	232.56	129.97	26.47	76.12	60.000	40.114	28.66	0.207
(1.5H) 71.764	244.50	135.59	26.44	82.47	60.000	41.582	28.63	0.217
(SZB) 72.344	248.53	133.09	26.43	89.01	60.000	41.581	28.71	0.235
72.764	251.45	134.19	26.42	90.83	60.000	41.582	28.68	0.239
(CS) 73.423	256.05	142.24	26.41	87.40	60.000	43.289	28.60	0.220

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength I

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 4.984	1.200	0.416	6.342	11.531	17.873
5.446	1.200	0.404	6.539	11.890	18.429
(SZB) 5.866	0.800	0.392	6.730	12.236	18.967
(1.5H) 6.446	0.800	0.393	6.717	12.213	18.930
($0.1L_s$) 7.735	0.800	0.358	7.381	13.419	20.800
8.178	0.800	0.363	7.272	13.222	20.494
8.512	0.800	0.354	7.454	13.553	21.007
9.578	0.800	0.326	8.089	14.708	22.797
(SZB) 11.366	0.533	0.253	10.423	18.951	29.373
12.178	0.533	0.248	10.640	19.345	29.984
($0.2L_s$) 15.469	0.533	0.174	15.161	27.566	42.727
15.910	0.533	0.168	15.706	28.556	44.262
16.160	0.533	0.165	16.036	29.157	45.193
16.960	0.533	0.153	17.211	31.293	48.504
18.910	0.533	0.125	21.109	38.380	59.489
(SZB) 19.616	0.400	0.115	23.015	41.846	64.861
(Deck Bar Cutoff) 21.733	0.400	0.083	31.697	57.630	89.327
21.738	0.400	0.083	31.725	57.682	89.407
($0.3L_s$) 23.204	0.400	0.061	43.373	78.860	122.233
23.642	0.400	0.054	48.749	88.634	137.383
23.808	0.400	0.052	51.165	93.028	144.193
24.342	0.400	0.043	60.851	110.638	171.489
25.642	0.400	0.023	113.961	207.202	321.162
(SZB) 30.616	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.939	0.267	0.000	N/A	N/A	N/A
(HP) 31.373	0.267	0.000	N/A	N/A	N/A
31.378	0.267	0.001	N/A	N/A	N/A
31.457	0.267	0.000	N/A	N/A	N/A
31.723	0.267	0.000	N/A	N/A	N/A
32.373	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.673	0.267	0.000	N/A	N/A	N/A
39.105	0.267	0.000	N/A	N/A	N/A
45.837	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.408	0.267	0.000	N/A	N/A	N/A
46.487	0.267	0.000	N/A	N/A	N/A
46.753	0.267	0.000	N/A	N/A	N/A
46.832	0.267	0.000	N/A	N/A	N/A
(HP) 46.837	0.267	0.000	N/A	N/A	N/A
(SZB) 47.594	0.267	0.000	N/A	N/A	N/A
52.568	0.400	0.000	N/A	N/A	N/A
53.868	0.400	0.000	N/A	N/A	N/A
($0.7L_s$) 54.143	0.400	0.000	N/A	N/A	N/A
54.402	0.400	0.000	N/A	N/A	N/A
54.568	0.400	0.000	N/A	N/A	N/A
(SZB) 58.594	0.400	0.011	232.966	423.575	656.541
59.300	0.533	0.024	111.094	201.989	313.083
61.250	0.533	0.058	45.420	82.582	128.001
($0.8L_s$) 61.878	0.533	0.069	38.176	69.411	107.587
62.050	0.533	0.072	36.573	66.496	103.069
62.300	0.533	0.077	34.479	62.690	97.169
66.032	0.533	0.163	16.166	29.392	45.558
(SZB) 66.844	0.533	0.171	15.459	28.107	43.565
68.632	0.800	0.189	14.001	25.457	39.458
($0.9L_s$) 69.612	0.800	0.202	13.076	23.775	36.851
69.699	0.800	0.203	13.002	23.640	36.643
70.032	0.800	0.207	12.728	23.141	35.869
(1.5H) 71.764	0.800	0.217	12.191	22.165	34.355
(SZB) 72.344	0.800	0.235	11.257	20.468	31.726
72.764	1.200	0.239	11.049	20.089	31.138
(CS) 73.423	1.200	0.220	11.992	21.803	33.795

Effective Shear Dimensions for Strength II [From Article 5.7.2.6]



$$d_v = max\begin{cases} Moment\ arm \\ max\begin{cases} 0.9d_e \\ 0.72h \end{cases} \end{cases}$$

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(CS) 4.984	7.000	50.498	51.000	45.448	36.720	45.226	45.448	Top
5.446	7.000	50.446	51.000	45.401	36.720	45.174	45.401	Top

Location from Left Support (ft)	b_v (in)	d_e (in)	h (in)	$0.9d_e$ (in)	0.72h (in)	Moment Arm (in)	d_v (in)	Tension Side
(SZB) 5.866	7.000	50.399	51.000	45.359	36.720	45.127	45.359	Top
(1.5H) 6.446	7.000	50.335	51.000	45.302	36.720	45.063	45.302	Top
($0.1L_s$) 7.735	7.000	50.198	51.000	45.178	36.720	44.926	45.178	Top
8.178	7.000	50.152	51.000	45.137	36.720	44.880	45.137	Top
8.512	7.000	50.118	51.000	45.106	36.720	44.846	45.106	Top
9.578	7.000	50.011	51.000	45.010	36.720	44.740	45.010	Top
(SZB) 11.366	7.000	43.379	51.000	39.041	36.720	38.717	39.041	Bottom
12.178	7.000	42.165	51.000	37.949	36.720	38.819	38.819	Bottom
($0.2L_s$) 15.469	7.000	41.805	51.000	37.624	36.720	39.633	39.633	Bottom
15.910	7.000	41.942	51.000	37.748	36.720	39.769	39.769	Bottom
16.160	7.000	42.020	51.000	37.818	36.720	39.847	39.847	Bottom
16.960	7.000	42.270	51.000	38.043	36.720	40.096	40.096	Bottom
18.910	7.000	42.881	51.000	38.593	36.720	40.704	40.704	Bottom
(SZB) 19.616	7.000	43.104	51.000	38.794	36.720	40.917	40.917	Bottom
(Deck Bar Cutoff) 21.733	7.000	43.774	51.000	39.397	36.720	41.560	41.560	Bottom
21.738	7.000	43.776	51.000	39.398	36.720	41.562	41.562	Bottom
($0.3L_s$) 23.204	7.000	44.241	51.000	39.817	36.720	42.010	42.010	Bottom
23.642	7.000	44.381	51.000	39.943	36.720	42.144	42.144	Bottom
23.808	7.000	44.434	51.000	39.990	36.720	42.195	42.195	Bottom
24.342	7.000	44.604	51.000	40.143	36.720	42.359	42.359	Bottom
25.642	7.000	45.019	51.000	40.517	36.720	42.761	42.761	Bottom
(SZB) 30.616	7.000	46.615	51.000	41.953	36.720	44.313	44.313	Bottom
($0.4L_s$) 30.939	7.000	46.719	51.000	42.047	36.720	44.414	44.414	Bottom
(HP) 31.373	7.000	46.859	51.000	42.173	36.720	44.551	44.551	Bottom
31.378	7.000	46.859	51.000	42.173	36.720	44.551	44.551	Bottom
31.457	7.000	46.859	51.000	42.173	36.720	44.551	44.551	Bottom
31.723	7.000	46.859	51.000	42.173	36.720	44.549	44.549	Bottom
32.373	7.000	46.859	51.000	42.173	36.720	44.545	44.545	Bottom
($0.5L_s$) 38.673	7.000	46.859	51.000	42.174	36.720	44.519	44.519	Bottom
39.105	7.000	46.860	51.000	42.174	36.720	44.518	44.518	Bottom
45.837	7.000	46.860	51.000	42.174	36.720	44.513	44.513	Bottom
($0.6L_s$) 46.408	7.000	46.860	51.000	42.174	36.720	44.514	44.514	Bottom
46.487	7.000	46.860	51.000	42.174	36.720	44.514	44.514	Bottom
46.753	7.000	46.860	51.000	42.174	36.720	44.514	44.514	Bottom
46.832	7.000	46.860	51.000	42.174	36.720	44.515	44.515	Bottom
(HP) 46.837	7.000	46.860	51.000	42.174	36.720	44.515	44.515	Bottom
(SZB) 47.594	7.000	46.616	51.000	41.954	36.720	44.273	44.273	Bottom
52.568	7.000	45.021	51.000	40.519	36.720	42.700	42.700	Bottom
53.868	7.000	44.607	51.000	40.146	36.720	42.294	42.294	Bottom
($0.7L_s$) 54.143	7.000	44.520	51.000	40.068	36.720	42.209	42.209	Bottom
54.402	7.000	44.437	51.000	39.994	36.720	42.128	42.128	Bottom
54.568	7.000	44.385	51.000	39.946	36.720	42.076	42.076	Bottom
(SZB) 58.594	7.000	43.110	51.000	38.799	36.720	40.835	40.835	Bottom
59.300	7.000	42.888	51.000	38.599	36.720	40.620	40.620	Bottom
61.250	7.000	42.276	51.000	38.048	36.720	40.027	40.027	Bottom
($0.8L_s$) 61.878	7.000	42.079	51.000	37.871	36.720	39.837	39.837	Bottom
62.050	7.000	42.025	51.000	37.823	36.720	39.785	39.785	Bottom
62.300	7.000	41.947	51.000	37.752	36.720	39.709	39.709	Bottom
66.032	7.000	42.167	51.000	37.950	36.720	38.793	38.793	Bottom
(SZB) 66.844	7.000	43.380	51.000	39.042	36.720	38.700	39.042	Bottom
68.632	7.000	44.659	51.000	40.193	36.720	38.528	40.193	Bottom
($0.9L_s$) 69.612	7.000	44.596	51.000	40.136	36.720	38.448	40.136	Bottom
69.699	7.000	44.590	51.000	40.131	36.720	38.442	40.131	Bottom
70.032	7.000	44.572	51.000	40.114	36.720	38.420	40.114	Bottom
(1.5H) 71.764	7.000	46.202	51.000	41.582	36.720	38.340	41.582	Bottom
(SZB) 72.344	7.000	46.201	51.000	41.581	36.720	38.327	41.581	Bottom
72.764	7.000	46.202	51.000	41.582	36.720	38.320	41.582	Bottom
(CS) 73.423	7.000	48.099	51.000	43.289	36.720	38.317	43.289	Bottom

***v* [Eqn 5.7.2.8-1]**

$$v_u = \frac{|V_u - \varphi V_p|}{\varphi b_v d_v}$$

Factored Shear Stresses for Strength II

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
(CS) 4.984	0.9	258.69	26.15	45.448	7.000	0.821
5.446	0.9	256.38	26.16	45.401	7.000	0.814
(SZB) 5.866	0.9	254.27	26.17	45.359	7.000	0.807
(1.5H) 6.446	0.9	251.34	26.18	45.302	7.000	0.798
($0.1L_s$) 7.735	0.9	244.81	26.21	45.178	7.000	0.777
8.178	0.9	242.55	26.22	45.137	7.000	0.770
8.512	0.9	240.85	26.22	45.106	7.000	0.765
9.578	0.9	235.38	26.24	45.010	7.000	0.747
(SZB) 11.366	0.9	226.15	26.28	39.041	7.000	0.823
12.178	0.9	221.92	26.30	38.819	7.000	0.811
($0.2L_s$) 15.469	0.9	204.50	26.35	39.633	7.000	0.724
15.910	0.9	202.15	26.36	39.769	7.000	0.712
16.160	0.9	200.81	26.36	39.847	7.000	0.705
16.960	0.9	196.51	26.38	40.096	7.000	0.684

Location from Left Support (ft)	ϕ	V_u (kip)	V_p (kip)	d_v (in)	b_v (in)	v_u (KSI)
18.910	0.9	185.96	26.40	40.704	7.000	0.633
(SZB) 19.616	0.9	182.10	26.41	40.917	7.000	0.614
(Deck Bar Cutoff) 21.733	0.9	170.41	26.43	41.560	7.000	0.560
21.738	0.9	170.38	26.43	41.562	7.000	0.560
($0.3L_s$) 23.204	0.9	162.22	26.44	42.010	7.000	0.523
23.642	0.9	159.76	26.44	42.144	7.000	0.512
23.808	0.9	158.83	26.44	42.195	7.000	0.508
24.342	0.9	155.82	26.44	42.359	7.000	0.495
25.642	0.9	148.48	26.44	42.761	7.000	0.463
(SZB) 30.616	0.9	119.83	26.41	44.313	7.000	0.344
($0.4L_s$) 30.939	0.9	117.95	26.40	44.414	7.000	0.337
(HP) 31.373	0.9	115.40	26.39	44.551	7.000	0.327
31.378	0.9	115.37	0.00	44.551	7.000	0.411
31.457	0.9	114.91	0.00	44.551	7.000	0.409
31.723	0.9	113.35	0.00	44.549	7.000	0.404
32.373	0.9	109.52	0.00	44.545	7.000	0.390
($0.5L_s$) 38.673	0.9	71.71	0.00	44.519	7.000	0.256
39.105	0.9	69.10	0.00	44.518	7.000	0.246
45.837	0.9	66.35	0.00	44.513	7.000	0.237
($0.6L_s$) 46.408	0.9	69.20	0.00	44.514	7.000	0.247
46.487	0.9	69.59	0.00	44.514	7.000	0.248
46.753	0.9	70.92	0.00	44.514	7.000	0.253
46.832	0.9	71.32	0.00	44.515	7.000	0.254
(HP) 46.837	0.9	71.34	26.47	44.515	7.000	0.169
(SZB) 47.594	0.9	75.14	26.49	44.273	7.000	0.184
52.568	0.9	101.44	26.57	42.700	7.000	0.288
53.868	0.9	108.49	26.58	42.294	7.000	0.317
($0.7L_s$) 54.143	0.9	109.98	26.59	42.209	7.000	0.324
54.402	0.9	111.39	26.59	42.128	7.000	0.330
54.568	0.9	112.30	26.59	42.076	7.000	0.333
(SZB) 58.594	0.9	134.51	26.59	40.835	7.000	0.430
59.300	0.9	138.45	26.59	40.620	7.000	0.448
61.250	0.9	149.44	26.57	40.027	7.000	0.498
($0.8L_s$) 61.878	0.9	152.99	26.57	39.837	7.000	0.514
62.050	0.9	153.97	26.57	39.785	7.000	0.519
62.300	0.9	155.39	26.57	39.709	7.000	0.526
66.032	0.9	176.75	26.52	38.793	7.000	0.626
(SZB) 66.844	0.9	181.46	26.51	39.042	7.000	0.641
68.632	0.9	191.90	26.49	40.193	7.000	0.664
($0.9L_s$) 69.612	0.9	197.65	26.47	40.136	7.000	0.687
69.699	0.9	198.16	26.47	40.131	7.000	0.690
70.032	0.9	200.12	26.47	40.114	7.000	0.698
(1.5H) 71.764	0.9	210.35	26.44	41.582	7.000	0.712
(SZB) 72.344	0.9	213.79	26.43	41.581	7.000	0.725
72.764	0.9	216.28	26.42	41.582	7.000	0.735
(CS) 73.423	0.9	220.22	26.41	43.289	7.000	0.720

f_{po} - Strength II

$f_{po} = 0.70 f_{pu} = 189.000$ KSI

Longitudinal Strain ε_x - Strength II

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps}} \quad for\ \varepsilon_s \geq 0$$

$$\varepsilon_s = \frac{\left(\frac{|M_u|}{d_v} + 0.5N_u + |V_u - V_p| - A_{ps}f_{po}\right)}{E_sA_s + E_pA_{ps} + E_cA_{ct}} \quad for\ \varepsilon_s < 0$$

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
(CS) 4.984	1464.84	258.69	26.15	232.54	45.448	33.680	29000.000	1.858	28500.000	946.467	5011.145	0.26
5.446	1388.60	256.38	26.16	230.22	45.401	33.680	29000.000	1.875	28500.000	946.467	5011.145	0.236
(SZB) 5.866	1319.97	254.27	26.17	228.10	45.359	33.680	29000.000	1.891	28500.000	946.467	5011.145	0.213
(1.5H) 6.446	1225.72	251.34	26.18	225.16	45.302	33.680	29000.000	1.531	28500.000	946.467	5011.145	0.255
($0.1L_s$) 7.735	1019.81	244.81	26.21	218.60	45.178	33.680	29000.000	1.573	28500.000	946.467	5011.145	0.188
8.178	949.94	242.55	26.22	216.34	45.137	33.680	29000.000	1.190	28500.000	946.467	5011.145	0.241
8.512	897.82	240.85	26.22	214.63	45.106	33.680	29000.000	1.199	28500.000	946.467	5011.145	0.225
9.578	784.44 $	235.38	26.24	209.14	45.010	33.680	29000.000	1.224	28500.000	946.467	5011.145	0.185
(SZB) 11.366	897.20	226.15	26.28	199.87	39.041	0.400	29000.000	5.109	28500.000	365.000	5011.145	-0.247
12.178	1044.78	221.92	26.30	195.62	38.819	0.400	29000.000	5.157	28500.000	365.000	5011.145	-0.229
($0.2L_s$) 15.469	1595.38	204.50	26.35	178.15	39.633	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.242
15.910	1663.55	202.15	26.36	175.79	39.769	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.234
16.160	1701.60	200.81	26.36	174.44	39.847	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.229
16.960	1821.01	196.51	26.38	170.13	40.096	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.215
18.910	2094.17	185.96	26.40	159.56	40.704	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.184
(SZB) 19.616	2189.95	182.10	26.41	155.69	40.917	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.174
(Deck Bar Cutoff) 21.733	2467.10	170.41	26.43	143.98	41.560	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.145
21.738	2467.71	170.38	26.43	143.95	41.562	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.145
	2645.96	162.22	26.44	135.78	42.010	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.128

Location from Left Support (ft)	M_u (kip-ft)	V_u (kip)	V_p (kip)	$\|V_u - V_p\|$ (kip)	d_v (in)	A_s (in^2)	E_s (KSI)	A_{ps} (in^2)	E_{ps} (KSI)	A_{ct} (in^2)	E_c (KSI)	ε_x x 1000
($0.3L_s$) 23.204												
23.642	2697.51	159.76	26.44	133.33	42.144	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.123
23.808	2716.88	158.83	26.44	132.39	42.195	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.121
24.342	2777.61	155.82	26.44	129.38	42.359	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.115
25.642	2917.58	148.48	26.44	122.04	42.761	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.103
(SZB) 30.616	3361.56	119.83	26.41	93.43	44.313	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0718
($0.4L_s$) 30.939	3385.05	117.95	26.40	91.55	44.414	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0706
(HP) 31.373	3415.68	115.40	26.39	89.01	44.551	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0692
31.378	3416.02	115.37	0.00	115.37	44.551	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.056
31.457	3421.40	114.91	0.00	114.91	44.551	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0556
31.723	3439.64	113.35	0.00	113.35	44.549	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0539
32.373	3484.52	109.52	0.00	109.52	44.545	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0497
($0.5L_s$) 38.673	3778.65	71.71	0.00	71.71	44.519	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0289
39.105	3789.21	69.10	0.00	69.10	44.518	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0287
45.837	3784.24	66.35	0.00	66.35	44.513	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0307
($0.6L_s$) 46.408	3768.72	69.20	0.00	69.20	44.514	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0314
46.487	3766.39	69.59	0.00	69.59	44.514	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0315
46.753	3758.16	70.92	0.00	70.92	44.514	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0319
46.832	3755.64	71.32	0.00	71.32	44.515	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0321
(HP) 46.837	3755.48	71.34	26.47	44.87	44.515	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0452
(SZB) 47.594	3728.64	75.14	26.49	48.65	44.273	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0442
52.568	3518.36	101.44	26.57	74.86	42.700	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0421
53.868	3445.11	108.49	26.58	81.91	42.294	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0442
($0.7L_s$) 54.143	3428.04	109.98	26.59	83.40	42.209	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0449
54.402	3411.40	111.39	26.59	84.81	42.128	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0456
54.568	3400.44	112.30	26.59	85.71	42.076	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0461
(SZB) 58.594	3074.34	134.51	26.59	107.92	40.835	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.068
59.300	3004.41	138.45	26.59	111.87	40.620	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.074
61.250	2791.14	149.44	26.57	122.87	40.027	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.0937
($0.8L_s$) 61.878	2716.26	152.99	26.57	126.42	39.837	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.101
62.050	2695.14	153.97	26.57	127.40	39.785	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.103
62.300	2664.14	155.39	26.57	128.82	39.709	0.400	29000.000	6.076	28500.000	365.000	5011.145	-0.106
66.032	2161.42	176.75	26.52	150.23	38.793	0.400	29000.000	5.169	28500.000	365.000	5011.145	-0.0795
(SZB) 66.844	2040.96	181.46	26.51	154.95	39.042	0.400	29000.000	5.122	28500.000	365.000	5011.145	-0.0935
68.632	1757.31	191.90	26.49	165.41	40.193	0.400	29000.000	4.604	28500.000	365.000	5011.145	-0.0913
($0.9L_s$) 69.612	1590.78	197.65	26.47	171.18	40.136	0.400	29000.000	4.550	28500.000	365.000	5011.145	-0.108
69.699	1575.74	198.16	26.47	171.69	40.131	0.400	29000.000	4.546	28500.000	365.000	5011.145	-0.11
70.032	1517.09	200.12	26.47	173.65	40.114	0.400	29000.000	4.527	28500.000	365.000	5011.145	-0.116
(1.5H) 71.764	1197.82	210.35	26.44	183.91	41.582	0.400	29000.000	4.047	28500.000	365.000	5011.145	-0.12
(SZB) 72.344	1085.23	213.79	26.43	187.35	41.581	0.400	29000.000	3.640	28500.000	365.000	5011.145	-0.0963
72.764	1002.23	216.28	26.42	189.85	41.582	0.400	29000.000	3.624	28500.000	365.000	5011.145	-0.106
(CS) 73.423	868.79	220.22	26.41	193.80	43.289	0.400	29000.000	3.601	28500.000	365.000	5011.145	-0.127

$N_u = 0$

$ - Taken as $|V_u - V_p|d_v$ per definitions given in 5.7.3.4.2

Shear Parameter Summary - Strength II [5.7.3.4.2]

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}$$

$$\beta = \frac{4.8}{(1+750\varepsilon_s)}\frac{51}{(39+s_{xe})}$$

$$s_{xe} = s_x\frac{1.38}{a_g+0.63}$$

$$\theta = 29 + 3500\varepsilon_s$$

$a_g = 0.750$ in

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x^* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(CS) 4.984	Yes	1	---	---	0.103	0.26	4.02	29.91
5.446	Yes	1	---	---	0.102	0.236	4.08	29.83
(SZB) 5.866	Yes	1	---	---	0.101	0.213	4.14	29.75
(1.5H) 6.446	Yes	1	---	---	0.0998	0.255	4.03	29.89
($0.1L_s$) 7.735	Yes	1	---	---	0.0972	0.188	4.21	29.66
8.178	Yes	1	---	---	0.0963	0.241	4.06	29.84
8.512	Yes	1	---	---	0.0956	0.225	4.11	29.79
9.578	Yes	1	---	---	0.0933	0.185	4.22	29.65
(SZB) 11.366	Yes	1	---	---	0.103	-0.247	5.89	28.14
12.178	Yes	1	---	---	0.101	-0.229	5.8	28.20
($0.2L_s$) 15.469	Yes	1	---	---	0.0905	-0.242	5.86	28.15
15.910	Yes	1	---	---	0.089	-0.234	5.82	28.18
16.160	Yes	1	---	---	0.0882	-0.229	5.8	28.20
16.960	Yes	1	---	---	0.0855	-0.215	5.72	28.25
18.910	Yes	1	---	---	0.0791	-0.184	5.57	28.35
(SZB) 19.616	Yes	1	---	---	0.0768	-0.174	5.52	28.39
(Deck Bar Cutoff) 21.733	Yes	1	---	---	0.07	-0.145	5.39	28.49
21.738	Yes	1	---	---	0.07	-0.145	5.39	28.49
($0.3L_s$) 23.204	Yes	1	---	---	0.0654	-0.128	5.31	28.55
23.642	Yes	1	---	---	0.064	-0.123	5.29	28.57
23.808	Yes	1	---	---	0.0635	-0.121	5.28	28.58
24.342	Yes	1	---	---	0.0618	-0.115	5.25	28.60
25.642	Yes	1	---	---	0.0579	-0.103	5.2	28.64

Location from Left Support (ft)	Min. Reinf. per 5.7.2.5	Eqn 5.7.3.4.2-	s_x* (in)	s_{xe} (in)	v_u/f'_c	ε_x x 1000	β	θ (deg)
(SZB) 30.616	Yes	1	---	---	0.043	-0.0718	5.07	28.75
(0.4L_s) 30.939	Yes	1	---	---	0.0421	-0.0706	5.07	28.75
(HP) 31.373	Yes	1	---	---	0.0408	-0.0692	5.06	28.76
31.378	Yes	1	---	---	0.0514	-0.056	5.01	28.80
31.457	Yes	1	---	---	0.0512	-0.0556	5.01	28.81
31.723	Yes	1	---	---	0.0505	-0.0539	5	28.81
32.373	Yes	1	---	---	0.0488	-0.0497	4.99	28.83
(0.5L_s) 38.673	Yes	1	---	---	0.032	-0.0289	4.91	28.90
39.105	Yes	1	---	---	0.0308	-0.0287	4.91	28.90
45.837	Yes	1	---	---	0.0296	-0.0307	4.91	28.89
(0.6L_s) 46.408	Yes	1	---	---	0.0308	-0.0314	4.92	28.89
46.487	Yes	1	---	---	0.031	-0.0315	4.92	28.89
46.753	Yes	1	---	---	0.0316	-0.0319	4.92	28.89
46.832	Yes	1	---	---	0.0318	-0.0321	4.92	28.89
(HP) 46.837	Yes	1	---	---	0.0212	-0.0452	4.97	28.84
(SZB) 47.594	Yes	1	---	---	0.023	-0.0442	4.96	28.85
52.568	Yes	1	---	---	0.036	-0.0421	4.96	28.85
53.868	Yes	1	---	---	0.0397	-0.0442	4.96	28.85
(0.7L_s) 54.143	Yes	1	---	---	0.0405	-0.0449	4.97	28.84
54.402	Yes	1	---	---	0.0412	-0.0456	4.97	28.84
54.568	Yes	1	---	---	0.0417	-0.0461	4.97	28.84
(SZB) 58.594	Yes	1	---	---	0.0537	-0.068	5.06	28.76
59.300	Yes	1	---	---	0.0559	-0.074	5.08	28.74
61.250	Yes	1	---	---	0.0622	-0.0937	5.16	28.67
(0.8L_s) 61.878	Yes	1	---	---	0.0643	-0.101	5.19	28.65
62.050	Yes	1	---	---	0.0649	-0.103	5.2	28.64
62.300	Yes	1	---	---	0.0657	-0.106	5.22	28.63
66.032	Yes	1	---	---	0.0782	-0.0795	5.1	28.72
(SZB) 66.844	Yes	1	---	---	0.0801	-0.0935	5.16	28.67
68.632	Yes	1	---	---	0.083	-0.0913	5.15	28.68
(0.9L_s) 69.612	Yes	1	---	---	0.0859	-0.108	5.22	28.62
69.699	Yes	1	---	---	0.0862	-0.11	5.23	28.62
70.032	Yes	1	---	---	0.0872	-0.116	5.26	28.59
(1.5H) 71.764	Yes	1	---	---	0.089	-0.12	5.28	28.58
(SZB) 72.344	Yes	1	---	---	0.0907	-0.0963	5.17	28.66
72.764	Yes	1	---	---	0.0919	-0.106	5.21	28.63
(CS) 73.423	Yes	1	---	---	0.09	-0.127	5.3	28.56

* Value of s_x taken equal to d_v

Shear Resistance Provided By Tensile Stress in the Concrete - Strength II

$V_c = 0.0316\beta\lambda\sqrt{f'_c}\,b_v d_v$

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
(CS) 4.984	4.02	8.000	-	7.000	45.448	114.18
5.446	4.08	8.000	-	7.000	45.401	115.86
(SZB) 5.866	4.14	8.000	-	7.000	45.359	117.43
(1.5H) 6.446	4.03	8.000	-	7.000	45.302	114.19
(0.1L_s) 7.735	4.21	8.000	-	7.000	45.178	118.90
8.178	4.06	8.000	-	7.000	45.137	114.78
8.512	4.11	8.000	-	7.000	45.106	115.94
9.578	4.22	8.000	-	7.000	45.010	118.72
(SZB) 11.366	5.89	8.000	-	7.000	39.041	143.86
12.178	5.8	8.000	-	7.000	38.819	140.81
(0.2L_s) 15.469	5.86	8.000	-	7.000	39.633	145.40
15.910	5.82	8.000	-	7.000	39.769	144.81
16.160	5.8	8.000	-	7.000	39.847	144.50
16.960	5.72	8.000	-	7.000	40.096	143.58
18.910	5.57	8.000	-	7.000	40.704	141.86
(SZB) 19.616	5.52	8.000	-	7.000	40.917	141.32
(Deck Bar Cutoff) 21.733	5.39	8.000	-	7.000	41.560	140.04
21.738	5.39	8.000	-	7.000	41.562	140.04
(0.3L_s) 23.204	5.31	8.000	-	7.000	42.010	139.50
23.642	5.29	8.000	-	7.000	42.144	139.38
23.808	5.28	8.000	-	7.000	42.195	139.34
24.342	5.25	8.000	-	7.000	42.359	139.25
25.642	5.2	8.000	-	7.000	42.761	139.17
(SZB) 30.616	5.07	8.000	-	7.000	44.313	140.65
(0.4L_s) 30.939	5.07	8.000	-	7.000	44.414	140.84
(HP) 31.373	5.06	8.000	-	7.000	44.551	141.11
31.378	5.01	8.000	-	7.000	44.551	139.66
31.457	5.01	8.000	-	7.000	44.551	139.61
31.723	5	8.000	-	7.000	44.549	139.42
32.373	4.99	8.000	-	7.000	44.545	138.96
(0.5L_s) 38.673	4.91	8.000	-	7.000	44.519	136.65
39.105	4.91	8.000	-	7.000	44.518	136.64
45.837	4.91	8.000	-	7.000	44.513	136.83
(0.6L_s) 46.408	4.92	8.000	-	7.000	44.514	136.90
46.487	4.92	8.000	-	7.000	44.514	136.92
46.753	4.92	8.000	-	7.000	44.514	136.96

Location from Left Support (ft)	β	f'_c (KSI)	f_{ct} (KSI)	b_v (in)	d_v (in)	V_c (kip)
46.832	4.92	8.000	-	7.000	44.515	136.98
(HP) 46.837	4.97	8.000	-	7.000	44.515	138.38
(SZB) 47.594	4.96	8.000	-	7.000	44.273	137.52
52.568	4.96	8.000	-	7.000	42.700	132.41
53.868	4.96	8.000	-	7.000	42.294	131.37
($0.7L_s$) 54.143	4.97	8.000	-	7.000	42.209	131.17
54.402	4.97	8.000	-	7.000	42.128	131.00
54.568	4.97	8.000	-	7.000	42.076	130.89
(SZB) 58.594	5.06	8.000	-	7.000	40.835	129.23
59.300	5.08	8.000	-	7.000	40.620	129.15
61.250	5.16	8.000	-	7.000	40.027	129.29
($0.8L_s$) 61.878	5.19	8.000	-	7.000	39.837	129.46
62.050	5.2	8.000	-	7.000	39.785	129.51
62.300	5.22	8.000	-	7.000	39.709	129.60
66.032	5.1	8.000	-	7.000	38.793	123.89
(SZB) 66.844	5.16	8.000	-	7.000	39.042	126.09
68.632	5.15	8.000	-	7.000	40.193	129.58
($0.9L_s$) 69.612	5.22	8.000	-	7.000	40.136	131.18
69.699	5.23	8.000	-	7.000	40.131	131.33
70.032	5.26	8.000	-	7.000	40.114	131.93
(1.5H) 71.764	5.28	8.000	-	7.000	41.582	137.26
(SZB) 72.344	5.17	8.000	-	7.000	41.581	134.60
72.764	5.21	8.000	-	7.000	41.582	135.65
(CS) 73.423	5.3	8.000	-	7.000	43.289	143.64

Shear Resistance Provided By Shear Reinforcement - Strength II

$$V_s = \frac{A_v f_y d_v (cot\theta + cot\alpha) sin\alpha}{s}$$

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
(CS) 4.984	60.000	0.400	4.000	1.200	45.448	29.91	90.00	474.00
5.446	60.000	0.400	4.000	1.200	45.401	29.83	90.00	475.17
(SZB) 5.866	60.000	0.400	6.000	0.800	45.359	29.75	90.00	317.49
(1.5H) 6.446	60.000	0.400	6.000	0.800	45.302	29.89	90.00	315.21
($0.1L_s$) 7.735	60.000	0.400	6.000	0.800	45.178	29.66	90.00	317.36
8.178	60.000	0.400	6.000	0.800	45.137	29.84	90.00	314.68
8.512	60.000	0.400	6.000	0.800	45.106	29.79	90.00	315.22
9.578	60.000	0.400	6.000	0.800	45.010	29.65	90.00	316.33
(SZB) 11.366	60.000	0.400	9.000	0.533	39.041	28.14	90.00	194.68
12.178	60.000	0.400	9.000	0.533	38.819	28.20	90.00	193.08
($0.2L_s$) 15.469	60.000	0.400	9.000	0.533	39.633	28.15	90.00	197.49
15.910	60.000	0.400	9.000	0.533	39.769	28.18	90.00	197.93
16.160	60.000	0.400	9.000	0.533	39.847	28.20	90.00	198.19
16.960	60.000	0.400	9.000	0.533	40.096	28.25	90.00	199.01
18.910	60.000	0.400	9.000	0.533	40.704	28.35	90.00	201.13
(SZB) 19.616	60.000	0.400	12.000	0.400	40.917	28.39	90.00	151.41
(Deck Bar Cutoff) 21.733	60.000	0.400	12.000	0.400	41.560	28.49	90.00	153.14
21.738	60.000	0.400	12.000	0.400	41.562	28.49	90.00	153.14
($0.3L_s$) 23.204	60.000	0.400	12.000	0.400	42.010	28.55	90.00	154.40
23.642	60.000	0.400	12.000	0.400	42.144	28.57	90.00	154.78
23.808	60.000	0.400	12.000	0.400	42.195	28.58	90.00	154.93
24.342	60.000	0.400	12.000	0.400	42.359	28.60	90.00	155.41
25.642	60.000	0.400	12.000	0.400	42.761	28.64	90.00	156.60
(SZB) 30.616	60.000	0.400	18.000	0.267	44.313	28.75	90.00	107.70
($0.4L_s$) 30.939	60.000	0.400	18.000	0.267	44.414	28.75	90.00	107.93
(HP) 31.373	60.000	0.400	18.000	0.267	44.551	28.76	90.00	108.24
31.378	60.000	0.400	18.000	0.267	44.551	28.80	90.00	108.03
31.457	60.000	0.400	18.000	0.267	44.551	28.81	90.00	108.02
31.723	60.000	0.400	18.000	0.267	44.549	28.81	90.00	107.99
32.373	60.000	0.400	18.000	0.267	44.545	28.83	90.00	107.92
($0.5L_s$) 38.673	60.000	0.400	18.000	0.267	44.519	28.90	90.00	107.53
39.105	60.000	0.400	18.000	0.267	44.518	28.90	90.00	107.53
45.837	60.000	0.400	18.000	0.267	44.513	28.89	90.00	107.55
($0.6L_s$) 46.408	60.000	0.400	18.000	0.267	44.514	28.89	90.00	107.56
46.487	60.000	0.400	18.000	0.267	44.514	28.89	90.00	107.56
46.753	60.000	0.400	18.000	0.267	44.514	28.89	90.00	107.57
46.832	60.000	0.400	18.000	0.267	44.515	28.89	90.00	107.57
(HP) 46.837	60.000	0.400	18.000	0.267	44.515	28.84	90.00	107.78
(SZB) 47.594	60.000	0.400	18.000	0.267	44.273	28.85	90.00	107.18
52.568	60.000	0.400	12.000	0.400	42.700	28.85	90.00	155.00
53.868	60.000	0.400	12.000	0.400	42.294	28.85	90.00	153.58
($0.7L_s$) 54.143	60.000	0.400	12.000	0.400	42.209	28.84	90.00	153.28
54.402	60.000	0.400	12.000	0.400	42.128	28.84	90.00	153.01
54.568	60.000	0.400	12.000	0.400	42.076	28.84	90.00	152.83
(SZB) 58.594	60.000	0.400	12.000	0.400	40.835	28.76	90.00	148.79
59.300	60.000	0.400	9.000	0.533	40.620	28.74	90.00	197.51
61.250	60.000	0.400	9.000	0.533	40.027	28.67	90.00	195.19
($0.8L_s$) 61.878	60.000	0.400	9.000	0.533	39.837	28.65	90.00	194.47
62.050	60.000	0.400	9.000	0.533	39.785	28.64	90.00	194.28
62.300	60.000	0.400	9.000	0.533	39.709	28.63	90.00	194.00

Location from Left Support (ft)	f_y (KSI)	A_v (in^2)	s (in)	A_v/S (in^2/ft)	d_v (in)	θ (deg)	α (deg)	V_s (kip)
66.032	60.000	0.400	9.000	0.533	38.793	28.72	90.00	188.78
(SZB) 66.844	60.000	0.400	9.000	0.533	39.042	28.67	90.00	190.38
68.632	60.000	0.400	6.000	0.800	40.193	28.68	90.00	293.90
($0.9L_s$) 69.612	60.000	0.400	6.000	0.800	40.136	28.62	90.00	294.20
69.699	60.000	0.400	6.000	0.800	40.131	28.62	90.00	294.23
70.032	60.000	0.400	6.000	0.800	40.114	28.59	90.00	294.37
(1.5H) 71.764	60.000	0.400	6.000	0.800	41.582	28.58	90.00	305.33
(SZB) 72.344	60.000	0.400	6.000	0.800	41.581	28.66	90.00	304.26
72.764	60.000	0.400	4.000	1.200	41.582	28.63	90.00	457.04
(CS) 73.423	60.000	0.400	4.000	1.200	43.289	28.56	90.00	477.24

Nominal Shear Resistance - Strength II

Location from Left Support (ft)	f'_c (KSI)	b_v (in)	d_v (in)	V_p (kip)	V_c (kip)	V_s (kip)	V_{n1} [$] (kip)	V_{n2} [#] (kip)	V_n (kip)	ϕ	ϕV_n (kip)
(CS) 4.984	8.000	7.000	45.448	26.15	114.18	474.00	614.34	662.43	614.34	0.9	552.90
5.446	8.000	7.000	45.401	26.16	115.86	475.17	617.19	661.78	617.19	0.9	555.47
(SZB) 5.866	8.000	7.000	45.359	26.17	117.43	317.49	461.09	661.20	461.09	0.9	414.98
(1.5H) 6.446	8.000	7.000	45.302	26.18	114.19	315.21	455.58	660.40	455.58	0.9	410.02
($0.1L_s$) 7.735	8.000	7.000	45.178	26.21	118.90	317.36	462.46	658.70	462.46	0.9	416.21
8.178	8.000	7.000	45.137	26.22	114.78	314.68	455.68	658.13	455.68	0.9	410.11
8.512	8.000	7.000	45.106	26.22	115.94	315.22	457.38	657.71	457.38	0.9	411.64
9.578	8.000	7.000	45.010	26.24	118.72	316.33	461.29	656.38	461.29	0.9	415.16
(SZB) 11.366	8.000	7.000	39.041	26.28	143.86	194.68	364.83	572.85	364.83	0.9	328.34
12.178	8.000	7.000	38.819	26.30	140.81	193.08	360.19	569.76	360.19	0.9	324.17
($0.2L_s$) 15.469	8.000	7.000	39.633	26.35	145.40	197.49	369.25	581.21	369.25	0.9	332.32
15.910	8.000	7.000	39.769	26.36	144.81	197.93	369.11	583.13	369.11	0.9	332.20
16.160	8.000	7.000	39.847	26.36	144.50	198.19	369.05	584.22	369.05	0.9	332.15
16.960	8.000	7.000	40.096	26.38	143.58	199.01	368.97	587.71	368.97	0.9	332.07
18.910	8.000	7.000	40.704	26.40	141.86	201.13	369.39	596.25	369.39	0.9	332.45
(SZB) 19.616	8.000	7.000	40.917	26.41	141.32	151.41	319.14	599.25	319.14	0.9	287.22
(Deck Bar Cutoff) 21.733	8.000	7.000	41.560	26.43	140.04	153.14	319.61	608.27	319.61	0.9	287.65
21.738	8.000	7.000	41.562	26.43	140.04	153.14	319.61	608.29	319.61	0.9	287.65
($0.3L_s$) 23.204	8.000	7.000	42.010	26.44	139.50	154.40	320.34	614.57	320.34	0.9	288.30
23.642	8.000	7.000	42.144	26.44	139.38	154.78	320.60	616.45	320.60	0.9	288.54
23.808	8.000	7.000	42.195	26.44	139.34	154.93	320.71	617.17	320.71	0.9	288.64
24.342	8.000	7.000	42.359	26.44	139.25	155.41	321.09	619.47	321.09	0.9	288.98
25.642	8.000	7.000	42.761	26.44	139.17	156.60	322.21	625.09	322.21	0.9	289.99
(SZB) 30.616	8.000	7.000	44.313	26.41	140.65	107.70	274.76	646.78	274.76	0.9	247.28
($0.4L_s$) 30.939	8.000	7.000	44.414	26.40	140.84	107.93	275.17	648.20	275.17	0.9	247.65
(HP) 31.373	8.000	7.000	44.551	26.39	141.11	108.24	275.75	650.11	275.75	0.9	248.17
31.378	8.000	7.000	44.551	0.00	139.66	108.03	247.70	623.72	247.70	0.9	222.93
31.457	8.000	7.000	44.551	0.00	139.61	108.02	247.63	623.71	247.63	0.9	222.87
31.723	8.000	7.000	44.549	0.00	139.42	107.99	247.41	623.69	247.41	0.9	222.67
32.373	8.000	7.000	44.545	0.00	138.96	107.92	246.88	623.63	246.88	0.9	222.19
($0.5L_s$) 38.673	8.000	7.000	44.519	0.00	136.65	107.53	244.18	623.26	244.18	0.9	219.77
39.105	8.000	7.000	44.518	0.00	136.64	107.53	244.16	623.25	244.16	0.9	219.75
45.837	8.000	7.000	44.513	0.00	136.83	107.55	244.38	623.18	244.38	0.9	219.94
($0.6L_s$) 46.408	8.000	7.000	44.514	0.00	136.90	107.56	244.46	623.19	244.46	0.9	220.02
46.487	8.000	7.000	44.514	0.00	136.92	107.56	244.48	623.20	244.48	0.9	220.03
46.753	8.000	7.000	44.514	0.00	136.96	107.57	244.53	623.20	244.53	0.9	220.08
46.832	8.000	7.000	44.515	0.00	136.98	107.57	244.55	623.20	244.55	0.9	220.10
(HP) 46.837	8.000	7.000	44.515	26.47	138.38	107.78	272.63	649.68	272.63	0.9	245.37
(SZB) 47.594	8.000	7.000	44.273	26.49	137.52	107.18	271.19	646.31	271.19	0.9	244.07
52.568	8.000	7.000	42.700	26.57	132.41	155.00	313.99	624.38	313.99	0.9	282.59
53.868	8.000	7.000	42.294	26.58	131.37	153.58	311.53	618.70	311.53	0.9	280.38
($0.7L_s$) 54.143	8.000	7.000	42.209	26.59	131.17	153.28	311.04	617.51	311.04	0.9	279.94
54.402	8.000	7.000	42.128	26.59	131.00	153.01	310.59	616.38	310.59	0.9	279.53
54.568	8.000	7.000	42.076	26.59	130.89	152.83	310.30	615.66	310.30	0.9	279.27
(SZB) 58.594	8.000	7.000	40.835	26.59	129.23	148.79	304.61	598.29	304.61	0.9	274.15
59.300	8.000	7.000	40.620	26.59	129.15	197.51	353.25	595.26	353.25	0.9	317.92
61.250	8.000	7.000	40.027	26.57	129.29	195.19	351.05	586.95	351.05	0.9	315.95
($0.8L_s$) 61.878	8.000	7.000	39.837	26.57	129.46	194.47	350.50	584.29	350.50	0.9	315.45
62.050	8.000	7.000	39.785	26.57	129.51	194.28	350.36	583.56	350.36	0.9	315.32
62.300	8.000	7.000	39.709	26.57	129.60	194.00	350.17	582.50	350.17	0.9	315.15
66.032	8.000	7.000	38.793	26.52	123.89	188.78	339.20	569.63	339.20	0.9	305.28
(SZB) 66.844	8.000	7.000	39.042	26.51	126.09	190.38	342.98	573.10	342.98	0.9	308.68
68.632	8.000	7.000	40.193	26.49	129.58	293.90	449.96	589.19	449.96	0.9	404.97
($0.9L_s$) 69.612	8.000	7.000	40.136	26.47	131.18	294.20	451.85	588.38	451.85	0.9	406.67
69.699	8.000	7.000	40.131	26.47	131.33	294.23	452.03	588.31	452.03	0.9	406.83
70.032	8.000	7.000	40.114	26.47	131.93	294.37	452.76	588.07	452.76	0.9	407.49
(1.5H) 71.764	8.000	7.000	41.582	26.44	137.26	305.33	469.03	608.58	469.03	0.9	422.12
(SZB) 72.344	8.000	7.000	41.581	26.43	134.60	304.26	465.29	608.56	465.29	0.9	418.76
72.764	8.000	7.000	41.582	26.42	135.65	457.04	619.12	608.57	608.57	0.9	547.71
(CS) 73.423	8.000	7.000	43.289	26.41	143.64	477.24	647.30	632.47	632.47	0.9	569.22

[$] $V_{n1} = V_c + V_s + V_p$ [Eqn 5.7.3.3-1]

[#] $V_{n2} = 0.25 f'_c b_v d_v + V_p$ [Eqn 5.7.3.3-2]

Required Shear Reinforcement - Strength II

$$V_s = \frac{V_u}{\varphi} - V_c - V_p$$

$$\frac{A_v}{s} = \frac{V_s}{f_y d_v \cot\theta}$$

Location from Left Support (ft)	V_u/ϕ (kip)	V_c (kip)	V_p (kip)	V_s * (kip)	f_y (KSI)	d_v (in)	θ (deg)	A_v/S (in^2/ft)
(CS) 4.984	287.44	114.18	26.15	147.10	60.000	45.448	29.91	0.372
5.446	284.87	115.86	26.16	142.85	60.000	45.401	29.83	0.361
(SZB) 5.866	282.52	117.43	26.17	138.93	60.000	45.359	29.75	0.350
(1.5H) 6.446	279.27	114.19	26.18	138.90	60.000	45.302	29.89	0.353
($0.1L_s$) 7.735	272.01	118.90	26.21	126.91	60.000	45.178	29.66	0.320
8.178	269.50	114.78	26.22	128.51	60.000	45.137	29.84	0.327
8.512	267.61	115.94	26.22	125.45	60.000	45.106	29.79	0.318
9.578	261.54	118.72	26.24	116.58	60.000	45.010	29.65	0.295
(SZB) 11.366	251.28	143.86	26.28	81.13	60.000	39.041	28.14	0.222
12.178	246.57	140.81	26.30	79.47	60.000	38.819	28.20	0.220
($0.2L_s$) 15.469	227.22	145.40	26.35	55.47	60.000	39.633	28.15	0.150
15.910	224.61	144.81	26.36	53.43	60.000	39.769	28.18	0.144
16.160	223.12	144.50	26.36	52.26	60.000	39.847	28.20	0.141
16.960	218.34	143.58	26.38	48.39	60.000	40.096	28.25	0.130
18.910	206.62	141.86	26.40	38.36	60.000	40.704	28.35	0.102
(SZB) 19.616	202.33	141.32	26.41	34.60	60.000	40.917	28.39	0.091
(Deck Bar Cutoff) 21.733	189.34	140.04	26.43	22.87	60.000	41.560	28.49	0.060
21.738	189.31	140.04	26.43	22.85	60.000	41.562	28.49	0.060
($0.3L_s$) 23.204	180.24	139.50	26.44	14.31	60.000	42.010	28.55	0.037
23.642	177.52	139.38	26.44	11.70	60.000	42.144	28.57	0.030
23.808	176.47	139.34	26.44	10.69	60.000	42.195	28.58	0.028
24.342	173.13	139.25	26.44	7.45	60.000	42.359	28.60	0.019
25.642	164.98	139.17	26.44	0.00	60.000	42.761	28.64	0.000
(SZB) 30.616	133.15	140.65	26.41	0.00	60.000	44.313	28.75	0.000
($0.4L_s$) 30.939	131.05	140.84	26.40	0.00	60.000	44.414	28.75	0.000
(HP) 31.373	128.22	141.11	26.39	0.00	60.000	44.551	28.76	0.000
31.378	128.19	139.66	0.00	0.00	60.000	44.551	28.80	0.000
31.457	127.68	139.61	0.00	0.00	60.000	44.551	28.81	0.000
31.723	125.94	139.42	0.00	0.00	60.000	44.549	28.81	0.000
32.373	121.69	138.96	0.00	0.00	60.000	44.545	28.83	0.000
($0.5L_s$) 38.673	79.68	136.65	0.00	0.00	60.000	44.519	28.90	0.000
39.105	76.78	136.64	0.00	0.00	60.000	44.518	28.90	0.000
45.837	73.73	136.83	0.00	0.00	60.000	44.513	28.89	0.000
($0.6L_s$) 46.408	76.89	136.90	0.00	0.00	60.000	44.514	28.89	0.000
46.487	77.32	136.92	0.00	0.00	60.000	44.514	28.89	0.000
46.753	78.80	136.96	0.00	0.00	60.000	44.514	28.89	0.000
46.832	79.24	136.98	0.00	0.00	60.000	44.515	28.89	0.000
(HP) 46.837	79.27	138.38	26.47	0.00	60.000	44.515	28.84	0.000
(SZB) 47.594	83.49	137.52	26.49	0.00	60.000	44.273	28.85	0.000
52.568	112.71	132.41	26.57	0.00	60.000	42.700	28.85	0.000
53.868	120.54	131.37	26.58	0.00	60.000	42.294	28.85	0.000
($0.7L_s$) 54.143	122.20	131.17	26.59	0.00	60.000	42.209	28.84	0.000
54.402	123.77	131.00	26.59	0.00	60.000	42.128	28.84	0.000
54.568	124.78	130.89	26.59	0.00	60.000	42.076	28.84	0.000
(SZB) 58.594	149.45	129.23	26.59	0.00	60.000	40.835	28.76	0.000
59.300	153.84	129.15	26.59	0.00	60.000	40.620	28.74	0.000
61.250	166.05	129.29	26.57	10.18	60.000	40.027	28.67	0.028
($0.8L_s$) 61.878	169.99	129.46	26.57	13.96	60.000	39.837	28.65	0.038
62.050	171.08	129.51	26.57	14.99	60.000	39.785	28.64	0.041
62.300	172.65	129.60	26.57	16.48	60.000	39.709	28.63	0.045
66.032	196.39	123.89	26.52	45.98	60.000	38.793	28.72	0.130
(SZB) 66.844	201.63	126.09	26.51	49.03	60.000	39.042	28.67	0.137
68.632	213.22	129.58	26.49	57.16	60.000	40.193	28.68	0.156
($0.9L_s$) 69.612	219.62	131.18	26.47	61.96	60.000	40.136	28.62	0.168
69.699	220.18	131.33	26.47	62.38	60.000	40.131	28.62	0.170
70.032	222.36	131.93	26.47	63.96	60.000	40.114	28.59	0.174
(1.5H) 71.764	233.72	137.26	26.44	70.02	60.000	41.582	28.58	0.183
(SZB) 72.344	237.54	134.60	26.43	76.51	60.000	41.581	28.66	0.201
72.764	240.31	135.65	26.42	78.23	60.000	41.582	28.63	0.205
(CS) 73.423	244.68	143.64	26.41	74.63	60.000	43.289	28.56	0.188

* - Transverse reinforcement required if $V_u > 0.5\phi(V_c + V_p)$ [LRFD Eqn 5.7.2.3-1]

Required Stirrup Spacing - Strength II

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
(CS) 4.984	1.200	0.372	7.089	12.889	19.978
5.446	1.200	0.361	7.318	13.306	20.624
(SZB) 5.866	0.800	0.350	7.541	13.712	21.253
(1.5H) 6.446	0.800	0.353	7.489	13.616	21.105
($0.1L_s$) 7.735	0.800	0.320	8.252	15.004	23.256
8.178	0.800	0.327	8.081	14.692	22.773
8.512	0.800	0.318	8.292	15.076	23.368
9.578	0.800	0.295	8.955	16.281	25.235
(SZB) 11.366	0.533	0.222	11.878	21.596	33.473
12.178	0.533	0.220	12.027	21.867	33.894
($0.2L_s$) 15.469	0.533	0.150	17.625	32.045	49.669

Location from Left Support (ft)	Provided A_v/S (in^2/ft)	Required A_v/S (in^2/ft)	2-#3 S (in)	2-#4 S (in)	2-#5 S (in)
15.910	0.533	0.144	18.336	33.339	51.676
16.160	0.533	0.141	18.774	34.134	52.907
16.960	0.533	0.130	20.358	37.015	57.373
18.910	0.533	0.102	25.954	47.189	73.144
(SZB) 19.616	0.400	0.091	28.883	52.514	81.397
(Deck Bar Cutoff) 21.733	0.400	0.060	44.187	80.340	124.527
21.738	0.400	0.060	44.243	80.441	124.684
($0.3L_s$) 23.204	0.400	0.037	71.226	129.503	200.729
23.642	0.400	0.030	87.350	158.817	246.167
23.808	0.400	0.028	95.648	173.906	269.555
24.342	0.400	0.019	137.734	250.426	388.160
25.642	0.400	0.000	N/A	N/A	N/A
(SZB) 30.616	0.267	0.000	N/A	N/A	N/A
($0.4L_s$) 30.939	0.267	0.000	N/A	N/A	N/A
(HP) 31.373	0.267	0.000	N/A	N/A	N/A
31.378	0.267	0.000	N/A	N/A	N/A
31.457	0.267	0.000	N/A	N/A	N/A
31.723	0.267	0.000	N/A	N/A	N/A
32.373	0.267	0.000	N/A	N/A	N/A
($0.5L_s$) 38.673	0.267	0.000	N/A	N/A	N/A
39.105	0.267	0.000	N/A	N/A	N/A
45.837	0.267	0.000	N/A	N/A	N/A
($0.6L_s$) 46.408	0.267	0.000	N/A	N/A	N/A
46.487	0.267	0.000	N/A	N/A	N/A
46.753	0.267	0.000	N/A	N/A	N/A
46.832	0.267	0.000	N/A	N/A	N/A
(HP) 46.837	0.267	0.000	N/A	N/A	N/A
(SZB) 47.594	0.267	0.000	N/A	N/A	N/A
52.568	0.400	0.000	N/A	N/A	N/A
53.868	0.400	0.000	N/A	N/A	N/A
($0.7L_s$) 54.143	0.400	0.000	N/A	N/A	N/A
54.402	0.400	0.000	N/A	N/A	N/A
54.568	0.400	0.000	N/A	N/A	N/A
(SZB) 58.594	0.400	0.000	N/A	N/A	N/A
59.300	0.533	0.000	N/A	N/A	N/A
61.250	0.533	0.028	94.903	172.551	267.454
($0.8L_s$) 61.878	0.533	0.038	68.951	125.365	194.316
62.050	0.533	0.041	64.135	116.609	180.744
62.300	0.533	0.045	58.258	105.923	164.181
66.032	0.533	0.130	20.325	36.955	57.280
(SZB) 66.844	0.533	0.137	19.221	34.948	54.169
68.632	0.800	0.156	16.968	30.851	47.820
($0.9L_s$) 69.612	0.800	0.168	15.668	28.488	44.156
69.699	0.800	0.170	15.566	28.302	43.868
70.032	0.800	0.174	15.188	27.614	42.802
(1.5H) 71.764	0.800	0.183	14.390	26.163	40.553
(SZB) 72.344	0.800	0.201	13.123	23.860	36.984
72.764	1.200	0.205	12.853	23.369	36.221
(CS) 73.423	1.200	0.188	14.069	25.580	39.649

Horizontal Interface Shear Capacity Details

Strength I

Details for Horizontal Interface Shear Capacity (Strength I) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.863	372053.3	8395.5	266.27	72.101	43.000	0.140
(FoS) 1.196	372053.3	8395.5	266.27	72.101	43.000	0.140
(SZB) 2.200	372053.3	8395.5	266.27	72.101	43.000	0.140
(Bar Develop.) 2.568	372053.3	8395.5	266.27	72.101	43.000	0.140
(Bar Develop.) 3.628	372053.3	8395.5	266.27	72.101	43.000	0.140
(H) 4.696	372053.3	8395.5	266.27	72.101	43.000	0.140
(CS) 4.984	372053.3	8395.5	266.27	72.101	43.000	0.140
(SZB) 5.866	372053.3	8395.5	261.52	70.815	43.000	0.137
(1.5H) 6.446	372053.3	8395.5	258.39	69.967	43.000	0.136
($0.1L_s$) 7.735	372053.3	8395.5	251.44	68.085	43.000	0.132
(SZB) 11.366	372053.3	8395.5	231.77	62.760	43.000	0.122
($0.2L_s$) 15.469	372053.3	8395.5	209.45	56.716	43.000	0.110
(SZB) 19.616	371743.2	8384.0	186.88	50.577	43.000	0.098
(Deck Bar Cutoff) 21.733	370805.6	8349.2	175.32	47.371	43.000	0.092
($0.3L_s$) 23.204	370200.7	8326.7	167.31	45.157	43.000	0.088
(SZB) 30.616	367758.6	8235.9	126.87	34.094	43.000	0.066
($0.4L_s$) 30.939	367675.8	8232.8	125.11	33.617	43.000	0.065
(HP) 31.373	367567.5	8228.8	122.75	32.976	43.000	0.064
($0.5L_s$) 38.673	366300.5	8181.7	83.03	22.254	43.000	0.043
($0.6L_s$) 46.408	366115.5	8174.8	74.27	19.900	43.000	0.039
(HP) 46.837	366140.3	8175.7	76.45	20.485	43.000	0.040
(SZB) 47.594	366193.2	8177.7	80.32	21.525	43.000	0.042
($0.7L_s$) 54.143	367126.2	8212.4	115.90	31.110	43.000	0.060
(SZB) 58.594	368239.8	8253.8	141.11	37.955	43.000	0.074

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
($0.8L_s$) 61.878	369302.7	8293.3	160.18	43.164	43.000	0.084
(SZB) 66.844	371286.8	8367.1	189.79	51.324	43.000	0.099
($0.9L_s$) 69.612	372053.3	8395.5	206.71	55.975	43.000	0.108
(1.5H) 71.764	372053.3	8395.5	220.05	59.586	43.000	0.115
(SZB) 72.344	372053.3	8395.5	223.68	60.568	43.000	0.117
(CS) 73.423	372053.3	8395.5	230.45	62.402	43.000	0.121
(H) 73.514	372053.3	8395.5	230.45	62.402	43.000	0.121
(Bar Develop.) 74.582	372053.3	8395.5	230.45	62.402	43.000	0.121
(Bar Develop.) 75.642	372053.3	8395.5	230.45	62.402	43.000	0.121
(SZB) 76.010	372053.3	8395.5	230.45	62.402	43.000	0.121
(FoS) 77.014	372053.3	8395.5	230.45	62.402	43.000	0.121
($1.0L_s$) 77.347	372053.3	8395.5	230.45	62.402	43.000	0.121
77.347	372053.3	8395.5	230.45	62.402	43.000	0.121

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.863	0.000	∞	0.220	12.000	0.220
(FoS) 1.196	0.000	∞	0.220	12.000	0.220
(SZB) 2.200	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.568	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 3.628	0.000	∞	0.220	12.000	0.220
(H) 4.696	0.000	∞	0.220	12.000	0.220
(CS) 4.984	0.000	∞	0.220	12.000	0.220
(SZB) 5.866	0.000	∞	0.220	12.000	0.220
(1.5H) 6.446	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.735	0.000	∞	0.220	12.000	0.220
(SZB) 11.366	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.469	0.000	∞	0.220	9.000	0.293
(SZB) 19.616	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 21.733	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.204	0.000	∞	0.220	12.000	0.220
(SZB) 30.616	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.939	0.000	∞	0.220	18.000	0.147
(HP) 31.373	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.673	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.408	0.000	∞	0.220	18.000	0.147
(HP) 46.837	0.000	∞	0.220	18.000	0.147
(SZB) 47.594	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 54.143	0.000	∞	0.220	12.000	0.220
(SZB) 58.594	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.878	0.000	∞	0.220	9.000	0.293
(SZB) 66.844	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.612	0.000	∞	0.220	12.000	0.220
(1.5H) 71.764	0.000	∞	0.220	12.000	0.220
(SZB) 72.344	0.000	∞	0.220	12.000	0.220
(CS) 73.423	0.000	∞	0.220	12.000	0.220
(H) 73.514	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.582	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 75.642	0.000	∞	0.220	12.000	0.220
(SZB) 76.010	0.000	∞	0.220	12.000	0.220
(FoS) 77.014	0.000	∞	0.220	12.000	0.220
($1.0L_s$) 77.347	0.000	∞	0.220	12.000	0.220
77.347	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, μ = 1, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, γ_{DC} = 0.9, K_1 = 0.3, K_2 = 1.800 KSI, ϕ = 0.9, f'_c = 4.500 KSI, f_y = 60.000 KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.863	516.000	0.220	0.867	158.461	696.600	928.800	142.615
(FoS) 1.196	516.000	0.220	0.865	158.459	696.600	928.800	142.613
(SZB) 2.200	516.000	0.220	0.860	158.454	696.600	928.800	142.608
(Bar Develop.) 2.568	516.000	0.220	0.858	158.452	696.600	928.800	142.607
(Bar Develop.) 3.628	516.000	0.220	0.852	158.446	696.600	928.800	142.602
(H) 4.696	516.000	0.220	0.846	158.441	696.600	928.800	142.597
(CS) 4.984	516.000	0.220	0.844	158.440	696.600	928.800	142.596
(SZB) 5.866	516.000	0.220	0.840	158.436	696.600	928.800	142.592
(1.5H) 6.446	516.000	0.220	0.837	158.433	696.600	928.800	142.590
($0.1L_s$) 7.735	516.000	0.220	0.830	158.427	696.600	928.800	142.584
(SZB) 11.366	516.000	0.293	0.813	162.812	696.600	928.800	146.531
($0.2L_s$) 15.469	516.000	0.293	0.796	162.796	696.600	928.800	146.517
(SZB) 19.616	516.000	0.220	0.781	158.383	696.600	928.800	142.545
(Deck Bar Cutoff) 21.733	516.000	0.220	0.774	158.377	696.600	928.800	142.539
($0.3L_s$) 23.204	516.000	0.220	0.770	158.373	696.600	928.800	142.536
(SZB) 30.616	516.000	0.147	0.753	153.958	696.600	928.800	138.562
($0.4L_s$) 30.939	516.000	0.147	0.752	153.957	696.600	928.800	138.561
(HP) 31.373	516.000	0.147	0.752	153.956	696.600	928.800	138.561
($0.5L_s$) 38.673	516.000	0.147	0.743	153.948	696.600	928.800	138.554

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
($0.6L_s$) 46.408	516.000	0.147	0.742	153.947	696.600	928.800	138.553
(HP) 46.837	516.000	0.147	0.742	153.948	696.600	928.800	138.553
(SZB) 47.594	516.000	0.147	0.742	153.948	696.600	928.800	138.553
($0.7L_s$) 54.143	516.000	0.220	0.748	158.354	696.600	928.800	142.518
(SZB) 58.594	516.000	0.220	0.756	158.361	696.600	928.800	142.525
($0.8L_s$) 61.878	516.000	0.293	0.764	162.767	696.600	928.800	146.491
(SZB) 66.844	516.000	0.293	0.778	162.780	696.600	928.800	146.502
($0.9L_s$) 69.612	516.000	0.220	0.787	158.388	696.600	928.800	142.550
(1.5H) 71.764	516.000	0.220	0.795	158.396	696.600	928.800	142.556
(SZB) 72.344	516.000	0.220	0.797	158.398	696.600	928.800	142.558
(CS) 73.423	516.000	0.220	0.802	158.401	696.600	928.800	142.561
(H) 73.514	516.000	0.220	0.802	158.402	696.600	928.800	142.562
(Bar Develop.) 74.582	516.000	0.220	0.806	158.406	696.600	928.800	142.565
(Bar Develop.) 75.642	516.000	0.220	0.811	158.410	696.600	928.800	142.569
(SZB) 76.010	516.000	0.220	0.813	158.411	696.600	928.800	142.570
(FoS) 77.014	516.000	0.220	0.817	158.415	696.600	928.800	142.574
($1.0L_s$) 77.347	516.000	0.220	0.819	158.417	696.600	928.800	142.575
77.347	516.000	0.220	0.819	158.417	696.600	928.800	142.575

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{matrix} lesser\ of, \\ but\ not < 0.0 \end{matrix} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.863	516.000	0.140	0.430	-0.647	0.000	No
(FoS) 1.196	516.000	0.140	0.430	-0.647	0.000	No
(SZB) 2.200	516.000	0.140	0.430	-0.646	0.000	No
(Bar Develop.) 2.568	516.000	0.140	0.430	-0.646	0.000	No
(Bar Develop.) 3.628	516.000	0.140	0.430	-0.646	0.000	No
(H) 4.696	516.000	0.140	0.430	-0.646	0.000	No
(CS) 4.984	516.000	0.140	0.430	-0.646	0.000	No
(SZB) 5.866	516.000	0.137	0.430	-0.678	0.000	No
(1.5H) 6.446	516.000	0.136	0.430	-0.699	0.000	No
($0.1L_s$) 7.735	516.000	0.132	0.430	-0.745	0.000	No
(SZB) 11.366	516.000	0.122	0.430	-0.876	0.000	No
($0.2L_s$) 15.469	516.000	0.110	0.430	-1.024	0.000	No
(SZB) 19.616	516.000	0.098	0.430	-1.175	0.000	No
(Deck Bar Cutoff) 21.733	516.000	0.092	0.430	-1.254	0.000	No
($0.3L_s$) 23.204	516.000	0.088	0.430	-1.309	0.000	No
(SZB) 30.616	516.000	0.066	0.430	-1.581	0.000	No
($0.4L_s$) 30.939	516.000	0.065	0.430	-1.593	0.000	No
(HP) 31.373	516.000	0.064	0.430	-1.608	0.000	No
($0.5L_s$) 38.673	516.000	0.043	0.430	-1.872	0.000	No
($0.6L_s$) 46.408	516.000	0.039	0.430	-1.930	0.000	No
(HP) 46.837	516.000	0.040	0.430	-1.916	0.000	No
(SZB) 47.594	516.000	0.042	0.430	-1.890	0.000	No
($0.7L_s$) 54.143	516.000	0.060	0.430	-1.654	0.000	No
(SZB) 58.594	516.000	0.074	0.430	-1.486	0.000	No
($0.8L_s$) 61.878	516.000	0.084	0.430	-1.358	0.000	No
(SZB) 66.844	516.000	0.099	0.430	-1.157	0.000	No
($0.9L_s$) 69.612	516.000	0.108	0.430	-1.042	0.000	No
(1.5H) 71.764	516.000	0.115	0.430	-0.954	0.000	No
(SZB) 72.344	516.000	0.117	0.430	-0.930	0.000	No
(CS) 73.423	516.000	0.121	0.430	-0.884	0.000	No
(H) 73.514	516.000	0.121	0.430	-0.884	0.000	No
(Bar Develop.) 74.582	516.000	0.121	0.430	-0.885	0.000	No
(Bar Develop.) 75.642	516.000	0.121	0.430	-0.885	0.000	No
(SZB) 76.010	516.000	0.121	0.430	-0.885	0.000	No
(FoS) 77.014	516.000	0.121	0.430	-0.885	0.000	No
($1.0L_s$) 77.347	516.000	0.121	0.430	-0.885	0.000	No
77.347	516.000	0.121	0.430	-0.885	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Strength II

Details for Horizontal Interface Shear Capacity (Strength II) [5.7.4.1]

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_u Q/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
0.863	372053.3	8395.5	258.69	70.050	43.000	0.136
(FoS) 1.196	372053.3	8395.5	258.69	70.050	43.000	0.136
(SZB) 2.200	372053.3	8395.5	258.69	70.050	43.000	0.136
(Bar Develop.) 2.568	372053.3	8395.5	258.69	70.050	43.000	0.136
(Bar Develop.) 3.628	372053.3	8395.5	258.69	70.050	43.000	0.136
(H) 4.696	372053.3	8395.5	258.69	70.050	43.000	0.136
(SZB) 5.866	372053.3	8395.5	254.27	68.853	43.000	0.133
(1.5H) 6.446	372053.3	8395.5	251.34	68.059	43.000	0.132
($0.1L_s$) 7.735	372053.3	8395.5	244.81	66.291	43.000	0.128

Location from Left Support (ft)	I (in^4)	Q_{slab} (in^3)	V_u (kip)	$v_{ui} = V_uQ/I$ (kip/ft)	b_{vi} (in)	v_{ui} (KSI)
(SZB) 11.366	372053.3	8395.5	226.15	61.238	43.000	0.119
($0.2L_s$) 15.469	372053.3	8395.5	204.50	55.376	43.000	0.107
(SZB) 19.616	371743.2	8384.0	182.10	49.283	43.000	0.096
(Deck Bar Cutoff) 21.733	370805.6	8349.2	170.41	46.044	43.000	0.089
($0.3L_s$) 23.204	370200.7	8326.7	162.22	43.784	43.000	0.085
(SZB) 30.616	367758.6	8235.9	119.83	32.204	43.000	0.062
($0.4L_s$) 30.939	367675.8	8232.8	117.95	31.692	43.000	0.061
(HP) 31.373	367567.5	8228.8	115.40	31.002	43.000	0.060
($0.5L_s$) 38.673	366300.5	8181.7	71.71	19.221	43.000	0.037
($0.6L_s$) 46.408	366115.5	8174.8	69.20	18.541	43.000	0.036
(HP) 46.837	366140.3	8175.7	71.34	19.116	43.000	0.037
(SZB) 47.594	366193.2	8177.7	75.14	20.136	43.000	0.039
($0.7L_s$) 54.143	367126.2	8212.4	109.98	29.523	43.000	0.057
(SZB) 58.594	368239.8	8253.8	134.51	36.179	43.000	0.070
($0.8L_s$) 61.878	369302.7	8293.3	152.99	41.228	43.000	0.080
(SZB) 66.844	371286.8	8367.1	181.46	49.072	43.000	0.095
($0.9L_s$) 69.612	372053.3	8395.5	197.65	53.522	43.000	0.104
(1.5H) 71.764	372053.3	8395.5	210.35	56.958	43.000	0.110
(SZB) 72.344	372053.3	8395.5	213.79	57.890	43.000	0.112
(H) 73.514	372053.3	8395.5	220.22	59.631	43.000	0.116
(Bar Develop.) 74.582	372053.3	8395.5	220.22	59.631	43.000	0.116
(Bar Develop.) 75.642	372053.3	8395.5	220.22	59.631	43.000	0.116
(SZB) 76.010	372053.3	8395.5	220.22	59.631	43.000	0.116
(FoS) 77.014	372053.3	8395.5	220.22	59.631	43.000	0.116
($1.0L_s$) 77.347	372053.3	8395.5	220.22	59.631	43.000	0.116
77.347	372053.3	8395.5	220.22	59.631	43.000	0.116

Location from Left Support (ft)	A_{vf} Primary (in^2)	S Primary (in)	A_{vf} Additional (in^2)	S Additional (in)	a_{vf} Composite (in^2/ft)
0.863	0.000	∞	0.220	12.000	0.220
(FoS) 1.196	0.000	∞	0.220	12.000	0.220
(SZB) 2.200	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 2.568	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 3.628	0.000	∞	0.220	12.000	0.220
(H) 4.696	0.000	∞	0.220	12.000	0.220
(SZB) 5.866	0.000	∞	0.220	12.000	0.220
(1.5H) 6.446	0.000	∞	0.220	12.000	0.220
($0.1L_s$) 7.735	0.000	∞	0.220	12.000	0.220
(SZB) 11.366	0.000	∞	0.220	9.000	0.293
($0.2L_s$) 15.469	0.000	∞	0.220	9.000	0.293
(SZB) 19.616	0.000	∞	0.220	12.000	0.220
(Deck Bar Cutoff) 21.733	0.000	∞	0.220	12.000	0.220
($0.3L_s$) 23.204	0.000	∞	0.220	12.000	0.220
(SZB) 30.616	0.000	∞	0.220	18.000	0.147
($0.4L_s$) 30.939	0.000	∞	0.220	18.000	0.147
(HP) 31.373	0.000	∞	0.220	18.000	0.147
($0.5L_s$) 38.673	0.000	∞	0.220	18.000	0.147
($0.6L_s$) 46.408	0.000	∞	0.220	18.000	0.147
(HP) 46.837	0.000	∞	0.220	18.000	0.147
(SZB) 47.594	0.000	∞	0.220	18.000	0.147
($0.7L_s$) 54.143	0.000	∞	0.220	12.000	0.220
(SZB) 58.594	0.000	∞	0.220	12.000	0.220
($0.8L_s$) 61.878	0.000	∞	0.220	9.000	0.293
(SZB) 66.844	0.000	∞	0.220	9.000	0.293
($0.9L_s$) 69.612	0.000	∞	0.220	12.000	0.220
(1.5H) 71.764	0.000	∞	0.220	12.000	0.220
(SZB) 72.344	0.000	∞	0.220	12.000	0.220
(H) 73.514	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 74.582	0.000	∞	0.220	12.000	0.220
(Bar Develop.) 75.642	0.000	∞	0.220	12.000	0.220
(SZB) 76.010	0.000	∞	0.220	12.000	0.220
(FoS) 77.014	0.000	∞	0.220	12.000	0.220
($1.0L_s$) 77.347	0.000	∞	0.220	12.000	0.220
77.347	0.000	∞	0.220	12.000	0.220

Coeff. of Friction, $\mu = 1$, Cohesion Factor, c = 0.280 KSI, Net Compression Force Load Factor, $\gamma_{DC} = 0.9$, $K_1 = 0.3$, $K_2 = 1.800$ KSI, $\phi = 0.9$, $f'_c = 4.500$ KSI, $f_y = 60.000$ KSI

$v_{ni} = \min(ca_{cv} + \mu[a_{vf}f_y + \gamma_{DC}p_c], K_1f'_ca_{cv}, K_2a_{cv})$

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf}\,f_y + \gamma_{DC}p_c]$ (kip/ft)	$K_1f'_ca_{cv}$ (kip/ft)	K_2a_{cv} (kip/ft)	ϕv_{ni} (kip/ft)
0.863	516.000	0.220	0.867	158.461	696.600	928.800	142.615
(FoS) 1.196	516.000	0.220	0.865	158.459	696.600	928.800	142.613
(SZB) 2.200	516.000	0.220	0.860	158.454	696.600	928.800	142.608
(Bar Develop.) 2.568	516.000	0.220	0.858	158.452	696.600	928.800	142.607
(Bar Develop.) 3.628	516.000	0.220	0.852	158.446	696.600	928.800	142.602
(H) 4.696	516.000	0.220	0.846	158.441	696.600	928.800	142.597
(SZB) 5.866	516.000	0.220	0.840	158.436	696.600	928.800	142.592
(1.5H) 6.446	516.000	0.220	0.837	158.433	696.600	928.800	142.590

Location from Left Support (ft)	a_{cv} (in^2/ft)	a_{vf} (in^2/ft)	p_c (kip/ft)	$c\,a_{cv} + \mu[a_{vf} f_y + \gamma_{DC} p_c]$ (kip/ft)	$K_1 f'_c a_{cv}$ (kip/ft)	$K_2 a_{cv}$ (kip/ft)	ϕv_{ni} (kip/ft)
($0.1L_s$) 7.735	516.000	0.220	0.830	158.427	696.600	928.800	142.584
(SZB) 11.366	516.000	0.293	0.813	162.812	696.600	928.800	146.531
($0.2L_s$) 15.469	516.000	0.293	0.796	162.796	696.600	928.800	146.517
(SZB) 19.616	516.000	0.220	0.781	158.383	696.600	928.800	142.545
(Deck Bar Cutoff) 21.733	516.000	0.220	0.774	158.377	696.600	928.800	142.539
($0.3L_s$) 23.204	516.000	0.220	0.770	158.373	696.600	928.800	142.536
(SZB) 30.616	516.000	0.147	0.753	153.958	696.600	928.800	138.562
($0.4L_s$) 30.939	516.000	0.147	0.752	153.957	696.600	928.800	138.561
(HP) 31.373	516.000	0.147	0.752	153.956	696.600	928.800	138.561
($0.5L_s$) 38.673	516.000	0.147	0.743	153.948	696.600	928.800	138.554
($0.6L_s$) 46.408	516.000	0.147	0.742	153.947	696.600	928.800	138.553
(HP) 46.837	516.000	0.147	0.742	153.948	696.600	928.800	138.553
(SZB) 47.594	516.000	0.147	0.742	153.948	696.600	928.800	138.553
($0.7L_s$) 54.143	516.000	0.220	0.748	158.354	696.600	928.800	142.518
(SZB) 58.594	516.000	0.220	0.756	158.361	696.600	928.800	142.525
($0.8L_s$) 61.878	516.000	0.293	0.764	162.767	696.600	928.800	146.491
(SZB) 66.844	516.000	0.293	0.778	162.780	696.600	928.800	146.502
($0.9L_s$) 69.612	516.000	0.220	0.787	158.388	696.600	928.800	142.550
(1.5H) 71.764	516.000	0.220	0.795	158.396	696.600	928.800	142.556
(SZB) 72.344	516.000	0.220	0.797	158.398	696.600	928.800	142.558
(H) 73.514	516.000	0.220	0.802	158.402	696.600	928.800	142.562
(Bar Develop.) 74.582	516.000	0.220	0.806	158.406	696.600	928.800	142.565
(Bar Develop.) 75.642	516.000	0.220	0.811	158.410	696.600	928.800	142.569
(SZB) 76.010	516.000	0.220	0.813	158.411	696.600	928.800	142.570
(FoS) 77.014	516.000	0.220	0.817	158.415	696.600	928.800	142.574
($1.0L_s$) 77.347	516.000	0.220	0.819	158.417	696.600	928.800	142.575
77.347	516.000	0.220	0.819	158.417	696.600	928.800	142.575

Details for Minimum Horizontal Interface Shear Reinforcement [5.7.4.2]

$$a_{vf\,min} = \begin{matrix} lesser\ of, \\ but\ not < 0.0 \end{matrix} \begin{cases} \dfrac{0.05 a_{cv}}{f_y} & (5.7.4.2\text{-}1) \\ \dfrac{1.33 v_{ui} - \varphi(c a_{cv} + \mu p_c)}{\varphi \mu f_y} & (5.7.4.3\text{-}3)\ \textit{rearranged} \end{cases}$$

Location from Left Support (ft)	a_{cv} (in^2/ft)	v_{ui} (KSI)	$a_{vf\,min}$ (5.7.4.2-1) (in^2/ft)	$a_{vf\,min}$ (5.7.4.3-3) (in^2/ft)	$a_{vf\,min}$ (in^2/ft)	Min Reinforcement Requirement Waived?
0.863	516.000	0.136	0.430	-0.697	0.000	No
(FoS) 1.196	516.000	0.136	0.430	-0.697	0.000	No
(SZB) 2.200	516.000	0.136	0.430	-0.697	0.000	No
(Bar Develop.) 2.568	516.000	0.136	0.430	-0.697	0.000	No
(Bar Develop.) 3.628	516.000	0.136	0.430	-0.697	0.000	No
(H) 4.696	516.000	0.136	0.430	-0.697	0.000	No
(SZB) 5.866	516.000	0.133	0.430	-0.726	0.000	No
(1.5H) 6.446	516.000	0.132	0.430	-0.746	0.000	No
($0.1L_s$) 7.735	516.000	0.128	0.430	-0.789	0.000	No
(SZB) 11.366	516.000	0.119	0.430	-0.913	0.000	No
($0.2L_s$) 15.469	516.000	0.107	0.430	-1.057	0.000	No
(SZB) 19.616	516.000	0.096	0.430	-1.207	0.000	No
(Deck Bar Cutoff) 21.733	516.000	0.089	0.430	-1.287	0.000	No
($0.3L_s$) 23.204	516.000	0.085	0.430	-1.342	0.000	No
(SZB) 30.616	516.000	0.062	0.430	-1.627	0.000	No
($0.4L_s$) 30.939	516.000	0.061	0.430	-1.640	0.000	No
(HP) 31.373	516.000	0.060	0.430	-1.657	0.000	No
($0.5L_s$) 38.673	516.000	0.037	0.430	-1.947	0.000	No
($0.6L_s$) 46.408	516.000	0.036	0.430	-1.964	0.000	No
(HP) 46.837	516.000	0.037	0.430	-1.950	0.000	No
(SZB) 47.594	516.000	0.039	0.430	-1.924	0.000	No
($0.7L_s$) 54.143	516.000	0.057	0.430	-1.693	0.000	No
(SZB) 58.594	516.000	0.070	0.430	-1.530	0.000	No
($0.8L_s$) 61.878	516.000	0.080	0.430	-1.405	0.000	No
(SZB) 66.844	516.000	0.095	0.430	-1.212	0.000	No
($0.9L_s$) 69.612	516.000	0.104	0.430	-1.103	0.000	No
(1.5H) 71.764	516.000	0.110	0.430	-1.018	0.000	No
(SZB) 72.344	516.000	0.112	0.430	-0.995	0.000	No
(H) 73.514	516.000	0.116	0.430	-0.953	0.000	No
(Bar Develop.) 74.582	516.000	0.116	0.430	-0.953	0.000	No
(Bar Develop.) 75.642	516.000	0.116	0.430	-0.953	0.000	No
(SZB) 76.010	516.000	0.116	0.430	-0.953	0.000	No
(FoS) 77.014	516.000	0.116	0.430	-0.953	0.000	No
($1.0L_s$) 77.347	516.000	0.116	0.430	-0.953	0.000	No
77.347	516.000	0.116	0.430	-0.953	0.000	No

Minimum reinforcement requirements cannot be waived. All of the primary vertical shear reinforcement does not extend across the girder/slab interface.

Stirrup Detailing Check Details

$$\frac{A_v}{S} min = \frac{0.0316 \lambda \sqrt{f'_c}\, b_v}{f_y}$$

f'_c = 8.000 KSI

f_y = 60.000 KSI

Details for Minimum Transverse Reinforcement Check - 5.7.2.5-1

Location from Left Support (ft)	b_v (in)	A_v/S_{min} (in^2/ft)
0.000	7.000	0.125
(FoS) 0.333	7.000	0.125
(SZB) 1.337	7.000	0.125
(Bar Develop.) 1.705	7.000	0.125
(Bar Develop.) 2.765	7.000	0.125
(H) 3.833	7.000	0.125
(CS) 4.121	7.000	0.125
(SZB) 5.003	7.000	0.125
(1.5H) 5.583	7.000	0.125
6.872	7.000	0.125
(SZB) 10.503	7.000	0.125
14.606	7.000	0.125
(SZB) 18.753	7.000	0.125
(Deck Bar Cutoff) 20.870	7.000	0.125
22.341	7.000	0.125
(SZB) 29.753	7.000	0.125
30.076	7.000	0.125
(HP) 30.510	7.000	0.125
37.810	7.000	0.125
45.545	7.000	0.125
(HP) 45.974	7.000	0.125
(SZB) 46.731	7.000	0.125
53.280	7.000	0.125
(SZB) 57.731	7.000	0.125
61.014	7.000	0.125
(SZB) 65.981	7.000	0.125
68.749	7.000	0.125
(1.5H) 70.900	7.000	0.125
(SZB) 71.481	7.000	0.125
(CS) 72.560	7.000	0.125
(H) 72.650	7.000	0.125
(Bar Develop.) 73.718	7.000	0.125
(Bar Develop.) 74.779	7.000	0.125
(SZB) 75.147	7.000	0.125
(FoS) 76.150	7.000	0.125
($1.0L_e$) 76.484	7.000	0.125
76.484	7.000	N/A

Strength I - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.910	1.000	7.000	45.900	18.000
(FoS) 0.333	0.901	1.000	7.000	45.861	18.000
(SZB) 1.337	0.876	1.000	7.000	45.747	18.000
(Bar Develop.) 1.705	0.867	1.000	7.000	45.706	18.000
(Bar Develop.) 2.765	0.845	1.000	7.000	45.591	18.000
(H) 3.833	0.847	1.000	7.000	45.478	18.000
(CS) 4.121	0.848	1.000	7.000	45.448	18.000
(SZB) 5.003	0.833	1.000	7.000	45.359	18.000
(1.5H) 5.583	0.823	1.000	7.000	45.302	18.000
6.872	0.801	1.000	7.000	45.178	18.000
(SZB) 10.503	0.846	1.000	7.000	39.041	18.000
14.606	0.744	1.000	7.000	39.633	18.000
(SZB) 18.753	0.633	1.000	7.000	40.917	18.000
(Deck Bar Cutoff) 20.870	0.579	1.000	7.000	41.560	18.000
22.341	0.542	1.000	7.000	42.010	18.000
(SZB) 29.753	0.369	1.000	7.000	44.313	18.000
30.076	0.362	1.000	7.000	44.414	18.000
(HP) 30.510	0.353	1.000	7.000	44.551	18.000
37.810	0.296	1.000	7.000	44.519	18.000
45.545	0.265	1.000	7.000	44.514	18.000
(HP) 45.974	0.188	1.000	7.000	44.515	18.000
(SZB) 46.731	0.202	1.000	7.000	44.273	18.000
53.280	0.346	1.000	7.000	42.209	18.000
(SZB) 57.731	0.455	1.000	7.000	40.835	18.000
61.014	0.543	1.000	7.000	39.837	18.000
(SZB) 65.981	0.675	1.000	7.000	39.042	18.000
68.749	0.723	1.000	7.000	40.136	18.000
(1.5H) 70.900	0.749	1.000	7.000	41.582	18.000
(SZB) 71.481	0.763	1.000	7.000	41.581	18.000
(CS) 72.560	0.758	1.000	7.000	43.289	18.000
(H) 72.650	0.758	1.000	7.000	43.292	18.000
(Bar Develop.) 73.718	0.757	1.000	7.000	43.322	18.000
(Bar Develop.) 74.779	0.780	1.000	7.000	43.475	18.000
(SZB) 75.147	0.789	1.000	7.000	43.550	18.000
(FoS) 76.150	0.813	1.000	7.000	43.815	18.000
($1.0L_e$) 76.484	0.794	1.000	7.000	45.387	18.000

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
76.484	0.794	1.000	7.000	45.387	N/A

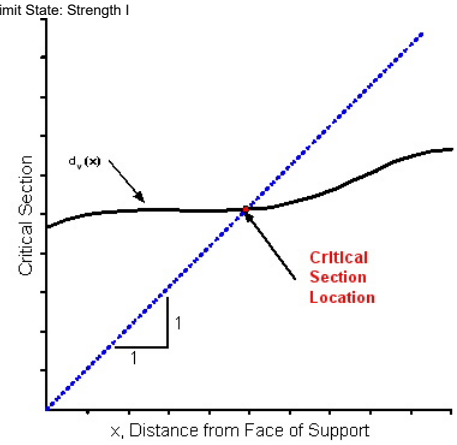
Strength II - Details for Maximum Transverse Reinforcement Spacing Check - 5.7.2.6

$v_u < 0.125f'_c$	S_{max}= min(0.8d_v, 18.000in)
$v_u \geq 0.125f'_c$	S_{max}= min(0.4d_v, 12.000in)

Location from Left Support (ft)	v_u (KSI)	$0.125f'_c$ (KSI)	b_v (in)	d_v (in)	S_{max} (in)
0.000	0.910	1.000	7.000	45.900	18.000
(FoS) 0.333	0.901	1.000	7.000	45.861	18.000
(SZB) 1.337	0.876	1.000	7.000	45.747	18.000
(Bar Develop.) 1.705	0.867	1.000	7.000	45.706	18.000
(Bar Develop.) 2.765	0.845	1.000	7.000	45.591	18.000
(H) 3.833	0.847	1.000	7.000	45.478	18.000
(CS) 4.121	0.848	1.000	7.000	45.448	18.000
(SZB) 5.003	0.833	1.000	7.000	45.359	18.000
(1.5H) 5.583	0.823	1.000	7.000	45.302	18.000
6.872	0.801	1.000	7.000	45.178	18.000
(SZB) 10.503	0.846	1.000	7.000	39.041	18.000
14.606	0.744	1.000	7.000	39.633	18.000
(SZB) 18.753	0.633	1.000	7.000	40.917	18.000
(Deck Bar Cutoff) 20.870	0.579	1.000	7.000	41.560	18.000
22.341	0.542	1.000	7.000	42.010	18.000
(SZB) 29.753	0.369	1.000	7.000	44.313	18.000
30.076	0.362	1.000	7.000	44.414	18.000
(HP) 30.510	0.353	1.000	7.000	44.551	18.000
37.810	0.296	1.000	7.000	44.519	18.000
45.545	0.265	1.000	7.000	44.514	18.000
(HP) 45.974	0.188	1.000	7.000	44.515	18.000
(SZB) 46.731	0.202	1.000	7.000	44.273	18.000
53.280	0.346	1.000	7.000	42.209	18.000
(SZB) 57.731	0.455	1.000	7.000	40.835	18.000
61.014	0.543	1.000	7.000	39.837	18.000
(SZB) 65.981	0.675	1.000	7.000	39.042	18.000
68.749	0.723	1.000	7.000	40.136	18.000
(1.5H) 70.900	0.749	1.000	7.000	41.582	18.000
(SZB) 71.481	0.763	1.000	7.000	41.581	18.000
(CS) 72.560	0.758	1.000	7.000	43.289	18.000
(H) 72.650	0.758	1.000	7.000	43.292	18.000
(Bar Develop.) 73.718	0.757	1.000	7.000	43.322	18.000
(Bar Develop.) 74.779	0.780	1.000	7.000	43.475	18.000
(SZB) 75.147	0.789	1.000	7.000	43.550	18.000
(FoS) 76.150	0.813	1.000	7.000	43.815	18.000
(1.0L_e) 76.484	0.794	1.000	7.000	45.387	18.000
76.484	0.794	1.000	7.000	45.387	N/A

Critical Section for Shear Details

Limit State: Strength I



LRFD 5.8.3.2
Critical Section = d_v measured at d_v from the face of support

Critical Section Calculation for Ahead side of Pier 2

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
(FoS) 0.333	0.000	45.861	No
1.333	12.000	45.748	No
(SZB) 1.337	12.039	45.747	No
(Bar Develop.) 1.705	16.456	45.706	No
(PSXFR) 2.583	27.000	45.610	No
2.625	27.500	45.606	No
(Bar Develop.) 2.765	29.184	45.591	No
(H) 3.833	42.000	45.478	No

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
4.121	45.449	45.449	*Yes
4.583	51.000	45.401	No
(SZB) 5.003	56.031	45.359	No
(1.5H) 5.583	63.000	45.302	No
6.872	78.458	45.178	No
7.315	83.780	45.137	No
($0.1L_e$) 7.648	87.780	45.106	No
8.715	100.580	45.010	No

* - Intersection values are linearly interpolated
Critical Section is at 3.787 ft (45.449 in) from the face of support on the Ahead side of Pier 2

Critical Section Calculation for Back side of Pier 3

Location from Left Support (ft)	Distance from Face of Support (in)	d_v (in)	CS Intersects?
67.769	100.580	40.193	No
68.749	88.816	40.136	No
($0.9L_e$) 68.835	87.780	40.131	No
69.169	83.780	40.114	No
(1.5H) 70.900	63.000	41.582	No
(SZB) 71.481	56.031	41.581	No
71.900	51.000	41.582	No
72.560	43.086	43.086	*Yes
(H) 72.650	42.000	43.292	No
(Bar Develop.) 73.718	29.184	43.322	No
73.859	27.500	43.326	No
(PSXFR) 73.900	27.000	43.327	No
(Bar Develop.) 74.779	16.456	43.475	No
(SZB) 75.147	12.039	43.550	No
75.150	12.000	43.551	No
(FoS) 76.150	0.000	43.815	No

* - Intersection values are linearly interpolated
Critical Section is at 3.590 ft (43.086 in) from the face of support on the Back side of Pier 3

Longitudinal Reinforcement for Shear

$$A_s f_y + A_{ps} f_{ps} \geq \left[\frac{M_u}{d_v \varphi_f} + 0.5 \frac{N_u}{\varphi_a} + \left(\left| \frac{V_u}{\varphi_v} - V_p \right| - 0.5 V_s \right) \cot\theta \right] \quad 5.7.3.5\text{-}1$$

$$A_s f_y + A_{ps} f_{ps} \geq \left(\frac{V_u}{\varphi_v} - V_p - 0.5 V_s \right) \cot\theta \quad 5.7.3.5\text{-}2$$

Strength I

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 1.196	33.680	57.881	2.170	0.000	2673.35	45.861	0.9
(SZB) 2.200	33.680	59.049	2.170	0.000	2434.37	45.747	0.9
(Bar Develop.) 2.568	33.680	59.477	2.170	0.000	2348.03	45.706	0.9
(Bar Develop.) 3.628	33.680	60.000	2.170	0.000	2103.22	45.591	0.9
(H) 4.696	33.680	60.000	2.170	0.000	1874.72	45.478	0.9
(CS) 4.984	33.680	60.000	2.170	0.000	1820.13	45.448	0.9
(SZB) 5.866	33.680	60.000	2.170	0.000	1655.05	45.359	0.9
(1.5H) 6.446	33.680	60.000	1.736	0.000	1548.37	45.302	0.9
($0.1L_s$) 7.735	33.680	60.000	1.736	0.000	1306.18	45.178	0.9
(SZB) 11.366	0.400	60.000	5.208	252.229	1110.66	39.041	1
($0.2L_s$) 15.469	0.400	60.000	6.076	267.973	1746.36	39.633	1
(SZB) 19.616	0.400	60.000	6.076	268.671	2365.72	40.917	1
(Deck Bar Cutoff) 21.733	0.400	60.000	6.076	268.971	2657.40	41.560	1
($0.3L_s$) 23.204	0.400	60.000	6.076	269.179	2842.59	42.010	1
(SZB) 30.616	0.400	60.000	6.076	269.873	3591.52	44.313	1
($0.4L_s$) 30.939	0.400	60.000	6.076	269.891	3616.01	44.414	1
(HP) 31.373	0.400	60.000	6.076	269.917	3647.90	44.551	1
($0.5L_s$) 38.673	0.400	60.000	6.076	269.885	3998.25	44.519	1
($0.6L_s$) 46.408	0.400	60.000	6.076	269.879	4021.17	44.514	1
(HP) 46.837	0.400	60.000	6.076	269.879	4012.37	44.515	1
(SZB) 47.594	0.400	60.000	6.076	269.832	3993.50	44.273	1
($0.7L_s$) 54.143	0.400	60.000	6.076	269.135	3653.97	42.209	1
(SZB) 58.594	0.400	60.000	6.076	268.476	3273.54	40.835	1
($0.8L_s$) 61.878	0.400	60.000	6.076	267.985	2898.34	39.837	1
(SZB) 66.844	0.400	60.000	5.208	252.205	2173.67	39.042	1
($0.9L_s$) 69.612	0.400	60.000	4.774	231.097	1686.33	40.136	1
(1.5H) 71.764	0.400	60.000	4.340	214.694	1265.48	41.582	1
(SZB) 72.344	0.400	60.000	3.906	210.273	1145.53	41.581	1
(CS) 73.423	0.400	60.000	3.906	202.051	915.54	43.289	1
(H) 73.514	0.400	60.000	3.906	201.362	895.84	43.292	1
(Bar Develop.) 74.582	0.400	60.000	3.906	193.237	658.18	43.322	1
(Bar Develop.) 75.642	0.400	60.000	3.906	158.751	413.05	43.475	1
(SZB) 76.010	0.400	49.590	3.906	144.663	325.87	43.550	1
(FoS) 77.014	0.400	21.213	3.906	106.122	82.63	43.815	1

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 1.196	0.00	0.75	266.27	0.9	295.85	26.15	30.26
(SZB) 2.200	0.00	0.75	266.27	0.9	295.85	26.15	30.26
(Bar Develop.) 2.568	0.00	0.75	266.27	0.9	295.85	26.15	30.26
(Bar Develop.) 3.628	0.00	0.75	266.27	0.9	295.85	26.15	30.26
(H) 4.696	0.00	0.75	266.27	0.9	295.85	26.15	30.26
(CS) 4.984	0.00	0.75	266.27	0.9	295.85	26.15	30.26
(SZB) 5.866	0.00	0.75	261.52	0.9	290.58	26.17	30.07
(1.5H) 6.446	0.00	0.75	258.39	0.9	287.10	26.18	30.21
($0.1L_s$) 7.735	0.00	0.75	251.44	0.9	279.37	26.21	29.94
(SZB) 11.366	0.00	0.75	231.77	0.9	193.66	26.28	28.26
($0.2L_s$) 15.469	0.00	0.75	209.45	0.9	196.77	26.35	28.24
(SZB) 19.616	0.00	0.75	186.88	0.9	150.79	26.41	28.49
(Deck Bar Cutoff) 21.733	0.00	0.75	175.32	0.9	152.48	26.43	28.60
($0.3L_s$) 23.204	0.00	0.75	167.31	0.9	153.72	26.44	28.66
(SZB) 30.616	0.00	0.75	126.87	0.9	107.17	26.41	28.87
($0.4L_s$) 30.939	0.00	0.75	125.11	0.9	107.39	26.40	28.87
(HP) 31.373	0.00	0.75	122.75	0.9	107.70	26.39	28.88
($0.5L_s$) 38.673	0.00	0.75	83.03	0.9	92.25	0.00	29.23
($0.6L_s$) 46.408	0.00	0.75	74.27	0.9	82.52	0.00	29.19
(HP) 46.837	0.00	0.75	76.45	0.9	84.95	26.47	28.97
(SZB) 47.594	0.00	0.75	80.32	0.9	89.25	26.49	28.98
($0.7L_s$) 54.143	0.00	0.75	115.90	0.9	128.77	26.59	28.96
(SZB) 58.594	0.00	0.75	141.11	0.9	148.10	26.59	28.88
($0.8L_s$) 61.878	0.00	0.75	160.18	0.9	177.97	26.57	28.75
(SZB) 66.844	0.00	0.75	189.79	0.9	189.70	26.51	28.76
($0.9L_s$) 69.612	0.00	0.75	206.71	0.9	229.68	26.47	28.69
(1.5H) 71.764	0.00	0.75	220.05	0.9	244.50	26.44	28.63
(SZB) 72.344	0.00	0.75	223.68	0.9	248.53	26.43	28.71
(CS) 73.423	0.00	0.75	230.45	0.9	256.05	26.41	28.60
(H) 73.514	0.00	0.75	230.45	0.9	256.05	26.41	28.60
(Bar Develop.) 74.582	0.00	0.75	230.45	0.9	256.05	26.41	28.60
(Bar Develop.) 75.642	0.00	0.75	230.45	0.9	256.05	26.41	28.60
(SZB) 76.010	0.00	0.75	230.45	0.9	256.05	26.41	28.60
(FoS) 77.014	0.00	0.75	230.45	0.9	256.05	26.41	28.60

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 1.196	985.98	1949.42	5.7.3.5-1
(SZB) 2.200	918.27	1988.77	5.7.3.5-1
(Bar Develop.) 2.568	893.72	2003.20	5.7.3.5-1
(Bar Develop.) 3.628	823.86	2020.80	5.7.3.5-1
(H) 4.696	758.39	2020.80	5.7.3.5-1
(CS) 4.984	742.73	2020.80	5.7.3.5-1
(SZB) 5.866	692.22	2020.80	5.7.3.5-1
(1.5H) 6.446	657.29	2020.80	5.7.3.5-1
($0.1L_s$) 7.735	582.51	2020.80	5.7.3.5-1
(SZB) 11.366	591.41	1337.61	5.7.3.5-1
($0.2L_s$) 15.469	729.81	1652.20	5.7.3.5-1
(SZB) 19.616	888.83	1656.44	5.7.3.5-1
(Deck Bar Cutoff) 21.733	936.30	1658.27	5.7.3.5-1
($0.3L_s$) 23.204	963.10	1659.53	5.7.3.5-1
(SZB) 30.616	1083.19	1663.75	5.7.3.5-1
($0.4L_s$) 30.939	1083.83	1663.86	5.7.3.5-1
(HP) 31.373	1084.36	1664.01	5.7.3.5-1
($0.5L_s$) 38.673	1160.14	1663.82	5.7.3.5-1
($0.6L_s$) 46.408	1157.88	1663.78	5.7.3.5-1
(HP) 46.837	1110.53	1663.79	5.7.3.5-1
(SZB) 47.594	1115.17	1663.50	5.7.3.5-1
($0.7L_s$) 54.143	1107.12	1659.26	5.7.3.5-1
(SZB) 58.594	1063.80	1655.26	5.7.3.5-1
($0.8L_s$) 61.878	986.81	1652.28	5.7.3.5-1
(SZB) 66.844	831.21	1337.48	5.7.3.5-1
($0.9L_s$) 69.612	665.67	1127.26	5.7.3.5-1
(1.5H) 71.764	540.70	955.77	5.7.3.5-1
(SZB) 72.344	509.20	845.33	5.7.3.5-1
(CS) 73.423	440.17	813.21	5.7.3.5-1
(H) 73.514	186.38	810.52	5.7.3.5-2
(Bar Develop.) 74.582	186.38	778.78	5.7.3.5-2
(Bar Develop.) 75.642	186.38	644.08	5.7.3.5-2
(SZB) 76.010	186.38	584.89	5.7.3.5-2
(FoS) 77.014	186.38	423.00	5.7.3.5-2

Strength II

Longitudinal Reinforcement Shear Check Details - Table 1 of 3

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(FoS) 1.196	33.680	57.881	2.170	0.000	2199.75	45.861	0.9

Location from Left Support (ft)	A_s (in^2)	f_y^* (KSI)	A_{ps} (in^2)	f_{ps}^* (KSI)	M_u (kip-ft)	d_v (in)	Flexure ϕ_f
(SZB) 2.200	33.680	59.049	2.170	0.000	1994.84	45.747	0.9
(Bar Develop.) 2.568	33.680	59.477	2.170	0.000	1920.62	45.706	0.9
(Bar Develop.) 3.628	33.680	60.000	2.170	0.000	1709.30	45.591	0.9
(H) 4.696	33.680	60.000	2.170	0.000	1512.48	45.478	0.9
(SZB) 5.866	33.680	60.000	2.170	0.000	1319.97	45.359	0.9
(1.5H) 6.446	33.680	60.000	1.736	0.000	1225.72	45.302	0.9
($0.1L_s$) 7.735	33.680	60.000	1.736	0.000	1019.81	45.178	0.9
(SZB) 11.366	0.400	60.000	5.208	252.229	897.20	39.041	1
($0.2L_s$) 15.469	0.400	60.000	6.076	267.973	1595.38	39.633	1
(SZB) 19.616	0.400	60.000	6.076	268.671	2189.95	40.917	1
(Deck Bar Cutoff) 21.733	0.400	60.000	6.076	268.971	2467.10	41.560	1
($0.3L_s$) 23.204	0.400	60.000	6.076	269.179	2645.96	42.010	1
(SZB) 30.616	0.400	60.000	6.076	269.873	3361.56	44.313	1
($0.4L_s$) 30.939	0.400	60.000	6.076	269.891	3385.05	44.414	1
(HP) 31.373	0.400	60.000	6.076	269.917	3415.68	44.551	1
($0.5L_s$) 38.673	0.400	60.000	6.076	269.885	3778.65	44.519	1
($0.6L_s$) 46.408	0.400	60.000	6.076	269.879	3768.72	44.514	1
(HP) 46.837	0.400	60.000	6.076	269.879	3755.48	44.515	1
(SZB) 47.594	0.400	60.000	6.076	269.832	3728.64	44.273	1
($0.7L_s$) 54.143	0.400	60.000	6.076	269.135	3428.04	42.209	1
(SZB) 58.594	0.400	60.000	6.076	268.476	3074.34	40.835	1
($0.8L_s$) 61.878	0.400	60.000	6.076	267.985	2716.26	39.837	1
(SZB) 66.844	0.400	60.000	5.208	252.205	2040.96	39.042	1
($0.9L_s$) 69.612	0.400	60.000	4.774	231.097	1590.78	40.136	1
(1.5H) 71.764	0.400	60.000	4.340	214.694	1197.82	41.582	1
(SZB) 72.344	0.400	60.000	3.906	210.273	1085.23	41.581	1
(H) 73.514	0.400	60.000	3.906	201.362	850.21	43.292	1
(Bar Develop.) 74.582	0.400	60.000	3.906	193.237	625.68	43.322	1
(Bar Develop.) 75.642	0.400	60.000	3.906	158.751	393.28	43.475	1
(SZB) 76.010	0.400	49.590	3.906	144.663	310.44	43.550	1
(FoS) 77.014	0.400	21.213	3.906	106.122	78.82	43.815	1

* Adjusted for development length

Longitudinal Reinforcement Shear Check Details - Table 2 of 3

Location from Left Support (ft)	N_u (kip)	Axial ϕ_a	V_u (kip)	Shear ϕ_v	V_s^* (kip)	V_p (kip)	θ (deg)
(FoS) 1.196	0.00	0.75	258.69	0.9	287.44	26.15	29.91
(SZB) 2.200	0.00	0.75	258.69	0.9	287.44	26.15	29.91
(Bar Develop.) 2.568	0.00	0.75	258.69	0.9	287.44	26.15	29.91
(Bar Develop.) 3.628	0.00	0.75	258.69	0.9	287.44	26.15	29.91
(H) 4.696	0.00	0.75	258.69	0.9	287.44	26.15	29.91
(SZB) 5.866	0.00	0.75	254.27	0.9	282.52	26.17	29.75
(1.5H) 6.446	0.00	0.75	251.34	0.9	279.27	26.18	29.89
($0.1L_s$) 7.735	0.00	0.75	244.81	0.9	272.01	26.21	29.66
(SZB) 11.366	0.00	0.75	226.15	0.9	194.68	26.28	28.14
($0.2L_s$) 15.469	0.00	0.75	204.50	0.9	197.49	26.35	28.15
(SZB) 19.616	0.00	0.75	182.10	0.9	151.41	26.41	28.39
(Deck Bar Cutoff) 21.733	0.00	0.75	170.41	0.9	153.14	26.43	28.49
($0.3L_s$) 23.204	0.00	0.75	162.22	0.9	154.40	26.44	28.55
(SZB) 30.616	0.00	0.75	119.83	0.9	107.70	26.41	28.75
($0.4L_s$) 30.939	0.00	0.75	117.95	0.9	107.93	26.40	28.75
(HP) 31.373	0.00	0.75	115.40	0.9	108.24	26.39	28.76
($0.5L_s$) 38.673	0.00	0.75	71.71	0.9	79.68	0.00	28.90
($0.6L_s$) 46.408	0.00	0.75	69.20	0.9	76.89	0.00	28.89
(HP) 46.837	0.00	0.75	71.34	0.9	79.27	26.47	28.84
(SZB) 47.594	0.00	0.75	75.14	0.9	83.49	26.49	28.85
($0.7L_s$) 54.143	0.00	0.75	109.98	0.9	122.20	26.59	28.84
(SZB) 58.594	0.00	0.75	134.51	0.9	148.79	26.59	28.76
($0.8L_s$) 61.878	0.00	0.75	152.99	0.9	169.99	26.57	28.65
(SZB) 66.844	0.00	0.75	181.46	0.9	190.38	26.51	28.67
($0.9L_s$) 69.612	0.00	0.75	197.65	0.9	219.62	26.47	28.62
(1.5H) 71.764	0.00	0.75	210.35	0.9	233.72	26.44	28.58
(SZB) 72.344	0.00	0.75	213.79	0.9	237.54	26.43	28.66
(H) 73.514	0.00	0.75	220.22	0.9	244.68	26.41	28.56
(Bar Develop.) 74.582	0.00	0.75	220.22	0.9	244.68	26.41	28.56
(Bar Develop.) 75.642	0.00	0.75	220.22	0.9	244.68	26.41	28.56
(SZB) 76.010	0.00	0.75	220.22	0.9	244.68	26.41	28.56
(FoS) 77.014	0.00	0.75	220.22	0.9	244.68	26.41	28.56

* V_s shall not be taken greater than V_u/ϕ_v

Longitudinal Reinforcement Shear Check Details - Table 3 of 3

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(FoS) 1.196	843.89	1949.42	5.7.3.5-1
(SZB) 2.200	785.77	1988.77	5.7.3.5-1
(Bar Develop.) 2.568	764.64	2003.20	5.7.3.5-1
(Bar Develop.) 3.628	704.26	2020.80	5.7.3.5-1
(H) 4.696	647.79	2020.80	5.7.3.5-1

Location from Left Support (ft)	Demand (kip)	Capacity (kip)	Equation
(SZB) 5.866	589.40	2020.80	5.7.3.5-1
(1.5H) 6.446	558.11	2020.80	5.7.3.5-1
($0.1L_s$) 7.735	493.80	2020.80	5.7.3.5-1
(SZB) 11.366	514.49	1337.61	5.7.3.5-1
($0.2L_s$) 15.469	673.88	1652.20	5.7.3.5-1
(SZB) 19.616	827.67	1656.44	5.7.3.5-1
(Deck Bar Cutoff) 21.733	871.42	1658.27	5.7.3.5-1
($0.3L_s$) 23.204	896.59	1659.53	5.7.3.5-1
(SZB) 30.616	1006.74	1663.75	5.7.3.5-1
($0.4L_s$) 30.939	1006.96	1663.86	5.7.3.5-1
(HP) 31.373	1006.96	1664.01	5.7.3.5-1
($0.5L_s$) 38.673	1090.71	1663.82	5.7.3.5-1
($0.6L_s$) 46.408	1085.63	1663.78	5.7.3.5-1
(HP) 46.837	1036.28	1663.79	5.7.3.5-1
(SZB) 47.594	1038.33	1663.50	5.7.3.5-1
($0.7L_s$) 54.143	1037.27	1659.26	5.7.3.5-1
(SZB) 58.594	991.73	1655.26	5.7.3.5-1
($0.8L_s$) 61.878	925.17	1652.28	5.7.3.5-1
(SZB) 66.844	773.46	1337.48	5.7.3.5-1
($0.9L_s$) 69.612	628.33	1127.26	5.7.3.5-1
(1.5H) 71.764	511.66	955.77	5.7.3.5-1
(SZB) 72.344	482.11	845.33	5.7.3.5-1
(H) 73.514	176.26	810.52	5.7.3.5-2
(Bar Develop.) 74.582	176.26	778.78	5.7.3.5-2
(Bar Develop.) 75.642	176.26	644.08	5.7.3.5-2
(SZB) 76.010	176.26	584.89	5.7.3.5-2
(FoS) 77.014	176.26	423.00	5.7.3.5-2

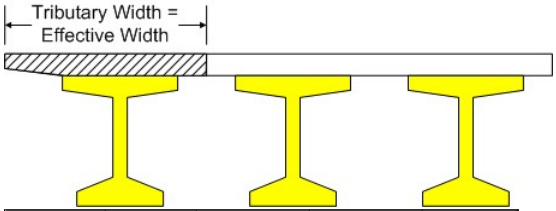
Splitting Resistance Details

Check for Splitting resistance (LRFD 5.9.4.4.1) is disabled in Project Criteria library.

Effective Flange Width Details

LRFD 4.6.2.6.1

Effective flange width is measured at top CL girder and is taken as one-half the distance to the adjacent girder plus the full overhang width



Location from Left Support (ft)	Left Spacing (in)	Right Overhang (in)	Effective Right Overhang (in)	Effective Flange Width (in)
($0.0L_s$) 0.000	93.992	57.708	46.996	93.992
0.863	93.992	57.091	46.996	93.992
($0.1L_s$) 7.735	93.992	52.622	46.996	93.992
($0.2L_s$) 15.469	93.992	48.521	46.996	93.992
($0.3L_s$) 23.204	93.992	45.406	45.406	92.402
($0.4L_s$) 30.939	93.992	43.277	43.277	90.273
($0.5L_s$) 38.673	93.992	42.137	42.137	89.133
($0.6L_s$) 46.408	93.992	41.984	41.984	88.980
($0.7L_s$) 54.143	93.992	42.820	42.820	89.816
($0.8L_s$) 61.878	93.992	44.644	44.644	91.640
($0.9L_s$) 69.612	93.992	47.454	46.996	93.992
($1.0L_s$) 77.347	93.992	51.251	46.996	93.992
77.347	93.992	51.251	46.996	93.992

Live Load Distribution Factor Details

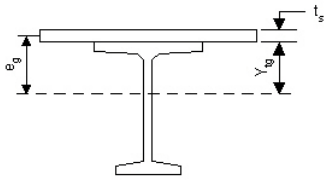
Moment and Shear

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
($0.0L_s$) 0.000	0.742	0.742	0.742	0.618	0.618	0.618
0.863	0.742	0.742	0.742	0.618	0.618	0.618
($0.1L_s$) 7.735	0.742	0.742	0.742	0.618	0.618	0.618
($0.2L_s$) 15.469	0.742	0.742	0.742	0.618	0.618	0.618
($0.3L_s$) 23.204	0.742	0.742	0.742	0.618	0.618	0.618
($0.4L_s$) 30.939	0.742	0.742	0.742	0.618	0.618	0.618
($0.5L_s$) 38.673	0.742	0.742	0.742	0.618	0.618	0.618
($0.6L_s$) 46.408	0.742	0.742	0.749	0.618	0.618	0.624
($0.7L_s$) 54.143	0.742	0.742	0.756	0.618	0.618	0.630
($0.8L_s$) 61.878	0.742	0.742	0.763	0.618	0.618	0.636
($0.9L_s$) 69.612	0.742	0.742	0.769	0.618	0.618	0.641
($1.0L_s$) 77.347	0.742	0.742	0.776	0.618	0.618	0.647

Location from Left Support (ft)	Strength/Service			Fatigue/Special Permit Rating		
	+M	-M	V	+M	-M	V
77.347	0.742	0.742	0.776	0.618	0.618	0.647

Method of Computation:
Type (k) cross section. With AASHTO LRFD Method per Article 4.6.2.2

Longitudinal Stiffness Parameters
Modular ratio: n = 1.209
Moment of Inertia: I_g = 153070.0 in^4
Area: A_g = 654.000 in^2
Top centroidal distance: Y_{tg} = 20.850 in
Slab Thickness: t_s = 8.000 in



Distance between CG of slab and girder: $e_g = Y_{tg} + \frac{t_s}{2} + fillet$ e_g = 25.850 in

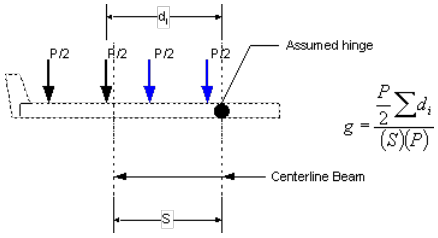
Stiffness Parameter: $K_g = n(I_g + A_g e_g^2)$ K_g = 713476.7 in^4

Distribution Factor Parameters
Deck Width, Girder Spacing and Deck Overhang are measured along a line that is normal to the alignment and passing through a point 38.257 ft from the left support along the centerline of girder. The measurement line passes through Station 94+90.86 (43.489 R)
Bridge Width: W = 94.000 ft
Roadway Width: w = 91.000 ft
Number of Design Lanes: N_L = 7
Lane Width: wLane = 12.000 ft
Number of Girders: N_b = 12
Girder Spacing: S_{avg} = 7.831 ft
Deck Overhang = 3.510 ft
Distance from exterior web of exterior girder to curb line: d_e = 2.011 ft
Skew Angle at start: θ = 17.50 deg
Skew Angle at end: θ = 11.64 deg

Strength and Service Limit States

Distribution Factor for Negative Moment over Pier 2
Average Skew Angle: θ = 17.50 deg
Span Length: L = 77.435 ft

1 Loaded Lane: Lever Rule



$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$

Multiple Presence Factor: m = 1.2
mg^{ME}_1 = (1.2)[(7.844 ft)(P/2) + (1.844 ft)(P/2)]/[(7.833 ft)(P)] = 0.742

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.661
e = 0.991
mg^{ME}_{2+} = 0.656 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

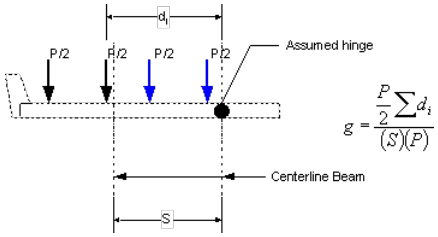
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_1 = 0.742 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.656

Distribution Factor for Positive and Negative Moment in Span 2
Average Skew Angle: θ = 14.57 deg
Span Length: L = 77.347 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{ME}_{1} = (1.2)[(7.844 ft)(P/2) + (1.844 ft)(P/2)]/[(7.833 ft)(P)] = 0.742

2+ Loaded Lanes: Spec Equations

$$mg^{ME}_{2+} = e(mg^{MI}_{2+})$$

$$e = 0.77 + \frac{d_e}{9.1}$$

$$mg^{MI}_{2+} = 0.075 + \left(\frac{S}{9.5}\right)^{0.6}\left(\frac{S}{L}\right)^{0.2}\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.1}$$

mg^{MI}_{2+} = 0.662
e = 0.991
mg^{ME}_{2+} = 0.656 for equation

Skew Correction

$$1 - c_1(\cot\theta)^{1.5}$$

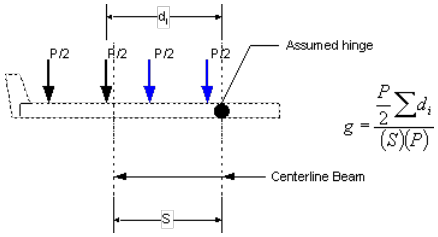
$$c_1 = \begin{cases} 0.0 \; if \; \theta < 30° \\ 0.25\left(\frac{K_g}{12.0Lt_s^3}\right)^{0.25}\left(\frac{S}{L}\right)^{0.5} \end{cases}$$

Skew Correction Factor: = 1.000

Skew Corrected Factor: mg^{ME}_{1} = 0.742 **< Controls**
Skew Corrected Factor: mg^{ME}_{2+} = 0.656

Distribution Factor for Shear in Span 2
Average Skew Angle: θ = 14.57 deg
Span Length: L = 77.347 ft

1 Loaded Lane: Lever Rule



$$g = \frac{\frac{P}{2}\sum d_i}{(S)(P)}$$

Multiple Presence Factor: m = 1.2
mg^{VE}_{1} = (1.2)[(7.844 ft)(P/2) + (1.844 ft)(P/2)]/[(7.833 ft)(P)] = 0.742

2+ Loaded Lanes: Spec Equation

$$mg^{VE}_{2+} = e(mg^{VI}_{2+})$$

$$e = 0.6 + \frac{d_e}{10.0}$$

$$mg^{VI}_{2+} = 0.2 + \left(\frac{S}{12}\right) - \left(\frac{S}{35}\right)^{2.0}$$

mg^{VI}_{2+} = 0.803
e = 0.801
mg^{VE}_{2+} = 0.643

Skew Correction

$$1.0 + 0.20\left(\frac{12.0Lt_s^3}{K_g}\right)^{0.3}\tan\theta$$

Skew Correction Factor: = 1.046

Skew Corrected Factor: mg^{VE}_{1} = 0.776 **< Controls**
Skew Corrected Factor: mg^{VE}_{2+} = 0.673

Fatigue Limit States
Distribution Factor for Positive and Negative Moment in Span 2
$gME_{Fatigue}$ = $mgME_1$/m = 0.742/ 1.200 = 0.618
Distribution Factor for Shear in Span 2
$gVE_{Fatigue}$ = $mgVE_1$/m = 0.776/ 1.200 = 0.647

Creep Coefficient Details

$$\psi(t,t_i) = 1.9K_1K_2k_sk_{hc}k_fk_{td}t_i^{-0.118}$$

for which:

$$k_s = 1.45 - 0.13(V/S) \geq 1.0$$

$$k_{hc} = 1.56 - 0.008H$$

$$k_f = \frac{5}{1 + f'_{ci}}$$

$$k_{td} = \frac{t}{12\left(\frac{100 - 4f'_{ci}}{f'_{ci} + 20}\right) + t}$$

where:
H = 55%, V/S = 3.326 in, K_1 = 1, K_2 = 1
Curing Method = Normal

Minimum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01764, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01764, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805297

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01764, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970073

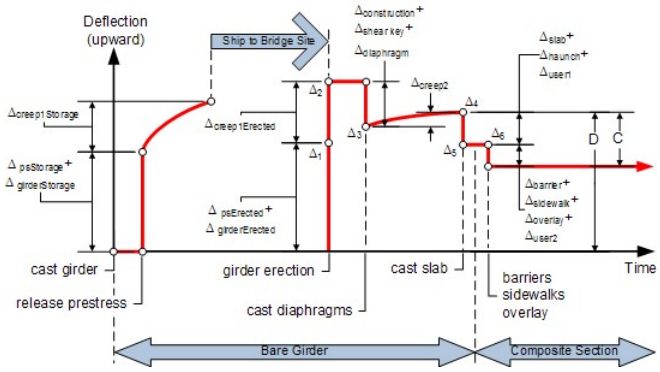
Maximum Timing

Prestress release until girder erection
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 0 day, k_s = 1.01764, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0
ψ(0, 1) = 0

Girder erection until deck casting
f'_{ci} = 8.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01764, k_{hc} = 1.12, k_f = 0.555556, k_{td} = 0.669368
ψ(59, 1) = 0.805297

Prestress release until deck casting
f'_{ci} = 6.000 KSI, t_i = 1 day, t = 59 day, k_s = 1.01764, k_{hc} = 1.12, k_f = 0.714286, k_{td} = 0.627146
ψ(59, 1) = 0.970073

Camber Details



Minimum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, 0.0L_r) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
(0.1L_r) 7.732	-0.268	0.840	0.572
(0.2L_r) 15.463	-0.507	1.549	1.042
(0.3L_r) 23.195	-0.694	2.093	1.400
(HP, 0.4L_r) 30.927	-0.813	2.438	1.626
(0.5L_r) 38.659	-0.853	2.555	1.702
(HP, 0.6L_r) 46.390	-0.813	2.438	1.626
(0.7L_r) 54.122	-0.694	2.093	1.400
(0.8L_r) 61.854	-0.507	1.549	1.042
(0.9L_r) 69.585	-0.268	0.840	0.572
76.900	-0.015	0.048	0.033
(STLF, 1.0L_r) 77.317	0.000	0.000	0.000

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
(0.0L_{st}) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
(0.1L_{st}) 7.648	-0.256	0.825	0.000	0.569
(0.2L_{st}) 15.297	-0.485	1.522	0.000	1.036
(0.3L_{st}) 22.945	-0.664	2.055	0.000	1.391
(0.4L_{st}) 30.593	-0.778	2.393	0.000	1.615
(0.5L_{st}) 38.242	-0.817	2.507	0.000	1.690
(0.6L_{st}) 45.890	-0.778	2.393	0.000	1.615
(0.7L_{st}) 53.539	-0.664	2.055	0.000	1.391
(0.8L_{st}) 61.187	-0.485	1.522	0.000	1.036
(0.9L_{st}) 68.835	-0.256	0.825	0.000	0.569
(1.0L_{st}) 76.484	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.900	0.014	-0.048	0.000	-0.034

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release $\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	$\Delta_{girder\ Erected}$ (in)	$\Delta_{ps\ Erected}$ (in)	δ_{girder} (in)	$\Delta_{creep1\ Erected}$ (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	$\Delta_{User1} = \Delta_{UserDC} + \Delta_{UserDW}$ (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	$\Delta_{User2} = \Delta_{UserDC} + \Delta_{UserDW}$ (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000
(0.0L_e) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(0.1L_e) 7.648	-0.256	0.825	0.000	0.000	0.000	0.552	-0.265	-0.040	-0.007	-0.006	-0.002	-0.005	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
($0.2L_e$) 15.297	-0.485	1.522	0.000	0.000	0.000	1.005	-0.501	-0.075	-0.013	-0.017	-0.007	-0.014	0.000
($0.3L_e$) 22.945	-0.664	2.055	0.000	0.000	0.000	1.349	-0.685	-0.103	-0.018	-0.030	-0.013	-0.025	0.000
($0.4L_e$) 30.593	-0.778	2.393	0.000	0.000	0.000	1.566	-0.801	-0.120	-0.021	-0.042	-0.018	-0.034	0.000
($0.5L_e$) 38.242	-0.817	2.507	0.000	0.000	0.000	1.640	-0.841	-0.126	-0.022	-0.049	-0.021	-0.040	0.000
($0.6L_e$) 45.890	-0.778	2.393	0.000	0.000	0.000	1.566	-0.800	-0.120	-0.021	-0.050	-0.021	-0.041	0.000
($0.7L_e$) 53.539	-0.664	2.055	0.000	0.000	0.000	1.349	-0.683	-0.103	-0.018	-0.046	-0.019	-0.037	0.000
($0.8L_e$) 61.187	-0.485	1.522	0.000	0.000	0.000	1.005	-0.499	-0.075	-0.013	-0.035	-0.015	-0.028	0.000
($0.9L_e$) 68.835	-0.256	0.825	0.000	0.000	0.000	0.552	-0.264	-0.040	-0.007	-0.019	-0.008	-0.015	0.000
($1.0L_e$) 76.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.900	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.049	-0.049	-0.017
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
($0.1L_e$) 7.648	0.569	0.569	0.569	1.121	0.809	0.796	0.325
($0.2L_e$) 15.297	1.036	1.036	1.036	2.042	1.453	1.414	0.628
($0.3L_e$) 22.945	1.391	1.391	1.391	2.740	1.934	1.866	0.874
($0.4L_e$) 30.593	1.615	1.615	1.615	3.181	2.239	2.145	1.036
($0.5L_e$) 38.242	1.690	1.690	1.690	3.330	2.341	2.232	1.098
($0.6L_e$) 45.890	1.615	1.615	1.615	3.181	2.240	2.127	1.054
($0.7L_e$) 53.539	1.391	1.391	1.391	2.740	1.936	1.835	0.905
($0.8L_e$) 61.187	1.036	1.036	1.036	2.042	1.455	1.377	0.664
($0.9L_e$) 68.835	0.569	0.569	0.569	1.121	0.811	0.769	0.352
($1.0L_e$) 76.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.900	-0.034	-0.034	-0.034	-0.067	-0.049	-0.047	-0.020

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Maximum Timing

Deflections at Release

Location from End of Girder (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_i (in)
(STRF, $0.0L_r$) 0.000	0.000	0.000	0.000
0.417	-0.015	0.048	0.033
($0.1L_r$) 7.732	-0.268	0.840	0.572
($0.2L_r$) 15.463	-0.507	1.549	1.042
($0.3L_r$) 23.195	-0.694	2.093	1.400
(HP, $0.4L_r$) 30.927	-0.813	2.438	1.626
($0.5L_r$) 38.659	-0.853	2.555	1.702
(HP, $0.6L_r$) 46.390	-0.813	2.438	1.626
($0.7L_r$) 54.122	-0.694	2.093	1.400
($0.8L_r$) 61.854	-0.507	1.549	1.042
($0.9L_r$) 69.585	-0.268	0.840	0.572
76.900	-0.015	0.048	0.033
(STLF, $1.0L_r$) 77.317	0.000	0.000	0.000

$\Delta_i = \Delta_{girder} + \Delta_{ps}$ = Camber immediately after prestress release

Deflections during Storage

Location from Left Support (ft)	Δ_{girder} (in)	Δ_{ps} (in)	Δ_{creep1} (in)	Δ_{es} (in)
(STRF) -0.417	0.014	-0.048	0.000	-0.034
($0.0L_{st}$) 0.000	**0.000**	**0.000**	**0.000**	**0.000**
($0.1L_{st}$) 7.648	-0.256	0.825	0.000	0.569
($0.2L_{st}$) 15.297	-0.485	1.522	0.000	1.036
($0.3L_{st}$) 22.945	-0.664	2.055	0.000	1.391
($0.4L_{st}$) 30.593	-0.778	2.393	0.000	1.615
($0.5L_{st}$) 38.242	-0.817	2.507	0.000	1.690
($0.6L_{st}$) 45.890	-0.778	2.393	0.000	1.615
($0.7L_{st}$) 53.539	-0.664	2.055	0.000	1.391
($0.8L_{st}$) 61.187	-0.485	1.522	0.000	1.036
($0.9L_{st}$) 68.835	-0.256	0.825	0.000	0.569
($1.0L_{st}$) 76.484	**0.000**	**0.000**	**0.000**	**0.000**
(STLF) 76.900	0.014	-0.048	0.000	-0.034

$\Delta_{creep1} = \psi(0, 1)(\Delta_{girder\ Storage} + \Delta_{ps\ Storage})$
$\Delta_{es} = \Delta_{girder} + \Delta_{ps} + \Delta_{creep1}$ = Camber at end of storage = Camber at shipping
Rows with **bold text** are at the support locations after erection
Storage Duration: Start 1 day, End 1 day, Duration 0 days

Deflections after Erection

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
(STRF) -0.417	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.000	0.000	0.000	0.000
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
($0.1L_e$) 7.648	-0.256	0.825	0.000	0.000	0.000	0.552	-0.265	-0.040	-0.007	-0.006	-0.002	-0.005	0.000
($0.2L_e$) 15.297	-0.485	1.522	0.000	0.000	0.000	1.005	-0.501	-0.075	-0.013	-0.017	-0.007	-0.014	0.000
($0.3L_e$) 22.945	-0.664	2.055	0.000	0.000	0.000	1.349	-0.685	-0.103	-0.018	-0.030	-0.013	-0.025	0.000
($0.4L_e$) 30.593	-0.778	2.393	0.000	0.000	0.000	1.566	-0.801	-0.120	-0.021	-0.042	-0.018	-0.034	0.000
($0.5L_e$) 38.242	-0.817	2.507	0.000	0.000	0.000	1.640	-0.841	-0.126	-0.022	-0.049	-0.021	-0.040	0.000

Location from Left Support (ft)	Δ_{girder} Erected (in)	Δ_{ps} Erected (in)	δ_{girder} (in)	Δ_{creep1} Erected (in)	$\Delta_{diaphragm}$ (in)	Δ_{creep2} (in)	Δ_{slab} (in)	Δ_{haunch} (in)	Δ_{User1} = Δ_{UserDC} + Δ_{UserDW} (in)	$\Delta_{sidewalk}$ (in)	$\Delta_{barrier}$ (in)	$\Delta_{overlay}$ (in)	Δ_{User2} = Δ_{UserDC} + Δ_{UserDW} (in)
($0.6L_e$) 45.890	-0.778	2.393	0.000	0.000	0.000	1.566	-0.800	-0.120	-0.021	-0.050	-0.021	-0.041	0.000
($0.7L_e$) 53.539	-0.664	2.055	0.000	0.000	0.000	1.349	-0.683	-0.103	-0.018	-0.046	-0.019	-0.037	0.000
($0.8L_e$) 61.187	-0.485	1.522	0.000	0.000	0.000	1.005	-0.499	-0.075	-0.013	-0.035	-0.015	-0.028	0.000
($0.9L_e$) 68.835	-0.256	0.825	0.000	0.000	0.000	0.552	-0.264	-0.040	-0.007	-0.019	-0.008	-0.015	0.000
($1.0L_e$) 76.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.900	0.014	-0.048	0.000	0.000	0.000	-0.033	0.015	0.002	0.000	0.001	0.000	0.000	0.000

$\Delta_{creep1} = \psi(0, 1)[(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)]
$\Delta_{creep2} = [\psi(59, 1) - \psi(0, 1)][(\Delta_{girder\ Storage} + \Delta_{ps\ Storage}) - (\Delta_{girder\ Storage} + \Delta_{ps\ Storage}$ at location of erected segment supports)] + $\psi(59, 1)(\delta_{girder} + \Delta_{diaphragm})$
δ_{girder} = girder deflection associated with change in dead load moment due to support location change between storage and erection

Deflection Summary

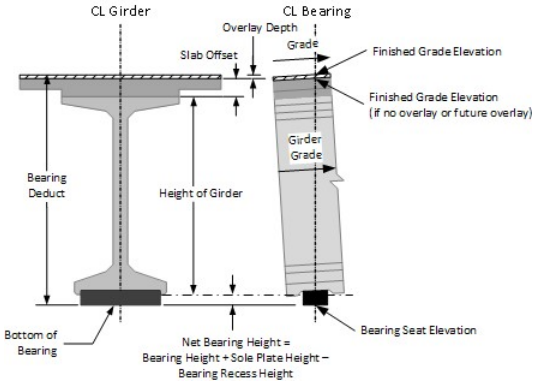
Location from Left Support (ft)	Δ_1 (in)	Δ_2 (in)	Δ_3 (in)	$D_{60} = \Delta_4$ (in)	Δ_5 (in)	$\Delta_{excess} = \Delta_6$ (in)	$C = \Delta_4 - \Delta_6$ (in)
(STRF) -0.417	-0.034	-0.034	-0.034	-0.067	-0.049	-0.049	-0.017
($0.0L_e$) 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
($0.1L_e$) 7.648	0.569	0.569	0.569	1.121	0.809	0.796	0.325
($0.2L_e$) 15.297	1.036	1.036	1.036	2.042	1.453	1.414	0.628
($0.3L_e$) 22.945	1.391	1.391	1.391	2.740	1.934	1.866	0.874
($0.4L_e$) 30.593	1.615	1.615	1.615	3.181	2.239	2.145	1.036
($0.5L_e$) 38.242	1.690	1.690	1.690	3.330	2.341	2.232	1.098
($0.6L_e$) 45.890	1.615	1.615	1.615	3.181	2.240	2.127	1.054
($0.7L_e$) 53.539	1.391	1.391	1.391	2.740	1.936	1.835	0.905
($0.8L_e$) 61.187	1.036	1.036	1.036	2.042	1.455	1.377	0.664
($0.9L_e$) 68.835	0.569	0.569	0.569	1.121	0.811	0.769	0.352
($1.0L_e$) 76.484	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(STLF) 76.900	-0.034	-0.034	-0.034	-0.067	-0.049	-0.047	-0.020

$\Delta_1 = 1 * (\Delta_{girder\ Erected} + \Delta_{ps\ Erected})$
$\Delta_2 = \Delta_1 + 1 * \Delta_{creep1}$
$\Delta_3 = \Delta_2 + 1 * (\Delta_{diaphragm})$
$\Delta_4 = \Delta_3 + 1 * \Delta_{creep2}$
$\Delta_5 = \Delta_4 + 1 * (\Delta_{slab} + \Delta_{user1}) + 1 * \Delta_{haunch}$
$\Delta_6 = \Delta_5 + 1 * (\Delta_{barrier} + \Delta_{sidewalk} + \Delta_{overlay} + \Delta_{user2}) = \Delta_{excess}$ = Computed Excess Camber

Haunch Details

Slab Offset check disabled in Project Criteria. No analysis performed.

Bearing Seat Elevation Details



NOTE: Vertical height dimensions listed in the tables below are adjusted for girder and roadway grade and orientation.
NOTE: Bearing Deduct is a nominal value rounded to 1/8"

Abutment 1 Ahead

Girder	Bearing # *	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+04.36	43.319 L	-0.866	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.533	0.000	-5.533	56.000
B	1	94+01.38	35.605 L	-0.712	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	93+98.35	27.903 L	-0.558	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	93+95.26	20.214 L	-0.404	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.071	0.000	-5.071	56.000
E	1	93+92.11	12.537 L	-0.251	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.917	0.000	-4.917	56.000
F	1	93+88.90	4.874 L	-0.097	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.764	0.000	-4.764	56.000
G	1	93+85.21	3.734 R	-0.075	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.741	0.000	-4.741	56.000
H	1	93+81.83	11.432 R	-0.229	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	93+78.38	19.114 R	-0.382	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	93+74.86	26.781 R	-0.536	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.202	0.000	-5.202	56.000
K	1	93+71.27	34.433 R	-0.689	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.355	0.000	-5.355	56.000
L	1	93+67.60	42.068 R	-0.841	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.508	0.000	-5.508	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Back

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+76.29	43.946 L	-0.879	0	0.02	-0.00016495	0	3.001	11.000	42.000	-5.546	0.000	-5.546	56.000
B	1	94+74.02	35.973 L	-0.719	0	0.02	-9.67937e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	94+71.71	28.007 L	-0.560	0	0.02	-2.72977e-05	0	3.001	11.000	42.000	-5.227	0.000	-5.227	56.000
D	1	94+69.34	20.048 L	-0.401	0	0.02	4.35759e-05	0	3.001	11.000	42.000	-5.068	0.000	-5.068	56.000
E	1	94+66.93	12.097 L	-0.242	0	0.02	0.000115866	0	3.001	11.000	42.000	-4.909	0.000	-4.909	56.000
F	1	94+64.47	4.154 L	-0.083	0	0.02	0.000189611	0	3.001	11.000	42.000	-4.750	0.000	-4.750	56.000
G	1	94+62.21	3.014 R	-0.060	0	-0.02	0.000187859	0	3.001	11.000	42.000	-4.727	0.000	-4.727	56.000
H	1	94+59.63	11.009 R	-0.220	0	-0.02	0.000110334	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	94+56.99	18.995 R	-0.380	0	-0.02	3.119e-05	0	3.001	11.000	42.000	-5.047	0.000	-5.047	56.000
J	1	94+54.30	26.971 R	-0.539	0	-0.02	-4.9621e-05	0	3.001	11.000	42.000	-5.206	0.000	-5.206	56.000
K	1	94+51.55	34.939 R	-0.699	0	-0.02	-0.000132148	0	3.001	11.000	42.000	-5.365	0.000	-5.365	56.000
L	1	94+48.74	42.897 R	-0.858	0	-0.02	-0.000216442	0	3.001	11.000	42.000	-5.525	0.000	-5.525	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Pier 2 Ahead

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	94+77.78	43.375 L	-0.868	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.534	0.000	-5.534	56.000
B	1	94+75.59	35.630 L	-0.713	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.379	0.000	-5.379	56.000
C	1	94+73.35	27.892 L	-0.558	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.225	0.000	-5.225	56.000
D	1	94+71.08	20.161 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.070	0.000	-5.070	56.000
E	1	94+68.75	12.436 L	-0.249	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.915	0.000	-4.915	56.000
F	1	94+66.39	4.719 L	-0.094	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.761	0.000	-4.761	56.000
G	1	94+63.76	3.662 R	-0.073	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.740	0.000	-4.740	56.000
H	1	94+61.28	11.394 R	-0.228	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.895	0.000	-4.895	56.000
I	1	94+58.75	19.119 R	-0.382	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.049	0.000	-5.049	56.000
J	1	94+56.17	26.836 R	-0.537	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.203	0.000	-5.203	56.000
K	1	94+53.53	34.543 R	-0.691	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.358	0.000	-5.358	56.000
L	1	94+50.84	42.242 R	-0.845	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.512	0.000	-5.512	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Abutment 3 Back

Girder	Bearing #	Station	Offset (ft)	Finish Grade Elev (ft)	Profile Grade (ft/ft)	Cross Slope (ft/ft)	Girder Grade (ft/ft)	Girder Orientation (ft/ft)	Net Overlay Depth (in)	Slab Offset (in)	Net Height of Girder (in)	Top Bearing Elev (ft)	Net Bearing Height (in)	Bearing Seat Elev (ft)	Bearing Deduct (in)
A	1	95+49.88	43.902 L	-0.878	0	0.02	-0.000138273	0	3.001	11.000	42.000	-5.545	0.000	-5.545	56.000
B	1	95+48.39	35.975 L	-0.719	0	0.02	-9.04539e-05	0	3.001	11.000	42.000	-5.386	0.000	-5.386	56.000
C	1	95+46.88	28.051 L	-0.561	0	0.02	-4.16954e-05	0	3.001	11.000	42.000	-5.228	0.000	-5.228	56.000
D	1	95+45.33	20.130 L	-0.403	0	0.02	0	0	3.001	11.000	42.000	-5.069	0.000	-5.069	56.000
E	1	95+43.75	12.213 L	-0.244	0	0.02	5.87492e-05	0	3.001	11.000	42.000	-4.911	0.000	-4.911	56.000
F	1	95+42.14	4.298 L	-0.086	0	0.02	0.000110492	0	3.001	11.000	42.000	-4.753	0.000	-4.753	56.000
G	1	95+40.61	3.069 R	-0.061	0	-0.02	0.000155008	0	3.001	11.000	42.000	-4.728	0.000	-4.728	56.000
H	1	95+38.92	11.009 R	-0.220	0	-0.02	0.000100884	0	3.001	11.000	42.000	-4.887	0.000	-4.887	56.000
I	1	95+37.20	18.945 R	-0.379	0	-0.02	4.56309e-05	0	3.001	11.000	42.000	-5.046	0.000	-5.046	56.000
J	1	95+35.45	26.877 R	-0.538	0	-0.02	-1.07868e-05	0	3.001	11.000	42.000	-5.204	0.000	-5.204	56.000
K	1	95+33.65	34.805 R	-0.696	0	-0.02	-6.84046e-05	0	3.001	11.000	42.000	-5.363	0.000	-5.363	56.000
L	1	95+31.82	42.729 R	-0.855	0	-0.02	-0.00012726	0	3.001	11.000	42.000	-5.521	0.000	-5.521	56.000

* Note that reported bearing locations are physical 3D locations of bearings adjusted for girder depth, slope and orientation. 'CL' is location of bearing seat at intersection of CL girder and bearing line. Roadway elevations at bearing line - work line intersections can be found in other tables in the Bridge Geometry report.

Bearing Design Parameters

Girder Bearing Reactions

	Girder (kip)	Diaphragm (kip)	Slab (kip)	Haunch (kip)	Sidewalk (kip)	Railing System (kip)	Overlay (kip)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load	
								Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Pier 2 - Ahead	28.62	0.00	33.64	4.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Abutment 3 - Back	28.62	3.10	32.78	4.92	8.19	3.43	6.57	3.60	-0.52	103.18 (D0)	-11.77 (D0)	59.38 (F0)	-6.36 (F0)	128.70 (P0)	-14.43 (P0)

* Live Load values are per lane and include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Girder Bearing Reactions due to User Defined Loads in Interval 17: Open to Traffic

	User DC (kip)	User DW (kip)	User LL+IM (kip)
Abutment 3 - Back	0.84	1.16	0.00

Girder Bearing Reactions

	DC (kip)	DW (kip)	∑DC (kip)	∑DW (kip)	Service I (kip)
Abutment 3 - Back	0.00	0.00	81.89	7.73	169.71

Girder Bearing Reactions - Design Vehicles (Including Impact)

	* PL		Vehicles (LL+IM)						Total Live Load (PL and LL+IM)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.60	-0.52	80.10	-9.14	38.42	-4.12	99.91	-11.20	83.70	-9.66	38.42	-4.12	99.91	-11.20

* Live Load values are per girder and include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Including Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	169.71	153.69	102.43	254.12	62.73	248.83	63.60

Girder Bearing Reactions - Design Vehicles (Without Impact)

	* PL		Vehicles (LL)						Total Live Load (PL and LL)					
			* Design		* Fatigue		* Permit		* Design[1]		* Fatigue[2]		* Permit[3]	
	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	3.60	-0.52	64.40	-7.47	33.41	-3.58	75.12	-8.42	68.00	-7.99	33.41	-3.58	75.12	-8.42

* Live Load values are per girder and do not include impact.
1 - Pedestrian live load applied concurrently with vehicular loads
2 - Pedestrian live load NOT applied with vehicular loads
3 - Pedestrian live load NOT applied with vehicular loads

Girder Bearing Reactions (Without Impact)

	Design						
	Service I (kip)	Service III (kip)	Fatigue I (kip)	Strength I		Strength II	
				Max (kip)	Min (kip)	Max (kip)	Min (kip)
Abutment 3 - Back	154.01	141.13	94.92	226.65	65.65	215.36	67.35

Rotations

	Girder (rad)	Diaphragm (rad)	Slab (rad)	Haunch (rad)	Sidewalk (rad)	Railing System (rad)	Overlay (rad)	$ Pedestrian		* Design Live Load		* Fatigue Live Load		* Permit Live Load		* Legal Routine		* Legal Special		* Legal Emergency	
								Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)	Max (rad)	Min (rad)
Abutment 3 - Back	-0.00285	0.00000	-0.00295	-0.00044	-0.00001	0.00000	-0.00001	0.00008	-0.00008	0.00108 (D0)	-0.00115 (D0)	0.00052 (F0)	-0.00055 (F0)	0.00122 (P0)	-0.00130 (P0)	0.00065 (R1)	-0.00069 (R1)	0.00082 (S0)	-0.00087 (S0)	0.00089 (E1)	-0.00095 (E1)

* Live Load values are per girder and do not include impact.
$ Pedestrian values are per girder

(D0) LRFD Design Truck + Lane
(D1) LRFD Design Tandem + Lane
(D2) LRFD Truck Train [90%(Truck + Lane)]
(P0) CDOT Permit
(F0) LRFD Fatigue Truck

Rotations due to User Defined Loads in Interval 17: Open to Traffic

	User DC (rad)	User DW (rad)	User LL+IM (rad)
Abutment 3 - Back	0.00008	0.00003	0.00000

Prestress and Time-Dependent Rotations

	Pre-tensioning (rad)	Creep (rad)
Pier 2 - Ahead	0.00769	0.00643
Abutment 3 - Back	-0.00769	-0.00643

Corresponding Live Load Bearing Reactions and Rotations

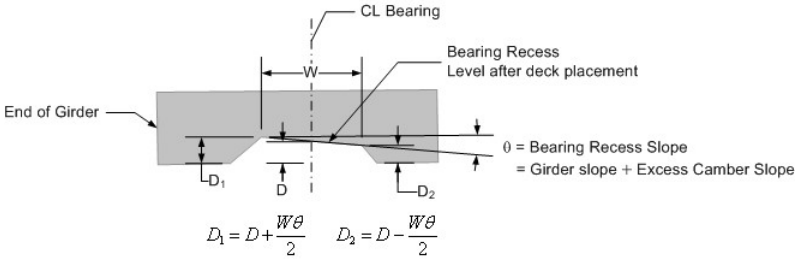
	* Reactions				* Rotations			
	R_{Max} (kip)	θ (rad)	R_{Min} (kip)	θ (rad)	θ_{Max} (rad)	R (kip)	θ_{Min} (rad)	R (kip)
Abutment 3	64.40	0.00056	-7.47	0.00027	0.00170	28.17	-0.00056	11.76

* Live Load values are per girder and do not include impact.

Bearing Recess Geometry

	Girder Slope (ft/ft)	Excess Camber Slope (ft/ft)	Bearing Recess Slope (ft/ft)	* W Recess Length	D Recess Height	D_1	D_2
Abutment 3	-0.000	-0.009	-0.009	8"	0"	0"	0"

* W is maximum of input bearing length and recess length



Lifting Check Details

Details for Check for Lifting In Casting Yard [5.5.4.3][5.9.2.3.1]
Lifting analysis disabled in Project Criteria. No analysis performed.

Hauling Check Details

Details for Check for Hauling to Bridge Site [5.5.4.3][5.9.2.3.1]
Hauling analysis disabled in Project Criteria. No analysis performed.

4.0 ABUTMENT DESIGN

ASSUMPTIONS

Overturning due to uneven girder placement for DC1 is not considered
DC2 and DW are assumed to apply evenly to bearing seat through integral abutment diaphragm
Bridge shall be evaluated for 100yr scour at Strength 1 & 500yr for Extreme Event 2 (EE 2)

Lateral Loads are converted into moments & vertical pile reactions

LOAD COMBINATIONS

	γ_{DC}	γ_{DW}	$\gamma_{LL\ \&\ PL}$	γ_{CE}	γ_{BR}	γ_{WS}	γ_{WS}	γ_{WL}	γ_{TU}
Strength 1	1.25	1.50	1.75	1.75	1.75	0.00	0.00	0.00	0.50
Strength 2	1.25	1.50	1.35	1.75	1.75	0.00	0.00	0.00	0.50
Strength 3	1.25	1.50	0.00	0.00	0.00	1.00	0.00	0.00	0.50
Strength 5	1.25	1.50	1.35	1.35	1.35	0.00	1.00	1.00	0.50
EE 2	1.00	1.00	0.50	0.50	0.50	0.00	0.00	0.00	0.00
Service 1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Load combinations used for designing abutment cap & piles/caissons. TU factor shall use the lower value per 3.4.1. Actual joint design shall use the larger value without justification otherwise.

DEAD LOAD REACTIONS (DC1 + DC2 + DW)

Non-Composite Dead (DC1)

Approach Slab Weight not included as it bears on the abutment & not on the girders

	Ext Girder (G1)	Int Girders	Ext Girder
No. of Girders:	1	10	1
Trib Deck Width:	8.00	7.80	8.00
Girder:	35.76 k	35.76 k	35.76 k
Deck:	31.57 k	30.78 k	31.57 k
Haunch:	5.30 k	5.30 k	5.30 k
Overhang Soffit:	2.28 k	0 k	2.28 k
SIP Forms:	0.77 k	1.54 k	0.77 k
Bridge Diaphragm:	0.06 k	0.12 k	0.06 k
Misc:	0 k	0 k	0 k
Misc:	0 k	0 k	0 k
Misc:	0 k	0 k	0 k
Total:	**75.74 k**	**73.50 k/girder**	**75.74 k**

Composite Dead (DC2)

Assumes composite dead loads evenly apply to girders equally

	Total Abutment Force	
Vehicular Bridge Rail:	55.25 k	
Secondary Bridge Rail (2):	0.00 k	(If applicable)
Median Weight:	0.00 k	
Sidewalk Weight:	112.17 k	
Misc:	0 k	
Total:	**167.42 k**	

Composite Dead (DW)

Assumes composite dead loads evenly apply to girders equally

	Total Abutment Force
Utility Load:	18.55 k
Wearing Surface:	133.55 k
Misc:	0 k
Misc:	0 k
Total:	**152.10 k**

Maximum Dead Load Girder Reactions

$R_{DC\,(+)}$ = 89.69 k / girder

$R_{DC\,(+)}$ = 87.45 k / girder

R_{DW} = 12.67 k / girder

LIVE LOAD REACTIONS (PL + LL)

Live Load (LL Only)

Lane Load = 0.64 k / lane
Vehicle Weight = 73.11305 k / lane (Impact Included) IM = 33 %
Total Reaction = 98.37059 k / lane

Number of Lanes = 7 lanes
Potential Clear Width = 91 ft (No Sidewalks)

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)
1	1.2	40.5	118.04	4,781
2	1	34.5	196.74	6,788
3	0.85	28.5	250.85	7,149
4	0.65	22.5	255.76	5,755
5	0.65	16.5	319.70	5,275
6	0.65	10.5	383.65	4,028
7	0.65	4.5	447.59	2,014

Pedestrian Load (PL)

PL Load = 75 psf Eccentricity of PL = 0 ft
Sidewalk Width = 17 ft
Total Reaction = 50.31776 k

Number of Lanes = 6 lanes
Potential Clear Width = 74 ft

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)	P_{PL} (k)	M_{LL} (ft-k)
1	1.2	32	118.04	3,777	50.32	0
2	1	26	196.74	5,115	50.32	0
3	0.85	20	250.85	5,017	50.32	0
4	0.65	14	255.76	3,581	50.32	0
5	0.65	8	319.70	2,558	50.32	0
6	0.65	2	383.65	767	50.32	0

Combined Live Load Cases (Veh Only & PL + LL)

No. Girders = 12 Girder Group Section = 217.53 ft^2/ft

Girder Spacing = 8.37 ft Group Moment Inertia = 10,010 ft^4/ft

Girder spacing used is along the foundation centerline

$P_{Max} = (P_{DL} + P_{LL}) / \text{No. Girders} + (M_{LL} / S)$

$P_{Min} = (P_{DL} + P_{LL}) / \text{No. Girders} - (M_{LL} / S)$

	Veh. Only		Ped Load Incl.	
No. of Lanes	P_{max} (k)	P_{min} (k)	P_{max} (k)	P_{min} (k)
1	31.81	-12.14	31.39	-3.33
2	47.60	-14.81	44.10	-2.93
3	53.77	-11.96	48.16	0.00
4	47.77	-5.14	41.97	0.00
5	50.89	0.00	42.59	0.00
6	50.49	0.00	39.69	0.00
7	46.56	0.00		

Maximum Live Load Girder Reactions

$R_{LL\,(+)}$ = 53.77 k / girder

$R_{LL\,(-)}$ = -14.81 k / girder

CENTRIFUGAL REACTIONS 3.6.3

$C = f (v^2 / gR)$ = 0.23 k

v = 66 ft / s f = 1.33 R = 770 ft

No. of Lanes	Multi. Presence	Trucks Wt	Horiz. CE	Moment CE	Girder Reaction
1	1.2	73.11	20.55	308.33	± 1.42
2	1	146.23	34.25	513.89	± 2.36
3	0.85	219.34	43.67	655.21	± 3.01
4	0.65	292.45	44.53	668.05	± 3.07
5	0.65	365.57	55.66	835.07	± 3.84
6	0.65	438.68	66.79	1002.08	± 4.61
7	0.65	511.79	77.93	1169.10	± 5.37

R_{CE} = ± 5.37 k / girder

H_{CE} = 6.49 k / girder Transverse Reaction

BRAKING 3.6.4

No. of Lanes	Multi. Presence	25% Truck	5% HL93
1	1.2	21.93	5.90
2	1	36.56	9.84
3	0.85	46.61	12.54
4	0.65	47.52	12.79
5	0.65	59.40	15.99
6	0.65	71.29	19.18
7	0.65	83.17	22.38

L_{BR} = 6.93 k / girder Longitudinal Reaction

WIND LOAD REACTIONS 3.8.1 & 3.8.2

Str. 3 Wind Pressure, w_3 =	44.7 psf	Vert. Wind pressure, w_{V3} =	20 psf
Str. 5 Wind Pressure, w_5 =	21.3 psf	Vert. Wind pressure, w_{V5} =	10 psf
Trans. Wind on Live =	0.1 k/ft	Long. Wind on Live =	0.04 k/ft
	6ft above deck surface		
Effective Wind Length =	39.46491 ft	Longitudinal Wind =	25%
Structure Height =	9.00 ft	Structure Moment Arm =	4.53 ft

Strength 3

Horizontal

H_{WS3} = 15.88 k

M_{WS3} = 71.98 ft-k

Vertical

P_{WS3} = 74.19 k

M_{WS3} = 1743.56 ft-k

Total $R_{WS3\,(+)}$ = 2.77 k / girder

Total $R_{WS3\,(-)}$ = -15.14 k / girder

H_{WS3} = 1.32 k / girder (transverse)

L_{WS3} = 0.33 k / girder (longitudinal)

Strength 5 (structure)

Horizontal

H_{WS5} = 7.57 k

M_{WS5} = 34.30 ft-k

Vertical

P_{WS5} = 7.94 k

M_{WS5} = 186.60 ft-k

Total $R_{WS5\,(+)}$ = 0.43 k / girder

Total $R_{WS5\,(-)}$ = -1.75 k / girder

H_{WS5} = 0.63 k / girder (transverse)

L_{WS5} = 0.16 k / girder (longitudinal)

Strength 5 (live)

Horizontal

H_{WL5} = 3.95 k
L_{WL5} = 1.58 k
M_{WL5} = 59.21 ft-k

Total $R_{WL5\ (+)}$ = 0.29 k / girder
Total $R_{WL5\ (-)}$ = -0.29 k / girder
H_{WL5} = 0.33 k / girder (transverse)
L_{WL5} = 0.13 k / girder (longitudinal)

THERMAL MOVMENTS

Effective Thermal Movement =	140	ft		
Bridge Skew =	23.2	°		
Expansion Coefficient, α =	0.000006	/°F		
Max Cold Change in Temp, ΔT_C =	90	°F		
Max Hot Change in Temp, ΔT_H =	50	°F		
Shringage Coefficient, $\varepsilon_{CR\ \&\ SH}$ =	0.0002	in/in	28 days	5.4.2.3
Shringage Coefficient, $\varepsilon_{CR\ \&\ SH}$ =	0.0005	in/in	1 year	
$T_{Base\ Temp}$ =	60	°F		
$T_{Max\ Design}$ =	110	°F		3.12.2.1
$T_{Min\ Design}$ =	-30	°F		3.12.2.1

Factored movements for abutment design

$\Delta_{Contraction} = L(\gamma_{TU}\Delta T_C\alpha+\varepsilon)\cos\theta$ = 1.188993 in
$\Delta_{Expansion} = L(\gamma_{TU}\Delta T_H\alpha-\varepsilon)\cos\theta$ = -0.077207 in

$\gamma_{TU\text{-}Strength}$ = 0.50

LOAD COMBINATIONS

Vertical Girder Reactions

	Max	Min	
Strength 1 =	234.6	51.6	k / girder
Strength 3 =	133.9	71.8	k / girder
Strength 5 =	211.7	57.7	k / girder
Extreme Event 2 =	131.9	90.0	k / girder
Service 1 =	165.0	62.8	k / girder

Transverse Girder Reactions Transverse Loads are perpendicular to bridge HCL

Strength 1 =	11.4	k / girder
Strength 3 =	1.3	k / girder
Strength 5 =	9.7	k / girder
Extreme Event 2 =	3.2	k / girder
Service 1 =	8.8	k / girder

Longitudinal Girder Reactions Longitudinal Loads are parallel to bridge HCL

Strength 1 =	12.1	k / girder
Strength 3 =	0.3	k / girder
Strength 5 =	9.6	k / girder
Extreme Event 2 =	3.5	k / girder
Service 1 =	7.6	k / girder

DEAD LOAD REACTIONS (DC1 + DC2 + DW)

Superstructure Dead Loads (DC1 + DC2)

From Bridge Superstructure Only (See Girder Reaction Calculations)

Total Superstructure DC_1 Wt =	886	k / abut
Total Superstructcure DC_2 Wt =	167	k / abut

Abutment & Appr Slab (DC1 + DC2)

Abutment	Length =	105.6667	ft	
	Width =	3	ft	
	Seat Height =	7.83	ft	
	Diaphragm Height =	4.479167	ft	
	Total Wt =	585.3009	k / abut	
Wingwalls	No. Walls =	2		
	Thickness =	1	ft	
	Length =	30	ft	
	Height =	12.30917	ft	
	Total Wt =	110.7825	k / abut	
Approach Slab	Length =	20	ft	Assumes half appr slab goes to abutment
	Width =	95	ft	
	Thickness =	1	ft	
	Vehicular Bridge Rail =	1400	lb/ft	
	Secondary Bridge Rail (2) =	0	lb/ft	
	Median Weight =	0	lb/ft	
	Misc =		k	
	Misc =		k	
	Total Wt =	156.5	k / abut	
Approach Slab	Length =	40	ft	
	Weight =	74	lb/ft	

Total Dead Load to Abutment DC1+DC2 = 1,906 k

Total Dead Load to Pile DC1+DC2 = 215 k / pile

Dead Loads (DW)

From Bridge Superstructure Only (See Girder Reaction Calculations)

Total Superstructure DW Wt =	152.10	k / abut	
Approach Slab	Utility Load =	2.375	k
	Wearing Surface =	17.1	k
	Misc =	0	k
	Misc =	0	k

Total Dead Load to Abutment DW = 172 k

Total Dead Load to Pile DW = 19 k / pile

LIVE LOAD REACTIONS (PL + LL)

Live Load (LL Only)

Lane Load = 0.64 k / lane
Vehicle Weight = 72 k / lane IM = 0 %
Total Abutment Load = 103.6575 k / lane (Includes approach slab)

Number of Lanes = 7 lanes
Potential Clear Width = 91 ft (No Sidewalks)

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)
1	1.2	41.77	124.39	5,196
2	1	35.77	207.32	7,416
3	0.85	29.77	264.33	7,869
4	0.65	23.77	269.51	6,406
5	0.65	17.77	336.89	5,987
6	0.65	11.77	404.26	4,759
7	0.65	5.77	471.64	2,722

Pedestrian Load (PL)

PL Load = 75 psf Eccentricity of PL = 0 ft
Sidewalk Width = 17 ft
Total Abutment Load = 63.06776 k (Includes Approach Slab)

Number of Lanes = 6 lanes
Potential Clear Width = 74 ft

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)	P_{PL} (k)	M_{LL} (ft-k)
1	1.2	32	124.39	3,980	63.07	0
2	1	26	207.32	5,390	63.07	0
3	0.85	20	264.33	5,287	63.07	0
4	0.65	14	269.51	3,773	63.07	0
5	0.65	8	336.89	2,695	63.07	0
6	0.65	2	404.26	809	63.07	0

Combined Live Load Cases (Veh Only & PL + LL)

No. Piles = 9 Pile Group Section = 180.00 ft^2/ft

Pile Spacing = 12.00 ft

$P_{Max} = (P_{DL} + P_{LL}) / \text{No. Piles} + (M_{LL} / S)$

$P_{Min} = (P_{DL} + P_{LL}) / \text{No. Piles} - (M_{LL} / S)$

	Veh. Only		Ped Load Incl.	
No. of Lanes	P_{max} (k)	P_{min} (k)	P_{max} (k)	P_{min} (k)
1	42.69	-15.04	42.94	-1.29
2	64.23	-18.16	59.99	0.00
3	73.09	-14.35	65.75	0.00
4	65.54	-5.65	57.91	0.00
5	70.69	0.00	59.41	0.00
6	71.35	0.00	56.42	0.00
7	67.53	0.00		

Maximum Live Load Pile Forces

$R_{LL\,(+)}$ = 73.09 k / pile

$R_{LL\,(-)}$ = -18.16 k / pile

CENTRIFUGAL REACTIONS 3.6.3

$C = f (v^2 / gR)$ = 0.23 k

v = 66 ft / s f = 1.33 R = 770 ft

No. of Lanes	Multi. Presence	Trucks Wt	Horiz. CE	Moment CE	Girder Reaction
1	1.2	72.00	20.24	303.64	± 1.69
2	1	144.00	33.73	506.06	± 2.81
3	0.85	216.00	43.01	645.23	± 3.58
4	0.65	288.00	43.85	657.88	± 3.65
5	0.65	360.00	54.81	822.36	± 4.57
6	0.65	432.00	65.78	986.83	± 5.48
7	0.65	504.00	76.74	1151.30	± 6.40

R_{CE} = ± 6.40 k / pile

H_{CE} = 8.53 k / pile Transverse Reaction

BRAKING 3.6.4

No. of Lanes	Multi. Presence	25% Truck	5% HL93
1	1.2	21.6	5.835453
2	1	36	9.725754
3	0.85	45.9	12.40034
4	0.65	46.8	12.64348
5	0.65	58.5	15.80435
6	0.65	70.2	18.96522
7	0.65	81.9	22.12609

R_{BR} = 9.10 k / pile Longitudinal Reaction

WIND LOAD REACTIONS 3.8.1 & 3.8.2

Str. 3 Wind Pressure, w_3 = 44.7 psf
Vert. Wind pressure, w_{V3} = 20 psf
Str. 5 Wind Pressure, w_5 = 21.3 psf
Vert. Wind pressure, w_{V5} = 10 psf
Trans. Wind on Live = 0.1 k/ft
Long. Wind on Live = 0.04 k/ft
6ft above deck surface
Effective Wind Length = 39.46491 ft
Longitudinal Wind = 25%
Structure Height = 9.00 ft
Structure Moment Arm = 4.53 ft

Strength 3

Horizontal
H_{WS3} = 15.88 k
M_{WS3} = 71.98 ft-k

Vertical
P_{WS3} = 74.19 k
M_{WS3} = 1743.56 ft-k

Total $R_{WS3\,(+)}$ = 1.84 k / pile
Total $R_{WS3\,(-)}$ = -18.33 k / pile
H_{WS3} = 1.76 k / pile (transverse)
L_{WS3} = 0.44 k / girder (longitudinal)

Strength 5 (structure)

Horizontal
H_{WS5} = 7.57 k
M_{WS5} = 34.30 ft-k

Vertical
P_{WS5} = 7.94 k
M_{WS5} = 186.60 ft-k

Total $R_{WS5\,(+)}$ = 0.34 k / pile
Total $R_{WS5\,(-)}$ = -2.11 k / pile
H_{WS5} = 0.84 k / pile (transverse)
L_{WS5} = 0.21 k / girder (longitudinal)

Strength 5 (live)

Horizontal

H_{WL5} = 3.95 k
L_{WL5} = 1.58 k
M_{WL5} = 59.21 ft-k

Total $R_{WL5\ (+)}$ = 0.33 k / pile
Total $R_{WL5\ (-)}$ = -0.33 k / pile
H_{WL5} = 0.44 k / pile (transverse)
L_{WL5} = 0.18 k / girder (longitudinal)

LOAD COMBINATIONS

Vertical Girder Reactions

	Max	Min	
Strength 1 =	436.2	162.7	k / pile
Strength 3 =	298.9	187.4	k / pile
Strength 5 =	405.1	170.1	k / pile
Extreme Event 2 =	273.6	221.6	k / pile
Service 1 =	315.9	188.5	k / pile

Transverse Girder Reactions

Transverse Loads are perpendicular to bridge HCL

Strength 1 =	14.9	k / pile
Strength 3 =	1.8	k / pile
Strength 5 =	12.8	k / pile
Extreme Event 2 =	4.3	k / pile
Service 1 =	11.6	k / pile

Longitudinal Girder Reactions

Longitudinal Loads are parallel to bridge HCL

Strength 1 =	15.9	k / pile
Strength 3 =	0.4	k / pile
Strength 5 =	12.7	k / pile
Extreme Event 2 =	4.6	k / pile
Service 1 =	9.9	k / pile

Miscellaneous

Max Girder LL Rotation = 0 rad

NOTE TO SELF: WITH PIER; LONG LOADS WILL GO TO PIER. REMOVE
NEED THE DEFLECTION OF THERMAL THOUGH

ASSUMPTIONS

Abutment Cap uses two span beam formulas for calculating moment and shear
Girder Reactions are evaluated midspan between piles.
Positive Moment uses single point load. Negative accounts for two in adjacent spans
Girder Reactions are located within most exterior piles
Weight of wingwalls on abutment cantilever produces smaller moments than interior

GENERAL

Min Girder Spacing =	7.80 ft				
Max Pile Spacing =	12.00 ft				
Avg Seat Height =	7.83 ft		Seat & Diaphragm Weight =	5.54	k/ft
Min Seat Height =	7.11 ft				
End Diaphragm Height =	4.48 ft				
Seat Width =	3.00 ft				
Approach Slab Length =	6.00 ft	*Half Appr Slab	Slab Weight =	0.9	k/ft
Approach Slab Thickness =	1.00 ft				
Wearing Surface Load =	36 psf		Wearing Surface =	0.216	k/ft

VERTICAL LOADING

Maximum Girder Reactions

Strength 1 =	234.6 k / girder
Strength 3 =	133.9 k / girder
Strength 5 =	211.7 k / girder
EE 2 =	131.9 k / girder
Service 1 =	165.0 k / girder

Combined Moments

Uniform Loads from abutment self weight are calculated using two span equations

	$M_{(+)}$ (k-ft)	$M_{(-)}$ (k-ft)	V (k)			
Strength 1 =	655.9	722.2	241.7	M_{serv} =	521.7	k-ft
Strength 3 =	410.6	476.9	140.9			
Strength 5 =	600.1	666.4	218.7	M_u =	722.2	k-ft
EE 2 =	405.8	472.1	139.0	V_u =	241.7	k
Service 1 =	469.0	521.7	170.6			

DESIGN SECTION

T&B, Flexural Bar Size =	# 9		f'_c =	4.5	ksi
Number of Bars =	4		β_1 =	0.825	
Stirrup Size =	# 6		f_y =	60	ksi
Stirrup Spacing =	6	in	A_s =	4	in^2
Bottom Cover =	3	in	d =	81.006	in
Top Cover =	2	in			

FLEXURE DESIGN

Minimum Reinforcement — 5.6.3.3

$M_{cr} = 1.33M_u$ = 960.6 k-ft **Controls**

$M_{cr} = \gamma_3\gamma_1 f_r S_c$ = 1986.5 k-ft

$S_c = I_g/c$ = 43677.01 in^3

$I_g = bd^3/12$ = 1863261 in^4

c = 42.66 in

$f_r = 0.24(f'_c)^{1/2}$ = 0.51 ksi — 5.4.2.6

γ_3 = 0.67 (Gr 60 Steel)

γ_1 = 1.6 (CIP concrete)

Calculate Resistance Factor — 5.6.3.2

α_1 = 0.85 — 5.6.2.2

a = 1.743 in — $A_s f_y / \alpha_1 f'_c b$

c = 2.113 in — a/β_1

Net Tensile Strain: — 5.5.4.2

ε_{cl} = 0.002 — Use ϕ = 0.9

ε_{tl} = 0.005

ε_s = 0.112 — (d-c)/c * 0.003

Design for Strength Moment — 5.6.3.2.3

$\phi M_n = \phi A_s f_y (d-a/2)$ = 1442.4 k-ft > M_{cr} **OK**

$a = A_s f_y / \alpha_1 f'cb$ = 1.74 in

α_1 = 0.85

Check Crack Control (Distribution of Reinforcement) — 5.6.7

$s_{max} = 700\gamma_e/\beta_s f_{ss} - 2d_c$ = 23.59 in

$s_{actual,top}$ = 9.79 in **OK**

$s_{actual,btm}$ = 8.12 in **OK**

$\beta_s = 1 + d_c/[\ 0.7(h-d_c)\ ]$ = 1.08

d_c = 4.314 in

γ_e = 1 Class 1 Exposure

$f_{ss} = M_{serv}(d-c)n/I_{cr}$ = 20.19 ksi

$n = E_s/E_c$ = 7.00

c = 10.47 in

$I_{cr} = bc^3/12 + bc(c/2)^2 + nA_s(d-c)^2$ = 153025 in^4

Check Side Face Reinforcement 5.6.7

$A_{sk\text{-}max} = A_s/4 =$ 1.00 in^2/ft
$A_{sk\text{-}min} = 0.012\ (d_l\text{-}30) =$ 0.61 in^2/ft < 1.00 in^2/ft **OK**

$s_{max} = d_l/6$ or 12" = 12.00 in
Bar Size = # 6
Number of Bars = 11 (not including design flexural bars)
Bar Spacing = 7.914333 in < s_{max} **OK**

$A_{sk\text{-}prov'd} =$ 0.667 in^2/ft > $A_{sk\text{-}min}$ **OK**

SHEAR DESIGN

Minimum Transverse Steel 5.7.2.3

$\phi V_c/2 =$ 174.0 k < V_u

Minimum Transverse Steel Required

Nominal Shear Resistance 5.7.3.3

$V_c = 0.0316\beta f'_c{}^{1/2} b_v d_v =$ 386.8 k
$\beta =$ 2
$d_v = M_n/A_s f_y =$ 80.1 in

$V_s = A_v f_y d_v \cot(\theta) / s =$ 705.2 k
$\theta =$ 45

Minimum Stirrups Required
A_v / s (req'd Strength) = -0.025 in^2/ft $A_v / s = (V_u / \phi - V_c) / (f_y\ d_v \cot\theta)$
$A_v / s = 0.0316 f'_c{}^{1/2} b_v / f_v =$ 0.483 in^2/ft 5.7.2.5

Stirrups Provided
A_v / s (prov'd) = 1.760 in^2/ft > A_{vmin} / s **OK**

Check Design Shear Resistance

$\phi V_n = \phi(V_c + V_s) =$ 982.8 k > 241.7 k **OK** **Controls**
$\phi V_n = \phi(0.25 f'_c b_v d_v) =$ 2920.9 k
$\phi =$ 0.9

Shrinkage & Temp Steel 5.10.6

$A_{s\text{-}req'd} = 1.3bh / [\ 2(b+h) f_y\ ] =$ 0.27 in^2/ft (each face, each direction)
$A_s =$ 0.88 in^2/ft > $A_{s\text{-}req'd}$ **OK**

FORCE SUMMARY

Design Forces

	P_u (kip)	M_u (k-ft)	Description
1	436.2	87	Strength 1, Minimum Axial
2	162.7	83	Strength 1, Maximum Axial
3			
4			

CAISSON INFORMATION & GEOMETRY

5.12.9.5

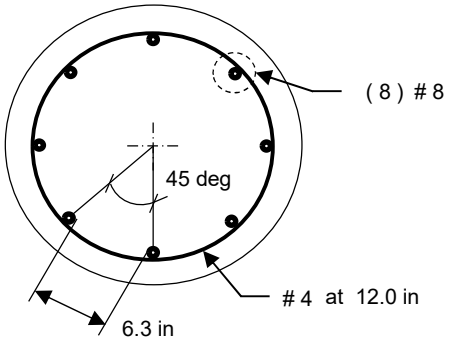
Caisson Diameter = d = 2 ft
Number of Longitudinal Bars = 8
Longitudinal Bar Size = # 8
A_s = 6.32 in^2
$A_{s\text{-}min} = 0.8\% A_g$ = 3.619115 in^2 **OK**

Lateral Reinf. Type = Hoops
Lateral Reinf. Spacing = s = 12 in **OK**
Lateral Reinf. Bar Size = # 4
A_s = 0.40 in^2

Angle of Spacing, θ = 45 deg
Long Bar Clear Cover = 2 in

Clear btw Long Bars = 6.3 in > s_{min} = 5 in **OK**

f'_c = 4 ksi
f_y = 60 ksi



CAISSON EMBEDMENT / SOIL RESISTANCE

Tip Area = A_p = 3.14 ft^2
Surface Perimeter = P_s = 6.28 ft
Pile/Caisson Spacing = 12.00 ft

Capacities from Geotechnical Report by A.G. Wassenaar, March 18, 2016 (Proj Number 153733)
and email from Keith Seaton, PE to FHU on 10/27/2016 updating values to LRFD

Tip Resistance = q_p = 78.2 ksf ϕ_T = 0.55
Side Resistance = q_s = 6.37 ksf ϕ_S = 0.6

Total Embedment Depth = 15 ft
Non effective Depth = 2 ft
Desigh Depth = d = 13 ft

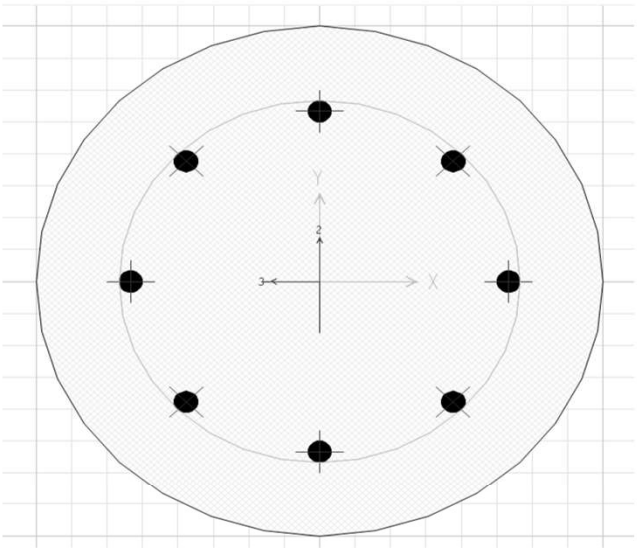
Min Spacing = 3d = 6 ft **OK**

$\phi P_n = \phi_T q_p A_p + \phi_s q_s P_s d$ = 447.3 k > P_u **OK** 10.8.3.5

MOMENT INTERACTION

Interaction Diagram produced in CSi using Phi Factors

ϕP_n (kip)	ϕM_{3n} (k-ft)
980.7	0.0
980.7	85.9
959.3	164.4
797.3	227.9
604.5	267.4
384.5	279.6
262.9	296.9
94.6	280.8
-97.5	174.1
-287.3	48.5
-341.3	0.0

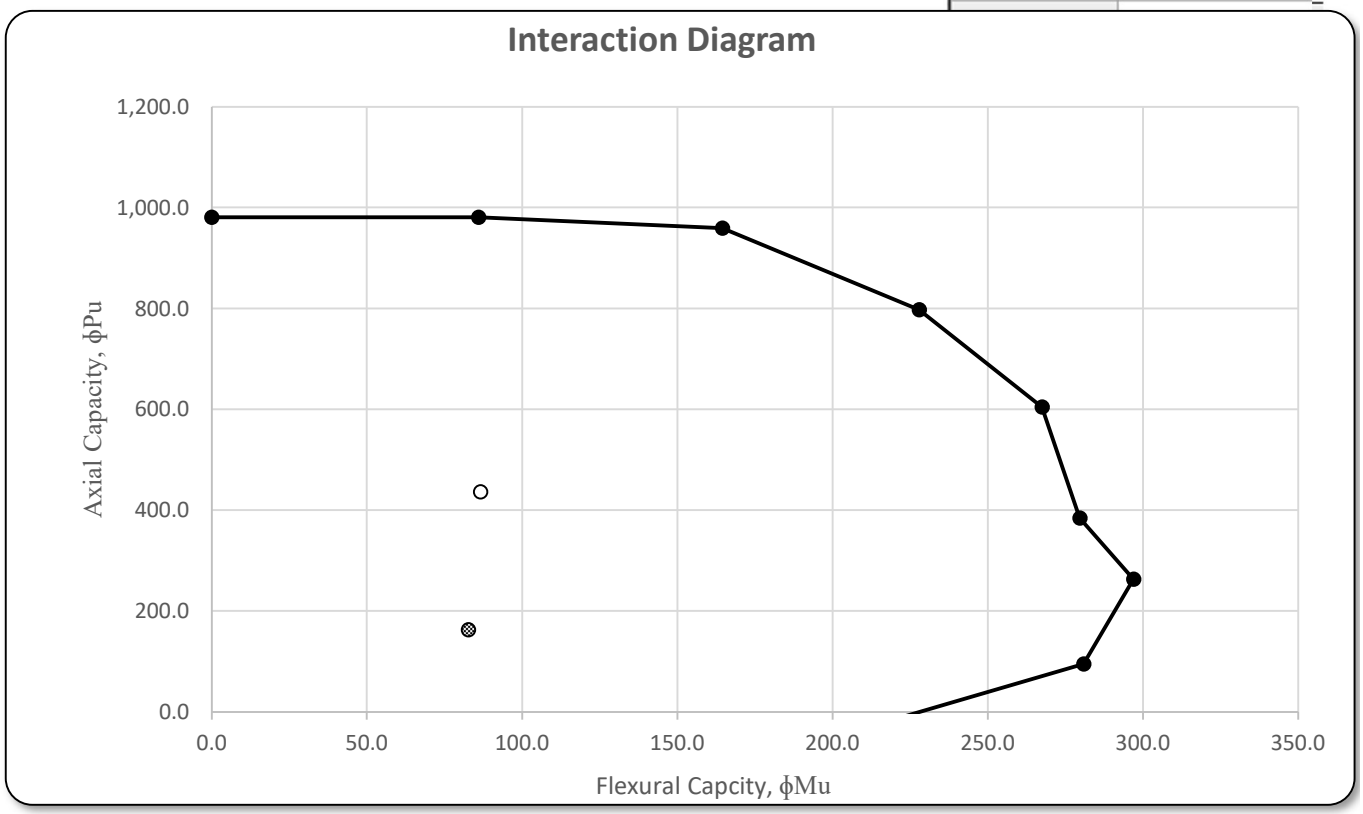


Shape Properties - Reinforcing

Name	CircleBar1
Material	A615Gr60
X Center	0
Y Center	0
Diameter	17
No. of Bars	8
Rotation	0
Bar Size	#8
Bar Area	0.79

Shape Properties - Solid

Name	Circle1
Material	4000Psi
Color	
X Center	0
Y Center	0
Diameter	24
Core Dimensions	Program Determined
Width	19.2
Depth	19.2
Reinforcing	No
Conc. Model	Mander-Unconfined



Top of Boring Elevation = 5777.8 ft
Btm of Seat = 5771.6 ft

Bedrock El = 5750.8 ft

Boring Name = BA1 Abutment 1

	Layer Name	Depth	Lpile Material Name
1.	Sand, medium dense, silty	6	Sand (Reese)
2.	Clay/Sand, medium stiff/loose	21	Soft Clay with Free Water
3.	Claystone (Bedrock)	13	Weak Rock
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Top of Boring Elevation = 5773.3 ft
Btm of Seat = 5772.92 ft

Bedrock El = 5747.3 ft

Boring Name = BA2 Abutment 3

	Layer Name	Depth	Lpile Material Name
1.	Clay, Soft	7	Soft Clay with Free Water
2.	Sand, medium dense, silty	19	Sand (Reese)
3.	Claystone (Bedrock)	14	Weak Rock
4.			
5.			
6.			
7.			
8.			
9.			
10.			

DEAD LOAD REACTIONS (DC1 + DC2 + DW)

Non-Composite Dead (DC1)

Approach Slab Weight not included as it bears on the abutment & not on the girders

	Ext Girder (G1)	Int Girders	Ext Girder
No. of Girders:	1	10	1
Trib Deck Width:	8.00	7.80	8.00
Girder:	35.76 k	35.76 k	35.76 k
Deck:	31.57 k	30.78 k	31.57 k
Haunch:	5.30 k	5.30 k	5.30 k
Overhang Soffit:	2.28 k	0 k	2.28 k
SIP Forms:	0.77 k	1.54 k	0.77 k
Bridge Diaphragm:	0.06 k	0.12 k	0.06 k
Misc:	0 k	0 k	0 k
Misc:	0 k	0 k	0 k
Misc:	0 k	0 k	0 k
Total:	**75.74 k**	**73.50 k/girder**	**75.74 k**

Composite Dead (DC2)

Assumes composite dead loads evenly apply to girders equally

	Total Abutment Force	
Vehicular Bridge Rail:	55.25 k	
Secondary Bridge Rail (2):	0.00 k	(If applicable)
Median Weight:	0.00 k	
Sidewalk Weight:	112.17 k	
Misc:	0 k	
Total:	**167.42 k**	

Composite Dead (DW)

Assumes composite dead loads evenly apply to girders equally

	Total Abutment Force
Utility Load:	18.55 k
Wearing Surface:	133.55 k
Misc:	0 k
Misc:	0 k
Total:	**152.10 k**

Maximum Dead Load Girder Reactions

$R_{DC\,(+)}$ = 89.69 k / girder

$R_{DC\,(+)}$ = 87.45 k / girder

R_{DW} = 12.67 k / girder

LIVE LOAD REACTIONS (PL + LL)

Live Load (LL Only)

Lane Load = 0.64 k / lane
Vehicle Weight = 73.11305 k / lane (Impact Included) IM = 33 %
Total Reaction = 98.37059 k / lane

Number of Lanes = 7 lanes
Potential Clear Width = 91 ft (No Sidewalks)

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)
1	1.2	40.5	118.04	4,781
2	1	34.5	196.74	6,788
3	0.85	28.5	250.85	7,149
4	0.65	22.5	255.76	5,755
5	0.65	16.5	319.70	5,275
6	0.65	10.5	383.65	4,028
7	0.65	4.5	447.59	2,014

Pedestrian Load (PL)

PL Load = 75 psf Eccentricity of PL = 0 ft
Sidewalk Width = 17 ft
Total Reaction = 50.31776 k

Number of Lanes = 6 lanes
Potential Clear Width = 74 ft

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)	P_{PL} (k)	M_{LL} (ft-k)
1	1.2	32	118.04	3,777	50.32	0
2	1	26	196.74	5,115	50.32	0
3	0.85	20	250.85	5,017	50.32	0
4	0.65	14	255.76	3,581	50.32	0
5	0.65	8	319.70	2,558	50.32	0
6	0.65	2	383.65	767	50.32	0

Combined Live Load Cases (Veh Only & PL + LL)

No. Girders = 12 Girder Group Section = 209.04 ft^2/ft

Girder Spacing = 8.04 ft Group Moment Inertia = 9,244 ft^4/ft

Girder spacing used is along the foundation centerline

$P_{Max} = (P_{DL} + P_{LL}) / \text{No. Girders} + (M_{LL} / S)$

$P_{Min} = (P_{DL} + P_{LL}) / \text{No. Girders} - (M_{LL} / S)$

	Veh. Only		Ped Load Incl.	
No. of Lanes	P_{max} (k)	P_{min} (k)	P_{max} (k)	P_{min} (k)
1	32.71	-13.03	32.10	-4.04
2	48.87	-16.08	45.06	-3.88
3	55.10	-13.30	49.10	0.00
4	48.84	-6.22	42.64	0.00
5	51.88	0.00	43.07	0.00
6	51.24	0.00	39.83	0.00
7	46.93	0.00		

Maximum Live Load Girder Reactions

$R_{LL\,(+)}$ = 55.10 k / girder

$R_{LL\,(-)}$ = -16.08 k / girder

CENTRIFUGAL REACTIONS 3.6.3

$C = f (v^2 / gR)$ = 0.23 k

v = 66 ft / s f = 1.33 R = 770 ft

No. of Lanes	Multi. Presence	Trucks Wt	Horiz. CE	Moment CE	Girder Reaction
1	1.2	73.11	20.55	308.33	± 1.47
2	1	146.23	34.25	513.89	± 2.46
3	0.85	219.34	43.67	655.21	± 3.13
4	0.65	292.45	44.53	668.05	± 3.20
5	0.65	365.57	55.66	835.07	± 3.99
6	0.65	438.68	66.79	1002.08	± 4.79
7	0.65	511.79	77.93	1169.10	± 5.59

R_{CE} = ± 5.59 k / girder

H_{CE} = 6.49 k / girder Transverse Reaction

BRAKING 3.6.4

No. of Lanes	Multi. Presence	25% Truck	5% HL93
1	1.2	21.93	5.90
2	1	36.56	9.84
3	0.85	46.61	12.54
4	0.65	47.52	12.79
5	0.65	59.40	15.99
6	0.65	71.29	19.18
7	0.65	83.17	22.38

L_{BR} = 6.93 k / girder Longitudinal Reaction

WIND LOAD REACTIONS 3.8.1 & 3.8.2

Str. 3 Wind Pressure, w_3 =	44.7 psf	Vert. Wind pressure, w_{V3} =	20 psf
Str. 5 Wind Pressure, w_5 =	21.3 psf	Vert. Wind pressure, w_{V5} =	10 psf
Trans. Wind on Live =	0.1 k/ft	Long. Wind on Live =	0.04 k/ft
	6ft above deck surface		
Effective Wind Length =	39.46491 ft	Longitudinal Wind =	25%
Structure Height =	9.00 ft	Structure Moment Arm =	4.53 ft

Strength 3

Horizontal

H_{WS3} = 15.88 k

M_{WS3} = 71.98 ft-k

Vertical

P_{WS3} = 74.19 k

M_{WS3} = 1743.56 ft-k

Total $R_{WS3\,(+)}$ = 2.77 k / girder

Total $R_{WS3\,(-)}$ = -15.14 k / girder

H_{WS3} = 1.32 k / girder (transverse)

L_{WS3} = 0.33 k / girder (longitudinal)

Strength 5 (structure)

Horizontal

H_{WS5} = 7.57 k

M_{WS5} = 34.30 ft-k

Vertical

P_{WS5} = 7.94 k

M_{WS5} = 186.60 ft-k

Total $R_{WS5\,(+)}$ = 0.43 k / girder

Total $R_{WS5\,(-)}$ = -1.75 k / girder

H_{WS5} = 0.63 k / girder (transverse)

L_{WS5} = 0.16 k / girder (longitudinal)

Strength 5 (live)

Horizontal

H_{WL5} = 3.95 k
L_{WL5} = 1.58 k
M_{WL5} = 59.21 ft-k

Total $R_{WL5\ (+)}$ = 0.29 k / girder
Total $R_{WL5\ (-)}$ = -0.29 k / girder
H_{WL5} = 0.33 k / girder (transverse)
L_{WL5} = 0.13 k / girder (longitudinal)

THERMAL MOVMENTS

Effective Thermal Movement =	140	ft		
Bridge Skew =	23.2	°		
Expansion Coefficient, α =	0.000006	/°F		
Max Cold Change in Temp, ΔT_C =	90	°F		
Max Hot Change in Temp, ΔT_H =	50	°F		
Shringage Coefficient, $\varepsilon_{CR\ \&\ SH}$ =	0.0002	in/in	28 days	5.4.2.3
Shringage Coefficient, $\varepsilon_{CR\ \&\ SH}$ =	0.0005	in/in	1 year	
$T_{Base\ Temp}$ =	60	°F		
$T_{Max\ Design}$ =	110	°F		3.12.2.1
$T_{Min\ Design}$ =	-30	°F		3.12.2.1

Factored movements for abutment design

$\Delta_{Contraction} = L(\gamma_{TU}\Delta T_C\alpha+\varepsilon)\cos\theta$ = 1.188993 in
$\Delta_{Expansion} = L(\gamma_{TU}\Delta T_H\alpha-\varepsilon)\cos\theta$ = -0.077207 in

$\gamma_{TU\text{-}Strength}$ = 0.50

LOAD COMBINATIONS

Vertical Girder Reactions

	Max	Min	
Strength 1 =	237.3	49.0	k / girder
Strength 3 =	133.9	71.8	k / girder
Strength 5 =	213.8	55.6	k / girder
Extreme Event 2 =	132.7	89.3	k / girder
Service 1 =	166.5	61.3	k / girder

Transverse Girder Reactions Transverse Loads are perpendicular to bridge HCL

Strength 1 =	11.4	k / girder
Strength 3 =	1.3	k / girder
Strength 5 =	9.7	k / girder
Extreme Event 2 =	3.2	k / girder
Service 1 =	8.8	k / girder

Longitudinal Girder Reactions Longitudinal Loads are parallel to bridge HCL

Strength 1 =	12.1	k / girder
Strength 3 =	0.3	k / girder
Strength 5 =	9.6	k / girder
Extreme Event 2 =	3.5	k / girder
Service 1 =	7.6	k / girder

DEAD LOAD REACTIONS (DC1 + DC2 + DW)

Superstructure Dead Loads (DC1 + DC2)

From Bridge Superstructure Only (See Girder Reaction Calculations)

Total Superstructure DC_1 Wt =	886	k / abut
Total Superstructcure DC_2 Wt =	167	k / abut

Abutment & Appr Slab (DC1 + DC2)

Abutment	Length =	99.25	ft	
	Width =	3	ft	
	Seat Height =	9.21	ft	
	Diaphragm Height =	4.479167	ft	
	Total Wt =	611.3924	k / abut	
Wingwalls	No. Walls =	2		
	Thickness =	1	ft	
	Length =	30	ft	
	Height =	13.68917	ft	
	Total Wt =	123.2025	k / abut	
Approach Slab	Length =	20	ft	Assumes half appr slab goes to abutment
	Width =	95	ft	
	Thickness =	1	ft	
	Vehicular Bridge Rail =	1400	lb/ft	
	Secondary Bridge Rail (2) =	0	lb/ft	
	Median Weight =	0	lb/ft	
	Misc =		k	
	Misc =		k	
	Total Wt =	156.5	k / abut	
Approach Slab	Length =	40	ft	
	Weight =	74	lb/ft	

Total Dead Load to Abutment DC1+DC2 = 1,945 k

Total Dead Load to Pile DC1+DC2 = 219 k / pile

Dead Loads (DW)

From Bridge Superstructure Only (See Girder Reaction Calculations)

Total Superstructure DW Wt =	152.10	k / abut

Approach Slab	Utility Load =	2.375	k
	Wearing Surface =	17.1	k
	Misc =	0	k
	Misc =	0	k

Total Dead Load to Abutment DW = 172 k

Total Dead Load to Pile DW = 19 k / pile

LIVE LOAD REACTIONS (PL + LL)

Live Load (LL Only)

Lane Load = 0.64 k / lane
Vehicle Weight = 72 k / lane IM = 0 %
Total Abutment Load = 103.6575 k / lane (Includes approach slab)

Number of Lanes = 7 lanes
Potential Clear Width = 91 ft (No Sidewalks)

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)
1	1.2	41.77	124.39	5,196
2	1	35.77	207.32	7,416
3	0.85	29.77	264.33	7,869
4	0.65	23.77	269.51	6,406
5	0.65	17.77	336.89	5,987
6	0.65	11.77	404.26	4,759
7	0.65	5.77	471.64	2,722

Pedestrian Load (PL)

PL Load = 75 psf Eccentricity of PL = 0 ft
Sidewalk Width = 17 ft
Total Abutment Load = 63.06776 k (Includes Approach Slab)

Number of Lanes = 6 lanes
Potential Clear Width = 74 ft

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)	P_{PL} (k)	M_{LL} (ft-k)
1	1.2	32	124.39	3,980	63.07	0
2	1	26	207.32	5,390	63.07	0
3	0.85	20	264.33	5,287	63.07	0
4	0.65	14	269.51	3,773	63.07	0
5	0.65	8	336.89	2,695	63.07	0
6	0.65	2	404.26	809	63.07	0

Combined Live Load Cases (Veh Only & PL + LL)

No. Piles = 9 Pile Group Section = 180.00 ft^2/ft

Pile Spacing = 12.00 ft

$P_{Max} = (P_{DL} + P_{LL}) / \text{No. Piles} + (M_{LL} / S)$

$P_{Min} = (P_{DL} + P_{LL}) / \text{No. Piles} - (M_{LL} / S)$

	Veh. Only		Ped Load Incl.	
No. of Lanes	P_{max} (k)	P_{min} (k)	P_{max} (k)	P_{min} (k)
1	42.69	-15.04	42.94	-1.29
2	64.23	-18.16	59.99	0.00
3	73.09	-14.35	65.75	0.00
4	65.54	-5.65	57.91	0.00
5	70.69	0.00	59.41	0.00
6	71.35	0.00	56.42	0.00
7	67.53	0.00		

Maximum Live Load Pile Forces

$R_{LL\,(+)}$ = 73.09 k / pile

$R_{LL\,(-)}$ = -18.16 k / pile

CENTRIFUGAL REACTIONS 3.6.3

$C = f (v^2 / gR)$ = 0.23 k

v = 66 ft / s f = 1.33 R = 770 ft

No. of Lanes	Multi. Presence	Trucks Wt	Horiz. CE	Moment CE	Girder Reaction
1	1.2	72.00	20.24	303.64	± 1.69
2	1	144.00	33.73	506.06	± 2.81
3	0.85	216.00	43.01	645.23	± 3.58
4	0.65	288.00	43.85	657.88	± 3.65
5	0.65	360.00	54.81	822.36	± 4.57
6	0.65	432.00	65.78	986.83	± 5.48
7	0.65	504.00	76.74	1151.30	± 6.40

R_{CE} = ± 6.40 k / pile

H_{CE} = 8.53 k / pile Transverse Reaction

BRAKING 3.6.4

No. of Lanes	Multi. Presence	25% Truck	5% HL93
1	1.2	21.6	5.835453
2	1	36	9.725754
3	0.85	45.9	12.40034
4	0.65	46.8	12.64348
5	0.65	58.5	15.80435
6	0.65	70.2	18.96522
7	0.65	81.9	22.12609

R_{BR} = 9.10 k / pile Longitudinal Reaction

WIND LOAD REACTIONS 3.8.1 & 3.8.2

Str. 3 Wind Pressure, w_3 =	44.7 psf	Vert. Wind pressure, w_{V3} =	20 psf
Str. 5 Wind Pressure, w_5 =	21.3 psf	Vert. Wind pressure, w_{V5} =	10 psf
Trans. Wind on Live =	0.1 k/ft	Long. Wind on Live =	0.04 k/ft
	6ft above deck surface		
Effective Wind Length =	39.46491 ft	Longitudinal Wind =	25%
Structure Height =	9.00 ft	Structure Moment Arm =	4.53 ft

Strength 3

Horizontal H_{WS3} = 15.88 k

M_{WS3} = 71.98 ft-k

Vertical P_{WS3} = 74.19 k

M_{WS3} = 1743.56 ft-k

Total $R_{WS3\,(+)}$ = 1.84 k / pile

Total $R_{WS3\,(-)}$ = -18.33 k / pile

H_{WS3} = 1.76 k / pile (transverse)

L_{WS3} = 0.44 k / girder (longitudinal)

Strength 5 (structure)

Horizontal H_{WS5} = 7.57 k

M_{WS5} = 34.30 ft-k

Vertical P_{WS5} = 7.94 k

M_{WS5} = 186.60 ft-k

Total $R_{WS5\,(+)}$ = 0.34 k / pile

Total $R_{WS5\,(-)}$ = -2.11 k / pile

H_{WS5} = 0.84 k / pile (transverse)

L_{WS5} = 0.21 k / girder (longitudinal)

Strength 5 (live)

Horizontal

H_{WL5} = 3.95 k
L_{WL5} = 1.58 k
M_{WL5} = 59.21 ft-k

Total $R_{WL5\ (+)}$ = 0.33 k / pile
Total $R_{WL5\ (-)}$ = -0.33 k / pile
H_{WL5} = 0.44 k / pile (transverse)
L_{WL5} = 0.18 k / girder (longitudinal)

LOAD COMBINATIONS

Vertical Girder Reactions

	Max	Min	
Strength 1 =	441.5	166.6	k / pile
Strength 3 =	304.3	191.2	k / pile
Strength 5 =	410.4	174.0	k / pile
Extreme Event 2 =	277.9	225.8	k / pile
Service 1 =	320.1	192.8	k / pile

Transverse Girder Reactions

Transverse Loads are perpendicular to bridge HCL

Strength 1 =	14.9	k / pile
Strength 3 =	1.8	k / pile
Strength 5 =	12.8	k / pile
Extreme Event 2 =	4.3	k / pile
Service 1 =	11.6	k / pile

Longitudinal Girder Reactions

Longitudinal Loads are parallel to bridge HCL

Strength 1 =	15.9	k / pile
Strength 3 =	0.4	k / pile
Strength 5 =	12.7	k / pile
Extreme Event 2 =	4.6	k / pile
Service 1 =	9.9	k / pile

Miscellaneous

Max Girder LL Rotation = 0 rad

NOTE TO SELF: WITH PIER; LONG LOADS WILL GO TO PIER. REMOVE
NEED THE DEFLECTION OF THERMAL THOUGH

ASSUMPTIONS

Abutment Cap uses two span beam formulas for calculating moment and shear
Girder Reactions are evaluated midspan between piles.
Positive Moment uses single point load. Negative accounts for two in adjacent spans
Girder Reactions are located within most exterior piles
Weight of wingwalls on abutment cantilever produces smaller moments than interior

GENERAL

Min Girder Spacing =	7.80 ft				
Max Pile Spacing =	12.00 ft				
Avg Seat Height =	9.21 ft		Seat & Diaphragm Weight =	6.16	k/ft
Min Seat Height =	8.42 ft				
End Diaphragm Height =	4.48 ft				
Seat Width =	3.00 ft				
Approach Slab Length =	6.00 ft	*Half Appr Slab	Slab Weight =	0.9	k/ft
Approach Slab Thickness =	1.00 ft				
Wearing Surface Load =	36 psf		Wearing Surface =	0.216	k/ft

VERTICAL LOADING

Maximum Girder Reactions

Strength 1 =	237.3 k / girder
Strength 3 =	133.9 k / girder
Strength 5 =	213.8 k / girder
EE 2 =	132.7 k / girder
Service 1 =	166.5 k / girder

Combined Moments

Uniform Loads from abutment self weight are calculated using two span equations

	$M_{(+)}$ (k-ft)	$M_{(-)}$ (k-ft)	V (k)			
Strength 1 =	670.4	742.8	245.0	M_{serv} =	536.7	k-ft
Strength 3 =	418.4	490.8	141.6			
Strength 5 =	613.0	685.5	221.5	M_u =	742.8	k-ft
EE 2 =	415.5	488.0	140.4	V_u =	245.0	k
Service 1 =	479.1	536.7	172.7			

DESIGN SECTION

T&B, Flexural Bar Size =	# 9		f'_c =	4.5	ksi
Number of Bars =	4		β_1 =	0.825	
Stirrup Size =	# 6		f_y =	60	ksi
Stirrup Spacing =	6	in	A_s =	4	in^2
Bottom Cover =	3	in	d =	96.726	in
Top Cover =	2	in			

FLEXURE DESIGN

Minimum Reinforcement 5.6.3.3

$M_{cr} = 1.33M_u$ = 988.0 k-ft **Controls**

$M_{cr} = \gamma_3\gamma_1 f_r S_c$ = 2785.9 k-ft

$S_c = I_g/c$ = 61254.49 in^3

$I_g = bd^3/12$ = 3094577 in^4

c = 50.52 in

$f_r = 0.24(f'_c)^{1/2}$ = 0.51 ksi 5.4.2.6

γ_3 = 0.67 (Gr 60 Steel)

γ_1 = 1.6 (CIP concrete)

Calculate Resistance Factor 5.6.3.2

α_1 = 0.85 5.6.2.2

a = 1.743 in $A_s f_y / \alpha_1 f'_c b$

c = 2.113 in a/β_1

Net Tensile Strain: 5.5.4.2

ε_{cl} = 0.002 Use ϕ = 0.9

ε_{tl} = 0.005

ε_s = 0.134 (d-c)/c * 0.003

Design for Strength Moment 5.6.3.2.3

$\phi M_n = \phi A_s f_y (d-a/2)$ = 1725.4 k-ft > M_{cr} **OK**

$a = A_s f_y / \alpha_1 f'cb$ = 1.74 in

α_1 = 0.85

Check Crack Control (Distribution of Reinforcement) 5.6.7

$s_{max} = 700\gamma_e/\beta_s f_{ss} - 2d_c$ = 29.34 in $s_{actual,top}$ = 9.79 in **OK**

$s_{actual,btm}$ = 8.12 in **OK**

$\beta_s = 1 + d_c/[\ 0.7(h-d_c)\ ]$ = 1.06

d_c = 4.314 in

γ_e = 1 Class 1 Exposure

$f_{ss} = M_{serv}(d-c)n/I_{cr}$ = 17.33 ksi

$n = E_s/E_c$ = 7.00

c = 11.51 in

$I_{cr} = bc^3/12 + bc(c/2)^2 + nA_s(d-c)^2$ = 221544.6 in^4

Check Side Face Reinforcement 5.6.7

$A_{sk\text{-}max} = A_s/4$ = 1.00 in^2/ft

$A_{sk\text{-}min} = 0.012\,(d_l\text{-}30)$ = 0.80 in^2/ft < 1.00 in^2/ft **OK**

$s_{max} = d_l/6$ or 12" = 12.00 in

Bar Size = # 6

Number of Bars = 11 (not including design flexural bars)

Bar Spacing = 9.364333 in < s_{max} **OK**

$A_{sk\text{-}prov'd}$ = 0.564 in^2/ft < $A_{sk\text{-}min}$ **NG**

SHEAR DESIGN

Minimum Transverse Steel 5.7.2.3

$\phi V_c/2$ = 208.2 k < V_u

Minimum Transverse Steel Required

Nominal Shear Resistance 5.7.3.3

$V_c = 0.0316\beta f'_c{}^{1/2} b_v d_v$ = 462.6 k

β = 2

$d_v = M_n/A_s f_y$ = 95.9 in

$V_s = A_v f_y d_v \cot(\theta) / s$ = 843.5 k

θ = 45

Minimum Stirrups Required

A_v / s (req'd Strength) = -0.033 in^2/ft $A_v / s = (V_u / \phi - V_c) / (f_y\, d_v \cot\theta)$

$A_v / s = 0.0316 f'_c{}^{1/2} b_v / f_y$ = 0.483 in^2/ft 5.7.2.5

Stirrups Provided

A_v / s (prov'd) = 1.760 in^2/ft > A_{vmin} / s **OK**

Check Design Shear Resistance

$\phi V_n = \phi(V_c + V_s)$ = 1175.5 k > 245.0 k **OK** **Controls**

$\phi V_n = \phi(0.25 f'_c b_v d_v)$ = 3493.9 k

ϕ = 0.9

Shrinkage & Temp Steel 5.10.6

$A_{s\text{-}req'd} = 1.3bh / [\,2(b+h) f_y\,]$ = 0.29 in^2/ft (each face, each direction)

A_s = 0.88 in^2/ft > $A_{s\text{-}req'd}$ **OK**

FORCE SUMMARY

Design Forces

	P_u (kip)	M_u (k-ft)	Description
1	441.5	75	Strength 1, Minimum Axial
2	166.6	73	Strength 1, Maximum Axial
3			
4			

CAISSON INFORMATION & GEOMETRY

5.12.9.5

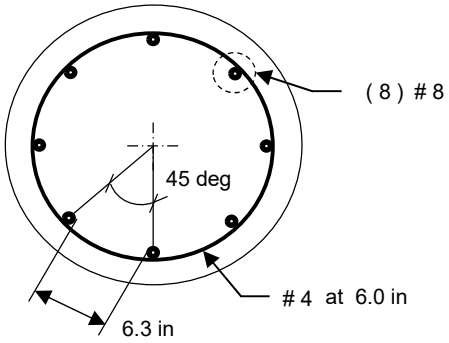
Caisson Diameter = d = 2 ft
Number of Longitudinal Bars = 8
Longitudinal Bar Size = # 8
A_s = 6.32 in^2
$A_{s\text{-}min} = 0.8\% A_g$ = 3.619115 in^2 **OK**

Lateral Reinf. Type = Spirals
Lateral Reinf. Spacing = s = 6 in **OK**
Lateral Reinf. Bar Size = # 4
A_s = 0.40 in^2

Angle of Spacing, θ = 45 deg
Long Bar Clear Cover = 2 in

Clear btw Long Bars = 6.3 in > s_{min} = 5 in **OK**

f'_c = 4 ksi
f_y = 60 ksi



CAISSON EMBEDMENT / SOIL RESISTANCE

Tip Area = A_p = 3.14 ft^2
Surface Perimeter = P_s = 6.28 ft
Pile/Caisson Spacing = 12.00 ft

Capacities from Geotechnical Report by A.G. Wassenaar, March 18, 2016 (Proj Number 153733)
and email from Keith Seaton, PE to FHU on 10/27/2016 updating values to LRFD

Tip Resistance = q_p = 78.2 ksf ϕ_T = 0.55
Side Resistance = q_s = 6.37 ksf ϕ_S = 0.6

Total Embedment Depth = 15 ft
Non effective Depth = 2 ft
Desigh Depth = d = 13 ft

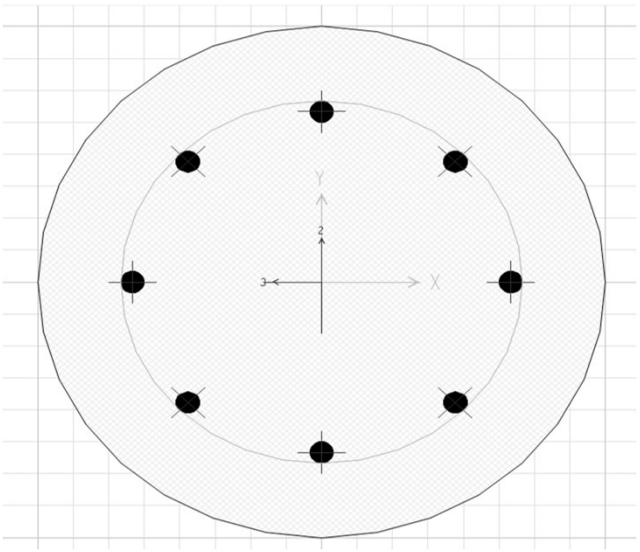
Min Spacing = 3d = 6 ft **OK**

$\phi P_n = \phi_T q_p A_p + \phi_s q_s P_s d$ = 447.3 k > P_u **OK** 10.8.3.5

MOMENT INTERACTION

Interaction Diagram produced in CSi using Phi Factors

ϕP_n (kip)	ϕM_{3n} (k-ft)
980.7	0.0
980.7	85.9
959.3	164.4
797.3	227.9
604.5	267.4
384.5	279.6
262.9	296.9
94.6	280.8
-97.5	174.1
-287.3	48.5
-341.3	0.0

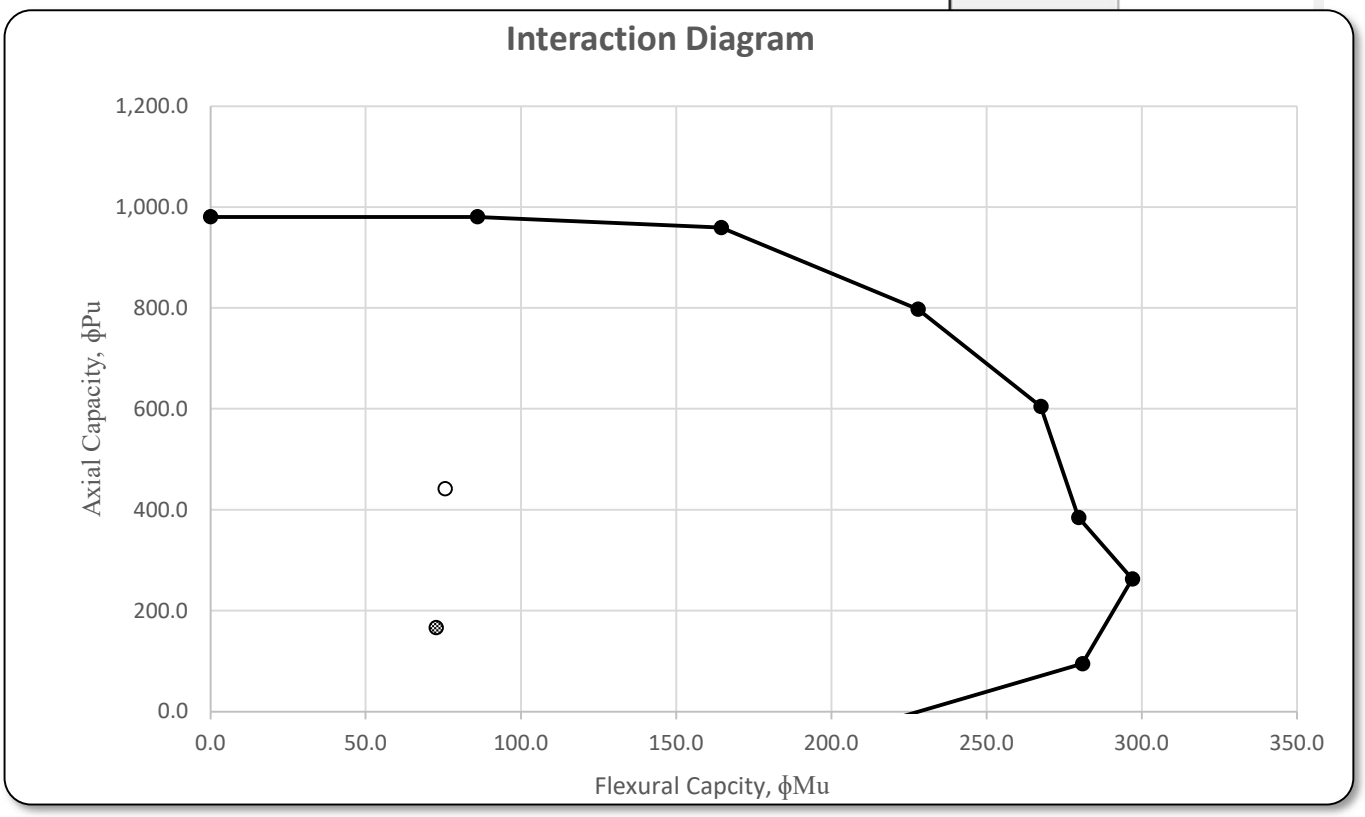


Shape Properties - Reinforcing

Name	CircleBar1
Material	A615Gr60
X Center	0
Y Center	0
Diameter	17
No. of Bars	8
Rotation	0
Bar Size	#8
Bar Area	0.79

Shape Properties - Solid

Name	Circle1
Material	4000Psi
Color	
X Center	0
Y Center	0
Diameter	24
Core Dimensions	Program Determined
Width	19.2
Depth	19.2
Reinforcing	No
Conc. Model	Mander-Unconfined



Top of Boring Elevation = 5777.8 ft
Btm of Seat = 5771.6 ft

Bedrock El = 5750.8 ft

Boring Name = BA1 Abutment 1

	Layer Name	Depth	Lpile Material Name
1.	Sand, medium dense, silty	6	Sand (Reese)
2.	Clay/Sand, medium stiff/loose	21	Soft Clay with Free Water
3.	Claystone (Bedrock)	13	Weak Rock
4.			
5.			
6.			
7.			
8.			
9.			
10.			

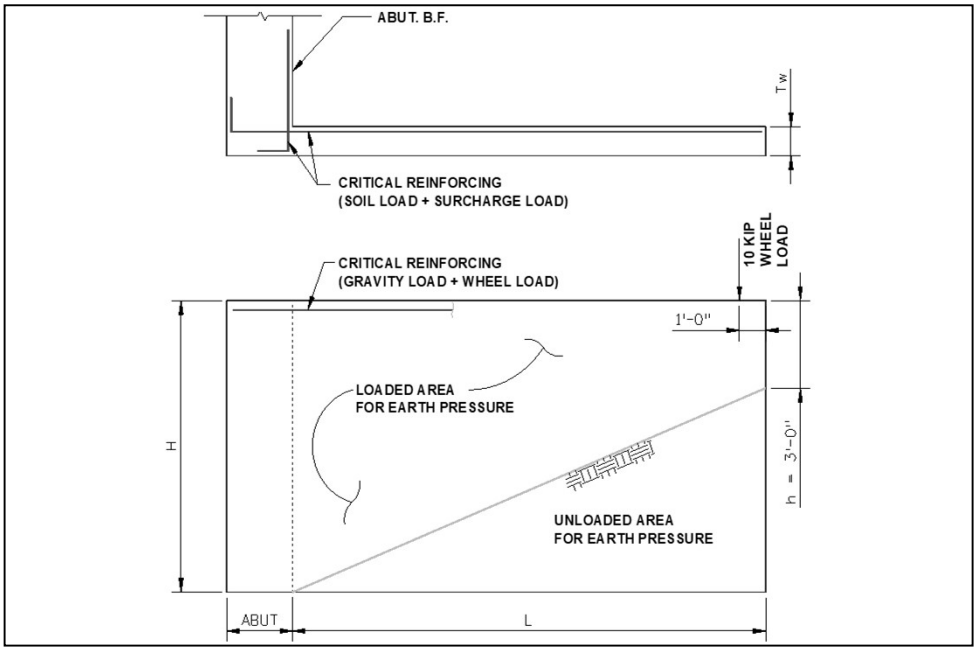
Top of Boring Elevation = 5773.3 ft
Btm of Seat = 5772.92 ft

Bedrock El = 5747.3 ft

Boring Name = BA2 Abutment 3

	Layer Name	Depth	Lpile Material Name
1.	Clay, Soft	7	Soft Clay with Free Water
2.	Sand, medium dense, silty	19	Sand (Reese)
3.	Claystone (Bedrock)	14	Weak Rock
4.			
5.			
6.			
7.			
8.			
9.			
10.			

WINGWALL DIMENSIONS



H = Wall Height (fill height)	14.96	ft	
Assumed End Height, h	3.00	ft	
L = Length of Wall	29.26	ft	BF Abutment to End of Wall
T_w = Wall Thickness	1.00	ft	
Abut. = Abutment Width	3.00	ft	
Clear Cover (side)	2.00	in	
Clear Cover (bottom)	3.00	in	

LOADS

Wheel Load, P	0.00	kip	
Distance, a	1.00	ft	Distance from End of Wing to Wheel Load
Distance, b	28.26	ft	Distance from BF Abut. to Wheel Load
Live Load Surcharge, S	2.00	ft	Equivalent Height
Equivalent Fluid Pressure, w	35.00	pcf	Active Pressure from Geotechnical Report
Wall DL (self weight), $w_{DL,wall}$	2.24	k / ft	0.15 kcf * H * T_w

LOAD FACTORS

	STRENGTH I	SERVICE I	LRFD Table 3.4.1-2
γ_{DC}	1.25	1.00	Dead Load Factor
γ_{EH}	1.50	1.00	Horizontal Earth Pressure Factor
γ_{LS}	1.75	1.00	Live Load Surcharge Factor
γ_{LL}	1.75	1.00	Live Load Factor

DESIGN PARAMETERS

Concrete Class D, f'_c	4.5	ksi	
Reif. Steel Yield Strength, f_y	60	ksi	
ϕ(flexure)	0.90		
ϕ(shear)	0.90		
Es	29000	ksi	
Ec	4107	ksi	[5.4.2.4]
n	7.06		
β_1 = 0.85 - (f'c - 4) x 0.05 ≥ 0.65	0.825		[5.7.2.2]
Unit Weight of Concrete, γ_c	150.00	pcf	

WALL DESIGN (HORIZONTAL LOADS)

MOMENTS AND SHEARS ABOUT VERTICAL PLANE AT BF ABUTMENT

Reference Caltrans Bridge Design Aids - July 1989

Total Service Moment, $M_s = (wL^2 / 24) * [3h + (H + 4S)*(H + 2h)]$

Total Service Shear, $V_s = (wL / 6) * [H^2 + (h + H)*(h + 3S)]$

Total Service Moment	634.59	k-ft	(Soil + Surcharge)
Total Service Shear	65.79	k	(Soil + Surcharge)
Total Service Moment per foot	42.42	k-ft / ft	(Soil + Surcharge)
Total Service Shear per foot	4.40	k / ft	(Soil + Surcharge)

Surcharge Moment, $M_{sur} = [(H - h) / 2] * S * L * w * L / 3 + h * S * L * w * L / 2$

Surcharge Shear, $V_{sur} = [(H - h) / 2] * S * L * w + h * S * L * w$

Surcharge Moment	209.36	k-ft	(Surcharge Only)
Surcharge Shear	18.39	k	(Surcharge Only)
Surcharge Moment per foot	13.99	k-ft / ft	(Surcharge Only)
Surcharge Shear per foot	1.23	k / ft	(Surcharge Only)
Soil Moment = Total - Surcharge	28.42	k-ft / ft	(Soil Only)
Soil Shear = Total - Surcharge	3.17	k / ft	(Soil Only)
Factored Moment, M_u	67.13	k-ft / ft	
Factored Shear, V_u	6.90	k / ft	

FLEXURE DESIGN

Factored Moment, M_u	67.13	k-ft / ft	***CONTROLS***
Clear Cover	2.00	in	
Effective Minimun Depth, d =	8.94	in	
Bar Size	# 9		
Desired Spacing	6	in	

Compare M_u to Minimum Reinforcement Required [5.7.3.3.2]

f_r = 0.37 SQRT(f'c)	0.785	ksi	
I_g = (1 / 12) bh^3	1728	in^4	
y_t = h / 2	6.00	in	
1.2 Mcr	22.60	k-ft	(1.2 x I_g x f_r) / (12 x y_t)
1.33 Mu	89.28	k-ft	

Design for Mu

$\phi M_n = \phi A_s f_y (d - a/2)$

a = 1.31 A_s $\quad$ (A_s f_y) / (0.85 f'c b)

ϕMn	=	ϕ fy d	As	-	ϕ fy a/2	As		
805.53	=	482.54	As	-	35.29	As^2		
22.82	=	13.67	As	-	1.00	As^2		
0	=	1.00	As^2	-	13.67	As	+	22.82

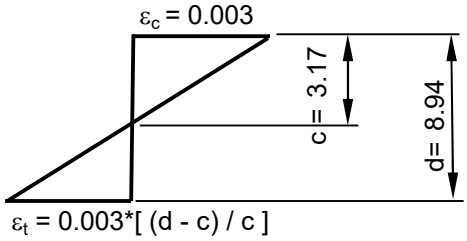
As, req'd = 1.95 in^2

As, prov'd = 2.00 in^2 **OK**

Check Tensioned Controlled Assumption for Resistance Factor, ϕ_f = 0.9 [5.7.3.3.1]

Depth to Compression Block, a	2.61	in	(A_s f_y) / (0.85 f'c b)
Depth to Neutral Axis, c	3.17	in	a/β_1
ε_c	0.003		
Net Tensile Strain, ε_s	0.005		[(d - c) / c] * ε_c **> 0.005** **OK**

Tension Controlled



FLEXURE DESIGN (cont.)

Check Section Capacity

ϕM_n =	68.66	k-ft	>	Mu = 67.13 k-ft	**OK**

Check Crack Control (Distribution of Reinforcement) [5.7.3.4]

S, max. spacing	8.18	in	$(700\ \gamma_e / \beta_s\ f_s) - 2d_c \le 1.5 * h$ or 18"
β_s	1.49		$1 + [\ d_c / (0.7\ (h-d_c))\ ]$
h	12.00	in	
Thickness of Conc. Cover, d_c	3.06	in	cover + stirrup diameter + 1/2 bar diameter
Exposure Factor, γ_e	1.00		1.00 for Class 1 exposure; 0.75 for Class 2

Tensile Stress in Steel Reinfocing at Service Limit:

f_s	32.84	ksi	$M_{service} / (A_{s,\ prov'd}\ j\ d)$
$M_{service}$	509.03	k-in	Service Load Moment
Ec	4107	ksi	[C.5.4.2.4-1]
Es	29000	ksi	
Modules Ratio, n	7.06		Es/Ec
ρ	0.019		$A_{s,\ prov'd} / d\ b$
k	0.40		$SQRT[\ 2n\rho + (n\rho)^2\ ] - n\rho$
j	0.87		$1 - k / 3$

Actual spacing	6.00	in	<	S, max	**OK**

USE # 9 bars @ 6 inches

SHEAR DESIGN

Stirrups are required where $V_u > 0.5\ \phi\ V_c$ [5.8.2.4]

V_u =	6.90	k			
$V_c = 0.0316\ \beta\ SQRT(f'_c)\ b_v\ d_v$	12.27	k			[5.8.3.3]
β	2				[5.8.3.4.1]
b_v	12	in			
$d_v = Mn / (As * fy)$	7.63	in			
$0.5\ \phi\ V_c$	5.52	k	<	V_u, therefore	***Stirrups Required***

ABUTMENT / WALL CONNECTION DESIGN

FLEXURE DESIGN

Factored Moment, M_u	67.13	k-ft / ft
Clear Cover	2.00	in
Effective Minimun Depth, d =	33.13	in
Bar Size	# 6	
Desired Spacing	6	in

Compare M_u to Minimum Reinforcement Required [5.7.3.3.2]

f_r = 0.37 SQRT(f'c)	0.785	ksi
I_g = (1 / 12) bh^3	46656	in^4
y_t = h / 2	18.00	in

1.2 Mcr	203.44	k-ft	$(1.2 \times I_g \times f_r) / (12 \times y_t)$
1.33 Mu	89.28	k-ft	***CONTROLS***

Design for Mu

$\phi M_n = \phi A_s f_y (d - a/2)$

a = 1.31 A_s $(A_s f_y) / (0.85 f'c\ b)$

ϕMn	=	ϕ fy d As	-	ϕ fy a/2 As			
1071.35	=	1788.75 As	-	35.29 As^2			
30.35	=	50.68 As	-	1.00 As^2			
0	=	1.00 As^2	-	50.68 As	+	30.35	

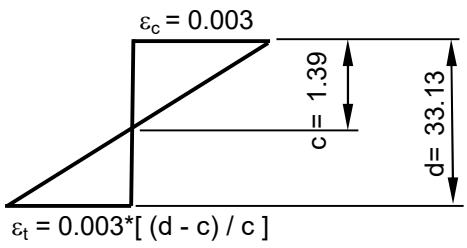
As, req'd = 0.61 in^2

As, prov'd = 0.88 in^2 **OK**

Check Tensioned Controlled Assumption for Resistance Factor, ϕ_f = 0.9 [5.7.3.3.1]

Depth to Compression Block, a	1.15	in	$(A_s f_y) / (0.85 f'c\ b)$
Depth to Neutral Axis, c	1.39	in	a/β_1
ε_c	0.003		
Net Tensile Strain, ε_s	0.068		[(d - c) / c] * ε_c **> 0.005 OK**

Tension Controlled



FLEXURE DESIGN (cont.)

Check Section Capacity

ϕM_n =	128.90	k-ft	>	Mu = 89.28 k-ft	**OK**

Check Crack Control (Distribution of Reinforcement) [5.7.3.4]

S, max. spacing	18.00	in	(700 γ_e / β_s f_s) - 2d_c ≤ 1.5 * h or 18"
β_s	1.00		1 + [d_c / (0.7 (h-d_c))]
h	5790.53	in	
Thickness of Conc. Cover, d_c	2.88	in	cover + stirrup diameter + 1/2 bar diameter
Exposure Factor, γ_e	1.00		1.00 for Class 1 exposure; 0.75 for Class 2

Tensile Stress in Steel Reinfocing at Service Limit:

f_s	18.46	ksi	$M_{service}$ / ($A_{s,\ prov'd}$ j d)	
$M_{service}$	509.03	k-in	Service Load Moment	
Ec	4107	ksi		[C.5.4.2.4-1]
Es	29000	ksi		
Modules Ratio, n	7.06		Es/Ec	
ρ	0.002		$A_{s,\ prov'd}$ / d b	
k	0.16		SQRT[2nρ + (nρ)^2] - nρ	
j	0.95		1 - k / 3	
Actual spacing	6.00	in	< S, max	**OK**

<u>USE # 6 bars @ 6 inches</u>

SHEAR DESIGN

Stirrups are required where V_u > 0.5 ϕ V_c [5.8.2.4]

V_u =	6.90	k			
V_c = 0.0316 β SQRT(f'$_c$) b_v d_v	52.37	k			[5.8.3.3]
β	2				[5.8.3.4.1]
b_v	12	in			
d_v = Mn / (As * fy)	32.55	in			
0.5 ϕ V_c	23.56	k	>	V_u, therefore	***No Stirrups Required***

WALL DESIGN (VERTICAL LOADS)

MOMENTS AND SHEARS DUE TO GRAVITY LOADS

Wall Type	1		Enter 1 if Cantilever Wall; 2 if Pile supported Wall
Moment at BF Abut (Cantilever)	$w_{DL,wall} L^2 / 2$		
Shear at BF Abut (Cantilever)	$w_{DL,wall} L$		
Moment at BF Abut (Pile)	$w_{DL,wall} L^2 / 8$		
Shear at BF Abut (Pile)	$5 w_{DL,wall} L / 8$		
Service Moment	960.63	k-ft	
Service Shear	65.66	k	
Factored Moment	1200.79	k-ft	
Factored Shear	82.08	k	

MOMENTS AND SHEARS DUE TO WHEEL LOAD

Moment at BF Abut (Cantilever)	P b		
Shear at BF Abut (Cantilever)	P		
Moment at BF Abut (Pile)	$(P a b / 2 L^2) (a + L)$		
Shear at BF Abut (Pile)	$(P a / 2 L^3) (3 L^2 - a^2)$		
Service Moment	0.00	k-ft	
Service Shear	0.00	k	
Factored Moment	0.00	k-ft	
Factored Shear	0.00	k	

FLEXURE DESIGN

Factored Moment, M_u	1200.79	k-ft
Clear Cover	2.00	in
Effective Minimun Depth, d =	176.39	in
Bar Size	# 10	
Number of Bars	2	

Compare M_u to Minimum Reinforcement Required [5.7.3.3.2]

f_r = 0.37 SQRT(f'c)	0.785	ksi
I_g = (1 / 12) bh^3	5785468	in^4
y_t = h / 2	89.76	in

1.2 Mcr	5058.99	k-ft	(1.2 x I_g x f_r) / (12 x y_t)
1.33 Mu	1597.05	k-ft	***CONTROLS***

Design for Mu

$\phi M_n = \phi A_s f_y (d - a/2)$

a = 1.31 A_s $(A_s f_y) / (0.85 f'c\ b)$

	ϕMn	=	ϕ fy d As	-	ϕ fy a/2 As			
	19164.63	=	9524.79 As	-	35.29 As^2			
	543.00	=	269.87 As	-	1.00 As^2			
	0	=	1.00 As^2	-	269.87 As	+	543.00	

As, req'd = 2.03 in^2

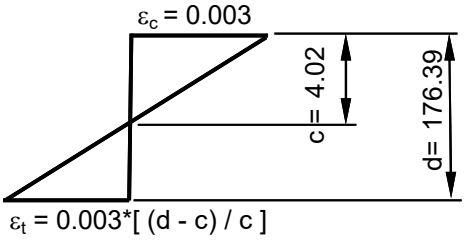
As, prov'd = 2.54 in^2 **OK**

FLEXURE DESIGN (cont.)

Check Tensioned Controlled Assumption for Resistance Factor, ϕ_f = 0.9 [5.7.3.3.1]

Depth to Compression Block, a	3.32	in	$(A_s f_y) / (0.85 f'c\ b)$	
Depth to Neutral Axis, c	4.02	in	a/β_1	
ε_c	0.003			
Net Tensile Strain, ε_s	0.128		$[(d - c) / c] * \varepsilon_c$	**> 0.005 OK**

Tension Controlled



Check Section Capacity

ϕM_n =	1997.11	k-ft >	Mu =	1597.05 k-ft	**OK**

Check Crack Control (Distribution of Reinforcement) [5.7.3.4]

S, max. spacing	18.00	in	$(700 \gamma_e / \beta_s f_s) - 2d_c \le 1.5 * h$ or 18"	
β_s	1.03		$1 + [d_c / (0.7 (h-d_c))]$	
h	179.52	in		
Thickness of Conc. Cover, d_c	3.14	in	cover + stirrup diameter + 1/2 bar diameter	
Exposure Factor, γ_e	1.00		1.00 for Class 1 exposure; 0.75 for Class 2	

Tensile Stress in Steel Reinfocing at Service Limit:

f_s	26.82	ksi	$M_{service} / (A_{s,\ prov'd}\ j\ d)$	
$M_{service}$	11527.60	k-in	Service Load Moment	
Ec	4107	ksi		[C.5.4.2.4-1]
Es	29000	ksi		
Modules Ratio, n	7.06		Es/Ec	
ρ	0.001		$A_{s,\ prov'd} / d\ b$	
k	0.12		$SQRT[2n\rho + (n\rho)^2] - n\rho$	
j	0.96		$1 - k / 3$	
Actual spacing	5.73	in	< S, max	**OK**

<u>USE 2- # 10 bars at Top of Wall</u>

SHEAR DESIGN

Stirrups are required where $V_u > 0.5\ \phi\ V_c$ [5.8.2.4]

V_u =	82.08	k			
$V_c = 0.0316\ \beta\ SQRT(f'_c)\ b_v\ d_v$	281.10	k			[5.8.3.3]
β	2				[5.8.3.4.1]
b_v	12	in			
$d_v = Mn / (As * fy)$	174.72	in			
$0.5\ \phi\ V_c$	126.49	k	>	V_u, therefore	***No Stirrups Required***

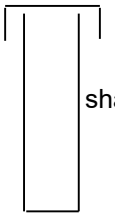
SHRINKAGE AND TEMPERATURE REINFORCONG REQUIREMENTS

$$As >= \frac{1.3 * b * h}{2 * (b + h) * fy}$$ 0.12 in^2 / ft each direction [5.10.8] [5.8.10-2]

0.11<=As<=0.60 **OK, within Acceptable Range**

Bar Size	# 4
Desired Spacing	12 in

As, prov'd = 0.20 in^2 **OK**

Use :  shaped bars for vertical reinforcing within wingwall

USE # 4 bars @ 12 inches

5.0 PIER DESIGN

ASSUMPTIONS

Overturning due to uneven girder placement for DC1 is not considered
DC2 and DW are assumed to apply evenly to bearing seat through integral abutment diaphragm
Bridge shall be evaluated for 100yr scour at Strength 1 & 500yr for Extreme Event 2 (EE 2)

Lateral Loads are converted into moments & vertical pile reactions

LOAD COMBINATIONS

	γ_{DC}	γ_{DW}	$\gamma_{LL\ \&\ PL}$	γ_{CE}	γ_{BR}	γ_{WS3}	γ_{WS5}	γ_{WL}	γ_{TU}
Strength 1	1.25	1.50	1.75	1.75	1.75	0.00	0.00	0.00	0.50
Strength 2	1.25	1.50	1.35	1.75	1.75	0.00	0.00	0.00	0.50
Strength 3	1.25	1.50	0.00	0.00	0.00	1.00	0.00	0.00	0.50
Strength 5	1.25	1.50	1.35	1.35	1.35	0.00	1.00	1.00	0.50
EE 2	1.00	1.00	0.50	0.50	0.50	0.00	0.00	0.00	0.00
Service 1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Load combinations used for designing abutment cap & piles/caissons. TU factor shall use the lower value per 3.4.1. Actual joint design shall use the larger value without justification otherwise.

DEAD LOAD REACTIONS (DC1 + DC2 + DW)

Non-Composite Dead (DC1)

Approach Slab Weight not included as it bears on the abutment & not on the girders

	Ext Girder (G1)	Int Girders	Ext Girder
No. of Girders:	1	10	1
Trib Deck Width:	5.99	8.20	5.99
Girder:	71.51 k	71.51 k	71.51 k
Deck:	47.31 k	64.73 k	47.31 k
Haunch:	10.61 k	10.61 k	10.61 k
Overhang Soffit:	0.20 k	0 k	0.20 k
SIP Forms:	1.62 k	3.24 k	1.62 k
Bridge Diaphragm:	0.06 k	0.12 k	0.06 k
Misc:	0 k	0 k	0 k
Misc:	0 k	0 k	0 k
Misc:	0 k	0 k	0 k
Total:	**131.30 k/girder**	**150.21 k/girder**	**131.30 k/girder**

Composite Dead (DC2)

Assumes composite dead loads evenly apply to girders equally

	Total Pier Force	
Vehicular Bridge Rail:	110.50 k	
Secondary Bridge Rail (2):	0.00 k	(If applicable)
Median Weight:	0.00 k	
Sidewalk Weight:	224.33 k	
Misc:	0 k	
Total:	**334.84 k**	

Composite Dead (DW)

Assumes composite dead loads evenly apply to girders equally

	Total Pier Force
Utility Load:	37.10 k
Wearing Surface:	267.10 k
Misc:	0 k
Misc:	0 k
Total:	**304.20 k**

Maximum Dead Load Girder Reactions

$R_{DC\,(+)}$ = 178.11 k / girder

$R_{DC\,(+)}$ = 159.21 k / girder

R_{DW} = 25.35 k / girder

LIVE LOAD REACTIONS (PL + LL)

Live Load (LL Only)

Lane Load = 0.64 k / lane
Vehicle Weight = 96.88809 k / lane (Impact Included) IM = 33 %
Total Reaction = 147.4032 k / lane

Number of Lanes = 7 lanes
Potential Clear Width = 91 ft (No Sidewalks)

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)
1	1.2	40.5	176.8838	7,164
2	1	34.5	294.8063	10,171
3	0.85	28.5	375.8781	10,713
4	0.65	22.5	383.2482	8,623
5	0.65	16.5	479.0603	7,904
6	0.65	10.5	574.8724	6,036
7	0.65	4.5	670.6844	3,018

Pedestrian Load (PL)

PL Load = 75 psf Eccentricity of PL = 0 ft
Sidewalk Width = 17 ft
Total Reaction = 100.6355 k

Number of Veh Lanes = 6 lanes
Potential Veh Clear Width = 74 ft

No. of Lanes	Multi. Presence	e (ft)	P_{LL} (k)	M_{LL} (ft-k)	P_{PL} (k)	M_{LL} (ft-k)
1	1.2	32	120.7626	3,864	100.6355	0
2	1	26	201.271	5,233	100.6355	0
3	0.85	20	256.6206	5,132	100.6355	0
4	0.65	14	261.6524	3,663	100.6355	0
5	0.65	8	327.0654	2,617	100.6355	0
6	0.65	2	392.4785	785	100.6355	0

Combined Live Load Cases (Veh Only & PL + LL)

No. Girders = 12 Girder Group Section = 213.23 ft^2/ft

Girder Spacing = 8.20 ft Group Moment Inertia = 9,618 ft^4/ft

Girder spacing used is along the foundation centerline

$P_{Max} = (P_{DL} + P_{LL}) / \text{No. Girders} + (M_{LL} / S)$

$P_{Min} = (P_{DL} + P_{LL}) / \text{No. Girders} - (M_{LL} / S)$

	Veh. Only		Ped Load Incl.	
No. of Lanes	P_{max} (k)	P_{min} (k)	P_{max} (k)	P_{min} (k)
1	48.34	-18.86	36.57	0.00
2	72.27	-23.13	49.70	0.00
3	81.56	-18.92	53.84	0.00
4	72.38	-8.50	47.37	0.00
5	76.99	0.00	47.91	0.00
6	76.21	0.00	44.77	0.00
7	70.04	0.00		

Maximum Live Load Girder Reactions

$R_{LL\,(+)}$ = 81.56 k / girder

$R_{LL\,(-)}$ = -23.13 k / girder

CENTRIFUGAL REACTIONS 3.6.3

$C = f (v^2 / gR)$ = 0.23 k

v = 66 ft / s f = 1.33 R = 770 ft

No. of Lanes	Multi. Presence	Trucks Wt	Horiz. CE	Moment CE	Girder Reaction
1	1.2	96.89	27.24	414.84	± 1.95
2	1	193.78	45.39	691.40	± 3.24
3	0.85	290.66	57.87	881.53	± 4.13
4	0.65	387.55	59.01	898.82	± 4.22
5	0.65	484.44	73.76	1123.52	± 5.27
6	0.65	581.33	88.51	1348.23	± 6.32
7	0.65	678.22	103.27	1572.93	± 7.38

R_{CE} = ± 7.38 k / girder

H_{CE} = 8.61 k / girder Transverse Reaction

BRAKING 3.6.4

No. of Lanes	Multi. Presence	25% Truck	5% HL93	Controlling Case
1	1.2	29.07	8.84	29.07
2	1	48.44	14.74	48.44
3	0.85	61.77	18.79	61.77
4	0.65	62.98	19.16	62.98
5	0.65	78.72	23.95	78.72
6	0.65	94.47	28.74	94.47
7	0.65	110.21	33.53	110.21

L_{BR} = 9.18 k / girder Longitudinal Reaction

WIND LOAD REACTIONS 3.8.1 & 3.8.2

Str. 3 Wind Pressure, w_3 = 44.1 psf
Str. 5 Wind Pressure, w_5 = 21.3 psf
Trans. Wind on Live = 0.1 k/ft
6ft above deck surface
Effective Wind Length = 77.25 ft
Structure Height = 9.23 ft

Vert. Wind pressure, w_{V3} = 20 psf
Vert. Wind pressure, w_{V5} = 10 psf
Long. Wind on Live = 0.04 k/ft
Longitudinal Wind = 25%
Structure Moment Arm = 4.65 ft

Strength 3

Horizontal
H_{WS3} = 31.45 k
M_{WS3} = 146.15 ft-k

Vertical
P_{WS3} = 145.23 k
M_{WS3} = 3412.91 ft-k

Total $R_{WS3\,(+)}$ = 4.59 k / girder
Total $R_{WS3\,(-)}$ = -28.79 k / girder
H_{WS3} = 2.62 k / girder (transverse)
L_{WS3} = 0.66 k / girder (longitudinal)

Strength 5 (structure)

Horizontal
H_{WS5} = 15.19 k
M_{WS5} = 70.59 ft-k

Vertical
P_{WS5} = 15.72 k
M_{WS5} = 369.53 ft-k

Total $R_{WS5\,(+)}$ = 0.75 k / girder
Total $R_{WS5\,(-)}$ = -3.37 k / girder
H_{WS5} = 1.27 k / girder (transverse)
L_{WS5} = 0.32 k / girder (longitudinal)

Strength 5 (live)

Horizontal

H_{WL5} = 7.73 k
L_{WL5} = 3.09 k
M_{WL5} = 117.66 ft-k

Total $R_{WL5\ (+)}$ = 0.55 k / girder
Total $R_{WL5\ (-)}$ = -0.55 k / girder
H_{WL5} = 0.64 k / girder (transverse)
L_{WL5} = 0.26 k / girder (longitudinal)

THERMAL MOVMENTS

Effective Thermal Movement =	140	ft		
Bridge Skew =	17.5	°		
Expansion Coefficient, α =	0.000006	/°F		
Max Cold Change in Temp, ΔT_C =	90	°F		
Max Hot Change in Temp, ΔT_H =	50	°F		
Shringage Coefficient, $\varepsilon_{CR\ \&\ SH}$ =	0.0002	in/in	28 days	5.4.2.3
Shringage Coefficient, $\varepsilon_{CR\ \&\ SH}$ =	0.0005	in/in	1 year	
$T_{Base\ Temp}$ =	60	°F		
$T_{Max\ Design}$ =	110	°F		3.12.2.1
$T_{Min\ Design}$ =	-30	°F		3.12.2.1

Factored movements for abutment design

$\Delta_{Contraction} = L(\gamma_{TU}\Delta T_C\alpha+\varepsilon)\cos\theta$ = 1.233728 in
$\Delta_{Expansion} = L(\gamma_{TU}\Delta T_H\alpha-\varepsilon)\cos\theta$ = -0.080112 in

$\gamma_{TU\text{-}Strength}$ = 0.50

LOAD COMBINATIONS

Vertical Girder Reactions

	Max	Min	
Strength 1 =	416.3	106.4	k / girder
Strength 3 =	265.3	131.0	k / girder
Strength 5 =	382.0	114.7	k / girder
Extreme Event 2 =	247.9	169.3	k / girder
Service 1 =	298.3	121.3	k / girder

Transverse Girder Reactions Transverse Loads are perpendicular to bridge HCL

Strength 1 =	15.1	k / girder
Strength 3 =	2.6	k / girder
Strength 5 =	13.5	k / girder
Extreme Event 2 =	4.3	k / girder
Service 1 =	13.1	k / girder

Longitudinal Girder Reactions Longitudinal Loads are parallel to bridge HCL

Strength 1 =	16.1	k / girder
Strength 3 =	0.7	k / girder
Strength 5 =	13.0	k / girder
Extreme Event 2 =	4.6	k / girder
Service 1 =	10.4	k / girder

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	21.4	42.8	64.1	85.5	105.1	124.8	144.4	164.1	183.7
End =	0.0	21.4	42.8	64.1	85.5	105.1	124.8	144.4	164.1	183.7	183.7
M_{serv}+ (k-ft) =	0	192	541	904	904	904	743	591	431	277	277
M_u+ (k-ft) =	0	262	750	1,265	1,265	1,265	1,039	827	607	400	400
M_{serv}- (k-ft) =	703	703	300	94	480	531	378	218	51	51	51
M_u- (k-ft) =	1,042	1,042	469	11	365	377	264	143	14	14	14
V_u (k) =	325	325	319	313	307	132	138	143	542	542	542
T_u (ft-k) =	73	73	73	73	73	29	29	29	29	29	29
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	6	6	6	10	10	10	10	10	6	6	6
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

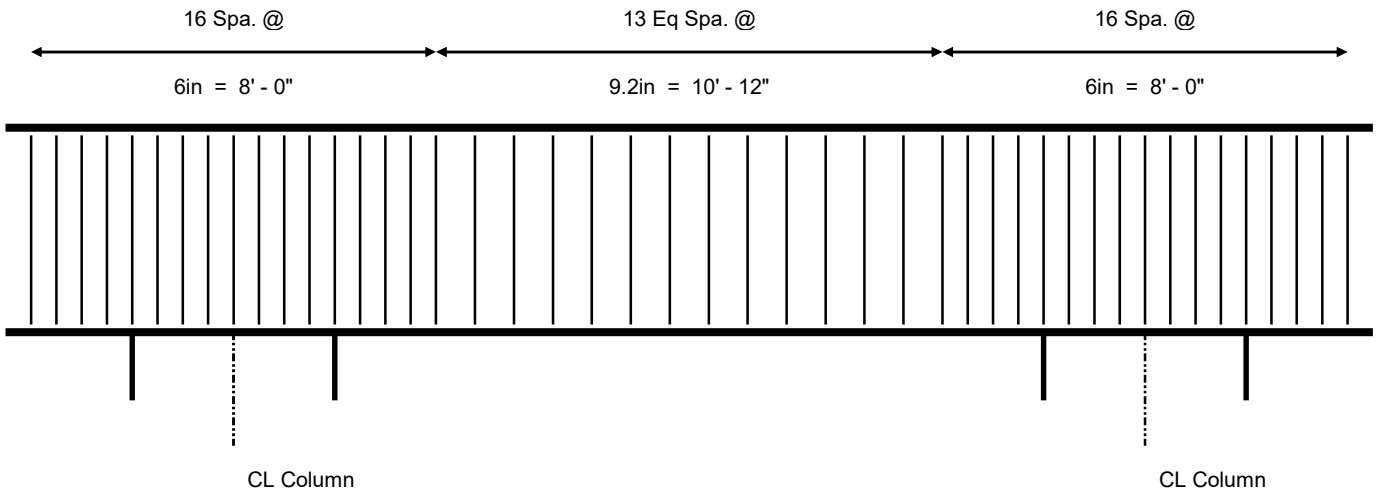
POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	349.1	997.4	1682.9	1682.9	1682.9	1381.4	1100.1	806.7	531.4	531.4	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	5.23	14.75	24.63	24.63	24.63	20.24	16.09	11.74	7.56	7.56	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	115.05	36.34	18.98	18.98	18.98	24.60	32.72	47.39	77.49	77.49	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	1385.8	1385.8	623.5	14.4	485.2	501.7	351.7	189.6	19.1	19.1	19.1	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	19.15	19.15	8.17	2.57	13.07	14.47	10.31	5.95	1.39	1.39	1.39	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	26.39	26.39	71.17	241.50	41.87	37.17	54.97	100.25	451.61	451.61	451.61	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	862.7	862.7	862.7	517.6	517.6	517.6	517.6	517.6	862.7	862.7	862.7	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0008	0.0008	0.0006	0.0009	0.0009	0.0007	0.0006	0.0005	0.0008	0.0007	0.0007	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	3.52	3.52	3.52	2.112	2.112	2.112	2.112	2.112	3.52	3.52	3.52	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	1060.3	1060.3	1060.3	749.7	749.7	749.7	749.7	749.7	1060.3	1060.3	1060.3	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.153	0.153	0.151	0.148	0.145	0.062	0.065	0.068	0.256	0.256	0.256	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	995.804	995.804	995.804	597.483	597.483	597.483	597.483	597.483	995.804	995.804	995.804	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.023	0.023	0.020	0.027	0.022	0.000	0.000	0.000	0.146	0.146	0.146	
$A_{tbar\text{-}req'd}$ (in^2) =	0.032	0.032	0.032	0.054	0.054	0.021	0.021	0.021	0.013	0.013	0.013	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.056	0.056	0.052	0.081	0.076	0.021	0.021	0.021	0.159	0.159	0.159	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	



NOTE: Section direction over the column and extended to "dv" may increase spacing for fit up of column extended steel

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	22.0	43.9	65.9	85.6	105.3	124.9	144.6	164.3	164.3
End =	0.0	22.0	43.9	65.9	85.6	105.3	124.9	144.6	164.3	164.3	181.5
M_{serv}+ (k-ft) =	0	0	402	402	402	392	392	390	380	380	363
M_u+ (k-ft) =	0	0	560	560	560	551	551	551	545	545	529
M_{serv}- (k-ft) =	1,203	1,203	659	124	344	326	301	268	268	268	494
M_u- (k-ft) =	1,715	1,715	946	187	253	238	214	182	182	182	674
V_u (k) =	424	424	417	411	18	21	26	395	395	395	405
T_u (ft-k) =	62	62	62	62	17	17	17	17	17	17	27
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	6	6	6	10	10	10	10	10	6	6	6
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

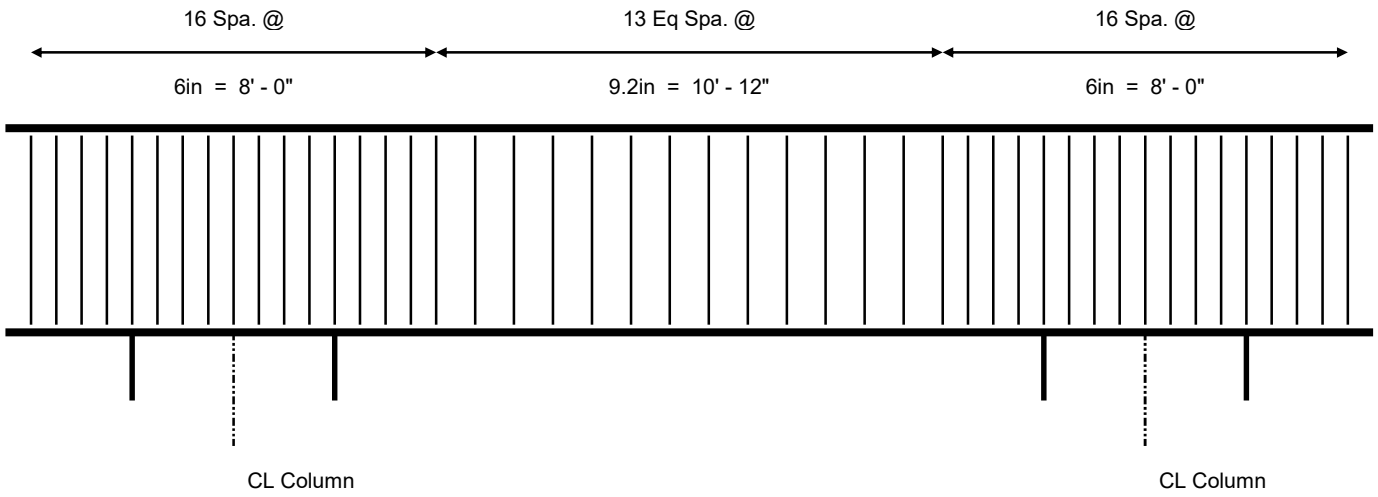
POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	0.0	744.2	744.2	744.2	733.1	733.1	733.1	724.4	724.4	703.6	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	0.00	10.96	10.96	10.96	10.68	10.68	10.61	10.35	10.35	9.89	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	36.00	51.29	51.29	51.29	52.80	52.80	53.19	54.72	54.72	57.60	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	2281.4	2281.4	1257.8	249.3	335.9	317.2	285.2	242.7	242.7	242.7	895.9	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	32.79	32.79	17.96	3.38	9.38	8.88	8.19	7.31	7.31	7.31	13.47	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	12.54	12.54	28.60	181.74	61.08	64.88	70.91	80.28	80.28	80.28	40.45	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	862.7	862.7	862.7	517.6	517.6	517.6	517.6	517.6	862.7	862.7	862.7	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0012	0.0012	0.0008	0.0006	0.0003	0.0003	0.0003	0.0006	0.0006	0.0006	0.0007	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	3.52	3.52	3.52	2.112	2.112	2.112	2.112	2.112	3.52	3.52	3.52	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	1060.3	1060.3	1060.3	749.7	749.7	749.7	749.7	749.7	1060.3	1060.3	1060.3	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.200	0.200	0.197	0.194	0.008	0.010	0.012	0.187	0.187	0.187	0.191	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	995.804	995.804	995.804	597.483	597.483	597.483	597.483	597.483	995.804	995.804	995.804	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.079	0.079	0.076	0.120	0.000	0.000	0.000	0.105	0.063	0.063	0.069	
$A_{tbar\text{-}req'd}$ (in^2) =	0.027	0.027	0.027	0.046	0.013	0.013	0.013	0.013	0.008	0.008	0.012	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.106	0.106	0.103	0.166	0.013	0.013	0.013	0.118	0.071	0.071	0.081	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	



NOTE: Section direction over the column and extended to "dv" may increase spacing for fit up of column extended steel

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	23.4	46.8	46.8	86.2	105.9	125.6	145.3	145.3	168.9
End =	0.0	23.4	46.8	46.8	86.2	105.9	125.6	145.3	145.3	168.9	192.4
M_{serv}+ (k-ft) =	0	135	135	135	385	467	541	541	541	541	82
M_u+ (k-ft) =	0	184	184	184	540	662	774	774	774	774	129
M_{serv}- (k-ft) =	1,186	1,186	526	526	198	268	328	382	382	360	813
M_u- (k-ft) =	1,693	1,693	759	759	153	204	248	286	286	486	1,114
V_u (k) =	483	483	476	476	88	82	303	303	303	317	323
T_u (ft-k) =	36	36	36	36	9	9	9	9	9	53	53
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	6	6	6	10	10	10	10	10	6	6	6
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

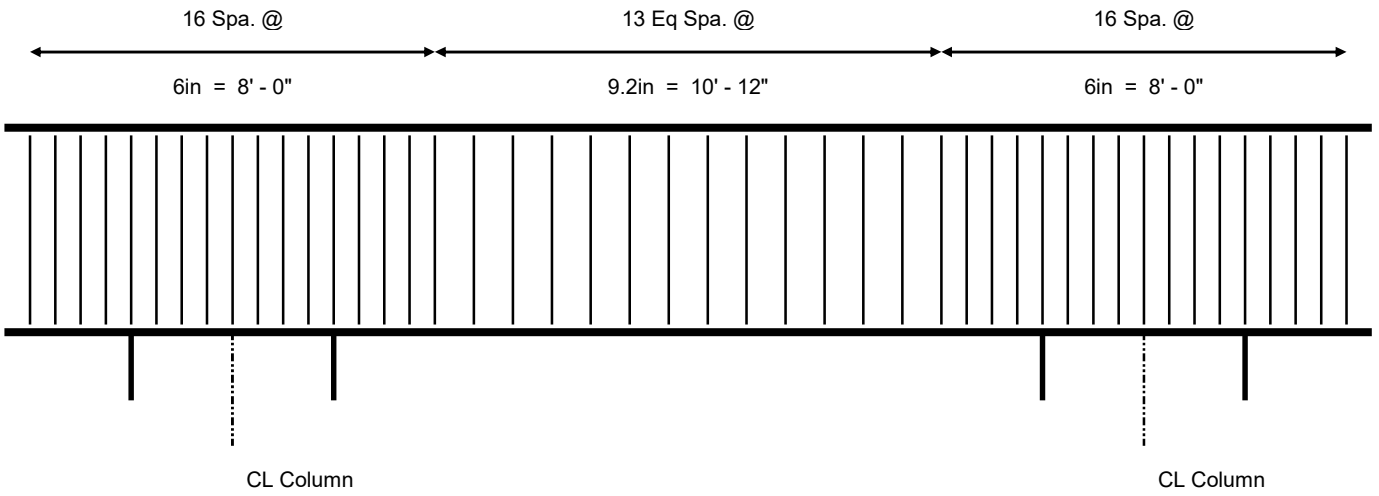
POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	244.5	244.5	244.5	718.0	879.8	1029.6	1029.6	1029.6	1029.6	171.6	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	3.69	3.69	3.69	10.49	12.71	14.74	14.74	14.74	14.74	2.24	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	166.00	166.00	166.00	53.89	43.26	36.37	36.37	36.37	36.37	277.78	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	2252.2	2252.2	1009.0	1009.0	203.9	270.8	329.7	380.6	380.6	646.5	1481.8	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	32.32	32.32	14.34	14.34	5.41	7.31	8.95	10.40	10.40	9.82	22.15	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	12.82	12.82	37.57	37.57	111.08	80.37	64.36	54.43	54.43	58.06	21.88	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	862.7	862.7	862.7	517.6	517.6	517.6	517.6	517.6	862.7	862.7	862.7	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0012	0.0012	0.0008	0.0008	0.0003	0.0004	0.0006	0.0006	0.0006	0.0006	0.0008	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	3.52	3.52	3.52	2.112	2.112	2.112	2.112	2.112	3.52	3.52	3.52	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	1060.3	1060.3	1060.3	749.7	749.7	749.7	749.7	749.7	1060.3	1060.3	1060.3	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.228	0.228	0.225	0.225	0.042	0.039	0.143	0.143	0.143	0.149	0.153	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	995.804	995.804	995.804	597.483	597.483	597.483	597.483	597.483	995.804	995.804	995.804	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.113	0.113	0.109	0.181	0.000	0.000	0.018	0.018	0.011	0.018	0.022	
$A_{tbar\text{-}req'd}$ (in^2) =	0.016	0.016	0.016	0.026	0.007	0.007	0.007	0.007	0.004	0.024	0.024	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.128	0.128	0.125	0.208	0.007	0.007	0.025	0.025	0.015	0.042	0.046	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	



NOTE: Section direction over the column and extended to "dv" may increase spacing for fit up of column extended steel

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	14.0	28.0	28.0	67.5	87.2	107.0	126.7	126.7	149.0
End =	0.0	14.0	28.0	28.0	67.5	87.2	107.0	126.7	126.7	149.0	171.4
M_{serv}+ (k-ft) =	0	0	0	0	279	441	597	597	597	597	272
M_u+ (k-ft) =	0	0	0	0	385	620	847	847	847	847	388
M_{serv}- (k-ft) =	1,097	1,097	660	660	69	105	244	365	365	59	353
M_u- (k-ft) =	1,569	1,569	949	949	122	71	193	284	284	109	478
V_u (k) =	533	533	529	529	157	152	220	220	220	233	239
T_u (ft-k) =	9	9	9	9	36	36	36	36	36	81	81
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	6	6	6	6	10	10	10	10	6	6	6
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

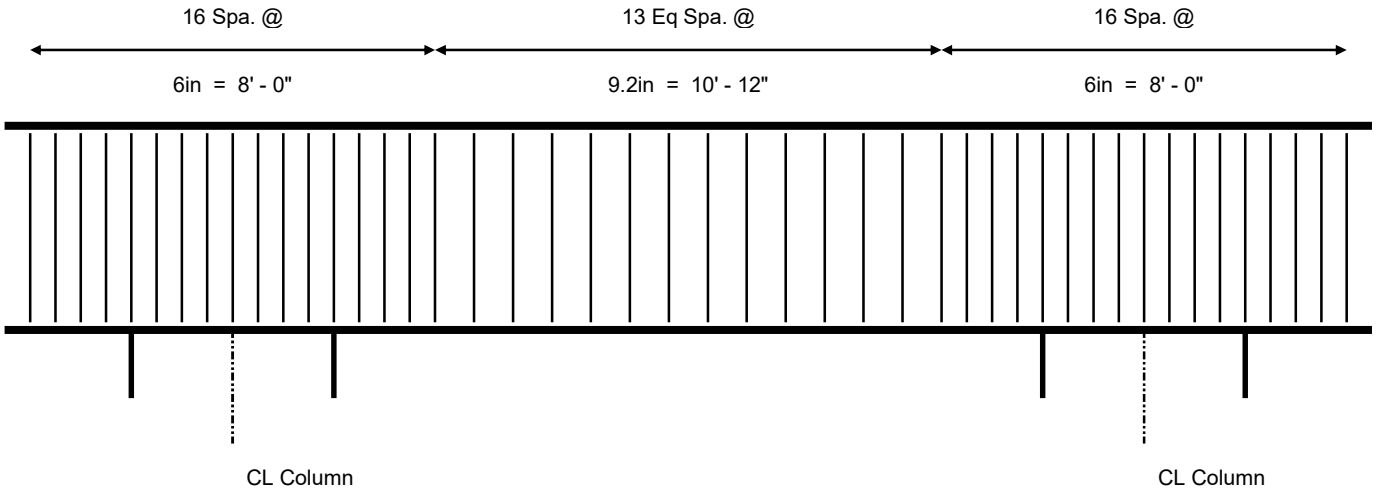
POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	0.0	0.0	0.0	511.6	825.3	1126.7	1126.7	1126.7	1126.7	516.4	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	0.00	0.00	0.00	7.59	12.03	16.26	16.26	16.26	16.26	7.40	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	36.00	36.00	36.00	77.10	46.12	32.31	32.31	32.31	32.31	79.27	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	2086.3	2086.3	1262.5	1262.5	162.7	95.0	256.6	377.7	377.7	144.7	636.4	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	29.89	29.89	17.99	17.99	1.88	2.87	6.64	9.94	9.94	1.60	9.63	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	14.43	14.43	28.55	28.55	331.92	215.40	89.18	57.28	57.28	392.75	59.32	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	862.7	862.7	862.7	862.7	517.6	517.6	517.6	517.6	862.7	862.7	862.7	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0012	0.0012	0.0009	0.0009	0.0003	0.0004	0.0006	0.0006	0.0006	0.0006	0.0004	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	3.52	3.52	3.52	3.52	2.112	2.112	2.112	2.112	3.52	3.52	3.52	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	1060.3	1060.3	1060.3	1060.3	749.7	749.7	749.7	749.7	1060.3	1060.3	1060.3	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.252	0.252	0.250	0.250	0.074	0.072	0.104	0.104	0.104	0.110	0.113	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	995.804	995.804	995.804	995.804	597.483	597.483	597.483	597.483	995.804	995.804	995.804	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.141	0.141	0.139	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
$A_{tbar\text{-}req'd}$ (in^2) =	0.004	0.004	0.004	0.004	0.027	0.027	0.027	0.027	0.016	0.036	0.036	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.145	0.145	0.143	0.143	0.027	0.027	0.027	0.027	0.016	0.036	0.036	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	



NOTE: Section direction over the column and extended to "dv" may increase spacing for fit up of column extended steel

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	9.6	9.6	29.4	69.0	88.8	108.6	108.6	128.2	147.8
End =	0.0	9.6	9.6	29.4	69.0	88.8	108.6	108.6	128.2	147.8	167.4
M_{serv}+ (k-ft) =	0	0	0	32	631	931	931	931	931	803	693
M_u+ (k-ft) =	0	0	0	78	894	1,328	1,328	1,328	1,328	1,148	1,001
M_{serv}- (k-ft) =	977	977	977	618	7	251	479	479	489	376	256
M_u- (k-ft) =	1,402	1,402	1,402	892	30	193	395	395	394	301	190
V_u (k) =	640	640	640	288	277	272	266	266	99	104	110
T_u (ft-k) =	1	1	1	46	46	46	46	46	91	91	91
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	6	6	6	6	10	10	10	10	10	6	6
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

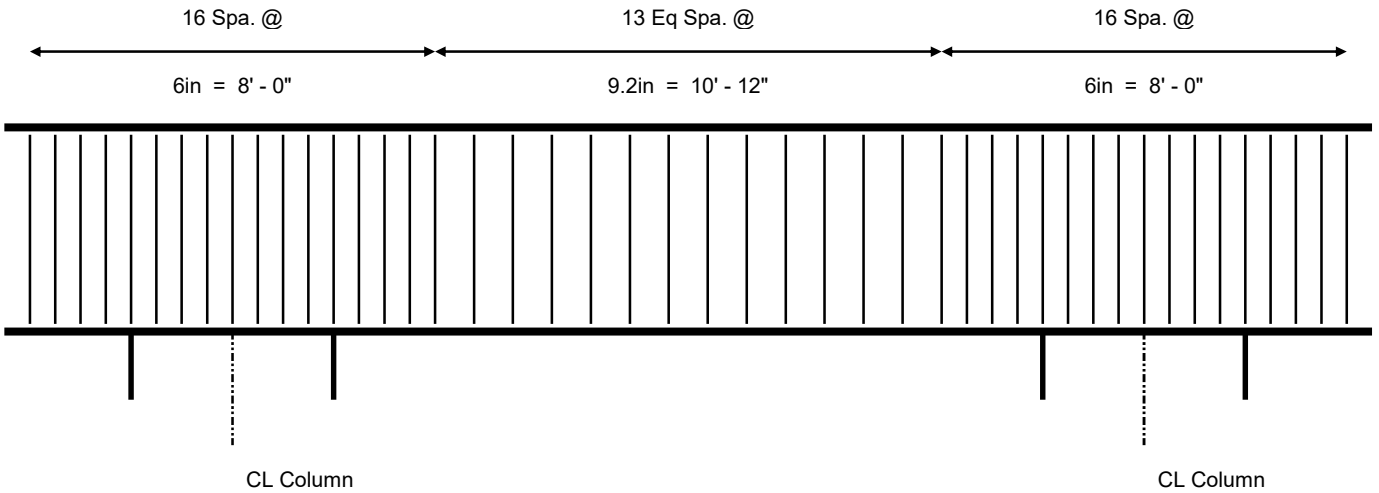
POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	0.0	0.0	103.6	1188.8	1766.4	1766.4	1766.4	1766.4	1526.4	1331.8	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	0.00	0.00	0.86	17.19	25.37	25.37	25.37	25.37	21.86	18.89	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	36.00	36.00	731.52	30.19	18.22	18.22	18.22	18.22	22.26	26.85	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	1865.3	1865.3	1865.3	1186.3	40.2	257.2	525.9	525.9	523.9	399.7	252.2	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	26.61	26.61	26.61	16.83	0.19	6.84	13.05	13.05	13.32	10.24	6.97	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	17.06	17.06	17.06	30.98	3271.24	86.35	41.94	41.94	40.97	55.37	84.58	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	862.7	862.7	862.7	862.7	517.6	517.6	517.6	517.6	517.6	862.7	862.7	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0012	0.0012	0.0012	0.0007	0.0007	0.0008	0.0008	0.0008	0.0007	0.0006	0.0006	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	3.52	3.52	3.52	3.52	2.112	2.112	2.112	2.112	2.112	3.52	3.52	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	1060.3	1060.3	1060.3	1060.3	749.7	749.7	749.7	749.7	749.7	1060.3	1060.3	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.302	0.302	0.302	0.136	0.131	0.128	0.126	0.126	0.047	0.049	0.052	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	995.804	995.804	995.804	995.804	597.483	597.483	597.483	597.483	597.483	995.804	995.804	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.202	0.202	0.202	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
$A_{tbar\text{-}req'd}$ (in^2) =	0.001	0.001	0.001	0.020	0.034	0.034	0.034	0.034	0.067	0.040	0.040	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.202	0.202	0.202	0.023	0.034	0.034	0.034	0.034	0.067	0.040	0.040	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	



NOTE: Section direction over the column and extended to "dv" may increase spacing for fit up of column extended steel

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	12.2	24.4	24.4						
End =	0.0	12.2	24.4	24.4							
M_{serv}+ (k-ft) =	0	0	0	0	0	0	0	0	0	0	0
M_u+ (k-ft) =	0	0	0	0	0	0	0	0	0	0	0
M_{serv}- (k-ft) =	1	6	6	6	302	302	302	302	302	302	302
M_u- (k-ft) =	2	7	7	7	432	432	432	432	432	432	432
V_u (k) =	3	408	408	408	411	411	411	411	411	411	411
T_u (ft-k) =	0	0	0	0	0	0	0	0	0	0	0
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	12	12	12	12	12	12	12	12	12	12	12
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	2.3	9.3	9.3	9.3	574.5	574.5	574.5	574.5	574.5	574.5	574.5	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.04	0.15	0.15	0.15	8.22	8.22	8.22	8.22	8.22	8.22	8.22	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	4186.93	4186.93	4186.93	70.71	70.71	70.71	70.71	70.71	70.71	70.71	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0000	0.0004	0.0004	0.0004	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.002	0.193	0.193	0.193	0.194	0.194	0.194	0.194	0.194	0.194	0.194	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.000	0.141	0.141	0.141	0.144	0.144	0.144	0.144	0.144	0.144	0.144	
$A_{tbar\text{-}req'd}$ (in^2) =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.000	0.141	0.141	0.141	0.144	0.144	0.144	0.144	0.144	0.144	0.144	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

Cap Length =	96 ft		f'c =	4.5 ksi	β_1 =	0.825	5.6.2.2
Cap Width =	4 ft		fy =	60 ksi	α_1 =	0.85	5.6.2.2
Side Cover (in) =	2 in				f_r =	0.509 ksi	5.4.2.6
Size Face Bar =	# 4		n =	7	E_s =	29,000 ksi	
No. Side Bars =	5				E_c =	4,145 ksi	5.4.2.4
Column Diameter =	3.5 ft	Eff. Col. Width =	3.10 ft				

Start =	0.0	0.0	18.0	36.0							
End =	0.0	18.0	36.0								
M_{serv}+ (k-ft) =	0	0	0	0	0	0	0	0	0	0	0
M_u+ (k-ft) =	0	0	0	0	0	0	0	0	0	0	0
M_{serv}- (k-ft) =	12	12	3	0	0	0	0	0	0	0	0
M_u- (k-ft) =	15	15	4	0	0	0	0	0	0	0	0
V_u (k) =	10	10	5	0	0	0	0	0	0	0	0
T_u (ft-k) =	0	0	0	0	0	0	0	0	0	0	0
Cap Height (ft) =	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Top Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Btm Cover (in) =	2	2	2	2	2	2	2	2	2	2	2
Pos Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Neg Moment Bar =	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11	# 11
No. Bars =	6	6	6	6	6	6	6	6	6	6	6
Stirrup Bar =	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6	# 6
No. Legs =	4	4	4	4	4	4	4	4	4	4	4
Spacing (in) =	12	12	12	12	12	12	12	12	12	12	12
M+ =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
M- =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
V+T =	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

POSITIVE MOMENT DESIGN

d+ (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{sk\text{-}max}$ (in^2/ft) =	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
$A_{sk\text{-}min}$ (in^2/ft) =	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
$A_{sk\text{-}provd}$ (in^2/ft) =	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
s_{actual} =	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	7.85	
s_{max} =	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	8.42	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

NEGATIVE MOMENT DESIGN

d- (in) =	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	
ε_{tl} =	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	
ε_s =	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	
ϕ =	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	5.5.4.2
y_t =	27	27	27	27	27	27	27	27	27	27	27	
M_{cr} =	20.2	20.2	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
M_{cr} (k-ft) =	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	1061.0	5.6.3.3.2
f_{ss} =	0.33	0.33	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ρ =	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	
s_{max} =	1919.67	1919.67	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	5.6.7
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

SHEAR DESIGN												
V_c (k) =	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	5.7.3.3
V_s (k) =	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	431.3	
V_p (k) =	0	0	0	0	0	0	0	0	0	0	0	
β =	2	2	2	2	2	2	2	2	2	2	2	
θ =	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	
ε_x =	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
d_v =	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	49.02	
A_v (in^2/ft) =	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕV_n (k) =	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	672.1	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
$A_{v\text{-}min}$ =	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	0.644	5.7.2.5
s_{max} =	24	24	24	24	24	24	24	24	24	24	24	5.7.2.6
v_u =	0.005	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
TORSION DESIGN												5.7.3.6.2
λ_{duct} =	1	1	1	1	1	1	1	1	1	1	1	
A_t =	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
A_o =	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	1508.8	
θ =	45	45	45	45	45	45	45	45	45	45	45	
ϕ =	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
ϕT_n (k-ft) =	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	497.902	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	
COMBINATION TORSION & SHEAR												5.7.3.6.1
$A_{v\text{-}req'd}$ (in^2/ft) =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
$A_{tbar\text{-}req'd}$ (in^2) =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
$A_{Total\text{-}req'd}$ (in^2/ft) =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
$A_{prov'd}$ (in^2/ft) =	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	
	OK	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	

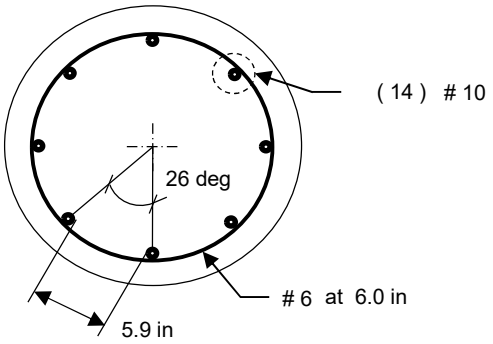
FORCE SUMMARY

Design Forces

	P_u (kip)	M_u (k-ft)	Description
1	979.7	436	Strength Design, Leeward Column, Maximum Axial
2	456.7	436	Strength Design, Leeward Column, Minimum Axial
3	453.4	211	Strength Design, Windward Column, Maximum Axial
4	198.5	211	Strength Design, Windward Column, Minimum Axial

COLUMN INFORMATION & GEOMETRY 5.6.4.2

Caisson Diameter = d =	3.25	ft		f'_c =	4.5 ksi
Number of Longitudinal Bars =	14			f_y =	60 ksi
Longitudinal Bar Size =	# 10				
A_s =	17.78	in^2			
A_g =	1,195	in^2			
$A_{s\text{-}max}$ = 8% A_g =	95.57	in^2	**OK**		
$A_{s\text{-}min}$ = 0.135A_g f'_c/f_y =	12.10	in^2	**OK**		
Lateral Reinf. Type =	Spirals				
Lateral Reinf. Spacing = s =	6	in	**OK**		
Lateral Reinf. Bar Size =	# 6				
A_s =	0.88	in^2			
Angle of Spacing, θ =	25.71429	deg			
Confinement Bar Clear Cover =	2	in			



Clear btw Long Bars =	5.9	in	>	s_{min} =	5 in	**OK**

VOLUMETRIC RATIO 5.11.4.1.4

Spirals

$\rho_s = 4A_{sp} / (d_c s)$ =	0.0126	>	$0.45(A_g/A_c - 1)\, f'_c/f_y$ =	0.0082	**OK**	
$\rho_s = 4A_{sp} / (d_c s)$ =	0.0126	>	$0.12\, f'_c/f_y$ =	0.0090	**OK**	
A_g =	1194.6	in^2				
A_c =	962.1	in^2				
A_{sp} =	0.44	in^2				
d_c =	35	in				
s =	4	in (Hinge region)				

Minimum Transverse Reinforcement 5.7.2.5

$A_{v\text{-}mi} = 0.0316\, f'^{1/2}_c\, b_v s / f_y$ =	0.26	in^2	<	A_v =	0.44 in^2	**OK**

Zone 1 Hinge Information 5.11.2

Plastic Hinge Locations (Top Column)

Hinge Distance into Column = 39 in 5.11.4.1.3

D_{col} = 39 in
H_{clr} / 6 = 22.4 in
Min = 18 in
Clear Height of Column, H_{clr} = 11.2 ft

Hinge Distance into Cap = 19.5 in 5.11.4.3

D_{col} / 2 = 19.5 in
Min = 15 in

Plastic Hinge Locations (Btm Column)

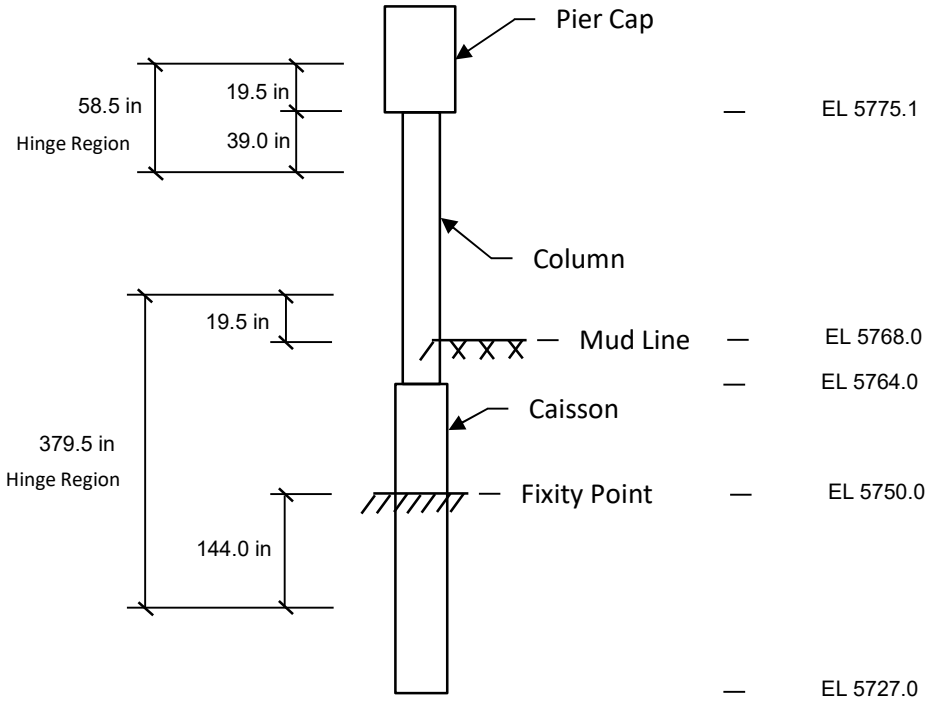
Due to the relative strength of caissons to pier columns, "Pile Bent" criteria is followed:

Extend into Column (Above Mudline) = 19.5 in

D_{col} / 2 = 19.5 in
Min = 15 in

Extend into Caisson, 3D = 144 in

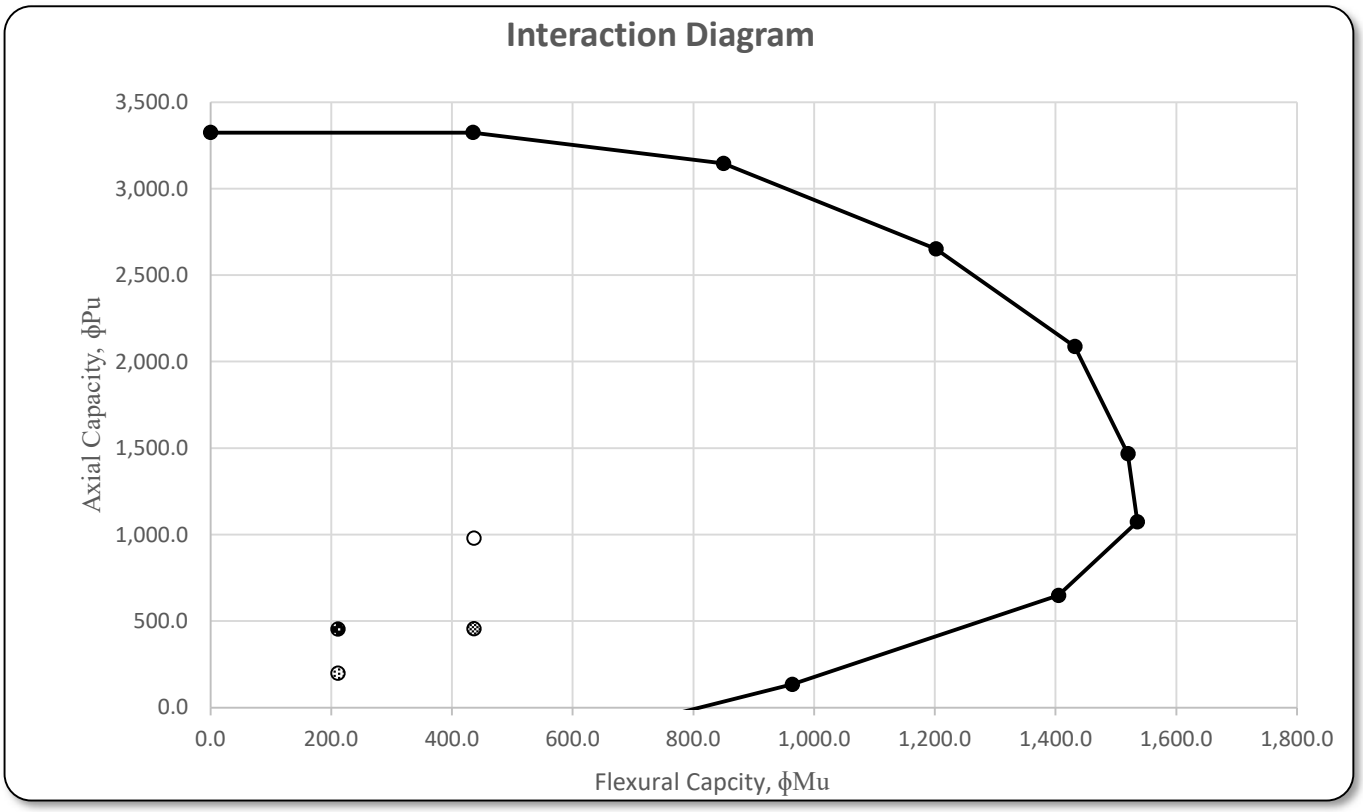
$D_{caisson}$ = 48 in



MOMENT INTERACTION

Interaction Diagram produced in CSi using Phi Factors

ϕP_n (kip)	ϕM_{3n} (k-ft)
3,324.6	0.0
3,324.6	434.2
3,145.5	849.4
2,650.9	1,201.7
2,086.6	1,431.5
1,467.0	1,519.6
1,073.2	1,535.2
649.0	1,404.8
133.9	963.7
-366.6	393.2
-649.0	0.0



FORCE SUMMARY

Design Forces

	P_u (kip)	M_u (k-ft)	V_u (kip)	Description
1	481.2	466	25.3	Strength Design, Leeward Column, Maximum Axial
2	217.4	466	25.3	Strength Design, Leeward Column, Minimum Axial
3	1,007.4	601	38.8	Strength Design, Windward Column, Maximum Axial
4	475.7	601	38.8	Strength Design, Windward Column, Minimum Axial
5	217.4	586.3	37.4	
6	481.2	596.9	39.6	Clay / Bedrock Soil Profile Results
7	475.7	834.8	63.6	
8	1,007.4	861.0	70.3	
9	217.4	600.5	35.2	
10	481.2	617.5	38.3	Sand / Bedrock Soil Profile Results
11	475.7	835.6	50.1	
12	1,007.4	856.2	54.7	

CAISSON INFORMATION & GEOMETRY

5.12.9.5

Caisson Diameter = d = 4 ft

Number of Longitudinal Bars = 18

Longitudinal Bar Size = # 10

A_s = 22.86 in^2

$A_{s\text{-}min} = 0.8\% A_g$ = 14.47646 in^2 **OK**

Lateral Reinf. Type = Spirals

Lateral Reinf. Spacing = s = 6 in **OK**

Lateral Reinf. Bar Size = # 6

A_s = 0.88 in^2

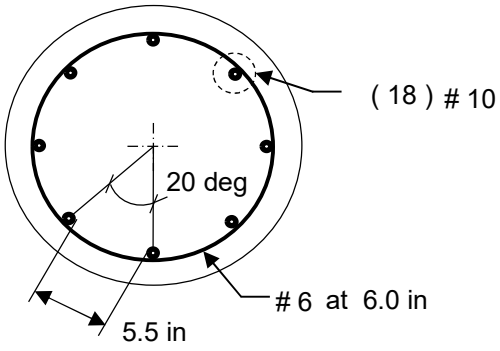
Angle of Spacing, θ = 20.00 deg

Confinement Bar Clear Cover = 3 in

Clear btw Long Bars = 5.5 in > s_{min} = 5 in **OK**

f'_c = 4 ksi

f_y = 60 ksi



CAISSON EMBEDMENT / SOIL RESISTANCE

Tip Area = A_p = 12.57 ft^2 CL Spacing = 14.46 ft

Surface Perimeter = P_s = 12.57 ft

Capacities from Geotechnical Report by A.G. Wassenaar, March 18, 2016 (Proj Number 153733) and email from Keith Seaton, PE to FHU on 10/27/2016 updating values to LRFD

Tip Resistance = q_p = 78.2 ksf ϕ_T = 0.55

Side Resistance = q_s = 6.37 ksf ϕ_S = 0.6

Total Embedment Depth = 15 ft

Non effective Depth = 2 ft

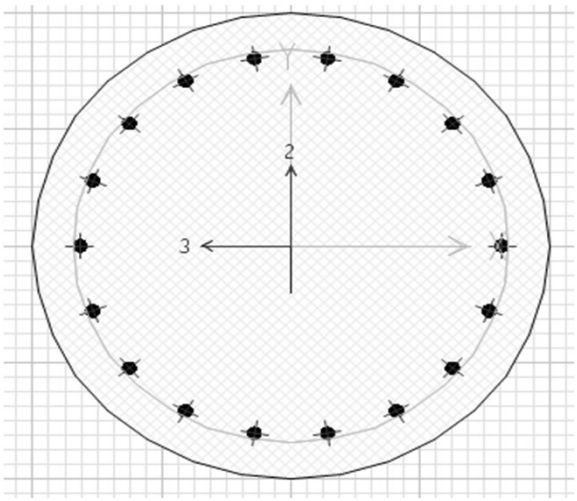
Desigh Depth = d = 13 ft Min Spacing = 3d = 12 ft **OK**

$\phi P_n = \phi_T q_p A_p + \phi_s q_s P_s d$ = 1020.8 k > P_u **OK** 10.8.3.5

MOMENT INTERACTION

Interaction Diagram produced in CSi using Phi Factors

ϕP_n (kip)	ϕM_{3n} (k-ft)
3,852.0	0.0
3,852.0	708.6
3,838.0	1,302.0
3,251.0	1,829.3
2,579.0	2,204.1
1,811.0	2,401.4
1,379.0	2,674.7
814.4	2,674.3
17.6	1,862.7
-787.4	754.3
-1,234.4	0.0

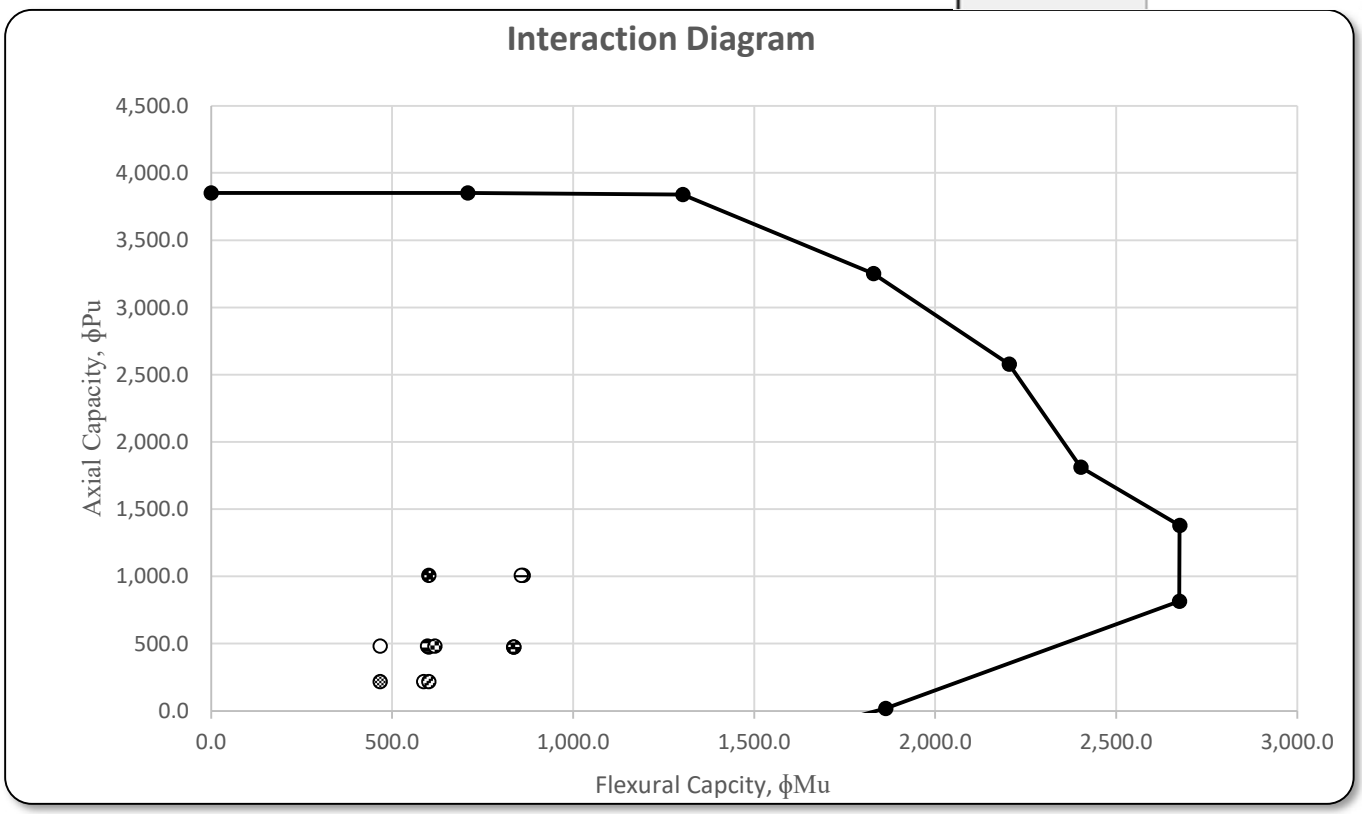


Shape Properties - Reinforcing

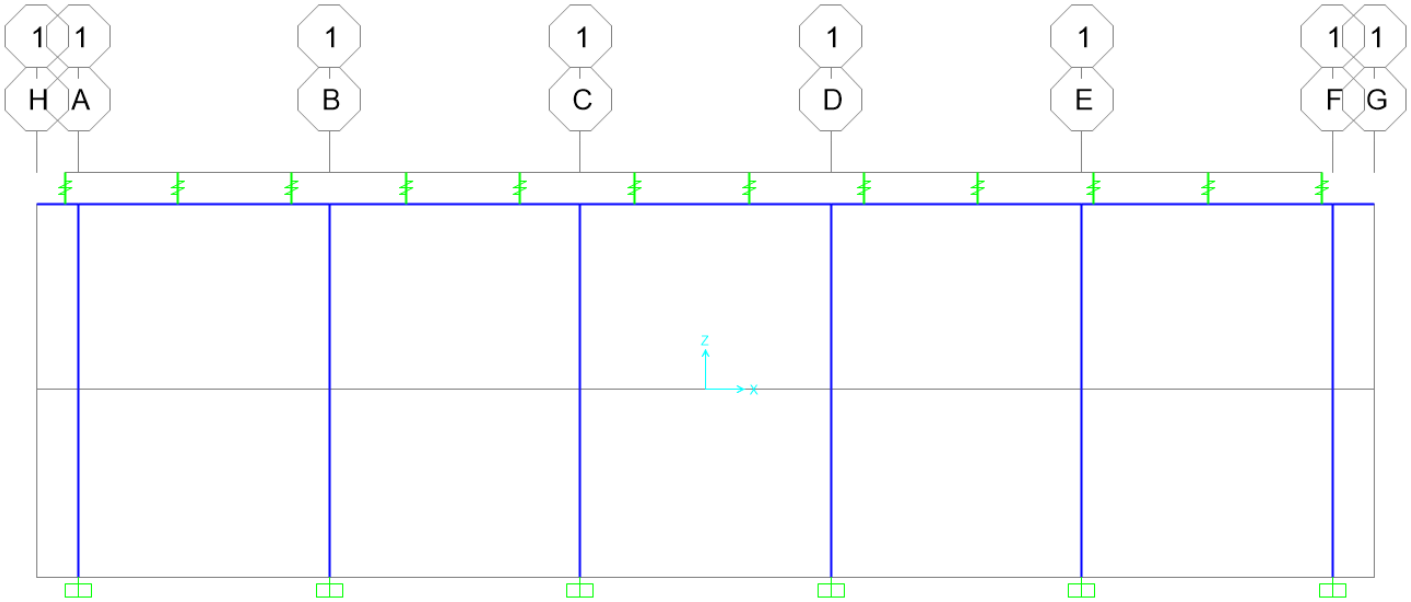
Name	CircleBar1
Material	A615Gr60
X Center	0
Y Center	0
Diameter	40.5
No. of Bars	18
Rotation	0
Bar Size	#10
Bar Area	1.27

Shape Properties - Solid

Name	Circle1
Material	4000Psi
Color	
X Center	0
Y Center	0
Diameter	48
Core Dimensions	Program Determined
Width	38.4
Depth	38.4
Reinforcing	No
Conc. Model	Mander-Unconfined



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CSiBridge Analysis and Design Report

Prepared by

Felsburg Holt & Ullevig

Model Name: BelfordHCC_Pier Model.bdb

15 March 2021

1. Material properties

This section provides material property information for materials used in the model.

Table 1: Material Properties 02 - Basic Mechanical Properties

Table 1: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	Kip/in3	Kip-s2/in4	Kip/in2	Kip/in2		1/F
4000Psi	8.6806E-05	2.2483E-07	3604.997	1502.082	0.2	5.5000E-06
4500Psi	8.6806E-05	2.2483E-07	3604.997	1502.082	0.2	5.5000E-06
A416Gr270	2.8356E-04	7.3446E-07	28500.			6.5000E-06
A615Gr60	2.8356E-04	7.3446E-07	29000.			6.5000E-06
A709Gr50	2.8356E-04	7.3446E-07	29000.	11153.846	0.3	6.5000E-06

Table 2: Material Properties 03a - Steel Data

Table 2: Material Properties 03a - Steel Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/in2	Kip/in2		
A709Gr50	50.	65.	-0.1	Von Mises

Table 3: Material Properties 03b - Concrete Data

Table 3: Material Properties 03b - Concrete Data

Material	Fc	eFc	FinalSlope	CoupModType
	Kip/in2	Kip/in2		
4000Psi	4.	4.	-0.1	Modified Darwin-Pecknold
4500Psi	4.5	4.5	-0.1	Modified Darwin-Pecknold

Table 4: Material Properties 03e - Rebar Data

Table 4: Material Properties 03e - Rebar Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/in2	Kip/in2		
A615Gr60	60.	90.	-0.1	Von Mises

Table 5: Material Properties 03f - Tendon Data

Table 5: Material Properties 03f - Tendon Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/in2	Kip/in2		
A416Gr270	245.1	270.	-0.1	Von Mises

2. Section properties

This section provides section property information for objects used in the model.

2.1. Frames

Table 6: Frame Section Properties 01 - General, Part 1 of 4

Table 6: Frame Section Properties 01 - General, Part 1 of 4

SectionName	Material	Shape	t3	t2	Area	TorsConst	I33	I22
			in	in	in2	in4	in4	in4
Caisson	4000Psi	Circle	48.		1809.56	521152.52	260576.26	260576.26
Cap	4500Psi	Rectangular	54.	48.	2592.	933883.95	629856.	497664.
Column	4500Psi	Circle	39.		1194.59	227121.54	113560.77	113560.77

Table 6: Frame Section Properties 01 - General, Part 2 of 4

Table 6: Frame Section Properties 01 - General, Part 2 of 4

SectionName	I23	AS2	AS3
	in4	in2	in2
Caisson	0.	1628.6	1628.6
Cap	0.	2160.	2160.
Column	0.	1075.13	1075.13

Table 6: Frame Section Properties 01 - General, Part 3 of 4

Table 6: Frame Section Properties 01 - General, Part 3 of 4

SectionName	S33	S22	Z33	Z22	R33	R22
	in3	in3	in3	in3	in	in
Caisson	10857.34	10857.34	18432.	18432.	12.	12.
Cap	23328.	20736.	34992.	31104.	15.5885	13.8564
Column	5823.63	5823.63	9886.5	9886.5	9.75	9.75

Table 6: Frame Section Properties 01 - General, Part 4 of 4

Table 6: Frame Section Properties 01 - General, Part 4 of 4

SectionName	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod	MMod	WMod
Caisson	1.	1.	1.	1.	1.	1.	1.	1.
Cap	1.	1.	1.	1.	1.	1.	1.	1.
Column	1.	1.	1.	1.	1.	1.	1.	1.

Table 7: Frame Section Properties 02 - Concrete Column, Part 1 of 2

Table 7: Frame Section Properties 02 - Concrete Column, Part 1 of 2

SectionName	RebarMatL	RebarMatC	ReinfConfig	LatReinf	Cover	NumBarsCirc	BarSizeL
					in		
Caisson	A615Gr60	A615Gr60	Circular	Spiral	3.	18	#10
Column	A615Gr60	A615Gr60	Circular	Spiral	2.	14	#10

Table 7: Frame Section Properties 02 - Concrete Column, Part 2 of 2

Table 7: Frame Section Properties 02 - Concrete Column, Part 2 of 2

SectionName	BarSizeC	SpacingC
		in
Caisson	#6	6.
Column	#6	6.

Table 8: Frame Section Properties 03 - Concrete Beam, Part 1 of 2

Table 8: Frame Section Properties 03 - Concrete Beam, Part 1 of 2

SectionName	RebarMatL	RebarMatC	TopCover	BotCover
			in	in
Cap	A615Gr60	A615Gr60	2.75	2.75

Table 8: Frame Section Properties 03 - Concrete Beam, Part 2 of 2

Table 8: Frame Section Properties 03 - Concrete Beam, Part 2 of 2

SectionName	TopLeftArea	TopRghtArea	BotLeftArea	BotRghtArea
	in2	in2	in2	in2
Cap	0.	0.	0.	0.

2.2. Solids

Table 9: Solid Property Definitions

Table 9: Solid Property Definitions

SolidProp	Material	MatAngleA	MatAngleB	MatAngleC
		Degrees	Degrees	Degrees
Solid1	4000Psi	0.	0.	0.

3. Loading

This section provides loading information as applied to the model.

3.1. Load patterns

Table 10: Load Pattern Definitions

Table 10: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
DEAD	Dead	1.	
R01_Z	Other	0.	
R02_Z	Other	0.	
R03_Z	Other	0.	
R04_Z	Other	0.	
R05_Z	Other	0.	
R06_Z	Other	0.	
R07_Z	Other	0.	
R08_Z	Other	0.	
R09_Z	Other	0.	
R10_Z	Other	0.	
R11_Z	Other	0.	
R12_Z	Other	0.	
R_X	Other	0.	
R_Y	Other	0.	
Cap_R_X	Other	0.	
Cap_w_Y	Other	0.	
Cap_w_Z	Other	0.	
Col_w_X	Other	0.	
Col_w_Y	Other	0.	
Col_w_Z	Other	0.	
Cais_w_X	Other	0.	
Cais_w_Y	Other	0.	
Cais_w_Z	Other	0.	

4. Load cases

This section provides load case information.

4.1. Definitions

Table 11: Load Case Definitions, Part 1 of 2

Table 11: Load Case Definitions, Part 1 of 2

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesActOpt
DEAD	LinStatic	Zero				Prog Det
MODAL	LinModal	Zero				Prog Det
R01_Z	LinStatic	Zero				Prog Det
R02_Z	LinStatic	Zero				Prog Det
R03_Z	LinStatic	Zero				Prog Det
R04_Z	LinStatic	Zero				Prog Det
R05_Z	LinStatic	Zero				Prog Det
R06_Z	LinStatic	Zero				Prog Det
R07_Z	LinStatic	Zero				Prog Det

Table 11: Load Case Definitions, Part 1 of 2

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesActOpt
R08_Z	LinStatic	Zero				Prog Det
R09_Z	LinStatic	Zero				Prog Det
R10_Z	LinStatic	Zero				Prog Det
R11_Z	LinStatic	Zero				Prog Det
R12_Z	LinStatic	Zero				Prog Det
R_X	LinStatic	Zero				Prog Det
R_Y	LinStatic	Zero				Prog Det
Cap_R_X	LinStatic	Zero				Prog Det
Cap_w_Y	LinStatic	Zero				Prog Det
Cap_w_Z	LinStatic	Zero				Prog Det
Col_w_X	LinStatic	Zero				Prog Det
Col_w_Y	LinStatic	Zero				Prog Det
Cais_w_X	LinStatic	Zero				Prog Det
Cais_w_Y	LinStatic	Zero				Prog Det
DC	LinStatic	Zero				Prog Det
DW	LinStatic	Zero				Prog Det
WS3	LinStatic	Zero				Prog Det
WL5	LinStatic	Zero				Prog Det
PL	LinStatic	Zero				Prog Det
LL-1 Lane	LinStatic	Zero				Prog Det
LL-2 Lane	LinStatic	Zero				Prog Det
LL-3 Lane	LinStatic	Zero				Prog Det
LL-7 Lane	LinStatic	Zero				Prog Det
CE-1 Lane	LinStatic	Zero				Prog Det
CE-2 Lane	LinStatic	Zero				Prog Det
CE-3 Lane	LinStatic	Zero				Prog Det
CE-7 Lane	LinStatic	Zero				Prog Det
BR-1 Lane	LinStatic	Zero				Prog Det
BR-2 Lane	LinStatic	Zero				Prog Det
BR-3 Lane	LinStatic	Zero				Prog Det
BR-7 Lane	LinStatic	Zero				Prog Det
WSub3: 45deg	LinStatic	Zero				Prog Det
WSub3: 30deg	LinStatic	Zero				Prog Det
WSub3: 15deg	LinStatic	Zero				Prog Det
WSub3: 0deg	LinStatic	Zero				Prog Det
WSub3: -15deg	LinStatic	Zero				Prog Det
WSub3: -30deg	LinStatic	Zero				Prog Det
WSub3: -45deg	LinStatic	Zero				Prog Det
WA	LinStatic	Zero				Prog Det

Table 11: Load Case Definitions, Part 2 of 2

Table 11: Load Case Definitions, Part 2 of 2

Case	DesignAct
DEAD	Non-Composite
MODAL	Other
R01_Z	Other
R02_Z	Other
R03_Z	Other
R04_Z	Other
R05_Z	Other

Table 11: Load Case Definitions, Part 2 of 2

Case	DesignAct
R06_Z	Other
R07_Z	Other
R08_Z	Other
R09_Z	Other
R10_Z	Other
R11_Z	Other
R12_Z	Other
R_X	Other
R_Y	Other
Cap_R_X	Other
Cap_w_Y	Other
Cap_w_Z	Other
Col_w_X	Other
Col_w_Y	Other
Cais_w_X	Other
Cais_w_Y	Other
DC	Other
DW	Other
WS3	Other
WL5	Other
PL	Other
LL-1 Lane	Other
LL-2 Lane	Other
LL-3 Lane	Other
LL-7 Lane	Other
CE-1 Lane	Other
CE-2 Lane	Other
CE-3 Lane	Other
CE-7 Lane	Other
BR-1 Lane	Other
BR-2 Lane	Other
BR-3 Lane	Other
BR-7 Lane	Other
WSub3: 45deg	Other
WSub3: 30deg	Other
WSub3: 15deg	Other
WSub3: 0deg	Other
WSub3: -15deg	Other
WSub3: -30deg	Other
WSub3: -45deg	Other
WA	Other

4.2. Static case load assignments

Table 12: Case - Static 1 - Load Assignments

Table 12: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.

Table 12: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
R01_Z	Load pattern	R01_Z	1.
R02_Z	Load pattern	R02_Z	1.
R03_Z	Load pattern	R03_Z	1.
R04_Z	Load pattern	R04_Z	1.
R05_Z	Load pattern	R05_Z	1.
R06_Z	Load pattern	R06_Z	1.
R07_Z	Load pattern	R07_Z	1.
R08_Z	Load pattern	R08_Z	1.
R09_Z	Load pattern	R09_Z	1.
R10_Z	Load pattern	R10_Z	1.
R11_Z	Load pattern	R11_Z	1.
R12_Z	Load pattern	R12_Z	1.
R_X	Load pattern	R_X	1.
R_Y	Load pattern	R_Y	1.
Cap_R_X	Load pattern	Cap_R_X	1.
Cap_w_Y	Load pattern	Cap_w_Y	1.
Cap_w_Z	Load pattern	Cap_w_Z	1.
Col_w_X	Load pattern	Col_w_X	1.
Col_w_Y	Load pattern	Col_w_Y	1.
Cais_w_X	Load pattern	Cais_w_X	1.
Cais_w_Y	Load pattern	Cais_w_Y	1.
DC	Load pattern	R01_Z	-158.93
DC	Load pattern	R02_Z	-177.8
DC	Load pattern	R03_Z	-177.8
DC	Load pattern	R04_Z	-177.8
DC	Load pattern	R05_Z	-177.8
DC	Load pattern	R06_Z	-177.8
DC	Load pattern	R07_Z	-177.8
DC	Load pattern	R08_Z	-177.8
DC	Load pattern	R09_Z	-177.8
DC	Load pattern	R10_Z	-177.8
DC	Load pattern	R11_Z	-177.8
DC	Load pattern	R12_Z	-158.93
DW	Load pattern	R01_Z	-25.31
DW	Load pattern	R02_Z	-25.31
DW	Load pattern	R03_Z	-25.31
DW	Load pattern	R04_Z	-25.31
DW	Load pattern	R05_Z	-25.31
DW	Load pattern	R06_Z	-25.31
DW	Load pattern	R07_Z	-25.31
DW	Load pattern	R08_Z	-25.31
DW	Load pattern	R09_Z	-25.31
DW	Load pattern	R10_Z	-25.31
DW	Load pattern	R11_Z	-25.31
DW	Load pattern	R12_Z	-25.31
WS3	Load pattern	R01_Z	-4.59
WS3	Load pattern	R02_Z	-1.55
WS3	Load pattern	R03_Z	1.48
WS3	Load pattern	R04_Z	4.52
WS3	Load pattern	R05_Z	7.55
WS3	Load pattern	R06_Z	10.59
WS3	Load pattern	R07_Z	13.62
WS3	Load pattern	R08_Z	16.65
WS3	Load pattern	R09_Z	19.69

Table 12: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
WS3	Load pattern	R10_Z	22.72
WS3	Load pattern	R11_Z	25.76
WS3	Load pattern	R12_Z	28.79
WS3	Load pattern	R_X	-2.7
WS3	Load pattern	R_Y	-1.41
WL5	Load pattern	R01_Z	-0.55
WL5	Load pattern	R02_Z	-0.45
WL5	Load pattern	R03_Z	-0.35
WL5	Load pattern	R04_Z	-0.25
WL5	Load pattern	R05_Z	-0.15
WL5	Load pattern	R06_Z	-0.05
WL5	Load pattern	R07_Z	0.05
WL5	Load pattern	R08_Z	0.15
WL5	Load pattern	R09_Z	0.25
WL5	Load pattern	R10_Z	0.35
WL5	Load pattern	R11_Z	0.45
WL5	Load pattern	R12_Z	0.55
WL5	Load pattern	R_X	-0.69
WL5	Load pattern	R_Y	-0.44
PL	Load pattern	R01_Z	-8.37
PL	Load pattern	R02_Z	-8.37
PL	Load pattern	R03_Z	-8.37
PL	Load pattern	R04_Z	-8.37
PL	Load pattern	R05_Z	-8.37
PL	Load pattern	R06_Z	-8.37
PL	Load pattern	R07_Z	-8.37
PL	Load pattern	R08_Z	-8.37
PL	Load pattern	R09_Z	-8.37
PL	Load pattern	R10_Z	-8.37
PL	Load pattern	R11_Z	-8.37
PL	Load pattern	R12_Z	-8.37
LL-1 Lane	Load pattern	R01_Z	-48.25
LL-1 Lane	Load pattern	R02_Z	-42.16
LL-1 Lane	Load pattern	R03_Z	-36.06
LL-1 Lane	Load pattern	R04_Z	-29.96
LL-1 Lane	Load pattern	R05_Z	-23.86
LL-1 Lane	Load pattern	R06_Z	-17.76
LL-1 Lane	Load pattern	R07_Z	-11.67
LL-1 Lane	Load pattern	R08_Z	-5.57
LL-1 Lane	Load pattern	R09_Z	0.53
LL-1 Lane	Load pattern	R10_Z	6.63
LL-1 Lane	Load pattern	R11_Z	12.73
LL-1 Lane	Load pattern	R12_Z	18.82
LL-2 Lane	Load pattern	R01_Z	-72.14
LL-2 Lane	Load pattern	R02_Z	-63.48
LL-2 Lane	Load pattern	R03_Z	-54.83
LL-2 Lane	Load pattern	R04_Z	-46.17
LL-2 Lane	Load pattern	R05_Z	-37.51
LL-2 Lane	Load pattern	R06_Z	-28.85
LL-2 Lane	Load pattern	R07_Z	-20.2
LL-2 Lane	Load pattern	R08_Z	-11.54
LL-2 Lane	Load pattern	R09_Z	-2.88
LL-2 Lane	Load pattern	R10_Z	5.78
LL-2 Lane	Load pattern	R11_Z	14.43

Table 12: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
LL-2 Lane	Load pattern	R12_Z	23.09
LL-3 Lane	Load pattern	R01_Z	-81.42
LL-3 Lane	Load pattern	R02_Z	-72.3
LL-3 Lane	Load pattern	R03_Z	-63.18
LL-3 Lane	Load pattern	R04_Z	-54.07
LL-3 Lane	Load pattern	R05_Z	-44.95
LL-3 Lane	Load pattern	R06_Z	-35.83
LL-3 Lane	Load pattern	R07_Z	-26.71
LL-3 Lane	Load pattern	R08_Z	-17.59
LL-3 Lane	Load pattern	R09_Z	-8.47
LL-3 Lane	Load pattern	R10_Z	0.65
LL-3 Lane	Load pattern	R11_Z	9.76
LL-3 Lane	Load pattern	R12_Z	18.88
LL-7 Lane	Load pattern	R01_Z	-69.92
LL-7 Lane	Load pattern	R02_Z	-67.35
LL-7 Lane	Load pattern	R03_Z	-64.79
LL-7 Lane	Load pattern	R04_Z	-62.22
LL-7 Lane	Load pattern	R05_Z	-59.65
LL-7 Lane	Load pattern	R06_Z	-57.08
LL-7 Lane	Load pattern	R07_Z	-54.51
LL-7 Lane	Load pattern	R08_Z	-51.94
LL-7 Lane	Load pattern	R09_Z	-49.37
LL-7 Lane	Load pattern	R10_Z	-46.8
LL-7 Lane	Load pattern	R11_Z	-44.23
LL-7 Lane	Load pattern	R12_Z	-41.66
CE-1 Lane	Load pattern	R01_Z	-1.94
CE-1 Lane	Load pattern	R02_Z	-1.59
CE-1 Lane	Load pattern	R03_Z	-1.24
CE-1 Lane	Load pattern	R04_Z	-0.88
CE-1 Lane	Load pattern	R05_Z	-0.53
CE-1 Lane	Load pattern	R06_Z	-0.18
CE-1 Lane	Load pattern	R07_Z	0.18
CE-1 Lane	Load pattern	R08_Z	0.53
CE-1 Lane	Load pattern	R09_Z	0.88
CE-1 Lane	Load pattern	R10_Z	1.24
CE-1 Lane	Load pattern	R11_Z	1.59
CE-1 Lane	Load pattern	R12_Z	1.94
CE-1 Lane	Load pattern	R_X	-2.16
CE-1 Lane	Load pattern	R_Y	-0.68
CE-2 Lane	Load pattern	R01_Z	-3.24
CE-2 Lane	Load pattern	R02_Z	-2.65
CE-2 Lane	Load pattern	R03_Z	-2.06
CE-2 Lane	Load pattern	R04_Z	-1.47
CE-2 Lane	Load pattern	R05_Z	-0.88
CE-2 Lane	Load pattern	R06_Z	-0.29
CE-2 Lane	Load pattern	R07_Z	0.29
CE-2 Lane	Load pattern	R08_Z	0.88
CE-2 Lane	Load pattern	R09_Z	1.47
CE-2 Lane	Load pattern	R10_Z	2.06
CE-2 Lane	Load pattern	R11_Z	2.65
CE-2 Lane	Load pattern	R12_Z	3.24
CE-2 Lane	Load pattern	R_X	-3.6
CE-2 Lane	Load pattern	R_Y	-1.14
CE-3 Lane	Load pattern	R01_Z	-4.13

Table 12: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
CE-3 Lane	Load pattern	R02_Z	-3.38
CE-3 Lane	Load pattern	R03_Z	-2.63
CE-3 Lane	Load pattern	R03_Z	-1.88
CE-3 Lane	Load pattern	R05_Z	-1.13
CE-3 Lane	Load pattern	R06_Z	-0.38
CE-3 Lane	Load pattern	R07_Z	0.38
CE-3 Lane	Load pattern	R08_Z	1.13
CE-3 Lane	Load pattern	R09_Z	1.88
CE-3 Lane	Load pattern	R10_Z	2.63
CE-3 Lane	Load pattern	R11_Z	3.38
CE-3 Lane	Load pattern	R12_Z	-4.13
CE-3 Lane	Load pattern	R_X	-4.59
CE-3 Lane	Load pattern	R_Y	-1.45
CE-7 Lane	Load pattern	R01_Z	-7.36
CE-7 Lane	Load pattern	R02_Z	-6.03
CE-7 Lane	Load pattern	R03_Z	-4.69
CE-7 Lane	Load pattern	R04_Z	-3.35
CE-7 Lane	Load pattern	R05_Z	-2.01
CE-7 Lane	Load pattern	R06_Z	-0.67
CE-7 Lane	Load pattern	R07_Z	0.67
CE-7 Lane	Load pattern	R08_Z	2.01
CE-7 Lane	Load pattern	R09_Z	3.35
CE-7 Lane	Load pattern	R10_Z	4.69
CE-7 Lane	Load pattern	R11_Z	6.03
CE-7 Lane	Load pattern	R12_Z	7.36
CE-7 Lane	Load pattern	R_X	-8.19
CE-7 Lane	Load pattern	R_Y	-2.58
BR-1 Lane	Load pattern	R_X	-0.73
BR-1 Lane	Load pattern	R_Y	-2.31
BR-2 Lane	Load pattern	R_X	-1.21
BR-2 Lane	Load pattern	R_Y	-3.84
BR-3 Lane	Load pattern	R_X	-1.55
BR-3 Lane	Load pattern	R_Y	-4.9
BR-7 Lane	Load pattern	R_X	-2.76
BR-7 Lane	Load pattern	R_Y	-8.74
WSub3: 45deg	Load pattern	Col_w_X	-0.17
WSub3: 45deg	Load pattern	Col_w_Y	-0.09
WSub3: 45deg	Load pattern	Cais_w_X	-0.19
WSub3: 45deg	Load pattern	Cais_w_Y	-0.1
WSub3: 45deg	Load pattern	Cap_R_X	-0.95
WSub3: 45deg	Load pattern	Cap_w_Y	-0.12
WSub3: 30deg	Load pattern	Col_w_X	-0.19
WSub3: 30deg	Load pattern	Col_w_Y	-0.04
WSub3: 30deg	Load pattern	Cais_w_X	-0.21
WSub3: 30deg	Load pattern	Cais_w_Y	-0.05
WSub3: 30deg	Load pattern	Cap_R_X	-1.05
WSub3: 30deg	Load pattern	Cap_w_Y	-0.06
WSub3: 15deg	Load pattern	Col_w_X	-0.19
WSub3: 15deg	Load pattern	Col_w_Y	0.01
WSub3: 15deg	Load pattern	Cais_w_X	-0.22
WSub3: 15deg	Load pattern	Cais_w_Y	0.01
WSub3: 15deg	Load pattern	Cap_R_X	-1.07
WSub3: 15deg	Load pattern	Cap_w_Y	-0.01
WSub3: 0deg	Load pattern	Col_w_X	-0.18

Table 12: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
WSub3: 0deg	Load pattern	Col_w_Y	0.06
WSub3: 0deg	Load pattern	Cais_w_X	-0.21
WSub3: 0deg	Load pattern	Cais_w_Y	0.07
WSub3: 0deg	Load pattern	Cap_R_X	-1.02
WSub3: 0deg	Load pattern	Cap_w_Y	-0.08
WSub3: -15deg	Load pattern	Col_w_X	-0.16
WSub3: -15deg	Load pattern	Col_w_Y	0.1
WSub3: -15deg	Load pattern	Cais_w_X	-0.18
WSub3: -15deg	Load pattern	Cais_w_Y	0.12
WSub3: -15deg	Load pattern	Cap_R_X	-0.9
WSub3: -15deg	Load pattern	Cap_w_Y	-0.14
WSub3: -30deg	Load pattern	Col_w_X	-0.13
WSub3: -30deg	Load pattern	Col_w_Y	0.14
WSub3: -30deg	Load pattern	Cais_w_X	-0.15
WSub3: -30deg	Load pattern	Cais_w_Y	0.16
WSub3: -30deg	Load pattern	Cap_R_X	-0.72
WSub3: -30deg	Load pattern	Cap_w_Y	-0.2
WSub3: -45deg	Load pattern	Col_w_X	-0.09
WSub3: -45deg	Load pattern	Col_w_Y	0.17
WSub3: -45deg	Load pattern	Cais_w_X	-0.1
WSub3: -45deg	Load pattern	Cais_w_Y	0.19
WSub3: -45deg	Load pattern	Cap_R_X	-0.5
WSub3: -45deg	Load pattern	Cap_w_Y	-0.24
WA	Load pattern	Col_w_X	-0.26
WA	Load pattern	Cais_w_X	-0.3

4.3. Response spectrum case load assignments

Table 13: Function - Response Spectrum - User

Table 13: Function - Response Spectrum - User

Name	Period	Accel	FuncDamp
	Sec		
UNIFRS	0.	1.	0.05
UNIFRS	1.	1.	

5. Load combinations

This section provides load combination information.

Table 14: Combination Definitions

Table 14: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
WS3: 45deg	Linear Add	WS3	1.
WS3: 45deg		WSub3: 45deg	1.
WS3: 30deg	Linear Add	WS3	1.

Table 14: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
WS3: 30deg		WSub3: 30deg	1.
WS3: 15deg	Linear Add	WS3	1.
WS3: 15deg		WSub3: 15deg	1.
WS3: 0deg	Linear Add	WS3	1.
WS3: 0deg		WSub3: 0deg	1.
WS3: -15deg	Linear Add	WS3	1.
WS3: -15deg		WSub3: -15deg	1.
WS3: -30deg	Linear Add	WS3	1.
WS3: -30deg		WSub3: -30deg	1.
WServ1: -45deg	Linear Add	WS3	0.37
WServ1: -45deg		WSub3: -30deg	0.37
WS5: 45deg	Linear Add	WS3	0.484
WS5: 45deg		WSub3: 45deg	0.484
WS5: 45deg		WL5	1.
WS5: 30deg	Linear Add	WS3	0.484
WS5: 30deg		WSub3: 30deg	0.484
WS5: 30deg		WL5	1.
WS5: 15deg	Linear Add	WS3	0.484
WS5: 15deg		WSub3: 15deg	0.484
WS5: 15deg		WL5	1.
WS5: 0deg	Linear Add	WS3	0.484
WS5: 0deg		WSub3: 0deg	0.484
WS5: 0deg		WL5	1.
WS5: -15deg	Linear Add	WS3	0.484
WS5: -15deg		WSub3: -15deg	0.484
WS5: -15deg		WL5	1.
WS5: -30deg	Linear Add	WS3	0.484
WS5: -30deg		WSub3: -30deg	0.484
WS5: -30deg		WL5	1.
WS5: -45deg	Linear Add	WS3	0.484
WS5: -45deg		WSub3: -45deg	0.484
WS5: -45deg		WL5	1.
LL - 1 Lane	Linear Add	LL-1 Lane	1.
LL - 1 Lane		CE-1 Lane	1.
LL - 1 Lane		BR-1 Lane	1.
LL - 1 Lane		PL	1.
WS5 + WA	Linear Add	WS3	0.484
WS5 + WA		WA	1.
WS5 + WA		WL5	1.
LL - 2 Lane	Linear Add	LL-2 Lane	1.
LL - 2 Lane		CE-2 Lane	1.
LL - 2 Lane		BR-2 Lane	1.
LL - 2 Lane		PL	1.
LL - 3 Lane	Linear Add	LL-3 Lane	1.
LL - 3 Lane		CE-3 Lane	1.
LL - 3 Lane		BR-3 Lane	1.
LL - 3 Lane		PL	1.
LL - 7 Lane	Linear Add	LL-7 Lane	1.
LL - 7 Lane		CE-7 Lane	1.
LL - 7 Lane		BR-7 Lane	1.
LL - 7 Lane		PL	1.
LL Envelope	Envelope	LL - 1 Lane	1.
LL Envelope		LL - 2 Lane	1.
LL Envelope		LL - 3 Lane	1.

Table 14: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
LL Envelope		LL - 7 Lane	1.
WS3 + WA	Linear Add	WS3	1.
WS3 + WA		WA	1.
WS3 & WA envelope	Envelope	WS3: -15deg	1.
WS3 & WA envelope		WS3: -30deg	1.
WS3 & WA envelope		WServ1: -45deg	1.
WS3 & WA envelope		WS3: 0deg	1.
WS3 & WA envelope		WS3: 15deg	1.
WS3 & WA envelope		WS3: 30deg	1.
WS3 & WA envelope		WS3: 45deg	1.
WS3 & WA envelope		WS3 + WA	1.
WS5 & WA envelope	Envelope	WS5: -15deg	1.
WS5 & WA envelope		WS5: -30deg	1.
WS5 & WA envelope		WS5: -45deg	1.
WS5 & WA envelope		WS5: 0deg	1.
WS5 & WA envelope		WS5: 15deg	1.
WS5 & WA envelope		WS5: 30deg	1.
WS5 & WA envelope		WS5: 45deg	1.
WS5 & WA envelope		WS5 + WA	1.
Strength 1 - Max	Linear Add	DEAD	1.25
Strength 1 - Max		DC	1.25
Strength 1 - Max		DW	1.5
Strength 1 - Max		LL Envelope	1.75
Strength 1 - Max		WA	1.
Strength 1 - Min	Linear Add	DEAD	0.9
Strength 1 - Min		DC	0.9
Strength 1 - Min		DW	0.65
Strength 1 - Min		LL Envelope	1.75
Strength 1 - Min		WA	1.
Strength 3 - Max	Linear Add	DEAD	1.25
Strength 3 - Max		DC	1.25
Strength 3 - Max		DW	1.5
Strength 3 - Max		WS3 & WA envelope	1.
Strength 3 - Min	Linear Add	DEAD	0.9
Strength 3 - Min		DC	0.9
Strength 3 - Min		DW	0.65
Strength 3 - Min		WS3 & WA envelope	1.
Strength 5 - Max	Linear Add	DEAD	1.25
Strength 5 - Max		DC	1.25
Strength 5 - Max		DW	1.5

Table 14: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
Strength 5 - Max		LL Envelope	1.35
Strength 5 - Max		WS5 & WA envelope	1.
Strength 5 - Min	Linear Add	DEAD	0.9
Strength 5 - Min		DC	0.9
Strength 5 - Min		DW	0.65
Strength 5 - Min		LL Envelope	1.35
Strength 5 - Min		WS5 & WA envelope	1.
WServ1: -15deg	Linear Add	WS3	0.37
WServ1: -15deg		WSub3: -15deg	0.37
WServ1: -30deg	Linear Add	WS3	0.37
WServ1: -30deg		WSub3: -30deg	0.37
WServ1: 0deg	Linear Add	WS3	0.37
WServ1: 0deg		WSub3: 0deg	0.37
WServ1: 15deg	Linear Add	WS3	0.37
WServ1: 15deg		WSub3: 15deg	0.37
WServ1: 30deg	Linear Add	WS3	0.37
WServ1: 30deg		WSub3: 30deg	0.37
WServ1: 45deg	Linear Add	WS3	0.37
WServ1: 45deg		WSub3: 45deg	0.37
WServ1 + WA	Linear Add	WS3	0.37
WServ1 + WA		WA	1.
WServ1 & WA envelope	Envelope	WServ1: -15deg	1.
WServ1 & WA envelope		WServ1: -30deg	1.
WServ1 & WA envelope		WServ1: -45deg	1.
WServ1 & WA envelope		WServ1: 0deg	1.
WServ1 & WA envelope		WServ1: 15deg	1.
WServ1 & WA envelope		WServ1: 30deg	1.
WServ1 & WA envelope		WServ1: 45deg	1.
WServ1 & WA envelope		WServ1 + WA	1.
Service 1	Linear Add	DEAD	1.
Service 1		DC	1.
Service 1		DW	1.
Service 1		LL Envelope	1.
Service 1		WServ1 & WA envelope	1.
Strength Envelope	Envelope	Strength 1 - Max	1.
Strength Envelope		Strength 1 - Min	1.
Strength Envelope		Strength 3 - Max	1.
Strength Envelope		Strength 3 - Min	1.
Strength Envelope		Strength 5 - Max	1.
Strength Envelope		Strength 5 - Min	1.

6. Structure results

This section provides structure results, including items such as structural periods and base reactions.

6.1. Base reactions

Table 15: Base Reactions

Table 15: Base Reactions

OutputCase	StepType	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
		Kip	Kip	Kip	Kip-in	Kip-in	Kip-in
DEAD		-2.931E-14	0.	510.808	0.	-5.093E-11	0.
R01_Z		6.366E-15	0.	-1.	0.	-551.6	0.
R02_Z		-3.280E-15	0.	-1.	0.	-454.5	0.
R03_Z		-5.334E-16	0.	-1.	0.	-356.3	0.
R04_Z		-1.632E-15	0.	-1.	0.	-258.1	0.
R05_Z		1.675E-15	0.	-1.	0.	-159.7	0.
R06_Z		-1.426E-15	0.	-1.	0.	-61.2	0.
R07_Z		1.360E-15	0.	-1.	0.	37.3	0.
R08_Z		-1.344E-15	0.	-1.	0.	136.	0.
R09_Z		1.177E-15	0.	-1.	0.	234.7	0.
R10_Z		1.053E-15	0.	-1.	0.	333.6	0.
R11_Z		3.442E-15	0.	-1.	0.	432.6	0.
R12_Z		-2.223E-15	0.	-1.	0.	530.6	0.
R_X		-12.	0.	5.773E-15	0.	-2232.	0.
R_Y		0.	-12.	0.	2232.	0.	136.6
Cap_R_X		-1.	0.	5.274E-16	0.	-159.	0.
Cap_w_Y		-1.116E-14	0.	96.	0.	-1.364E-11	0.
Cap_w_Z		-1.116E-14	0.	96.	0.	-1.364E-11	0.
Col_w_X		-3.656E-17	0.	79.5	0.	-1.000E-11	0.
Col_w_Y		-3.656E-17	0.	79.5	0.	-1.000E-11	0.
Cais_w_X		-2.732E-17	0.	81.	0.	-1.819E-12	0.
Cais_w_Y		-2.732E-17	0.	81.	0.	-1.819E-12	0.
DC		-7.478E-13	0.	2095.86	0.	23891.21	0.
DW		-1.177E-13	0.	303.72	0.	3457.346	0.
WS3		32.4	16.92	-145.23	-3147.12	47107.751	-192.606
WL5		8.28	5.28	-5.329E-15	-982.08	2948.43	-60.104
PL		-3.902E-14	0.	100.44	0.	1143.342	0.
LL-1 Lane		-1.145E-13	0.	176.58	0.	87890.866	0.
LL-2 Lane		-1.797E-13	0.	294.3	0.	125275.801	0.
LL-3 Lane		-2.152E-13	0.	375.23	0.	132689.746	0.
LL-7 Lane		-2.796E-13	0.	669.52	0.	43806.131	0.
CE-1 Lane		25.92	8.16	-1.066E-14	-1517.76	9794.668	-92.888
CE-2 Lane		43.2	13.68	-2.132E-14	-2544.48	16326.734	-155.724
CE-3 Lane		55.08	17.4	8.26	-3236.4	16627.096	-198.07
CE-7 Lane		98.28	30.96	-6.040E-14	-5758.56	37141.148	-352.428
BR-1 Lane		8.76	27.72	-4.663E-15	-5155.92	1629.36	-315.546
BR-2 Lane		14.52	46.08	-7.550E-15	-8570.88	2700.72	-524.544
BR-3 Lane		18.6	58.8	-9.770E-15	-10936.8	3459.6	-669.34
BR-7 Lane		33.12	104.88	-1.688E-14	-19507.68	6160.32	-1193.884
WSub3: 45deg		0.95	0.	-55.68	0.	151.05	0.
WSub3: 30deg		1.05	0.	-45.105	0.	166.95	0.
WSub3: 15deg		1.07	0.	-32.28	0.	170.13	0.
WSub3: 0deg		1.02	0.	-28.56	0.	162.18	0.
WSub3: -15deg		0.9	0.	-23.07	0.	143.1	0.

Table 15: Base Reactions

OutputCase	StepType	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
		Kip	Kip	Kip	Kip-in	Kip-in	Kip-in
WSub3: -30deg		0.72	0.	-17.595	0.	114.48	0.
WSub3: -45deg		0.5	0.	-9.39	0.	79.5	0.
WA		1.042E-17	0.	-44.97	0.	4.093E-12	0.

7. Joint results

This section provides joint results, including items such as displacements and reactions.

Table 16: Joint Reactions, Part 1 of 2

Table 16: Joint Reactions, Part 1 of 2

Joint	OutputCase	StepType	F1	F2	F3	M1	M2
			Kip	Kip	Kip	Kip-in	Kip-in
39	DEAD		0.73	0.	71.495	0.	94.918
39	R01_Z		0.014	0.	-1.027	0.	1.676
39	R02_Z		-0.025	0.	-0.554	0.	-3.089
39	R03_Z		-0.015	0.	-0.139	0.	-1.95
39	R04_Z		-1.255E-03	0.	0.042	0.	-0.103
39	R05_Z		2.017E-04	0.	0.043	0.	-0.021
39	R06_Z		1.409E-03	0.	0.01	0.	0.233
39	R07_Z		-2.231E-04	0.	-9.686E-04	0.	-0.065
39	R08_Z		6.763E-04	0.	-8.614E-04	0.	0.133
39	R09_Z		-4.576E-04	0.	-1.313E-03	0.	-0.088
39	R10_Z		-4.310E-04	0.	-5.277E-04	0.	-0.084
39	R11_Z		-1.434E-03	0.	-1.209E-03	0.	-0.284
39	R12_Z		9.437E-04	0.	9.065E-04	0.	0.187
39	R_X		-1.905	0.	-2.088	0.	-378.657
39	R_Y		0.	-1.855	0.	666.365	0.
39	Cap_R_X		-0.155	0.	-0.141	0.	-30.772
39	Cap_w_Y		0.27	0.	10.948	0.	35.155
39	Cap_w_Z		0.27	0.	10.948	0.	35.155
39	Col_w_X		-6.092E-16	0.	13.25	0.	-8.277E-14
39	Col_w_Y		-6.092E-16	0.	13.25	0.	-8.277E-14
39	Cais_w_X		-1.861E-16	0.	13.5	0.	-2.526E-14
39	Cais_w_Y		-1.861E-16	0.	13.5	0.	-2.526E-14
39	DC		4.87	0.	270.296	0.	649.254
39	DW		0.652	0.	41.234	0.	87.417
39	WS3		5.082	2.615	11.556	-939.574	1014.192
39	WL5		1.322	0.816	2.285	-293.2	262.382
39	PL		0.216	0.	13.636	0.	28.909
39	LL-1 Lane		0.884	0.	75.484	0.	118.423
39	LL-2 Lane		1.349	0.	113.085	0.	180.647
39	LL-3 Lane		1.56	0.	127.966	0.	209.036
39	LL-7 Lane		1.65	0.	112.593	0.	221.174
39	CE-1 Lane		4.143	1.261	7.492	-453.128	821.825
39	CE-2 Lane		6.905	2.114	12.493	-759.656	1369.689
39	CE-3 Lane		8.822	2.689	16.26	-966.229	1748.292
39	CE-7 Lane		15.709	4.785	28.41	-1719.221	3116.068
39	BR-1 Lane		1.39	4.284	1.524	-1539.302	276.42
39	BR-2 Lane		2.304	7.122	2.527	-2558.84	458.175
39	BR-3 Lane		2.952	9.088	3.236	-3265.187	586.919

Table 16: Joint Reactions, Part 1 of 2

Joint	OutputCase	StepType	F1	F2	F3	M1	M2
			Kip	Kip	Kip	Kip-in	Kip-in
39	BR-7 Lane		5.256	16.21	5.763	-5824.027	1045.094
39	WSub3: 45deg		0.115	0.	-8.54	0.	25.015
39	WSub3: 30deg		0.147	0.	-7.066	0.	30.201
39	WSub3: 15deg		0.163	0.	-5.178	0.	32.574
39	WSub3: 0deg		0.137	0.	-4.212	0.	28.575
39	WSub3: -15deg		0.102	0.	-3.011	0.	22.773
39	WSub3: -30deg		0.058	0.	-1.821	0.	15.125
39	WSub3: -45deg		0.013	0.	-0.282	0.	6.949
39	WA		2.117E-16	0.	-7.495	0.	2.887E-14
40	DEAD		-0.048	0.	93.403	0.	-6.541
40	R01_Z		-1.122E-03	0.	0.011	0.	-0.361
40	R02_Z		0.018	0.	-0.503	0.	2.517
40	R03_Z		0.012	0.	-0.86	0.	1.539
40	R04_Z		-0.015	0.	-0.733	0.	-1.842
40	R05_Z		-0.012	0.	-0.291	0.	-1.653
40	R06_Z		-1.102E-03	0.	6.210E-03	0.	-0.095
40	R07_Z		4.562E-05	0.	0.051	0.	-0.03
40	R08_Z		1.169E-03	0.	0.016	0.	0.198
40	R09_Z		-2.324E-04	0.	2.307E-03	0.	-0.058
40	R10_Z		-4.255E-04	0.	-1.087E-03	0.	-0.084
40	R11_Z		-1.568E-03	0.	-9.515E-04	0.	-0.302
40	R12_Z		9.988E-04	0.	-6.004E-04	0.	0.194
40	R_X		-2.056	0.	0.655	0.	-398.511
40	R_Y		0.	-2.091	0.	718.215	0.
40	Cap_R_X		-0.167	0.	0.047	0.	-32.313
40	Cap_w_Y		-0.018	0.	19.062	0.	-2.423
40	Cap_w_Z		-0.018	0.	19.062	0.	-2.423
40	Col_w_X		9.596E-17	0.	13.25	0.	9.238E-15
40	Col_w_Y		9.596E-17	0.	13.25	0.	9.238E-15
40	Cais_w_X		2.768E-17	0.	13.5	0.	2.635E-15
40	Cais_w_Y		2.768E-17	0.	13.5	0.	2.635E-15
40	DC		-0.164	0.	409.573	0.	-7.452
40	DW		-0.023	0.	58.275	0.	-0.612
40	WS3		5.369	2.948	-6.811	-1012.683	1051.87
40	WL5		1.412	0.92	0.3	-316.015	274.169
40	PL		-7.617E-03	0.	19.271	0.	-0.203
40	LL-1 Lane		-0.402	0.	79.753	0.	-49.411
40	LL-2 Lane		-0.573	0.	121.592	0.	-70.205
40	LL-3 Lane		-0.609	0.	140.586	0.	-74.052
40	LL-7 Lane		-0.214	0.	147.791	0.	-21.994
40	CE-1 Lane		4.418	1.422	1.243	-488.386	857.93
40	CE-2 Lane		7.364	2.383	2.067	-818.765	1429.897
40	CE-3 Lane		9.332	3.031	2.889	-1041.411	1815.173
40	CE-7 Lane		16.753	5.394	4.714	-1852.994	3253.026
40	BR-1 Lane		1.501	4.829	-0.478	-1659.076	290.913
40	BR-2 Lane		2.488	8.028	-0.793	-2757.945	482.198
40	BR-3 Lane		3.187	10.244	-1.016	-3519.253	617.692
40	BR-7 Lane		5.675	18.272	-1.808	-6277.197	1099.891
40	WSub3: 45deg		0.16	0.	-9.692	0.	30.988
40	WSub3: 30deg		0.176	0.	-7.75	0.	34.074
40	WSub3: 15deg		0.179	0.	-5.46	0.	34.599
40	WSub3: 0deg		0.171	0.	-5.052	0.	33.153
40	WSub3: -15deg		0.153	0.	-4.316	0.	29.421
40	WSub3: -30deg		0.124	0.	-3.578	0.	23.75

Table 16: Joint Reactions, Part 1 of 2

Joint	OutputCase	StepType	F1	F2	F3	M1	M2
			Kip	Kip	Kip	Kip-in	Kip-in
40	WSub3: -45deg		0.088	0.	-2.323	0.	16.738
40	WA		-3.569E-17	0.	-7.495	0.	-3.406E-15
41	DEAD		-0.011	0.	90.506	0.	-1.556
41	R01_Z		-3.846E-03	0.	0.016	0.	-0.713
41	R02_Z		1.260E-03	0.	0.056	0.	0.277
41	R03_Z		3.008E-03	0.	-0.015	0.	0.414
41	R04_Z		0.014	0.	-0.357	0.	1.892
41	R05_Z		0.013	0.	-0.774	0.	1.673
41	R06_Z		-0.012	0.	-0.788	0.	-1.576
41	R07_Z		-0.014	0.	-0.38	0.	-1.901
41	R08_Z		-2.220E-03	0.	-0.026	0.	-0.245
41	R09_Z		4.153E-05	0.	0.053	0.	-0.023
41	R10_Z		7.070E-05	0.	0.021	0.	-0.019
41	R11_Z		-1.262E-03	0.	4.311E-03	0.	-0.263
41	R12_Z		1.046E-03	0.	-1.109E-03	0.	0.201
41	R_X		-2.041	0.	-0.026	0.	-396.596
41	R_Y		0.	-2.188	0.	740.165	0.
41	Cap_R_X		-0.167	0.	-3.229E-03	0.	-32.48
41	Cap_w_Y		-4.103E-03	0.	17.989	0.	-0.576
41	Cap_w_Z		-4.103E-03	0.	17.989	0.	-0.576
41	Col_w_X		1.476E-17	0.	13.25	0.	-1.541E-15
41	Col_w_Y		1.476E-17	0.	13.25	0.	-1.541E-15
41	Cais_w_X		1.142E-17	0.	13.5	0.	4.626E-16
41	Cais_w_Y		1.142E-17	0.	13.5	0.	4.626E-16
41	DC		0.19	0.	389.78	0.	40.355
41	DW		0.035	0.	55.446	0.	7.12
41	WS3		5.332	3.085	-19.92	-1043.633	1046.937
41	WL5		1.403	0.963	0.233	-325.673	272.976
41	PL		0.011	0.	18.336	0.	2.355
41	LL-1 Lane		-0.308	0.	45.348	0.	-36.991
41	LL-2 Lane		-0.432	0.	72.345	0.	-51.492
41	LL-3 Lane		-0.448	0.	88.118	0.	-52.714
41	LL-7 Lane		-0.062	0.	127.756	0.	-1.642
41	CE-1 Lane		4.39	1.488	0.816	-503.312	854.264
41	CE-2 Lane		7.317	2.494	1.354	-843.788	1423.786
41	CE-3 Lane		9.341	3.172	1.106	-1073.24	1816.41
41	CE-7 Lane		16.646	5.645	3.094	-1909.626	3239.07
41	BR-1 Lane		1.49	5.054	0.019	-1709.782	289.515
41	BR-2 Lane		2.47	8.401	0.031	-2842.234	479.881
41	BR-3 Lane		3.164	10.721	0.04	-3626.81	614.723
41	BR-7 Lane		5.634	19.122	0.071	-6469.044	1094.604
41	WSub3: 45deg		0.159	0.	-9.516	0.	30.925
41	WSub3: 30deg		0.176	0.	-7.633	0.	34.138
41	WSub3: 15deg		0.179	0.	-5.396	0.	34.759
41	WSub3: 0deg		0.171	0.	-4.916	0.	33.175
41	WSub3: -15deg		0.151	0.	-4.121	0.	29.312
41	WSub3: -30deg		0.121	0.	-3.328	0.	23.501
41	WSub3: -45deg		0.085	0.	-2.041	0.	16.378
41	WA		-4.223E-18	0.	-7.495	0.	7.651E-16
42	DEAD		0.011	0.	90.506	0.	1.556
42	R01_Z		-3.247E-03	0.	-1.770E-03	0.	-0.632
42	R02_Z		1.524E-03	0.	2.446E-03	0.	0.31
42	R03_Z		-1.344E-04	0.	0.016	0.	3.449E-03
42	R04_Z		2.056E-04	0.	0.049	0.	0.081

Table 16: Joint Reactions, Part 1 of 2

Joint	OutputCase	StepType	F1	F2	F3	M1	M2
			Kip	Kip	Kip	Kip-in	Kip-in
42	R05_Z		8.079E-04	0.	0.012	0.	0.055
42	R06_Z		0.012	0.	-0.271	0.	1.563
42	R07_Z		0.015	0.	-0.709	0.	1.977
42	R08_Z		-8.526E-03	0.	-0.833	0.	-1.069
42	R09_Z		-0.016	0.	-0.467	0.	-2.105
42	R10_Z		-4.706E-03	0.	-0.063	0.	-0.644
42	R11_Z		-1.354E-03	0.	0.055	0.	-0.276
42	R12_Z		1.618E-03	0.	0.026	0.	0.277
42	R_X		-2.04	0.	0.026	0.	-396.4
42	R_Y		0.	-2.172	0.	734.597	0.
42	Cap_R_X		-0.17	0.	5.864E-04	0.	-32.959
42	Cap_w_Y		4.103E-03	0.	17.989	0.	0.576
42	Cap_w_Z		4.103E-03	0.	17.989	0.	0.576
42	Col_w_X		-2.775E-16	0.	13.25	0.	-3.991E-14
42	Col_w_Y		-2.775E-16	0.	13.25	0.	-3.991E-14
42	Cais_w_X		-1.036E-16	0.	13.5	0.	-1.462E-14
42	Cais_w_Y		-1.036E-16	0.	13.5	0.	-1.462E-14
42	DC		0.443	0.	388.952	0.	75.005
42	DW		0.067	0.	55.302	0.	11.63
42	WS3		5.311	3.062	-34.59	-1035.782	1043.937
42	WL5		1.402	0.956	-0.284	-323.223	272.831
42	PL		0.022	0.	18.288	0.	3.846
42	LL-1 Lane		-0.293	0.	15.922	0.	-35.034
42	LL-2 Lane		-0.407	0.	30.541	0.	-48.063
42	LL-3 Lane		-0.414	0.	44.045	0.	-48.132
42	LL-7 Lane		8.552E-03	0.	115.069	0.	8.024
42	CE-1 Lane		4.387	1.477	-0.997	-499.526	853.806
42	CE-2 Lane		7.312	2.476	-1.656	-837.441	1423.012
42	CE-3 Lane		9.31	3.149	-2.28	-1065.166	1812.178
42	CE-7 Lane		16.635	5.603	-3.781	-1895.26	3237.323
42	BR-1 Lane		1.489	5.017	-0.019	-1696.919	289.372
42	BR-2 Lane		2.468	8.34	-0.032	-2820.852	479.644
42	BR-3 Lane		3.162	10.642	-0.04	-3599.525	614.42
42	BR-7 Lane		5.631	18.981	-0.072	-6420.378	1094.063
42	WSub3: 45deg		0.161	0.	-9.519	0.	31.242
42	WSub3: 30deg		0.178	0.	-7.637	0.	34.572
42	WSub3: 15deg		0.182	0.	-5.401	0.	35.26
42	WSub3: 0deg		0.173	0.	-4.92	0.	33.572
42	WSub3: -15deg		0.152	0.	-4.124	0.	29.582
42	WSub3: -30deg		0.121	0.	-3.331	0.	23.615
42	WSub3: -45deg		0.084	0.	-2.043	0.	16.341
42	WA		1.062E-16	0.	-7.495	0.	1.525E-14
43	DEAD		0.048	0.	93.403	0.	6.541
43	R01_Z		-3.248E-03	0.	-9.797E-04	0.	-0.63
43	R02_Z		1.772E-03	0.	-7.150E-04	0.	0.341
43	R03_Z		3.333E-04	0.	-1.340E-03	0.	0.064
43	R04_Z		7.048E-04	0.	9.564E-04	0.	0.146
43	R05_Z		-1.192E-03	0.	0.011	0.	-0.206
43	R06_Z		5.510E-05	0.	0.044	0.	0.053
43	R07_Z		2.013E-04	0.	0.033	0.	-0.014
43	R08_Z		9.187E-03	0.	-0.189	0.	1.244
43	R09_Z		0.016	0.	-0.639	0.	2.087
43	R10_Z		-4.803E-03	0.	-0.885	0.	-0.658
43	R11_Z		-0.02	0.	-0.608	0.	-2.672

Table 16: Joint Reactions, Part 1 of 2

Joint	OutputCase	StepType	F1	F2	F3	M1	M2
			Kip	Kip	Kip	Kip-in	Kip-in
43	R12_Z		-4.499E-03	0.	-0.097	0.	-0.521
43	R_X		-2.052	0.	-0.624	0.	-397.832
43	R_Y		0.	-2.021	0.	697.311	0.
43	Cap_R_X		-0.174	0.	-0.053	0.	-33.764
43	Cap_w_Y		0.018	0.	19.062	0.	2.423
43	Cap_w_Z		0.018	0.	19.062	0.	2.423
43	Col_w_X		1.050E-16	0.	13.25	0.	9.843E-15
43	Col_w_Y		1.050E-16	0.	13.25	0.	9.843E-15
43	Cais_w_X		3.997E-17	0.	13.5	0.	4.080E-15
43	Cais_w_Y		3.997E-17	0.	13.5	0.	4.080E-15
43	DC		0.731	0.	412.781	0.	114.359
43	DW		0.125	0.	59.022	0.	19.372
43	WS3		5.277	2.849	-51.599	-983.208	1039.09
43	WL5		1.409	0.889	-0.395	-306.817	273.654
43	PL		0.041	0.	19.519	0.	6.406
43	LL-1 Lane		-0.335	0.	-16.055	0.	-40.582
43	LL-2 Lane		-0.458	0.	-14.316	0.	-54.801
43	LL-3 Lane		-0.455	0.	-2.399	0.	-53.549
43	LL-7 Lane		0.103	0.	108.885	0.	20.86
43	CE-1 Lane		4.408	1.374	-1.571	-474.171	856.304
43	CE-2 Lane		7.346	2.304	-2.614	-794.934	1427.181
43	CE-3 Lane		9.405	2.93	-2.539	-1011.1	1824.133
43	CE-7 Lane		16.713	5.214	-5.955	-1799.061	3246.852
43	BR-1 Lane		1.498	4.668	0.456	-1610.787	290.417
43	BR-2 Lane		2.482	7.76	0.755	-2677.672	481.376
43	BR-3 Lane		3.18	9.902	0.967	-3416.822	616.639
43	BR-7 Lane		5.662	17.662	1.722	-6094.494	1098.016
43	WSub3: 45deg		0.163	0.	-9.597	0.	31.785
43	WSub3: 30deg		0.182	0.	-7.645	0.	35.306
43	WSub3: 15deg		0.186	0.	-5.353	0.	36.103
43	WSub3: 0deg		0.176	0.	-4.951	0.	34.245
43	WSub3: -15deg		0.154	0.	-4.226	0.	30.048
43	WSub3: -30deg		0.122	0.	-3.507	0.	23.825
43	WSub3: -45deg		0.083	0.	-2.273	0.	16.3
43	WA		-3.426E-17	0.	-7.495	0.	-3.018E-15
44	DEAD		-0.73	0.	71.495	0.	-94.918
44	R01_Z		-3.034E-03	0.	2.789E-03	0.	-0.601
44	R02_Z		1.623E-03	0.	-1.376E-03	0.	0.321
44	R03_Z		3.205E-04	0.	-3.353E-04	0.	0.063
44	R04_Z		8.423E-04	0.	-1.461E-03	0.	0.164
44	R05_Z		-7.217E-04	0.	-7.509E-04	0.	-0.144
44	R06_Z		4.616E-04	0.	-1.763E-03	0.	0.106
44	R07_Z		-1.186E-03	0.	6.391E-03	0.	-0.195
44	R08_Z		-2.860E-04	0.	0.033	0.	5.161E-03
44	R09_Z		3.193E-04	0.	0.052	0.	8.099E-03
44	R10_Z		0.01	0.	-0.071	0.	1.313
44	R11_Z		0.025	0.	-0.449	0.	3.196
44	R12_Z		-1.071E-04	0.	-0.929	0.	0.053
44	R_X		-1.907	0.	2.057	0.	-378.736
44	R_Y		0.	-1.674	0.	619.348	0.
44	Cap_R_X		-0.167	0.	0.151	0.	-33.072
44	Cap_w_Y		-0.27	0.	10.948	0.	-35.155
44	Cap_w_Z		-0.27	0.	10.948	0.	-35.155
44	Col_w_X		6.345E-16	0.	13.25	0.	7.887E-14

Table 16: Joint Reactions, Part 1 of 2

Joint	OutputCase	StepType	F1	F2	F3	M1	M2
			Kip	Kip	Kip	Kip-in	Kip-in
44	Col_w_Y		6.345E-16	0.	13.25	0.	7.887E-14
44	Cais_w_X		1.833E-16	0.	13.5	0.	2.276E-14
44	Cais_w_Y		1.833E-16	0.	13.5	0.	2.276E-14
44	DC		-6.07	0.	224.477	0.	-772.954
44	DW		-0.856	0.	34.442	0.	-108.558
44	WS3		6.03	2.361	-43.866	-873.28	1136.992
44	WL5		1.331	0.737	-2.139	-272.513	263.387
44	PL		-0.283	0.	11.39	0.	-35.9
44	LL-1 Lane		0.454	0.	-23.872	0.	62.469
44	LL-2 Lane		0.521	0.	-28.947	0.	73.081
44	LL-3 Lane		0.365	0.	-23.087	0.	53.646
44	LL-7 Lane		-1.485	0.	57.425	0.	-186.393
44	CE-1 Lane		4.173	1.138	-6.983	-421.156	825.348
44	CE-2 Lane		6.955	1.909	-11.645	-706.056	1375.578
44	CE-3 Lane		8.87	2.428	-7.177	-898.054	1753.621
44	CE-7 Lane		15.824	4.319	-26.481	-1597.917	3129.439
44	BR-1 Lane		1.392	3.867	-1.501	-1430.693	276.478
44	BR-2 Lane		2.307	6.429	-2.489	-2378.295	458.271
44	BR-3 Lane		2.955	8.204	-3.188	-3034.804	587.042
44	BR-7 Lane		5.262	14.632	-5.676	-5413.099	1045.313
44	WSub3: 45deg		0.191	0.	-8.817	0.	35.637
44	WSub3: 30deg		0.191	0.	-7.373	0.	36.835
44	WSub3: 15deg		0.181	0.	-5.491	0.	35.739
44	WSub3: 0deg		0.192	0.	-4.51	0.	36.546
44	WSub3: -15deg		0.188	0.	-3.273	0.	34.687
44	WSub3: -30deg		0.174	0.	-2.031	0.	30.843
44	WSub3: -45deg		0.148	0.	-0.428	0.	24.973
44	WA		-2.333E-16	0.	-7.495	0.	-2.897E-14

Table 16: Joint Reactions, Part 2 of 2

Table 16: Joint Reactions, Part 2 of 2

Joint	M3
	Kip-in
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	-12.311
39	0.
39	0.
39	0.
39	0.

Table 16: Joint Reactions, Part 2 of 2

Joint	M3
	Kip-in
39	0.
39	0.
39	0.
39	0.
39	0.
39	17.359
39	5.417
39	0.
39	0.
39	0.
39	0.
39	0.
39	8.372
39	14.035
39	17.851
39	31.763
39	28.439
39	47.276
39	60.326
39	107.601
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
39	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	-7.561
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	10.661

Table 16: Joint Reactions, Part 2 of 2

Joint	M3
	Kip-in
40	3.327
40	0.
40	0.
40	0.
40	0.
40	0.
40	5.142
40	8.62
40	10.964
40	19.508
40	17.466
40	29.035
40	37.05
40	66.085
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
40	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	-1.464
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	2.064
41	0.644
41	0.
41	0.
41	0.
41	0.
41	0.

Table 16: Joint Reactions, Part 2 of 2

Joint	M3
	Kip-in
41	0.995
41	1.669
41	2.123
41	3.777
41	3.382
41	5.621
41	7.173
41	12.794
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
41	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	4.94
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	-6.965
42	-2.174
42	0.
42	0.
42	0.
42	0.
42	0.
42	-3.359
42	-5.632
42	-7.163
42	-12.745
42	-11.411
42	-18.969

Table 16: Joint Reactions, Part 2 of 2

Joint	M3
	Kip-in
42	-24.206
42	-43.175
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
42	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	12.404
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	0.
43	-17.489
43	-5.458
43	0.
43	0.
43	0.
43	0.
43	0.
43	-8.434
43	-14.14
43	-17.985
43	-32.001
43	-28.652
43	-47.63
43	-60.778
43	-108.407
43	0.
43	0.
43	0.
43	0.

Table 16: Joint Reactions, Part 2 of 2

Joint	M3
	Kip-in
43	0.
43	0.
43	0.
43	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	18.791
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	-26.495
44	-8.268
44	0.
44	0.
44	0.
44	0.
44	0.
44	-12.778
44	-21.421
44	-27.246
44	-48.48
44	-43.406
44	-72.156
44	-92.074
44	-164.229
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.
44	0.

8. Material take-off

This section provides a material take-off.

Table 17: Material List 2 - By Section Property

Table 17: Material List 2 - By Section Property

Section	ObjectType	NumPieces	TotalLength	TotalWeight
			in	Kip
Cap	Frame	7	1152.	259.2
Column	Frame	6	954.	98.927
Caisson	Frame	6	972.	152.681
RigidLink	Link	12		0.

9. Structure Output

TABLE: Concrete Design 1 - Column Summary Data - AASHTO LRFD 2014

Frame	DesignSect	DesignType	DesignOpt	Status	Location	PMMCombo	PMMArea	PMMRatio	VMajCombo	VMajRebar	VMinCombo	VMinRebar	ErrMsg	WarnMsg
Text	Text	Text	Text	Text	in	Text	in2	Unitless	Text	in2/in	Text	in2/in	Text	Text
1	Column	Column	Design	No Messages	0	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
1	Column	Column	Design	No Messages	79.5	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
1	Column	Column	Design	No Messages	159	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
2	Column	Column	Design	No Messages	0	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
2	Column	Column	Design	No Messages	79.5	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
2	Column	Column	Design	No Messages	159	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
3	Column	Column	Design	No Messages	0	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
3	Column	Column	Design	No Messages	79.5	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
3	Column	Column	Design	No Messages	159	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
4	Column	Column	Design	No Messages	0	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
4	Column	Column	Design	No Messages	79.5	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
4	Column	Column	Design	No Messages	159	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
5	Column	Column	Design	No Messages	0	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
5	Column	Column	Design	No Messages	79.5	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
5	Column	Column	Design	No Messages	159	Strength 1 - Max	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
6	Column	Column	Design	No Messages	0	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
6	Column	Column	Design	No Messages	79.5	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
6	Column	Column	Design	No Messages	159	Strength Envelope	12.09522989		Strength Envelope	0.071357143	Strength Envelope	0.071357143	No Messages	No Messages
14	Caisson	Column	Design	No Messages	0	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
14	Caisson	Column	Design	No Messages	81	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
14	Caisson	Column	Design	No Messages	162	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
15	Caisson	Column	Design	No Messages	0	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
15	Caisson	Column	Design	No Messages	81	Strength 1 - Max	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
15	Caisson	Column	Design	No Messages	162	Strength 1 - Max	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
16	Caisson	Column	Design	No Messages	0	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
16	Caisson	Column	Design	No Messages	81	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
16	Caisson	Column	Design	No Messages	162	Strength 1 - Max	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
17	Caisson	Column	Design	No Messages	0	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
17	Caisson	Column	Design	No Messages	81	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
17	Caisson	Column	Design	No Messages	162	Strength 1 - Max	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
18	Caisson	Column	Design	No Messages	0	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
18	Caisson	Column	Design	No Messages	81	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
18	Caisson	Column	Design	No Messages	162	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
19	Caisson	Column	Design	No Messages	0	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
19	Caisson	Column	Design	No Messages	81	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages
19	Caisson	Column	Design	No Messages	162	Strength Envelope	16.28601632		Strength Envelope	0.096428571	Strength Envelope	0.096428571	No Messages	No Messages

TABLE: Concrete Design 2 - Beam Summary Data - AASHTO LRFD 2014

Frame	DesignSect	DesignType	Status	Location	FTopCombo	FTopArea	FBotCombo	FBotArea	VCombo	VRebar	ErrMsg	WarnMsg
Text	Text	Text	Text	in	Text	in2	Text	in2	Text	in2/in	Text	Text
7	Cap	Beam	No Messages	0	Strength Envelope	5.237228954	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	21.375	Strength Envelope	2.4261465	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	42.75	Strength Envelope	0	Strength Envelope	1.707214718	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	64.125	Strength Envelope	0	Strength Envelope	4.599383756	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	85.5	Strength Envelope	0	Strength Envelope	5.715548063	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	85.5	Strength Envelope	0	Strength Envelope	5.606792879	Strength Envelope	0	No Messages	No Messages
7	Cap	Beam	No Messages	105.14	Strength Envelope	0	Strength Envelope	5.237228954	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	124.78	Strength Envelope	0	Strength Envelope	4.972154141	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	144.42	Strength Envelope	0	Strength Envelope	3.632723054	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	164.06	Strength Envelope	0	Strength Envelope	2.353032929	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	183.7	Strength Envelope	0	Strength Envelope	1.095465328	Strength Envelope	0.053626978	No Messages	No Messages
7	Cap	Beam	No Messages	183.7	Strength Envelope	0	Strength Envelope	0.844651832	Strength Envelope	0.097573467	No Messages	No Messages
7	Cap	Beam	No Messages	199.85	Strength Envelope	3.609399729	Strength Envelope	0	Strength Envelope	0.099094099	No Messages	No Messages
7	Cap	Beam	No Messages	216	Strength Envelope	6.010150761	Strength Envelope	0	Strength Envelope	0.100612748	No Messages	No Messages
8	Cap	Beam	No Messages	0	Strength Envelope	7.536640569	Strength Envelope	0	Strength Envelope	0.055982335	No Messages	No Messages
8	Cap	Beam	No Messages	21.96666667	Strength Envelope	5.237228954	Strength Envelope	0	Strength Envelope	0.053900602	No Messages	No Messages
8	Cap	Beam	No Messages	43.93333333	Strength Envelope	1.021701145	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
8	Cap	Beam	No Messages	65.9	Strength Envelope	0	Strength Envelope	3.312933139	Strength Envelope	0.053626978	No Messages	No Messages
8	Cap	Beam	No Messages	65.9	Strength Envelope	0	Strength Envelope	3.058502617	Strength Envelope	0	No Messages	No Messages
8	Cap	Beam	No Messages	85.58	Strength Envelope	0	Strength Envelope	3.160080817	Strength Envelope	0	No Messages	No Messages
8	Cap	Beam	No Messages	105.26	Strength Envelope	0	Strength Envelope	3.208142207	Strength Envelope	0	No Messages	No Messages
8	Cap	Beam	No Messages	124.94	Strength Envelope	0	Strength Envelope	3.202636559	Strength Envelope	0	No Messages	No Messages
8	Cap	Beam	No Messages	144.62	Strength Envelope	0	Strength Envelope	3.143569629	Strength Envelope	0	No Messages	No Messages
8	Cap	Beam	No Messages	164.3	Strength Envelope	0	Strength Envelope	3.031003131	Strength Envelope	0	No Messages	No Messages
8	Cap	Beam	No Messages	164.3	Strength Envelope	0	Strength Envelope	2.777038253	Strength Envelope	0.053626978	No Messages	No Messages
8	Cap	Beam	No Messages	181.5333333	Strength Envelope	0.906819626	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
8	Cap	Beam	No Messages	198.7666667	Strength Envelope	3.99689862	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
8	Cap	Beam	No Messages	216	Strength Envelope	5.590733353	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
9	Cap	Beam	No Messages	0	Strength Envelope	7.449939458	Strength Envelope	0	Strength Envelope	0.075923265	No Messages	No Messages
9	Cap	Beam	No Messages	23.4	Strength Envelope	4.377322491	Strength Envelope	0	Strength Envelope	0.073705698	No Messages	No Messages
9	Cap	Beam	No Messages	46.8	Strength Envelope	0	Strength Envelope	1.070328903	Strength Envelope	0.071488132	No Messages	No Messages
9	Cap	Beam	No Messages	46.8	Strength Envelope	0	Strength Envelope	1.033705791	Strength Envelope	0	No Messages	No Messages
9	Cap	Beam	No Messages	66.5	Strength Envelope	0	Strength Envelope	1.591404665	Strength Envelope	0	No Messages	No Messages
9	Cap	Beam	No Messages	86.2	Strength Envelope	0	Strength Envelope	2.391152406	Strength Envelope	0	No Messages	No Messages
9	Cap	Beam	No Messages	105.9	Strength Envelope	0	Strength Envelope	3.141393661	Strength Envelope	0	No Messages	No Messages
9	Cap	Beam	No Messages	125.6	Strength Envelope	0	Strength Envelope	3.841400079	Strength Envelope	0	No Messages	No Messages
9	Cap	Beam	No Messages	145.3	Strength Envelope	0	Strength Envelope	4.490479143	Strength Envelope	0	No Messages	No Messages
9	Cap	Beam	No Messages	145.3	Strength Envelope	0	Strength Envelope	4.234085165	Strength Envelope	0.053626978	No Messages	No Messages
9	Cap	Beam	No Messages	168.8666667	Strength Envelope	0	Strength Envelope	0.674689094	Strength Envelope	0.053626978	No Messages	No Messages

9	Cap	Beam	No Messages	192.4333333	Strength Envelope	2.933135505	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
9	Cap	Beam	No Messages	216	Strength Envelope	5.237228954	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	0	Strength Envelope	6.887290493	Strength Envelope	0	Strength Envelope	0.093049177	No Messages	No Messages
10	Cap	Beam	No Messages	14	Strength Envelope	5.237228954	Strength Envelope	0	Strength Envelope	0.091724258	No Messages	No Messages
10	Cap	Beam	No Messages	28	Strength Envelope	1.878185309	Strength Envelope	0	Strength Envelope	0.090397842	No Messages	No Messages
10	Cap	Beam	No Messages	28	Strength Envelope	2.130674515	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	47.74	Strength Envelope	0.656667577	Strength Envelope	0.095386674	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	67.48	Strength Envelope	0	Strength Envelope	0.990562936	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	87.22	Strength Envelope	0	Strength Envelope	2.261933491	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	106.96	Strength Envelope	0	Strength Envelope	3.636116639	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	126.7	Strength Envelope	0	Strength Envelope	4.968202651	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	126.7	Strength Envelope	0	Strength Envelope	4.71100345	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	149.025	Strength Envelope	0	Strength Envelope	2.235261076	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	171.35	Strength Envelope	0.624346051	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	193.675	Strength Envelope	2.851009104	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
10	Cap	Beam	No Messages	216	Strength Envelope	5.237228954	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	0	Strength Envelope	6.080369051	Strength Envelope	0	Strength Envelope	0.12873115	No Messages	No Messages
11	Cap	Beam	No Messages	9.6	Strength Envelope	5.082647333	Strength Envelope	0	Strength Envelope	0.127850589	No Messages	No Messages
11	Cap	Beam	No Messages	9.6	Strength Envelope	5.237228954	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	29.4	Strength Envelope	2.551253459	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	49.2	Strength Envelope	0.103910162	Strength Envelope	0.523650955	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	69	Strength Envelope	0	Strength Envelope	2.772737504	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	88.8	Strength Envelope	0	Strength Envelope	5.237228954	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	108.6	Strength Envelope	0	Strength Envelope	5.974815593	Strength Envelope	0.053626978	No Messages	No Messages
11	Cap	Beam	No Messages	108.6	Strength Envelope	0	Strength Envelope	5.780584726	Strength Envelope	0	No Messages	No Messages
11	Cap	Beam	No Messages	128.2	Strength Envelope	0	Strength Envelope	5.237228954	Strength Envelope	0	No Messages	No Messages
11	Cap	Beam	No Messages	147.8	Strength Envelope	0	Strength Envelope	5.237228954	Strength Envelope	0	No Messages	No Messages
11	Cap	Beam	No Messages	167.4	Strength Envelope	0	Strength Envelope	5.09863799	Strength Envelope	0	No Messages	No Messages
11	Cap	Beam	No Messages	187	Strength Envelope	0	Strength Envelope	4.11584168	Strength Envelope	0	No Messages	No Messages
11	Cap	Beam	No Messages	206.6	Strength Envelope	0	Strength Envelope	3.086223067	Strength Envelope	0	No Messages	No Messages
11	Cap	Beam	No Messages	206.6	Strength Envelope	0	Strength Envelope	2.83216712	Strength Envelope	0.055705356	No Messages	No Messages
11	Cap	Beam	No Messages	216	Strength Envelope	0.853284013	Strength Envelope	1.21494062	Strength Envelope	0.056596174	No Messages	No Messages
12	Cap	Beam	No Messages	0	Strength Envelope	0	Strength Envelope	0	Strength Envelope	0	No Messages	No Messages
12	Cap	Beam	No Messages	12.2	Strength Envelope	0.010084083	Strength Envelope	0	Strength Envelope	0	No Messages	No Messages
12	Cap	Beam	No Messages	24.4	Strength Envelope	0.040340223	Strength Envelope	0	Strength Envelope	0	No Messages	No Messages
12	Cap	Beam	No Messages	24.4	Strength Envelope	0.28986498	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
12	Cap	Beam	No Messages	36	Strength Envelope	2.51732243	Strength Envelope	0	Strength Envelope	0.053626978	No Messages	No Messages
13	Cap	Beam	No Messages	0	Strength Envelope	0.087827276	Strength Envelope	0	Strength Envelope	0	No Messages	No Messages
13	Cap	Beam	No Messages	18	Strength Envelope	0.021952207	Strength Envelope	0	Strength Envelope	0	No Messages	No Messages
13	Cap	Beam	No Messages	36	Strength Envelope	0	Strength Envelope	0	Strength Envelope	0	No Messages	No Messages

TABLE: Element Forces - Frames

Frame	Station	OutputCase	CaseType	StepType	P	V2	V3	T	M2	M3	FrameElem	ElemStation
Text	in	Text	Text	Text	Kip	Kip	Kip	Kip-in	Kip-in	Kip-in	Text	in
1	0	DEAD	LinStatic		-46.04845286	-0.73019507	0	0	0	23.37374717	1-1	0
1	79.5	DEAD	LinStatic		-37.80453331	-0.73019507	0	0	0	81.4242552	1-1	79.5
1	159	DEAD	LinStatic		-29.56061376	-0.73019507	0	0	0	139.4747632	1-1	159
1	0	R01_Z	LinStatic		1.02723902	-0.014497623	0	0	0	0.672239298	1-1	0
1	79.5	R01_Z	LinStatic		1.02723902	-0.014497623	0	0	0	1.824800309	1-1	79.5
1	159	R01_Z	LinStatic		1.02723902	-0.014497623	0	0	0	2.97736132	1-1	159
1	0	R02_Z	LinStatic		0.553723387	0.024556494	0	0	0	-0.889503197	1-1	0
1	79.5	R02_Z	LinStatic		0.553723387	0.024556494	0	0	0	-2.841744431	1-1	79.5
1	159	R02_Z	LinStatic		0.553723387	0.024556494	0	0	0	-4.793985665	1-1	159
1	0	R03_Z	LinStatic		0.139064099	0.015123384	0	0	0	-0.49967634	1-1	0
1	79.5	R03_Z	LinStatic		0.139064099	0.015123384	0	0	0	-1.701985334	1-1	79.5
1	159	R03_Z	LinStatic		0.139064099	0.015123384	0	0	0	-2.904294328	1-1	159
1	0	R04_Z	LinStatic		-0.041756523	0.001254725	0	0	0	-0.09983169	1-1	0
1	79.5	R04_Z	LinStatic		-0.041756523	0.001254725	0	0	0	-0.199582328	1-1	79.5
1	159	R04_Z	LinStatic		-0.041756523	0.001254725	0	0	0	-0.299332966	1-1	159
1	0	R05_Z	LinStatic		-0.042625236	-0.000201686	0	0	0	0.053392319	1-1	0
1	79.5	R05_Z	LinStatic		-0.042625236	-0.000201686	0	0	0	0.069426345	1-1	79.5
1	159	R05_Z	LinStatic		-0.042625236	-0.000201686	0	0	0	0.085460372	1-1	159
1	0	R06_Z	LinStatic		-0.010464357	-0.001408682	0	0	0	-0.005056965	1-1	0
1	79.5	R06_Z	LinStatic		-0.010464357	-0.001408682	0	0	0	0.106933287	1-1	79.5
1	159	R06_Z	LinStatic		-0.010464357	-0.001408682	0	0	0	0.218923539	1-1	159
1	0	R07_Z	LinStatic		0.000968615	0.000223072	0	0	0	0.028529266	1-1	0
1	79.5	R07_Z	LinStatic		0.000968615	0.000223072	0	0	0	0.010795027	1-1	79.5
1	159	R07_Z	LinStatic		0.000968615	0.000223072	0	0	0	-0.006939212	1-1	159
1	0	R08_Z	LinStatic		0.000861448	-0.00067627	0	0	0	-0.023502687	1-1	0
1	79.5	R08_Z	LinStatic		0.000861448	-0.00067627	0	0	0	0.030260804	1-1	79.5
1	159	R08_Z	LinStatic		0.000861448	-0.00067627	0	0	0	0.084024296	1-1	159
1	0	R09_Z	LinStatic		0.001312685	0.000457633	0	0	0	0.01338322	1-1	0
1	79.5	R09_Z	LinStatic		0.001312685	0.000457633	0	0	0	-0.022998588	1-1	79.5
1	159	R09_Z	LinStatic		0.001312685	0.000457633	0	0	0	-0.059380396	1-1	159
1	0	R10_Z	LinStatic		0.000527655	0.000431035	0	0	0	0.014371028	1-1	0
1	79.5	R10_Z	LinStatic		0.000527655	0.000431035	0	0	0	-0.019896238	1-1	79.5
1	159	R10_Z	LinStatic		0.000527655	0.000431035	0	0	0	-0.054163504	1-1	159
1	0	R11_Z	LinStatic		0.001208558	0.001434184	0	0	0	0.051614335	1-1	0
1	79.5	R11_Z	LinStatic		0.001208558	0.001434184	0	0	0	-0.062403329	1-1	79.5
1	159	R11_Z	LinStatic		0.001208558	0.001434184	0	0	0	-0.176420992	1-1	159
1	0	R12_Z	LinStatic		-0.000906465	-0.000943739	0	0	0	-0.034022911	1-1	0
1	79.5	R12_Z	LinStatic		-0.000906465	-0.000943739	0	0	0	0.041004352	1-1	79.5
1	159	R12_Z	LinStatic		-0.000906465	-0.000943739	0	0	0	0.116031614	1-1	159

1	0	R_X	LinStatic	2.088025355	1.904527349	0	0	0	70.12384439	1-1		0
1	79.5	R_X	LinStatic	2.088025355	1.904527349	0	0	0	-81.28607985	1-1		79.5
1	159	R_X	LinStatic	2.088025355	1.904527349	0	0	0	-232.6960041	1-1		159
1	0	R_Y	LinStatic	0	0	1.854644284	12.31136316	365.9123188	0	1-1		0
1	79.5	R_Y	LinStatic	0	0	1.854644284	12.31136316	218.4680982	0	1-1		79.5
1	159	R_Y	LinStatic	0	0	1.854644284	12.31136316	71.02387763	0	1-1		159
1	0	Cap_R_X	LinStatic	0.141178594	0.155308982	0	0	0	5.611715213	1-1		0
1	79.5	Cap_R_X	LinStatic	0.141178594	0.155308982	0	0	0	-6.735348871	1-1		79.5
1	159	Cap_R_X	LinStatic	0.141178594	0.155308982	0	0	0	-19.08241296	1-1		159
1	0	Cap_w_Y	LinStatic	-10.94837546	-0.270442618	0	0	0	8.656943394	1-1		0
1	79.5	Cap_w_Y	LinStatic	-10.94837546	-0.270442618	0	0	0	30.15713155	1-1		79.5
1	159	Cap_w_Y	LinStatic	-10.94837546	-0.270442618	0	0	0	51.65731972	1-1		159
1	0	Cap_w_Z	LinStatic	-10.94837546	-0.270442618	0	0	0	8.656943394	1-1		0
1	79.5	Cap_w_Z	LinStatic	-10.94837546	-0.270442618	0	0	0	30.15713155	1-1		79.5
1	159	Cap_w_Z	LinStatic	-10.94837546	-0.270442618	0	0	0	51.65731972	1-1		159
1	0	Col_w_X	LinStatic	-13.25	6.09213E-16	0	0	0	-1.59195E-14	1-1		0
1	79.5	Col_w_X	LinStatic	-6.625	6.09213E-16	0	0	0	-6.4352E-14	1-1		79.5
1	159	Col_w_X	LinStatic	-2.52368E-14	6.09213E-16	0	0	0	-1.12784E-13	1-1		159
1	0	Col_w_Y	LinStatic	-13.25	6.09213E-16	0	0	0	-1.59195E-14	1-1		0
1	79.5	Col_w_Y	LinStatic	-6.625	6.09213E-16	0	0	0	-6.4352E-14	1-1		79.5
1	159	Col_w_Y	LinStatic	-2.52368E-14	6.09213E-16	0	0	0	-1.12784E-13	1-1		159
1	0	Cais_w_X	LinStatic	-7.10543E-15	1.86101E-16	0	0	0	-4.88495E-15	1-1		0
1	79.5	Cais_w_X	LinStatic	-7.10543E-15	1.86101E-16	0	0	0	-1.968E-14	1-1		79.5
1	159	Cais_w_X	LinStatic	-7.10543E-15	1.86101E-16	0	0	0	-3.4475E-14	1-1		159
1	0	Cais_w_Y	LinStatic	-7.10543E-15	1.86101E-16	0	0	0	-4.88495E-15	1-1		0
1	79.5	Cais_w_Y	LinStatic	-7.10543E-15	1.86101E-16	0	0	0	-1.968E-14	1-1		79.5
1	159	Cais_w_Y	LinStatic	-7.10543E-15	1.86101E-16	0	0	0	-3.4475E-14	1-1		159
1	0	DC	LinStatic	-270.2964878	-4.870177581	0	0	0	139.7149803	1-1		0
1	79.5	DC	LinStatic	-270.2964878	-4.870177581	0	0	0	526.894098	1-1		79.5
1	159	DC	LinStatic	-270.2964878	-4.870177581	0	0	0	914.0732156	1-1		159
1	0	DW	LinStatic	-41.23385955	-0.651796427	0	0	0	18.17420808	1-1		0
1	79.5	DW	LinStatic	-41.23385955	-0.651796427	0	0	0	69.99202403	1-1		79.5
1	159	DW	LinStatic	-41.23385955	-0.651796427	0	0	0	121.80984	1-1		159
1	0	WS3	LinStatic	-11.55612345	-5.081772445	-2.615048441	-17.35902205	-515.9363695	-190.9450899	1-1		0
1	79.5	WS3	LinStatic	-11.55612345	-5.081772445	-2.615048441	-17.35902205	-308.0400185	213.0558195	1-1		79.5
1	159	WS3	LinStatic	-11.55612345	-5.081772445	-2.615048441	-17.35902205	-100.1436675	617.0567289	1-1		159
1	0	WL5	LinStatic	-2.285474987	-1.322405469	-0.816043485	-5.416999788	-161.0014203	-48.15202859	1-1		0
1	79.5	WL5	LinStatic	-2.285474987	-1.322405469	-0.816043485	-5.416999788	-96.12596322	56.97920619	1-1		79.5
1	159	WL5	LinStatic	-2.285474987	-1.322405469	-0.816043485	-5.416999788	-31.25050616	162.110441	1-1		159
1	0	PL	LinStatic	-13.63600966	-0.215548641	0	0	0	6.010198405	1-1		0
1	79.5	PL	LinStatic	-13.63600966	-0.215548641	0	0	0	23.14631534	1-1		79.5
1	159	PL	LinStatic	-13.63600966	-0.215548641	0	0	0	40.28243227	1-1		159

1	0	LL-1 Lane	LinStatic	-75.48358425	-0.884141939	0	0	0	24.80815167	1-1	0
1	79.5	LL-1 Lane	LinStatic	-75.48358425	-0.884141939	0	0	0	95.0974358	1-1	79.5
1	159	LL-1 Lane	LinStatic	-75.48358425	-0.884141939	0	0	0	165.3867199	1-1	159
1	0	LL-2 Lane	LinStatic	-113.0853287	-1.348551906	0	0	0	37.81860699	1-1	0
1	79.5	LL-2 Lane	LinStatic	-113.0853287	-1.348551906	0	0	0	145.0284835	1-1	79.5
1	159	LL-2 Lane	LinStatic	-113.0853287	-1.348551906	0	0	0	252.23836	1-1	159
1	0	LL-3 Lane	LinStatic	-127.9664728	-1.560316313	0	0	0	43.73479874	1-1	0
1	79.5	LL-3 Lane	LinStatic	-127.9664728	-1.560316313	0	0	0	167.7799456	1-1	79.5
1	159	LL-3 Lane	LinStatic	-127.9664728	-1.560316313	0	0	0	291.8250925	1-1	159
1	0	LL-7 Lane	LinStatic	-112.5925292	-1.649598659	0	0	0	46.06122428	1-1	0
1	79.5	LL-7 Lane	LinStatic	-112.5925292	-1.649598659	0	0	0	177.2043176	1-1	79.5
1	159	LL-7 Lane	LinStatic	-112.5925292	-1.649598659	0	0	0	308.347411	1-1	159
1	0	CE-1 Lane	LinStatic	-7.492013997	-4.143126778	-1.261158113	-8.371726946	-248.8203768	-150.6389367	1-1	0
1	79.5	CE-1 Lane	LinStatic	-7.492013997	-4.143126778	-1.261158113	-8.371726946	-148.5583068	178.7396422	1-1	79.5
1	159	CE-1 Lane	LinStatic	-7.492013997	-4.143126778	-1.261158113	-8.371726946	-48.29623679	508.1182211	1-1	159
1	0	CE-2 Lane	LinStatic	-12.49273644	-6.905040382	-2.114294484	-14.034954	-417.1400434	-251.072732	1-1	0
1	79.5	CE-2 Lane	LinStatic	-12.49273644	-6.905040382	-2.114294484	-14.034954	-249.053632	297.8779783	1-1	79.5
1	159	CE-2 Lane	LinStatic	-12.49273644	-6.905040382	-2.114294484	-14.034954	-80.9672205	846.8286887	1-1	159
1	0	CE-3 Lane	LinStatic	-16.26012898	-8.822289814	-2.689234212	-17.85147658	-530.5728623	-319.0809342	1-1	0
1	79.5	CE-3 Lane	LinStatic	-16.26012898	-8.822289814	-2.689234212	-17.85147658	-316.7787424	382.291106	1-1	79.5
1	159	CE-3 Lane	LinStatic	-16.26012898	-8.822289814	-2.689234212	-17.85147658	-102.9846226	1083.663146	1-1	159
1	0	CE-7 Lane	LinStatic	-28.4101286	-15.70918794	-4.784982253	-31.76331694	-944.0537825	-571.1793408	1-1	0
1	79.5	CE-7 Lane	LinStatic	-28.4101286	-15.70918794	-4.784982253	-31.76331694	-563.6476934	677.7011006	1-1	79.5
1	159	CE-7 Lane	LinStatic	-28.4101286	-15.70918794	-4.784982253	-31.76331694	-183.2416043	1926.581542	1-1	159
1	0	BR-1 Lane	LinStatic	-1.524258509	-1.390304965	-4.284228296	-28.43924889	-845.2574565	-51.1904064	1-1	0
1	79.5	BR-1 Lane	LinStatic	-1.524258509	-1.390304965	-4.284228296	-28.43924889	-504.6613069	59.33883829	1-1	79.5
1	159	BR-1 Lane	LinStatic	-1.524258509	-1.390304965	-4.284228296	-28.43924889	-164.0651573	169.868083	1-1	159
1	0	BR-2 Lane	LinStatic	-2.52651068	-2.304478092	-7.121834051	-47.27563452	-1405.103304	-84.84985171	1-1	0
1	79.5	BR-2 Lane	LinStatic	-2.52651068	-2.304478092	-7.121834051	-47.27563452	-838.9174972	98.35615662	1-1	79.5
1	159	BR-2 Lane	LinStatic	-2.52651068	-2.304478092	-7.121834051	-47.27563452	-272.7316901	281.562165	1-1	159
1	0	BR-3 Lane	LinStatic	-3.236439301	-2.952017391	-9.087756992	-60.32567946	-1792.970362	-108.6919588	1-1	0
1	79.5	BR-3 Lane	LinStatic	-3.236439301	-2.952017391	-9.087756992	-60.32567946	-1070.493681	125.9934238	1-1	79.5
1	159	BR-3 Lane	LinStatic	-3.236439301	-2.952017391	-9.087756992	-60.32567946	-348.0170004	360.6788063	1-1	159
1	0	BR-7 Lane	LinStatic	-5.762949981	-5.256495483	-16.20959104	-107.601314	-3198.073666	-193.5418105	1-1	0
1	79.5	BR-7 Lane	LinStatic	-5.762949981	-5.256495483	-16.20959104	-107.601314	-1909.411178	224.3495804	1-1	79.5
1	159	BR-7 Lane	LinStatic	-5.762949981	-5.256495483	-16.20959104	-107.601314	-620.7486905	642.2409713	1-1	159
1	0	WSub3: 45deg	LinStatic	4.624685392	-0.115090419	0	0	0	-6.36996266	1-1	0
1	79.5	WSub3: 45deg	LinStatic	2.902185392	-0.115090419	0	0	0	2.779725641	1-1	79.5
1	159	WSub3: 45deg	LinStatic	1.179685392	-0.115090419	0	0	0	11.92941394	1-1	159
1	0	WSub3: 30deg	LinStatic	3.556165004	-0.146847874	0	0	0	-6.411717577	1-1	0
1	79.5	WSub3: 30deg	LinStatic	2.032415004	-0.146847874	0	0	0	5.262688421	1-1	79.5
1	159	WSub3: 30deg	LinStatic	0.508665004	-0.146847874	0	0	0	16.93709442	1-1	159

1	0	WSub3: 15deg	LinStatic	2.343422659	-0.163476185	0	0	0	-6.091104712	1-1	0
1	79.5	WSub3: 15deg	LinStatic	1.150922659	-0.163476185	0	0	0	6.905251976	1-1	79.5
1	159	WSub3: 15deg	LinStatic	-0.041577341	-0.163476185	0	0	0	19.90160866	1-1	159
1	0	WSub3: 0deg	LinStatic	2.321867872	-0.136779752	0	0	0	-6.416504989	1-1	0
1	79.5	WSub3: 0deg	LinStatic	1.526867872	-0.136779752	0	0	0	4.457485324	1-1	79.5
1	159	WSub3: 0deg	LinStatic	0.731867872	-0.136779752	0	0	0	15.33147564	1-1	159
1	0	WSub3: -15deg	LinStatic	2.200711831	-0.101916117	0	0	0	-6.262515767	1-1	0
1	79.5	WSub3: -15deg	LinStatic	1.803211831	-0.101916117	0	0	0	1.839815566	1-1	79.5
1	159	WSub3: -15deg	LinStatic	1.405711831	-0.101916117	0	0	0	9.942146899	1-1	159
1	0	WSub3: -30deg	LinStatic	1.955526505	-0.057733944	0	0	0	-5.771823632	1-1	0
1	79.5	WSub3: -30deg	LinStatic	2.021776505	-0.057733944	0	0	0	-1.181975124	1-1	79.5
1	159	WSub3: -30deg	LinStatic	2.088026505	-0.057733944	0	0	0	3.407873385	1-1	159
1	0	WSub3: -45deg	LinStatic	1.497020815	-0.012748263	0	0	0	-4.883524021	1-1	0
1	79.5	WSub3: -45deg	LinStatic	2.027020815	-0.012748263	0	0	0	-3.870037138	1-1	79.5
1	159	WSub3: -45deg	LinStatic	2.557020815	-0.012748263	0	0	0	-2.856550254	1-1	159
1	0	WA	LinStatic	3.445	-2.11712E-16	0	0	0	5.42437E-15	1-1	0
1	79.5	WA	LinStatic	1.7225	-2.11712E-16	0	0	0	2.22555E-14	1-1	79.5
1	159	WA	LinStatic	8.52096E-15	-2.11712E-16	0	0	0	3.90866E-14	1-1	159
1	0	WS3: 45deg	Combination	-6.931438055	-5.196862864	-2.615048441	-17.35902205	-515.9363695	-197.3150525	1-1	0
1	79.5	WS3: 45deg	Combination	-8.653938055	-5.196862864	-2.615048441	-17.35902205	-308.0400185	215.8355452	1-1	79.5
1	159	WS3: 45deg	Combination	-10.37643805	-5.196862864	-2.615048441	-17.35902205	-100.1436675	628.9861428	1-1	159
1	0	WS3: 30deg	Combination	-7.999958442	-5.228620319	-2.615048441	-17.35902205	-515.9363695	-197.3568074	1-1	0
1	79.5	WS3: 30deg	Combination	-9.523708442	-5.228620319	-2.615048441	-17.35902205	-308.0400185	218.3185079	1-1	79.5
1	159	WS3: 30deg	Combination	-11.04745844	-5.228620319	-2.615048441	-17.35902205	-100.1436675	633.9938233	1-1	159
1	0	WS3: 15deg	Combination	-9.212700787	-5.24524863	-2.615048441	-17.35902205	-515.9363695	-197.0361946	1-1	0
1	79.5	WS3: 15deg	Combination	-10.40520079	-5.24524863	-2.615048441	-17.35902205	-308.0400185	219.9610715	1-1	79.5
1	159	WS3: 15deg	Combination	-11.59770079	-5.24524863	-2.615048441	-17.35902205	-100.1436675	636.9583376	1-1	159
1	0	WS3: 0deg	Combination	-9.234255575	-5.218552198	-2.615048441	-17.35902205	-515.9363695	-197.3615949	1-1	0
1	79.5	WS3: 0deg	Combination	-10.02925557	-5.218552198	-2.615048441	-17.35902205	-308.0400185	217.5133048	1-1	79.5
1	159	WS3: 0deg	Combination	-10.82425557	-5.218552198	-2.615048441	-17.35902205	-100.1436675	632.3882045	1-1	159
1	0	WS3: -15deg	Combination	-9.355411616	-5.183688563	-2.615048441	-17.35902205	-515.9363695	-197.2076056	1-1	0
1	79.5	WS3: -15deg	Combination	-9.752911616	-5.183688563	-2.615048441	-17.35902205	-308.0400185	214.8956351	1-1	79.5
1	159	WS3: -15deg	Combination	-10.15041162	-5.183688563	-2.615048441	-17.35902205	-100.1436675	626.9988758	1-1	159
1	0	WS3: -30deg	Combination	-9.600596941	-5.139506389	-2.615048441	-17.35902205	-515.9363695	-196.7169135	1-1	0
1	79.5	WS3: -30deg	Combination	-9.534346941	-5.139506389	-2.615048441	-17.35902205	-308.0400185	211.8738444	1-1	79.5
1	159	WS3: -30deg	Combination	-9.468096941	-5.139506389	-2.615048441	-17.35902205	-100.1436675	620.4646023	1-1	159
1	0	WServ1: -45deg	Combination	-3.552220868	-1.901617364	-0.967567923	-6.422838158	-190.8964567	-72.785258	1-1	0
1	79.5	WServ1: -45deg	Combination	-3.527708368	-1.901617364	-0.967567923	-6.422838158	-113.9748068	78.39332243	1-1	79.5
1	159	WServ1: -45deg	Combination	-3.503195868	-1.901617364	-0.967567923	-6.422838158	-37.05315696	229.5719028	1-1	159
1	0	WS5: 45deg	Combination	-5.640291006	-3.837687095	-2.08172693	-13.81876646	-410.7146231	-143.652514	1-1	0
1	79.5	WS5: 45deg	Combination	-6.473981006	-3.837687095	-2.08172693	-13.81876646	-245.2173322	161.44361	1-1	79.5
1	159	WS5: 45deg	Combination	-7.307671006	-3.837687095	-2.08172693	-13.81876646	-79.72004121	466.5397341	1-1	159

1	0	WS5: 30deg	Combination	-6.157454873	-3.853057703	-2.08172693	-13.81876646	-410.7146231	-143.6727234	1-1		0
1	79.5	WS5: 30deg	Combination	-6.894949873	-3.853057703	-2.08172693	-13.81876646	-245.2173322	162.645364	1-1		79.5
1	159	WS5: 30deg	Combination	-7.632444873	-3.853057703	-2.08172693	-13.81876646	-79.72004121	468.9634515	1-1		159
1	0	WS5: 15deg	Combination	-6.744422168	-3.861105806	-2.08172693	-13.81876646	-410.7146231	-143.5175468	1-1		0
1	79.5	WS5: 15deg	Combination	-7.321592168	-3.861105806	-2.08172693	-13.81876646	-245.2173322	163.4403648	1-1		79.5
1	159	WS5: 15deg	Combination	-7.898762168	-3.861105806	-2.08172693	-13.81876646	-79.72004121	470.3982764	1-1		159
1	0	WS5: 0deg	Combination	-6.754854686	-3.848184732	-2.08172693	-13.81876646	-410.7146231	-143.6750405	1-1		0
1	79.5	WS5: 0deg	Combination	-7.139634686	-3.848184732	-2.08172693	-13.81876646	-245.2173322	162.2556457	1-1		79.5
1	159	WS5: 0deg	Combination	-7.524414686	-3.848184732	-2.08172693	-13.81876646	-79.72004121	468.186332	1-1		159
1	0	WS5: -15deg	Combination	-6.813494209	-3.831310733	-2.08172693	-13.81876646	-410.7146231	-143.6005097	1-1		0
1	79.5	WS5: -15deg	Combination	-7.005884209	-3.831310733	-2.08172693	-13.81876646	-245.2173322	160.9886936	1-1		79.5
1	159	WS5: -15deg	Combination	-7.198274209	-3.831310733	-2.08172693	-13.81876646	-79.72004121	465.5778969	1-1		159
1	0	WS5: -30deg	Combination	-6.932163907	-3.809926561	-2.08172693	-13.81876646	-410.7146231	-143.3630147	1-1		0
1	79.5	WS5: -30deg	Combination	-6.900098907	-3.809926561	-2.08172693	-13.81876646	-245.2173322	159.5261469	1-1		79.5
1	159	WS5: -30deg	Combination	-6.868033907	-3.809926561	-2.08172693	-13.81876646	-79.72004121	462.4153085	1-1		159
1	0	WS5: -45deg	Combination	-7.154080661	-3.788153491	-2.08172693	-13.81876646	-410.7146231	-142.9330777	1-1		0
1	79.5	WS5: -45deg	Combination	-6.897560661	-3.788153491	-2.08172693	-13.81876646	-245.2173322	158.2251249	1-1		79.5
1	159	WS5: -45deg	Combination	-6.64104061	-3.788153491	-2.08172693	-13.81876646	-79.72004121	459.3833274	1-1		159
1	0	LL - 1 Lane	Combination	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1094.077833	-171.010993	1-1		0
1	79.5	LL - 1 Lane	Combination	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-653.2196137	356.3222316	1-1		79.5
1	159	LL - 1 Lane	Combination	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-212.3613941	883.6554563	1-1		159
1	0	WS5 + WA	Combination	-4.433638735	-3.781983332	-2.08172693	-13.81876646	-410.7146231	-140.5694521	1-1		0
1	79.5	WS5 + WA	Combination	-6.156138735	-3.781983332	-2.08172693	-13.81876646	-245.2173322	160.0982228	1-1		79.5
1	159	WS5 + WA	Combination	-7.878638735	-3.781983332	-2.08172693	-13.81876646	-79.72004121	460.7658978	1-1		159
1	0	LL - 2 Lane	Combination	-141.7405855	-10.77361902	-9.236128535	-61.31058851	-1822.243348	-292.0937783	1-1		0
1	79.5	LL - 2 Lane	Combination	-141.7405855	-10.77361902	-9.236128535	-61.31058851	-1087.971129	564.4089338	1-1		79.5
1	159	LL - 2 Lane	Combination	-141.7405855	-10.77361902	-9.236128535	-61.31058851	-353.6989106	1420.911646	1-1		159
1	0	LL - 3 Lane	Combination	-161.0990507	-13.55017216	-11.7769912	-78.17715604	-2323.543224	-378.0278959	1-1		0
1	79.5	LL - 3 Lane	Combination	-161.0990507	-13.55017216	-11.7769912	-78.17715604	-1387.272424	699.2107907	1-1		79.5
1	159	LL - 3 Lane	Combination	-161.0990507	-13.55017216	-11.7769912	-78.17715604	-451.001623	1776.449477	1-1		159
1	0	LL - 7 Lane	Combination	-160.4016174	-22.83083072	-20.9945733	-139.3646309	-4142.127449	-712.6497286	1-1		0
1	79.5	LL - 7 Lane	Combination	-160.4016174	-22.83083072	-20.9945733	-139.3646309	-2473.058872	1102.401314	1-1		79.5
1	159	LL - 7 Lane	Combination	-160.4016174	-22.83083072	-20.9945733	-139.3646309	-803.9902948	2917.452357	1-1		159
1	0	LL Envelope	Combination Max	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1094.077833	-171.010993	1-1		0
1	79.5	LL Envelope	Combination Max	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-653.2196137	1102.401314	1-1		79.5
1	159	LL Envelope	Combination Max	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-212.3613941	2917.452357	1-1		159
1	0	LL Envelope	Combination Min	-161.0990507	-22.83083072	-20.9945733	-139.3646309	-4142.127449	-712.6497286	1-1		0
1	79.5	LL Envelope	Combination Min	-161.0990507	-22.83083072	-20.9945733	-139.3646309	-2473.058872	356.3222316	1-1		79.5
1	159	LL Envelope	Combination Min	-161.0990507	-22.83083072	-20.9945733	-139.3646309	-803.9902948	883.6554563	1-1		159
1	0	WS3 & WA envelope	Combination Max	-3.552220868	-1.901617364	-0.967567923	-6.422838158	-190.8964567	-72.785258	1-1		0
1	79.5	WS3 & WA envelope	Combination Max	-3.527708368	-1.901617364	-0.967567923	-6.422838158	-113.9748068	219.9610715	1-1		79.5
1	159	WS3 & WA envelope	Combination Max	-3.503195868	-1.901617364	-0.967567923	-6.422838158	-37.05315696	636.9583376	1-1		159

1	0	WS3 & WA envelope	Combination	Min	-9.600596941	-5.24524863	-2.615048441	-17.35902205	-515.9363695	-197.3615949	1-1	0
1	79.5	WS3 & WA envelope	Combination	Min	-10.40520079	-5.24524863	-2.615048441	-17.35902205	-308.0400185	78.39332243	1-1	79.5
1	159	WS3 & WA envelope	Combination	Min	-11.59770079	-5.24524863	-2.615048441	-17.35902205	-100.1436675	229.5719028	1-1	159
1	0	WS3 + WA	Combination		-8.111123446	-5.081772445	-2.615048441	-17.35902205	-515.9363695	-190.9450899	1-1	0
1	79.5	WS3 + WA	Combination		-9.833623446	-5.081772445	-2.615048441	-17.35902205	-308.0400185	213.0558195	1-1	79.5
1	159	WS3 + WA	Combination		-11.55612345	-5.081772445	-2.615048441	-17.35902205	-100.1436675	617.0567289	1-1	159
1	0	WS5 & WA envelope	Combination	Max	-4.433638735	-3.781983332	-2.08172693	-13.81876646	-410.7146231	-140.5694521	1-1	0
1	79.5	WS5 & WA envelope	Combination	Max	-6.156138735	-3.781983332	-2.08172693	-13.81876646	-245.2173322	163.4403648	1-1	79.5
1	159	WS5 & WA envelope	Combination	Max	-6.641040661	-3.781983332	-2.08172693	-13.81876646	-79.72004121	470.3982764	1-1	159
1	0	WS5 & WA envelope	Combination	Min	-7.154080661	-3.861105806	-2.08172693	-13.81876646	-410.7146231	-143.6750405	1-1	0
1	79.5	WS5 & WA envelope	Combination	Min	-7.321592168	-3.861105806	-2.08172693	-13.81876646	-245.2173322	158.2251249	1-1	79.5
1	159	WS5 & WA envelope	Combination	Min	-7.898762168	-3.861105806	-2.08172693	-13.81876646	-79.72004121	459.3833274	1-1	159
1	0	Strength 1 - Max	Combination	Max	-625.5747314	-19.58612452	-9.704426217	-64.41920771	-1914.636208	-68.14701627	1-1	0
1	79.5	Strength 1 - Max	Combination	Max	-616.9923319	-19.58612452	-9.704426217	-64.41920771	-1143.134324	2794.588277	1-1	79.5
1	159	Strength 1 - Max	Combination	Max	-608.4099325	-19.58612452	-9.704426217	-64.41920771	-371.6324397	6605.191357	1-1	159
1	0	Strength 1 - Max	Combination	Min	-735.7603039	-47.93211422	-36.74050327	-243.8881041	-7248.723036	-1016.014804	1-1	0
1	79.5	Strength 1 - Max	Combination	Min	-727.1779045	-47.93211422	-36.74050327	-243.8881041	-4327.853026	1488.949883	1-1	79.5
1	159	Strength 1 - Max	Combination	Min	-718.5955051	-47.93211422	-36.74050327	-243.8881041	-1406.983016	3046.046782	1-1	159
1	0	Strength 1 - Min	Combination	Max	-479.8052215	-17.07196713	-9.704426217	-64.41920771	-1914.636208	-140.6761478	1-1	0
1	79.5	Strength 1 - Min	Combination	Max	-474.1081939	-17.07196713	-9.704426217	-64.41920771	-1143.134324	2522.183633	1-1	79.5
1	159	Strength 1 - Min	Combination	Max	-468.4111663	-17.07196713	-9.704426217	-64.41920771	-371.6324397	6132.911201	1-1	159
1	0	Strength 1 - Min	Combination	Min	-589.9907941	-45.41795683	-36.74050327	-243.8881041	-7248.723036	-1088.543935	1-1	0
1	79.5	Strength 1 - Min	Combination	Min	-584.2937665	-45.41795683	-36.74050327	-243.8881041	-4327.853026	1216.545239	1-1	79.5
1	159	Strength 1 - Min	Combination	Min	-578.5967389	-45.41795683	-36.74050327	-243.8881041	-1406.983016	2573.766625	1-1	159
1	0	Strength 3 - Max	Combination	Max	-460.834186	-9.879777817	-0.967567923	-6.422838158	-190.8964567	158.3369635	1-1	0
1	79.5	Strength 3 - Max	Combination	Max	-450.5047741	-9.879777817	-0.967567923	-6.422838158	-113.9748068	1085.347049	1-1	79.5
1	159	Strength 3 - Max	Combination	Max	-440.1753622	-9.879777817	-0.967567923	-6.422838158	-37.05315696	2136.608071	1-1	159
1	0	Strength 3 - Max	Combination	Min	-466.8825621	-13.22340908	-2.615048441	-17.35902205	-515.9363695	33.7606266	1-1	0
1	79.5	Strength 3 - Max	Combination	Min	-457.3822665	-13.22340908	-2.615048441	-17.35902205	-308.0400185	943.7792999	1-1	79.5
1	159	Strength 3 - Max	Combination	Min	-448.2698671	-13.22340908	-2.615048441	-17.35902205	-100.1436675	1729.221636	1-1	159
1	0	Strength 3 - Min	Combination	Max	-315.0646762	-7.365620427	-0.967567923	-6.422838158	-190.8964567	85.80783198	1-1	0
1	79.5	Strength 3 - Min	Combination	Max	-307.6206361	-7.365620427	-0.967567923	-6.422838158	-113.9748068	812.942405	1-1	79.5
1	159	Strength 3 - Min	Combination	Max	-300.176596	-7.365620427	-0.967567923	-6.422838158	-37.05315696	1664.327915	1-1	159
1	0	Strength 3 - Min	Combination	Min	-321.1130523	-10.70925169	-2.615048441	-17.35902205	-515.9363695	-38.76850488	1-1	0
1	79.5	Strength 3 - Min	Combination	Min	-314.4981285	-10.70925169	-2.615048441	-17.35902205	-308.0400185	671.3746559	1-1	79.5
1	159	Strength 3 - Min	Combination	Min	-308.2711009	-10.70925169	-2.615048441	-17.35902205	-100.1436675	1256.94148	1-1	159
1	0	Strength 5 - Max	Combination	Max	-594.1990236	-20.71485892	-9.567998583	-63.51358384	-1887.719698	-140.3120712	1-1	0
1	79.5	Strength 5 - Max	Combination	Max	-585.6166241	-20.71485892	-9.567998583	-63.51358384	-1127.063811	2517.068116	1-1	79.5
1	159	Strength 5 - Max	Combination	Max	-575.7966266	-20.71485892	-9.567998583	-63.51358384	-366.4079233	5908.608691	1-1	159
1	0	Strength 5 - Max	Combination	Min	-681.9197643	-42.66088774	-30.42440088	-201.9610182	-6002.586679	-874.6299526	1-1	0
1	79.5	Strength 5 - Max	Combination	Min	-671.7823764	-42.66088774	-30.42440088	-201.9610182	-3583.846809	1504.646115	1-1	79.5
1	159	Strength 5 - Max	Combination	Min	-662.0546469	-42.66088774	-30.42440088	-201.9610182	-1165.106939	3151.967927	1-1	159

1	0	Strength 5 - Min	Combination	Max	-448.4295137	-18.20070153	-9.567998583	-63.51358384	-1887.719698	-212.8412026	1-1	0
1	79.5	Strength 5 - Min	Combination	Max	-442.7324861	-18.20070153	-9.567998583	-63.51358384	-1127.063811	2244.663472	1-1	79.5
1	159	Strength 5 - Min	Combination	Max	-435.7978604	-18.20070153	-9.567998583	-63.51358384	-366.4079233	5436.328535	1-1	159
1	0	Strength 5 - Min	Combination	Min	-536.1502545	-40.14673035	-30.42440088	-201.9610182	-6002.586679	-947.1590841	1-1	0
1	79.5	Strength 5 - Min	Combination	Min	-528.8982384	-40.14673035	-30.42440088	-201.9610182	-3583.846809	1232.241471	1-1	79.5
1	159	Strength 5 - Min	Combination	Min	-522.0558808	-40.14673035	-30.42440088	-201.9610182	-1165.106939	2679.68777	1-1	159
1	0	Service 1	Combination	Max	-456.5454323	-14.7655472	-6.512954333	-43.23381399	-1284.97429	-60.39774069	1-1	0
1	79.5	Service 1	Combination	Max	-450.0240128	-14.7655472	-6.512954333	-43.23381399	-767.1944205	1862.097288	1-1	79.5
1	159	Service 1	Combination	Max	-442.7300234	-14.7655472	-6.512954333	-43.23381399	-249.4145511	4328.48476	1-1	159
1	0	Service 1	Combination	Min	-522.2300718	-31.02374179	-21.96214122	-145.7874691	-4333.023906	-604.4105831	1-1	0
1	79.5	Service 1	Combination	Min	-514.2838557	-31.02374179	-21.96214122	-145.7874691	-2587.033679	1113.025931	1-1	79.5
1	159	Service 1	Combination	Min	-506.4811611	-31.02374179	-21.96214122	-145.7874691	-841.0434517	2287.324265	1-1	159
1	0	WServ1: 45deg	Combination		-2.56463208	-1.92283926	-0.967567923	-6.422838158	-190.8964567	-73.00656944	1-1	0
1	79.5	WServ1: 45deg	Combination		-3.20195708	-1.92283926	-0.967567923	-6.422838158	-113.9748068	79.85915171	1-1	79.5
1	159	WServ1: 45deg	Combination		-3.83928208	-1.92283926	-0.967567923	-6.422838158	-37.05315696	232.7248729	1-1	159
1	0	WServ1: 30deg	Combination		-2.959984623	-1.934589518	-0.967567923	-6.422838158	-190.8964567	-73.02201876	1-1	0
1	79.5	WServ1: 30deg	Combination		-3.523772123	-1.934589518	-0.967567923	-6.422838158	-113.9748068	80.77784794	1-1	79.5
1	159	WServ1: 30deg	Combination		-4.087559623	-1.934589518	-0.967567923	-6.422838158	-37.05315696	234.5777146	1-1	159
1	0	WServ1: 15deg	Combination		-3.408699291	-1.940741993	-0.967567923	-6.422838158	-190.8964567	-72.903392	1-1	0
1	79.5	WServ1: 15deg	Combination		-3.849924291	-1.940741993	-0.967567923	-6.422838158	-113.9748068	81.38559645	1-1	79.5
1	159	WServ1: 15deg	Combination		-4.29114929	-1.940741993	-0.967567923	-6.422838158	-37.05315696	235.6745849	1-1	159
1	0	WServ1: 0deg	Combination		-3.416674563	-1.930864313	-0.967567923	-6.422838158	-190.8964567	-73.0237901	1-1	0
1	79.5	WServ1: 0deg	Combination		-3.710824563	-1.930864313	-0.967567923	-6.422838158	-113.9748068	80.47992279	1-1	79.5
1	159	WServ1: 0deg	Combination		-4.004974563	-1.930864313	-0.967567923	-6.422838158	-37.05315696	233.9836357	1-1	159
1	0	WServ1: -15deg	Combination		-3.461502298	-1.917964768	-0.967567923	-6.422838158	-190.8964567	-72.96681409	1-1	0
1	79.5	WServ1: -15deg	Combination		-3.608577298	-1.917964768	-0.967567923	-6.422838158	-113.9748068	79.51138498	1-1	79.5
1	159	WServ1: -15deg	Combination		-3.755652298	-1.917964768	-0.967567923	-6.422838158	-37.05315696	231.989584	1-1	159
1	0	WServ1: -30deg	Combination		-3.552220868	-1.901617364	-0.967567923	-6.422838158	-190.8964567	-72.785258	1-1	0
1	79.5	WServ1: -30deg	Combination		-3.527708368	-1.901617364	-0.967567923	-6.422838158	-113.9748068	78.39332243	1-1	79.5
1	159	WServ1: -30deg	Combination		-3.503195868	-1.901617364	-0.967567923	-6.422838158	-37.05315696	229.5719028	1-1	159
1	0	WServ1 + WA	Combination		-0.830765675	-1.880255805	-0.967567923	-6.422838158	-190.8964567	-70.64968325	1-1	0
1	79.5	WServ1 + WA	Combination		-2.553265675	-1.880255805	-0.967567923	-6.422838158	-113.9748068	78.83065322	1-1	79.5
1	159	WServ1 + WA	Combination		-4.275765675	-1.880255805	-0.967567923	-6.422838158	-37.05315696	228.3109897	1-1	159
1	0	WServ1 & WA envelope	Combination	Max	-0.830765675	-1.880255805	-0.967567923	-6.422838158	-190.8964567	-70.64968325	1-1	0
1	79.5	WServ1 & WA envelope	Combination	Max	-2.553265675	-1.880255805	-0.967567923	-6.422838158	-113.9748068	81.38559645	1-1	79.5
1	159	WServ1 & WA envelope	Combination	Max	-3.503195868	-1.880255805	-0.967567923	-6.422838158	-37.05315696	235.6745849	1-1	159
1	0	WServ1 & WA envelope	Combination	Min	-3.552220868	-1.940741993	-0.967567923	-6.422838158	-190.8964567	-73.0237901	1-1	0
1	79.5	WServ1 & WA envelope	Combination	Min	-3.849924291	-1.940741993	-0.967567923	-6.422838158	-113.9748068	78.39332243	1-1	79.5
1	159	WServ1 & WA envelope	Combination	Min	-4.29114929	-1.940741993	-0.967567923	-6.422838158	-37.05315696	228.3109897	1-1	159
1	0	Strength Envelope	Combination	Max	-315.0646762	-7.365620427	-0.967567923	-6.422838158	-190.8964567	158.3369635	1-1	0
1	79.5	Strength Envelope	Combination	Max	-307.6206361	-7.365620427	-0.967567923	-6.422838158	-113.9748068	2794.588277	1-1	79.5
1	159	Strength Envelope	Combination	Max	-300.176596	-7.365620427	-0.967567923	-6.422838158	-37.05315696	6605.191357	1-1	159

1	0	Strength Envelope	Combination Min	-735.7603039	-47.93211422	-36.74050327	-243.8881041	-7248.723036	-1088.543935	1-1	0
1	79.5	Strength Envelope	Combination Min	-727.1779045	-47.93211422	-36.74050327	-243.8881041	-4327.853026	671.3746559	1-1	79.5
1	159	Strength Envelope	Combination Min	-718.5955051	-47.93211422	-36.74050327	-243.8881041	-1406.983016	1256.94148	1-1	159
2	0	DEAD	LinStatic	-67.95645248	0.047534588	0	0	0	-1.159404885	2-1	0
2	79.5	DEAD	LinStatic	-59.71253293	0.047534588	0	0	0	-4.938404633	2-1	79.5
2	159	DEAD	LinStatic	-51.46861338	0.047534588	0	0	0	-8.71740438	2-1	159
2	0	R01_Z	LinStatic	-0.011249881	0.001122159	0	0	0	0.179573494	2-1	0
2	79.5	R01_Z	LinStatic	-0.011249881	0.001122159	0	0	0	0.090361881	2-1	79.5
2	159	R01_Z	LinStatic	-0.011249881	0.001122159	0	0	0	0.001150269	2-1	159
2	0	R02_Z	LinStatic	0.502975772	-0.018378218	0	0	0	0.459814716	2-1	0
2	79.5	R02_Z	LinStatic	0.502975772	-0.018378218	0	0	0	1.920883026	2-1	79.5
2	159	R02_Z	LinStatic	0.502975772	-0.018378218	0	0	0	3.381951337	2-1	159
2	0	R03_Z	LinStatic	0.859829853	-0.011596464	0	0	0	0.340002878	2-1	0
2	79.5	R03_Z	LinStatic	0.859829853	-0.011596464	0	0	0	1.261921751	2-1	79.5
2	159	R03_Z	LinStatic	0.859829853	-0.011596464	0	0	0	2.183840624	2-1	159
2	0	R04_Z	LinStatic	0.733238858	0.014547957	0	0	0	-0.514767424	2-1	0
2	79.5	R04_Z	LinStatic	0.733238858	0.014547957	0	0	0	-1.671330035	2-1	79.5
2	159	R04_Z	LinStatic	0.733238858	0.014547957	0	0	0	-2.827892646	2-1	159
2	0	R05_Z	LinStatic	0.291117844	0.012280042	0	0	0	-0.336654444	2-1	0
2	79.5	R05_Z	LinStatic	0.291117844	0.012280042	0	0	0	-1.312917804	2-1	79.5
2	159	R05_Z	LinStatic	0.291117844	0.012280042	0	0	0	-2.289181164	2-1	159
2	0	R06_Z	LinStatic	-0.006209507	0.00110157	0	0	0	-0.083938521	2-1	0
2	79.5	R06_Z	LinStatic	-0.006209507	0.00110157	0	0	0	-0.171513326	2-1	79.5
2	159	R06_Z	LinStatic	-0.006209507	0.00110157	0	0	0	-0.259088131	2-1	159
2	0	R07_Z	LinStatic	-0.051207726	-4.56172E-05	0	0	0	0.03699562	2-1	0
2	79.5	R07_Z	LinStatic	-0.051207726	-4.56172E-05	0	0	0	0.040622189	2-1	79.5
2	159	R07_Z	LinStatic	-0.051207726	-4.56172E-05	0	0	0	0.044248758	2-1	159
2	0	R08_Z	LinStatic	-0.016396845	-0.001168988	0	0	0	-0.00832442	2-1	0
2	79.5	R08_Z	LinStatic	-0.016396845	-0.001168988	0	0	0	0.084610114	2-1	79.5
2	159	R08_Z	LinStatic	-0.016396845	-0.001168988	0	0	0	0.177544647	2-1	159
2	0	R09_Z	LinStatic	-0.002306525	0.000232387	0	0	0	0.020567257	2-1	0
2	79.5	R09_Z	LinStatic	-0.002306525	0.000232387	0	0	0	0.002092529	2-1	79.5
2	159	R09_Z	LinStatic	-0.002306525	0.000232387	0	0	0	-0.016382198	2-1	159
2	0	R10_Z	LinStatic	0.001086836	0.000425481	0	0	0	0.014682443	2-1	0
2	79.5	R10_Z	LinStatic	0.001086836	0.000425481	0	0	0	-0.019143261	2-1	79.5
2	159	R10_Z	LinStatic	0.001086836	0.000425481	0	0	0	-0.052968965	2-1	159
2	0	R11_Z	LinStatic	0.000951497	0.001568463	0	0	0	0.04787765	2-1	0
2	79.5	R11_Z	LinStatic	0.000951497	0.001568463	0	0	0	-0.07681519	2-1	79.5
2	159	R11_Z	LinStatic	0.000951497	0.001568463	0	0	0	-0.20150803	2-1	159
2	0	R12_Z	LinStatic	0.000600366	-0.000998756	0	0	0	-0.032605814	2-1	0
2	79.5	R12_Z	LinStatic	0.000600366	-0.000998756	0	0	0	0.046795327	2-1	79.5
2	159	R12_Z	LinStatic	0.000600366	-0.000998756	0	0	0	0.126196467	2-1	159

2	0	R_X	LinStatic	-0.655183403	2.05599753	0	0	0	65.43951678	2-1	0
2	79.5	R_X	LinStatic	-0.655183403	2.05599753	0	0	0	-98.01228685	2-1	79.5
2	159	R_X	LinStatic	-0.655183403	2.05599753	0	0	0	-261.4640905	2-1	159
2	0	R_Y	LinStatic	0	0	2.090662959	7.561179421	379.5274079	0	2-1	0
2	79.5	R_Y	LinStatic	0	0	2.090662959	7.561179421	213.3197026	0	2-1	79.5
2	159	R_Y	LinStatic	0	0	2.090662959	7.561179421	47.11199733	0	2-1	159
2	0	Cap_R_X	LinStatic	-0.046540669	0.166714116	0	0	0	5.30504984	2-1	0
2	79.5	Cap_R_X	LinStatic	-0.046540669	0.166714116	0	0	0	-7.948722414	2-1	79.5
2	159	Cap_R_X	LinStatic	-0.046540669	0.166714116	0	0	0	-21.20249467	2-1	159
2	0	Cap_w_Y	LinStatic	-19.0624494	0.017605403	0	0	0	-0.429409217	2-1	0
2	79.5	Cap_w_Y	LinStatic	-19.0624494	0.017605403	0	0	0	-1.829038753	2-1	79.5
2	159	Cap_w_Y	LinStatic	-19.0624494	0.017605403	0	0	0	-3.228668289	2-1	159
2	0	Cap_w_Z	LinStatic	-19.0624494	0.017605403	0	0	0	-0.429409217	2-1	0
2	79.5	Cap_w_Z	LinStatic	-19.0624494	0.017605403	0	0	0	-1.829038753	2-1	79.5
2	159	Cap_w_Z	LinStatic	-19.0624494	0.017605403	0	0	0	-3.228668289	2-1	159
2	0	Col_w_X	LinStatic	-13.25	-9.596E-17	0	0	0	6.3072E-15	2-1	0
2	79.5	Col_w_X	LinStatic	-6.625	-9.596E-17	0	0	0	1.3936E-14	2-1	79.5
2	159	Col_w_X	LinStatic	3.18495E-15	-9.596E-17	0	0	0	2.15648E-14	2-1	159
2	0	Col_w_Y	LinStatic	-13.25	-9.596E-17	0	0	0	6.3072E-15	2-1	0
2	79.5	Col_w_Y	LinStatic	-6.625	-9.596E-17	0	0	0	1.3936E-14	2-1	79.5
2	159	Col_w_Y	LinStatic	3.18495E-15	-9.596E-17	0	0	0	2.15648E-14	2-1	159
2	0	Cais_w_X	LinStatic	1.77636E-15	-2.76849E-17	0	0	0	1.84956E-15	2-1	0
2	79.5	Cais_w_X	LinStatic	1.77636E-15	-2.76849E-17	0	0	0	4.05051E-15	2-1	79.5
2	159	Cais_w_X	LinStatic	1.77636E-15	-2.76849E-17	0	0	0	6.25145E-15	2-1	159
2	0	Cais_w_Y	LinStatic	1.77636E-15	-2.76849E-17	0	0	0	1.84956E-15	2-1	0
2	79.5	Cais_w_Y	LinStatic	1.77636E-15	-2.76849E-17	0	0	0	4.05051E-15	2-1	79.5
2	159	Cais_w_Y	LinStatic	1.77636E-15	-2.76849E-17	0	0	0	6.25145E-15	2-1	159
2	0	DC	LinStatic	-409.5731069	0.16412384	0	0	0	-19.1358467	2-1	0
2	79.5	DC	LinStatic	-409.5731069	0.16412384	0	0	0	-32.18369195	2-1	79.5
2	159	DC	LinStatic	-409.5731069	0.16412384	0	0	0	-45.2315372	2-1	159
2	0	DW	LinStatic	-58.27451705	0.023031707	0	0	0	-3.11878515	2-1	0
2	79.5	DW	LinStatic	-58.27451705	0.023031707	0	0	0	-4.949805875	2-1	79.5
2	159	DW	LinStatic	-58.27451705	0.023031707	0	0	0	-6.780826599	2-1	159
2	0	WS3	LinStatic	6.810604393	-5.369076784	-2.947834773	-10.66126298	-535.1336451	-182.0794049	2-1	0
2	79.5	WS3	LinStatic	6.810604393	-5.369076784	-2.947834773	-10.66126298	-300.7807807	244.7621994	2-1	79.5
2	159	WS3	LinStatic	6.810604393	-5.369076784	-2.947834773	-10.66126298	-66.42791623	671.6038038	2-1	159
2	0	WL5	LinStatic	-0.300140256	-1.412274719	-0.919891702	-3.326918945	-166.9920595	-45.38006915	2-1	0
2	79.5	WL5	LinStatic	-0.300140256	-1.412274719	-0.919891702	-3.326918945	-93.86066914	66.89577097	2-1	79.5
2	159	WL5	LinStatic	-0.300140256	-1.412274719	-0.919891702	-3.326918945	-20.72927882	179.1716111	2-1	159
2	0	PL	LinStatic	-19.27134365	0.00761657	0	0	0	-1.031380154	2-1	0
2	79.5	PL	LinStatic	-19.27134365	0.00761657	0	0	0	-1.636897478	2-1	79.5
2	159	PL	LinStatic	-19.27134365	0.00761657	0	0	0	-2.242414802	2-1	159

2	0	LL-1 Lane	LinStatic	-79.75342415	0.401585156	0	0	0	-15.64624366	2-1	0
2	79.5	LL-1 Lane	LinStatic	-79.75342415	0.401585156	0	0	0	-47.57226357	2-1	79.5
2	159	LL-1 Lane	LinStatic	-79.75342415	0.401585156	0	0	0	-79.49828348	2-1	159
2	0	LL-2 Lane	LinStatic	-121.5919977	0.573220212	0	0	0	-22.65709199	2-1	0
2	79.5	LL-2 Lane	LinStatic	-121.5919977	0.573220212	0	0	0	-68.22809881	2-1	79.5
2	159	LL-2 Lane	LinStatic	-121.5919977	0.573220212	0	0	0	-113.7991056	2-1	159
2	0	LL-3 Lane	LinStatic	-140.5856756	0.608519227	0	0	0	-24.52795004	2-1	0
2	79.5	LL-3 Lane	LinStatic	-140.5856756	0.608519227	0	0	0	-72.90522856	2-1	79.5
2	159	LL-3 Lane	LinStatic	-140.5856756	0.608519227	0	0	0	-121.2825071	2-1	159
2	0	LL-7 Lane	LinStatic	-147.7911668	0.214143956	0	0	0	-12.69768375	2-1	0
2	79.5	LL-7 Lane	LinStatic	-147.7911668	0.214143956	0	0	0	-29.72212824	2-1	79.5
2	159	LL-7 Lane	LinStatic	-147.7911668	0.214143956	0	0	0	-46.74657272	2-1	159
2	0	CE-1 Lane	LinStatic	-1.243236712	-4.418378988	-1.421650812	-5.141602006	-258.0786374	-142.1524838	2-1	0
2	79.5	CE-1 Lane	LinStatic	-1.243236712	-4.418378988	-1.421650812	-5.141602006	-145.0573978	209.1086457	2-1	79.5
2	159	CE-1 Lane	LinStatic	-1.243236712	-4.418378988	-1.421650812	-5.141602006	-32.03615818	560.3697753	2-1	159
2	0	CE-2 Lane	LinStatic	-2.067234018	-7.364050682	-2.383355774	-8.61974454	-432.661245	-236.9205714	2-1	0
2	79.5	CE-2 Lane	LinStatic	-2.067234018	-7.364050682	-2.383355774	-8.61974454	-243.184461	348.5214579	2-1	79.5
2	159	CE-2 Lane	LinStatic	-2.067234018	-7.364050682	-2.383355774	-8.61974454	-53.70767695	933.9634871	2-1	159
2	0	CE-3 Lane	LinStatic	-2.88946918	-9.331895914	-3.031461291	-10.96371016	-550.3147414	-303.4058696	2-1	0
2	79.5	CE-3 Lane	LinStatic	-2.88946918	-9.331895914	-3.031461291	-10.96371016	-309.3135688	438.4798555	2-1	79.5
2	159	CE-3 Lane	LinStatic	-2.88946918	-9.331895914	-3.031461291	-10.96371016	-68.31239612	1180.365581	2-1	159
2	0	CE-7 Lane	LinStatic	-4.71387161	-16.75332663	-5.393910435	-19.50784291	-979.1807123	-538.9866751	2-1	0
2	79.5	CE-7 Lane	LinStatic	-4.71387161	-16.75332663	-5.393910435	-19.50784291	-550.3648327	792.9027918	2-1	79.5
2	159	CE-7 Lane	LinStatic	-4.71387161	-16.75332663	-5.393910435	-19.50784291	-121.5489531	2124.792259	2-1	159
2	0	BR-1 Lane	LinStatic	0.478283885	-1.500878197	-4.829431436	-17.46632446	-876.7083122	-47.77084725	2-1	0
2	79.5	BR-1 Lane	LinStatic	0.478283885	-1.500878197	-4.829431436	-17.46632446	-492.768513	71.5489694	2-1	79.5
2	159	BR-1 Lane	LinStatic	0.478283885	-1.500878197	-4.829431436	-17.46632446	-108.8287138	190.868786	2-1	159
2	0	BR-2 Lane	LinStatic	0.792771918	-2.487757011	-8.028145764	-29.03492898	-1457.385246	-79.1818153	2-1	0
2	79.5	BR-2 Lane	LinStatic	0.792771918	-2.487757011	-8.028145764	-29.03492898	-819.147658	118.5948671	2-1	79.5
2	159	BR-2 Lane	LinStatic	0.792771918	-2.487757011	-8.028145764	-29.03492898	-180.9100697	316.3715495	2-1	159
2	0	BR-3 Lane	LinStatic	1.015534275	-3.186796171	-10.2442485	-37.04977916	-1859.684299	-101.431251	2-1	0
2	79.5	BR-3 Lane	LinStatic	1.015534275	-3.186796171	-10.2442485	-37.04977916	-1045.266543	151.9190446	2-1	79.5
2	159	BR-3 Lane	LinStatic	1.015534275	-3.186796171	-10.2442485	-37.04977916	-230.8487869	405.2693402	2-1	159
2	0	BR-7 Lane	LinStatic	1.808306194	-5.674553183	-18.27239427	-66.08470814	-3317.069545	-180.6130663	2-1	0
2	79.5	BR-7 Lane	LinStatic	1.808306194	-5.674553183	-18.27239427	-66.08470814	-1864.414201	270.5139117	2-1	79.5
2	159	BR-7 Lane	LinStatic	1.808306194	-5.674553183	-18.27239427	-66.08470814	-411.7588566	721.6408897	2-1	159
2	0	WSub3: 45deg	LinStatic	5.776707563	-0.160491059	0	0	0	-4.988268242	2-1	0
2	79.5	WSub3: 45deg	LinStatic	4.054207563	-0.160491059	0	0	0	7.770770944	2-1	79.5
2	159	WSub3: 45deg	LinStatic	2.331707563	-0.160491059	0	0	0	20.52981013	2-1	159
2	0	WSub3: 30deg	LinStatic	4.240114666	-0.176106146	0	0	0	-5.544537779	2-1	0
2	79.5	WSub3: 30deg	LinStatic	2.716364666	-0.176106146	0	0	0	8.45590086	2-1	79.5
2	159	WSub3: 30deg	LinStatic	1.192614666	-0.176106146	0	0	0	22.4563395	2-1	159

2	0	WSub3: 15deg	LinStatic	2.62542301	-0.178560159	0	0	0	-5.672109236	2-1	0
2	79.5	WSub3: 15deg	LinStatic	1.43292301	-0.178560159	0	0	0	8.52342337	2-1	79.5
2	159	WSub3: 15deg	LinStatic	0.24042301	-0.178560159	0	0	0	22.71895598	2-1	159
2	0	WSub3: 0deg	LinStatic	3.162467434	-0.171456831	0	0	0	-5.376798099	2-1	0
2	79.5	WSub3: 0deg	LinStatic	2.367467434	-0.171456831	0	0	0	8.254019962	2-1	79.5
2	159	WSub3: 0deg	LinStatic	1.572467434	-0.171456831	0	0	0	21.88483802	2-1	159
2	0	WSub3: -15deg	LinStatic	3.505629518	-0.152507461	0	0	0	-4.714427566	2-1	0
2	79.5	WSub3: -15deg	LinStatic	3.108129518	-0.152507461	0	0	0	7.409915598	2-1	79.5
2	159	WSub3: -15deg	LinStatic	2.710629518	-0.152507461	0	0	0	19.53425876	2-1	159
2	0	WSub3: -30deg	LinStatic	3.713499162	-0.123555244	0	0	0	-3.733754041	2-1	0
2	79.5	WSub3: -30deg	LinStatic	3.779749162	-0.123555244	0	0	0	6.088887889	2-1	79.5
2	159	WSub3: -30deg	LinStatic	3.845999162	-0.123555244	0	0	0	15.91152982	2-1	159
2	0	WSub3: -45deg	LinStatic	3.53825819	-0.087582355	0	0	0	-2.549466708	2-1	0
2	79.5	WSub3: -45deg	LinStatic	4.06825819	-0.087582355	0	0	0	4.413330508	2-1	79.5
2	159	WSub3: -45deg	LinStatic	4.59825819	-0.087582355	0	0	0	11.37612772	2-1	159
2	0	WA	LinStatic	3.445	3.56863E-17	0	0	0	-2.37501E-15	2-1	0
2	79.5	WA	LinStatic	1.7225	3.56863E-17	0	0	0	-5.21207E-15	2-1	79.5
2	159	WA	LinStatic	-1.249E-15	3.56863E-17	0	0	0	-8.04912E-15	2-1	159
2	0	WS3: 45deg	Combination	12.58731196	-5.529567843	-2.947834773	-10.66126298	-535.1336451	-187.0676731	2-1	0
2	79.5	WS3: 45deg	Combination	10.86481196	-5.529567843	-2.947834773	-10.66126298	-300.7807807	252.5329704	2-1	79.5
2	159	WS3: 45deg	Combination	9.142311957	-5.529567843	-2.947834773	-10.66126298	-66.42791623	692.1336139	2-1	159
2	0	WS3: 30deg	Combination	11.05071906	-5.545182931	-2.947834773	-10.66126298	-535.1336451	-187.6239427	2-1	0
2	79.5	WS3: 30deg	Combination	9.52696906	-5.545182931	-2.947834773	-10.66126298	-300.7807807	253.2181003	2-1	79.5
2	159	WS3: 30deg	Combination	8.00321906	-5.545182931	-2.947834773	-10.66126298	-66.42791623	694.0601433	2-1	159
2	0	WS3: 15deg	Combination	9.436027403	-5.547636943	-2.947834773	-10.66126298	-535.1336451	-187.7515141	2-1	0
2	79.5	WS3: 15deg	Combination	8.243527403	-5.547636943	-2.947834773	-10.66126298	-300.7807807	253.2856228	2-1	79.5
2	159	WS3: 15deg	Combination	7.051027403	-5.547636943	-2.947834773	-10.66126298	-66.42791623	694.3227598	2-1	159
2	0	WS3: 0deg	Combination	9.973071828	-5.540533615	-2.947834773	-10.66126298	-535.1336451	-187.456203	2-1	0
2	79.5	WS3: 0deg	Combination	9.178071828	-5.540533615	-2.947834773	-10.66126298	-300.7807807	253.0162194	2-1	79.5
2	159	WS3: 0deg	Combination	8.383071828	-5.540533615	-2.947834773	-10.66126298	-66.42791623	693.4886418	2-1	159
2	0	WS3: -15deg	Combination	10.31623391	-5.521584245	-2.947834773	-10.66126298	-535.1336451	-186.7938325	2-1	0
2	79.5	WS3: -15deg	Combination	9.91873391	-5.521584245	-2.947834773	-10.66126298	-300.7807807	252.172115	2-1	79.5
2	159	WS3: -15deg	Combination	9.52123391	-5.521584245	-2.947834773	-10.66126298	-66.42791623	691.1380625	2-1	159
2	0	WS3: -30deg	Combination	10.52410355	-5.492632029	-2.947834773	-10.66126298	-535.1336451	-185.8131589	2-1	0
2	79.5	WS3: -30deg	Combination	10.59035355	-5.492632029	-2.947834773	-10.66126298	-300.7807807	250.8510873	2-1	79.5
2	159	WS3: -30deg	Combination	10.65660355	-5.492632029	-2.947834773	-10.66126298	-66.42791623	687.5153336	2-1	159
2	0	WServ1: -45deg	Combination	3.893918315	-2.032273851	-1.090698866	-3.944667304	-197.9994487	-68.75086881	2-1	0
2	79.5	WServ1: -45deg	Combination	3.918430815	-2.032273851	-1.090698866	-3.944667304	-111.2888888	92.81490231	2-1	79.5
2	159	WServ1: -45deg	Combination	3.942943315	-2.032273851	-1.090698866	-3.944667304	-24.57832901	254.3806734	2-1	159
2	0	WS5: 45deg	Combination	5.792118731	-4.088585555	-2.346643732	-8.486970229	-425.9967437	-135.9208229	2-1	0
2	79.5	WS5: 45deg	Combination	4.958428731	-4.088585555	-2.346643732	-8.486970229	-239.438567	189.1217286	2-1	79.5
2	159	WS5: 45deg	Combination	4.124738731	-4.088585555	-2.346643732	-8.486970229	-52.88039028	514.1642802	2-1	159

2	0	WS5: 30deg	Combination	5.048407769	-4.096143257	-2.346643732	-8.486970229	-425.9967437	-136.1900574	2-1	0
2	79.5	WS5: 30deg	Combination	4.310912769	-4.096143257	-2.346643732	-8.486970229	-239.438567	189.4533315	2-1	79.5
2	159	WS5: 30deg	Combination	3.573417769	-4.096143257	-2.346643732	-8.486970229	-52.88039028	515.0967204	2-1	159
2	0	WS5: 15deg	Combination	4.266897007	-4.097330999	-2.346643732	-8.486970229	-425.9967437	-136.251802	2-1	0
2	79.5	WS5: 15deg	Combination	3.689727007	-4.097330999	-2.346643732	-8.486970229	-239.438567	189.4860124	2-1	79.5
2	159	WS5: 15deg	Combination	3.112557007	-4.097330999	-2.346643732	-8.486970229	-52.88039028	515.2238268	2-1	159
2	0	WS5: 0deg	Combination	4.526826508	-4.093892988	-2.346643732	-8.486970229	-425.9967437	-136.1088714	2-1	0
2	79.5	WS5: 0deg	Combination	4.142046508	-4.093892988	-2.346643732	-8.486970229	-239.438567	189.3556212	2-1	79.5
2	159	WS5: 0deg	Combination	3.757266508	-4.093892988	-2.346643732	-8.486970229	-52.88039028	514.8201137	2-1	159
2	0	WS5: -15deg	Combination	4.692916957	-4.084721493	-2.346643732	-8.486970229	-425.9967437	-135.7882841	2-1	0
2	79.5	WS5: -15deg	Combination	4.500526957	-4.084721493	-2.346643732	-8.486970229	-239.438567	188.9470747	2-1	79.5
2	159	WS5: -15deg	Combination	4.308136957	-4.084721493	-2.346643732	-8.486970229	-52.88039028	513.6824334	2-1	159
2	0	WS5: -30deg	Combination	4.793525864	-4.07070862	-2.346643732	-8.486970229	-425.9967437	-135.3136381	2-1	0
2	79.5	WS5: -30deg	Combination	4.825590864	-4.07070862	-2.346643732	-8.486970229	-239.438567	188.3076972	2-1	79.5
2	159	WS5: -30deg	Combination	4.857655864	-4.07070862	-2.346643732	-8.486970229	-52.88039028	511.9290326	2-1	159
2	0	WS5: -45deg	Combination	4.708709234	-4.053297742	-2.346643732	-8.486970229	-425.9967437	-134.740443	2-1	0
2	79.5	WS5: -45deg	Combination	4.965229234	-4.053297742	-2.346643732	-8.486970229	-239.438567	187.4967275	2-1	79.5
2	159	WS5: -45deg	Combination	5.221749234	-4.053297742	-2.346643732	-8.486970229	-52.88039028	509.7338979	2-1	159
2	0	LL - 1 Lane	Combination	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-1134.78695	-206.6009549	2-1	0
2	79.5	LL - 1 Lane	Combination	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-637.8259108	231.4484541	2-1	79.5
2	159	LL - 1 Lane	Combination	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-140.864872	669.4978631	2-1	159
2	0	WS5 + WA	Combination	6.44119227	-4.010907882	-2.346643732	-8.486970229	-425.9967437	-133.5065011	2-1	0
2	79.5	WS5 + WA	Combination	4.71869227	-4.010907882	-2.346643732	-8.486970229	-239.438567	185.3606755	2-1	79.5
2	159	WS5 + WA	Combination	2.99619227	-4.010907882	-2.346643732	-8.486970229	-52.88039028	504.2278521	2-1	159
2	0	LL - 2 Lane	Combination	-142.1378035	-9.270970912	-10.41150154	-37.65467351	-1890.046491	-339.7908588	2-1	0
2	79.5	LL - 2 Lane	Combination	-142.1378035	-9.270970912	-10.41150154	-37.65467351	-1062.332119	397.2513287	2-1	79.5
2	159	LL - 2 Lane	Combination	-142.1378035	-9.270970912	-10.41150154	-37.65467351	-234.6177467	1134.293516	2-1	159
2	0	LL - 3 Lane	Combination	-161.7309542	-11.90255629	-13.27570979	-48.01348932	-2409.99904	-430.3964508	2-1	0
2	79.5	LL - 3 Lane	Combination	-161.7309542	-11.90255629	-13.27570979	-48.01348932	-1354.580112	515.8567741	2-1	79.5
2	159	LL - 3 Lane	Combination	-161.7309542	-11.90255629	-13.27570979	-48.01348932	-299.161183	1462.109999	2-1	159
2	0	LL - 7 Lane	Combination	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-4296.250257	-733.3288053	2-1	0
2	79.5	LL - 7 Lane	Combination	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-2414.779033	1032.057678	2-1	79.5
2	159	LL - 7 Lane	Combination	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-533.3078097	2797.444161	2-1	159
2	0	LL Envelope	Combination Max	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-1134.78695	-206.6009549	2-1	0
2	79.5	LL Envelope	Combination Max	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-637.8259108	1032.057678	2-1	79.5
2	159	LL Envelope	Combination Max	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-140.864872	2797.444161	2-1	159
2	0	LL Envelope	Combination Min	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-4296.250257	-733.3288053	2-1	0
2	79.5	LL Envelope	Combination Min	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-2414.779033	231.4484541	2-1	79.5
2	159	LL Envelope	Combination Min	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-533.3078097	669.4978631	2-1	159
2	0	WS3 & WA envelope	Combination Max	12.58731196	-2.032273851	-1.090698866	-3.944667304	-197.9994487	-68.75086881	2-1	0
2	79.5	WS3 & WA envelope	Combination Max	10.86481196	-2.032273851	-1.090698866	-3.944667304	-111.2888888	253.2856228	2-1	79.5
2	159	WS3 & WA envelope	Combination Max	10.65660355	-2.032273851	-1.090698866	-3.944667304	-24.57832901	694.3227598	2-1	159

2	0	WS3 & WA envelope	Combination Min	3.893918315	-5.547636943	-2.947834773	-10.66126298	-535.1336451	-187.7515141	2-1	0
2	79.5	WS3 & WA envelope	Combination Min	3.918430815	-5.547636943	-2.947834773	-10.66126298	-300.7807807	92.81490231	2-1	79.5
2	159	WS3 & WA envelope	Combination Min	3.942943315	-5.547636943	-2.947834773	-10.66126298	-66.42791623	254.3806734	2-1	159
2	0	WS3 + WA	Combination	10.25560439	-5.369076784	-2.947834773	-10.66126298	-535.1336451	-182.0794049	2-1	0
2	79.5	WS3 + WA	Combination	8.533104393	-5.369076784	-2.947834773	-10.66126298	-300.7807807	244.7621994	2-1	79.5
2	159	WS3 + WA	Combination	6.810604393	-5.369076784	-2.947834773	-10.66126298	-66.42791623	671.6038038	2-1	159
2	0	WS5 & WA envelope	Combination Max	6.44119227	-4.010907882	-2.346643732	-8.486970229	-425.9967437	-133.5065011	2-1	0
2	79.5	WS5 & WA envelope	Combination Max	4.965229234	-4.010907882	-2.346643732	-8.486970229	-239.438567	189.4860124	2-1	79.5
2	159	WS5 & WA envelope	Combination Max	5.221749234	-4.010907882	-2.346643732	-8.486970229	-52.88039028	515.2238268	2-1	159
2	0	WS5 & WA envelope	Combination Min	4.266897007	-4.097330999	-2.346643732	-8.486970229	-425.9967437	-136.251802	2-1	0
2	79.5	WS5 & WA envelope	Combination Min	3.689727007	-4.097330999	-2.346643732	-8.486970229	-239.438567	185.3606755	2-1	79.5
2	159	WS5 & WA envelope	Combination Min	2.99619227	-4.097330999	-2.346643732	-8.486970229	-52.88039028	504.2278521	2-1	159
2	0	Strength 1 - Max	Combination Max	-855.5107359	-9.343476457	-10.93939393	-39.56387132	-1985.877162	-391.5989132	2-1	0
2	79.5	Strength 1 - Max	Combination Max	-846.9283365	-9.343476457	-10.93939393	-39.56387132	-1116.195344	1752.273607	2-1	79.5
2	159	Strength 1 - Max	Combination Max	-838.3459371	-9.343476457	-10.93939393	-39.56387132	-246.513526	4817.919865	2-1	159
2	0	Strength 1 - Max	Combination Min	-978.3228576	-38.56158815	-41.41603323	-149.7869643	-7518.43795	-1313.372651	2-1	0
2	79.5	Strength 1 - Max	Combination Min	-969.7404581	-38.56158815	-41.41603323	-149.7869643	-4225.863308	351.2074651	2-1	79.5
2	159	Strength 1 - Max	Combination Min	-961.1580587	-38.56158815	-41.41603323	-149.7869643	-933.2886671	1094.013843	2-1	159
2	0	Strength 1 - Min	Combination Max	-638.8420506	-9.437133858	-10.93939393	-39.56387132	-1985.877162	-381.8446078	2-1	0
2	79.5	Strength 1 - Min	Combination Max	-633.1450231	-9.437133858	-10.93939393	-39.56387132	-1116.195344	1769.473675	2-1	79.5
2	159	Strength 1 - Min	Combination Max	-627.4479955	-9.437133858	-10.93939393	-39.56387132	-246.513526	4842.565697	2-1	159
2	0	Strength 1 - Min	Combination Min	-761.6541723	-38.65524555	-41.41603323	-149.7869643	-7518.43795	-1303.618346	2-1	0
2	79.5	Strength 1 - Min	Combination Min	-755.9571447	-38.65524555	-41.41603323	-149.7869643	-4225.863308	368.4075339	2-1	79.5
2	159	Strength 1 - Min	Combination Min	-750.2601171	-38.65524555	-41.41603323	-149.7869643	-933.2886671	1118.659676	2-1	159
2	0	Strength 3 - Max	Combination Max	-671.7364129	-1.733153255	-1.090698866	-3.944667304	-197.9994487	-98.79811102	2-1	0
2	79.5	Strength 3 - Max	Combination Max	-663.1540135	-1.733153255	-1.090698866	-3.944667304	-111.2888888	199.4582933	2-1	79.5
2	159	Strength 3 - Max	Combination Max	-653.0573224	-1.733153255	-1.090698866	-3.944667304	-24.57832901	616.7153429	2-1	159
2	0	Strength 3 - Max	Combination Min	-680.4298065	-5.248516347	-2.947834773	-10.66126298	-535.1336451	-217.7987563	2-1	0
2	79.5	Strength 3 - Max	Combination Min	-670.1003946	-5.248516347	-2.947834773	-10.66126298	-300.7807807	38.98757277	2-1	79.5
2	159	Strength 3 - Max	Combination Min	-659.7709827	-5.248516347	-2.947834773	-10.66126298	-66.42791623	176.7732566	2-1	159
2	0	Strength 3 - Min	Combination Max	-455.0677276	-1.826810656	-1.090698866	-3.944667304	-197.9994487	-89.04380558	2-1	0
2	79.5	Strength 3 - Min	Combination Max	-449.3707	-1.826810656	-1.090698866	-3.944667304	-111.2888888	216.6583621	2-1	79.5
2	159	Strength 3 - Min	Combination Max	-442.1593808	-1.826810656	-1.090698866	-3.944667304	-24.57832901	641.3611751	2-1	159
2	0	Strength 3 - Min	Combination Min	-463.7611212	-5.342173748	-2.947834773	-10.66126298	-535.1336451	-208.0444509	2-1	0
2	79.5	Strength 3 - Min	Combination Min	-456.3170811	-5.342173748	-2.947834773	-10.66126298	-300.7807807	56.18764157	2-1	79.5
2	159	Strength 3 - Min	Combination Min	-448.8730411	-5.342173748	-2.947834773	-10.66126298	-66.42791623	201.4190887	2-1	159
2	0	Strength 5 - Max	Combination Max	-812.5986554	-11.15036216	-10.78560477	-39.00767096	-1957.959126	-442.4650324	2-1	0
2	79.5	Strength 5 - Max	Combination Max	-803.769719	-11.15036216	-10.78560477	-39.00767096	-1100.503547	1528.936548	2-1	79.5
2	159	Strength 5 - Max	Combination Max	-793.2082996	-11.15036216	-10.78560477	-39.00767096	-243.0479675	4214.166027	2-1	159
2	0	Strength 5 - Max	Combination Min	-909.5137302	-33.77647144	-34.29615508	-124.0369141	-6225.934591	-1156.292931	2-1	0
2	79.5	Strength 5 - Max	Combination Min	-899.7860008	-33.77647144	-34.29615508	-124.0369141	-3499.390262	443.988759	2-1	79.5
2	159	Strength 5 - Max	Combination Min	-890.1746361	-33.77647144	-34.29615508	-124.0369141	-772.8459334	1330.44255	2-1	159

2	0	Strength 5 - Min	Combination	Max	-595.9299701	-11.24401956	-10.78560477	-39.00767096	-1957.959126	-432.7107269	2-1	0
2	79.5	Strength 5 - Min	Combination	Max	-589.9864056	-11.24401956	-10.78560477	-39.00767096	-1100.503547	1546.136617	2-1	79.5
2	159	Strength 5 - Min	Combination	Max	-582.310358	-11.24401956	-10.78560477	-39.00767096	-243.0479675	4238.811859	2-1	159
2	0	Strength 5 - Min	Combination	Min	-692.8450449	-33.87012884	-34.29615508	-124.0369141	-6225.934591	-1146.538626	2-1	0
2	79.5	Strength 5 - Min	Combination	Min	-686.0026873	-33.87012884	-34.29615508	-124.0369141	-3499.390262	461.1888278	2-1	79.5
2	159	Strength 5 - Min	Combination	Min	-679.2766945	-33.87012884	-34.29615508	-124.0369141	-772.8459334	1355.088383	2-1	159
2	0	Service 1	Combination	Max	-629.6288735	-7.261923734	-7.341781114	-26.55259377	-1332.786398	-297.3843714	2-1	0
2	79.5	Service 1	Combination	Max	-623.1074539	-7.261923734	-7.341781114	-26.55259377	-749.1147996	1083.701456	2-1	79.5
2	159	Service 1	Combination	Max	-615.1630147	-7.261923734	-7.341781114	-26.55259377	-165.443201	2993.613814	2-1	159
2	0	Service 1	Combination	Min	-702.2808222	-24.02405482	-24.75700357	-89.53721835	-4494.249706	-826.2109022	2-1	0
2	79.5	Service 1	Combination	Min	-694.4781276	-24.02405482	-24.75700357	-89.53721835	-2526.067922	279.9385654	2-1	79.5
2	159	Service 1	Combination	Min	-686.7643896	-24.02405482	-24.75700357	-89.53721835	-557.8861388	857.2615023	2-1	159
2	0	WServ1: 45deg	Combination		4.657305424	-2.045940102	-1.090698866	-3.944667304	-197.9994487	-69.21503906	2-1	0
2	79.5	WServ1: 45deg	Combination		4.019980424	-2.045940102	-1.090698866	-3.944667304	-111.2888888	93.43719904	2-1	79.5
2	159	WServ1: 45deg	Combination		3.382655424	-2.045940102	-1.090698866	-3.944667304	-24.57832901	256.0894371	2-1	159
2	0	WServ1: 30deg	Combination		4.088766052	-2.051717684	-1.090698866	-3.944667304	-197.9994487	-69.42085879	2-1	0
2	79.5	WServ1: 30deg	Combination		3.524978552	-2.051717684	-1.090698866	-3.944667304	-111.2888888	93.69069711	2-1	79.5
2	159	WServ1: 30deg	Combination		2.961191052	-2.051717684	-1.090698866	-3.944667304	-24.57832901	256.802253	2-1	159
2	0	WServ1: 15deg	Combination		3.491330139	-2.052625669	-1.090698866	-3.944667304	-197.9994487	-69.46806023	2-1	0
2	79.5	WServ1: 15deg	Combination		3.050105139	-2.052625669	-1.090698866	-3.944667304	-111.2888888	93.71568044	2-1	79.5
2	159	WServ1: 15deg	Combination		2.608880139	-2.052625669	-1.090698866	-3.944667304	-24.57832901	256.8994211	2-1	159
2	0	WServ1: 0deg	Combination		3.690036576	-2.049997438	-1.090698866	-3.944667304	-197.9994487	-69.35879511	2-1	0
2	79.5	WServ1: 0deg	Combination		3.395886576	-2.049997438	-1.090698866	-3.944667304	-111.2888888	93.61600118	2-1	79.5
2	159	WServ1: 0deg	Combination		3.101736576	-2.049997438	-1.090698866	-3.944667304	-24.57832901	256.5907975	2-1	159
2	0	WServ1: -15deg	Combination		3.817006547	-2.042986171	-1.090698866	-3.944667304	-197.9994487	-69.11371801	2-1	0
2	79.5	WServ1: -15deg	Combination		3.669931547	-2.042986171	-1.090698866	-3.944667304	-111.2888888	93.30368257	2-1	79.5
2	159	WServ1: -15deg	Combination		3.522856547	-2.042986171	-1.090698866	-3.944667304	-24.57832901	255.7210831	2-1	159
2	0	WServ1: -30deg	Combination		3.893918315	-2.032273851	-1.090698866	-3.944667304	-197.9994487	-68.75086881	2-1	0
2	79.5	WServ1: -30deg	Combination		3.918430815	-2.032273851	-1.090698866	-3.944667304	-111.2888888	92.81490231	2-1	79.5
2	159	WServ1: -30deg	Combination		3.942943315	-2.032273851	-1.090698866	-3.944667304	-24.57832901	254.3806734	2-1	159
2	0	WServ1 + WA	Combination		5.964923626	-1.98655841	-1.090698866	-3.944667304	-197.9994487	-67.36937981	2-1	0
2	79.5	WServ1 + WA	Combination		4.242423626	-1.98655841	-1.090698866	-3.944667304	-111.2888888	90.56201379	2-1	79.5
2	159	WServ1 + WA	Combination		2.519923626	-1.98655841	-1.090698866	-3.944667304	-24.57832901	248.4934074	2-1	159
2	0	WServ1 & WA envelope	Combination	Max	5.964923626	-1.98655841	-1.090698866	-3.944667304	-197.9994487	-67.36937981	2-1	0
2	79.5	WServ1 & WA envelope	Combination	Max	4.242423626	-1.98655841	-1.090698866	-3.944667304	-111.2888888	93.71568044	2-1	79.5
2	159	WServ1 & WA envelope	Combination	Max	3.942943315	-1.98655841	-1.090698866	-3.944667304	-24.57832901	256.8994211	2-1	159
2	0	WServ1 & WA envelope	Combination	Min	3.491330139	-2.052625669	-1.090698866	-3.944667304	-197.9994487	-69.46806023	2-1	0
2	79.5	WServ1 & WA envelope	Combination	Min	3.050105139	-2.052625669	-1.090698866	-3.944667304	-111.2888888	90.56201379	2-1	79.5
2	159	WServ1 & WA envelope	Combination	Min	2.519923626	-2.052625669	-1.090698866	-3.944667304	-24.57832901	248.4934074	2-1	159
2	0	Strength Envelope	Combination	Max	-455.0677276	-1.733153255	-1.090698866	-3.944667304	-197.9994487	-89.04380558	2-1	0
2	79.5	Strength Envelope	Combination	Max	-449.3707	-1.733153255	-1.090698866	-3.944667304	-111.2888888	1769.473675	2-1	79.5
2	159	Strength Envelope	Combination	Max	-442.1593808	-1.733153255	-1.090698866	-3.944667304	-24.57832901	4842.565697	2-1	159

2	0	Strength Envelope	Combination Min	-978.3228576	-38.65524555	-41.41603323	-149.7869643	-7518.43795	-1313.372651	2-1	0
2	79.5	Strength Envelope	Combination Min	-969.7404581	-38.65524555	-41.41603323	-149.7869643	-4225.863308	38.98757277	2-1	79.5
2	159	Strength Envelope	Combination Min	-961.1580587	-38.65524555	-41.41603323	-149.7869643	-933.2886671	176.7732566	2-1	159
3	0	DEAD	LinStatic	-65.05861197	0.011076806	0	0	0	-0.238674986	3-1	0
3	79.5	DEAD	LinStatic	-56.81469242	0.011076806	0	0	0	-1.119281027	3-1	79.5
3	159	DEAD	LinStatic	-48.57077287	0.011076806	0	0	0	-1.999887068	3-1	159
3	0	R01_Z	LinStatic	-0.015950451	0.003845809	0	0	0	0.090196593	3-1	0
3	79.5	R01_Z	LinStatic	-0.015950451	0.003845809	0	0	0	-0.215545234	3-1	79.5
3	159	R01_Z	LinStatic	-0.015950451	0.003845809	0	0	0	-0.521287061	3-1	159
3	0	R02_Z	LinStatic	-0.056344346	-0.001259747	0	0	0	-0.073062794	3-1	0
3	79.5	R02_Z	LinStatic	-0.056344346	-0.001259747	0	0	0	0.027087119	3-1	79.5
3	159	R02_Z	LinStatic	-0.056344346	-0.001259747	0	0	0	0.127237031	3-1	159
3	0	R03_Z	LinStatic	0.01531264	-0.003007527	0	0	0	0.072776157	3-1	0
3	79.5	R03_Z	LinStatic	0.01531264	-0.003007527	0	0	0	0.311874561	3-1	79.5
3	159	R03_Z	LinStatic	0.01531264	-0.003007527	0	0	0	0.550972966	3-1	159
3	0	R04_Z	LinStatic	0.357231641	-0.01405	0	0	0	0.383809235	3-1	0
3	79.5	R04_Z	LinStatic	0.357231641	-0.01405	0	0	0	1.500784264	3-1	79.5
3	159	R04_Z	LinStatic	0.357231641	-0.01405	0	0	0	2.617759294	3-1	159
3	0	R05_Z	LinStatic	0.77369254	-0.013183594	0	0	0	0.462801358	3-1	0
3	79.5	R05_Z	LinStatic	0.77369254	-0.013183594	0	0	0	1.510897053	3-1	79.5
3	159	R05_Z	LinStatic	0.77369254	-0.013183594	0	0	0	2.558992748	3-1	159
3	0	R06_Z	LinStatic	0.788063025	0.012431128	0	0	0	-0.438020306	3-1	0
3	79.5	R06_Z	LinStatic	0.788063025	0.012431128	0	0	0	-1.426294952	3-1	79.5
3	159	R06_Z	LinStatic	0.788063025	0.012431128	0	0	0	-2.414569599	3-1	159
3	0	R07_Z	LinStatic	0.380126733	0.014264968	0	0	0	-0.410071143	3-1	0
3	79.5	R07_Z	LinStatic	0.380126733	0.014264968	0	0	0	-1.544136122	3-1	79.5
3	159	R07_Z	LinStatic	0.380126733	0.014264968	0	0	0	-2.678201102	3-1	159
3	0	R08_Z	LinStatic	0.025667829	0.002220215	0	0	0	-0.114807778	3-1	0
3	79.5	R08_Z	LinStatic	0.025667829	0.002220215	0	0	0	-0.291314872	3-1	79.5
3	159	R08_Z	LinStatic	0.025667829	0.002220215	0	0	0	-0.467821966	3-1	159
3	0	R09_Z	LinStatic	-0.052643346	-4.15269E-05	0	0	0	0.029346197	3-1	0
3	79.5	R09_Z	LinStatic	-0.052643346	-4.15269E-05	0	0	0	0.032647585	3-1	79.5
3	159	R09_Z	LinStatic	-0.052643346	-4.15269E-05	0	0	0	0.035948973	3-1	159
3	0	R10_Z	LinStatic	-0.021289175	-7.07033E-05	0	0	0	0.030459313	3-1	0
3	79.5	R10_Z	LinStatic	-0.021289175	-7.07033E-05	0	0	0	0.036080225	3-1	79.5
3	159	R10_Z	LinStatic	-0.021289175	-7.07033E-05	0	0	0	0.041701136	3-1	159
3	0	R11_Z	LinStatic	-0.004311339	0.001262497	0	0	0	0.058397821	3-1	0
3	79.5	R11_Z	LinStatic	-0.004311339	0.001262497	0	0	0	-0.04197067	3-1	79.5
3	159	R11_Z	LinStatic	-0.004311339	0.001262497	0	0	0	-0.142339161	3-1	159
3	0	R12_Z	LinStatic	0.001108531	-0.001045825	0	0	0	-0.031756541	3-1	0
3	79.5	R12_Z	LinStatic	0.001108531	-0.001045825	0	0	0	0.051386569	3-1	79.5
3	159	R12_Z	LinStatic	0.001108531	-0.001045825	0	0	0	0.13452968	3-1	159

3	0	R_X	LinStatic	0.02583166	2.04128315	0	0	0	65.90765828	3-1	0
3	79.5	R_X	LinStatic	0.02583166	2.04128315	0	0	0	-96.37435213	3-1	79.5
3	159	R_X	LinStatic	0.02583166	2.04128315	0	0	0	-258.6563626	3-1	159
3	0	R_Y	LinStatic	0	0	2.187881235	1.463858699	385.7284564	0	3-1	0
3	79.5	R_Y	LinStatic	0	0	2.187881235	1.463858699	211.7918982	0	3-1	79.5
3	159	R_Y	LinStatic	0	0	2.187881235	1.463858699	37.85534003	0	3-1	159
3	0	Cap_R_X	LinStatic	0.003228784	0.167202399	0	0	0	5.392801048	3-1	0
3	79.5	Cap_R_X	LinStatic	0.003228784	0.167202399	0	0	0	-7.899789662	3-1	79.5
3	159	Cap_R_X	LinStatic	0.003228784	0.167202399	0	0	0	-21.19238037	3-1	159
3	0	Cap_w_Y	LinStatic	-17.98917514	0.004102521	0	0	0	-0.088398143	3-1	0
3	79.5	Cap_w_Y	LinStatic	-17.98917514	0.004102521	0	0	0	-0.414548529	3-1	79.5
3	159	Cap_w_Y	LinStatic	-17.98917514	0.004102521	0	0	0	-0.740698914	3-1	159
3	0	Cap_w_Z	LinStatic	-17.98917514	0.004102521	0	0	0	-0.088398143	3-1	0
3	79.5	Cap_w_Z	LinStatic	-17.98917514	0.004102521	0	0	0	-0.414548529	3-1	79.5
3	159	Cap_w_Z	LinStatic	-17.98917514	0.004102521	0	0	0	-0.740698914	3-1	159
3	0	Col_w_X	LinStatic	-13.25	-1.47559E-17	0	0	0	3.93128E-15	3-1	0
3	79.5	Col_w_X	LinStatic	-6.625	-1.47559E-17	0	0	0	5.10437E-15	3-1	79.5
3	159	Col_w_X	LinStatic	-1.10259E-14	-1.47559E-17	0	0	0	6.27746E-15	3-1	159
3	0	Col_w_Y	LinStatic	-13.25	-1.47559E-17	0	0	0	3.93128E-15	3-1	0
3	79.5	Col_w_Y	LinStatic	-6.625	-1.47559E-17	0	0	0	5.10437E-15	3-1	79.5
3	159	Col_w_Y	LinStatic	-1.10259E-14	-1.47559E-17	0	0	0	6.27746E-15	3-1	159
3	0	Cais_w_X	LinStatic	-3.55271E-15	-1.14219E-17	0	0	0	1.38772E-15	3-1	0
3	79.5	Cais_w_X	LinStatic	-3.55271E-15	-1.14219E-17	0	0	0	2.29576E-15	3-1	79.5
3	159	Cais_w_X	LinStatic	-3.55271E-15	-1.14219E-17	0	0	0	3.2038E-15	3-1	159
3	0	Cais_w_Y	LinStatic	-3.55271E-15	-1.14219E-17	0	0	0	1.38772E-15	3-1	0
3	79.5	Cais_w_Y	LinStatic	-3.55271E-15	-1.14219E-17	0	0	0	2.29576E-15	3-1	79.5
3	159	Cais_w_Y	LinStatic	-3.55271E-15	-1.14219E-17	0	0	0	3.2038E-15	3-1	159
3	0	DC	LinStatic	-389.7801766	-0.189984507	0	0	0	-9.577346855	3-1	0
3	79.5	DC	LinStatic	-389.7801766	-0.189984507	0	0	0	5.526421452	3-1	79.5
3	159	DC	LinStatic	-389.7801766	-0.189984507	0	0	0	20.63018976	3-1	159
3	0	DW	LinStatic	-55.44571301	-0.034565688	0	0	0	-1.520323962	3-1	0
3	79.5	DW	LinStatic	-55.44571301	-0.034565688	0	0	0	1.227648233	3-1	79.5
3	159	DW	LinStatic	-55.44571301	-0.034565688	0	0	0	3.975620427	3-1	159
3	0	WS3	LinStatic	19.9204291	-5.331767781	-3.084912542	-2.064040765	-543.8771236	-183.1901899	3-1	0
3	79.5	WS3	LinStatic	19.9204291	-5.331767781	-3.084912542	-2.064040765	-298.6265765	240.6853487	3-1	79.5
3	159	WS3	LinStatic	19.9204291	-5.331767781	-3.084912542	-2.064040765	-53.37602945	664.5608873	3-1	159
3	0	WL5	LinStatic	-0.232906456	-1.403108493	-0.962667743	-0.644097827	-169.7205208	-45.67287173	3-1	0
3	79.5	WL5	LinStatic	-0.232906456	-1.403108493	-0.962667743	-0.644097827	-93.18843522	65.87425343	3-1	79.5
3	159	WL5	LinStatic	-0.232906456	-1.403108493	-0.962667743	-0.644097827	-16.65634962	177.4213786	3-1	159
3	0	PL	LinStatic	-18.33586005	-0.01143085	0	0	0	-0.502770113	3-1	0
3	79.5	PL	LinStatic	-18.33586005	-0.01143085	0	0	0	0.405982446	3-1	79.5
3	159	PL	LinStatic	-18.33586005	-0.01143085	0	0	0	1.314735005	3-1	159

3	0	LL-1 Lane	LinStatic	-45.34816802	0.307783414	0	0	0	-12.86983646	3-1	0
3	79.5	LL-1 Lane	LinStatic	-45.34816802	0.307783414	0	0	0	-37.33861786	3-1	79.5
3	159	LL-1 Lane	LinStatic	-45.34816802	0.307783414	0	0	0	-61.80739927	3-1	159
3	0	LL-2 Lane	LinStatic	-72.34521979	0.432008896	0	0	0	-18.49305962	3-1	0
3	79.5	LL-2 Lane	LinStatic	-72.34521979	0.432008896	0	0	0	-52.83776683	3-1	79.5
3	159	LL-2 Lane	LinStatic	-72.34521979	0.432008896	0	0	0	-87.18247404	3-1	159
3	0	LL-3 Lane	LinStatic	-88.11814399	0.447659942	0	0	0	-19.80647851	3-1	0
3	79.5	LL-3 Lane	LinStatic	-88.11814399	0.447659942	0	0	0	-55.39544388	3-1	79.5
3	159	LL-3 Lane	LinStatic	-88.11814399	0.447659942	0	0	0	-90.98440924	3-1	159
3	0	LL-7 Lane	LinStatic	-127.7564597	0.062012864	0	0	0	-8.403628185	3-1	0
3	79.5	LL-7 Lane	LinStatic	-127.7564597	0.062012864	0	0	0	-13.33365085	3-1	79.5
3	159	LL-7 Lane	LinStatic	-127.7564597	0.062012864	0	0	0	-18.26367351	3-1	159
3	0	CE-1 Lane	LinStatic	-0.81592735	-4.390187778	-1.48775924	-0.995423915	-262.2953504	-143.0536109	3-1	0
3	79.5	CE-1 Lane	LinStatic	-0.81592735	-4.390187778	-1.48775924	-0.995423915	-144.0184908	205.9663174	3-1	79.5
3	159	CE-1 Lane	LinStatic	-0.81592735	-4.390187778	-1.48775924	-0.995423915	-25.74163122	554.9862458	3-1	159
3	0	CE-2 Lane	LinStatic	-1.354314649	-7.31705481	-2.494184608	-1.668798916	-439.7304403	-238.4227515	3-1	0
3	79.5	CE-2 Lane	LinStatic	-1.354314649	-7.31705481	-2.494184608	-1.668798916	-241.442764	343.2831059	3-1	79.5
3	159	CE-2 Lane	LinStatic	-1.354314649	-7.31705481	-2.494184608	-1.668798916	-43.15508764	924.9889633	3-1	159
3	0	CE-3 Lane	LinStatic	-1.105702371	-9.341125316	-3.172427791	-2.122595113	-559.3062618	-303.1481913	3-1	0
3	79.5	CE-3 Lane	LinStatic	-1.105702371	-9.341125316	-3.172427791	-2.122595113	-307.0982524	439.4712713	3-1	79.5
3	159	CE-3 Lane	LinStatic	-1.105702371	-9.341125316	-3.172427791	-2.122595113	-54.89024305	1182.090734	3-1	159
3	0	CE-7 Lane	LinStatic	-3.093838866	-16.64600988	-5.644733587	-3.776755442	-995.1794176	-542.4167745	3-1	0
3	79.5	CE-7 Lane	LinStatic	-3.093838866	-16.64600988	-5.644733587	-3.776755442	-546.4230974	780.9410107	3-1	79.5
3	159	CE-7 Lane	LinStatic	-3.093838866	-16.64600988	-5.644733587	-3.776755442	-97.66677729	2104.298796	3-1	159
3	0	BR-1 Lane	LinStatic	-0.018857112	-1.490136699	-5.054005653	-3.381513594	-891.0327344	-48.11259055	3-1	0
3	79.5	BR-1 Lane	LinStatic	-0.018857112	-1.490136699	-5.054005653	-3.381513594	-489.2392849	70.35327706	3-1	79.5
3	159	BR-1 Lane	LinStatic	-0.018857112	-1.490136699	-5.054005653	-3.381513594	-87.44583548	188.8191447	3-1	159
3	0	BR-2 Lane	LinStatic	-0.031256309	-2.46995261	-8.401463943	-5.621217402	-1481.197273	-79.74826652	3-1	0
3	79.5	BR-2 Lane	LinStatic	-0.031256309	-2.46995261	-8.401463943	-5.621217402	-813.2808892	116.6129661	3-1	79.5
3	159	BR-2 Lane	LinStatic	-0.031256309	-2.46995261	-8.401463943	-5.621217402	-145.3645057	312.9741987	3-1	159
3	0	BR-3 Lane	LinStatic	-0.040039073	-3.163988882	-10.72061805	-7.172907623	-1890.069437	-102.1568703	3-1	0
3	79.5	BR-3 Lane	LinStatic	-0.040039073	-3.163988882	-10.72061805	-7.172907623	-1037.780301	149.3802458	3-1	79.5
3	159	BR-3 Lane	LinStatic	-0.040039073	-3.163988882	-10.72061805	-7.172907623	-185.4911662	400.917362	3-1	159
3	0	BR-7 Lane	LinStatic	-0.071295382	-5.633941494	-19.122082	-12.79412503	-3371.266709	-181.9051369	3-1	0
3	79.5	BR-7 Lane	LinStatic	-0.071295382	-5.633941494	-19.122082	-12.79412503	-1851.061191	265.9932119	3-1	79.5
3	159	BR-7 Lane	LinStatic	-0.071295382	-5.633941494	-19.122082	-12.79412503	-330.8556719	713.8915606	3-1	159
3	0	WSub3: 45deg	LinStatic	5.600633672	-0.159334581	0	0	0	-5.112553218	3-1	0
3	79.5	WSub3: 45deg	LinStatic	3.878133672	-0.159334581	0	0	0	7.554546002	3-1	79.5
3	159	WSub3: 45deg	LinStatic	2.155633672	-0.159334581	0	0	0	20.22164522	3-1	159
3	0	WSub3: 30deg	LinStatic	4.123460285	-0.17580867	0	0	0	-5.657137212	3-1	0
3	79.5	WSub3: 30deg	LinStatic	2.599710285	-0.17580867	0	0	0	8.319652057	3-1	79.5
3	159	WSub3: 30deg	LinStatic	1.075960285	-0.17580867	0	0	0	22.29644132	3-1	159

3	0	WSub3: 15deg	LinStatic	2.561436952	-0.178947592	0	0	0	-5.76941314	3-1	0	
3	79.5	WSub3: 15deg	LinStatic	1.368936952	-0.178947592	0	0	0	8.456920423	3-1	79.5	
3	159	WSub3: 15deg	LinStatic	0.176436952	-0.178947592	0	0	0	22.68325399	3-1	159	
3	0	WSub3: 0deg	LinStatic	3.025840651	-0.170874648	0	0	0	-5.493585217	3-1	0	
3	79.5	WSub3: 0deg	LinStatic	2.230840651	-0.170874648	0	0	0	8.090949337	3-1	79.5	
3	159	WSub3: 0deg	LinStatic	1.435840651	-0.170874648	0	0	0	21.67548389	3-1	159	
3	0	WSub3: -15deg	LinStatic	3.310578613	-0.151056512	0	0	0	-4.841145203	3-1	0	
3	79.5	WSub3: -15deg	LinStatic	2.913078613	-0.151056512	0	0	0	7.16784749	3-1	79.5	
3	159	WSub3: -15deg	LinStatic	2.515578613	-0.151056512	0	0	0	19.17684018	3-1	159	
3	0	WSub3: -30deg	LinStatic	3.463010303	-0.121206231	0	0	0	-3.865137126	3-1	0	
3	79.5	WSub3: -30deg	LinStatic	3.529260303	-0.121206231	0	0	0	5.770758262	3-1	79.5	
3	159	WSub3: -30deg	LinStatic	3.595510303	-0.121206231	0	0	0	15.40665365	3-1	159	
3	0	WSub3: -45deg	LinStatic	3.255787641	-0.084585804	0	0	0	-2.67518497	3-1	0	
3	79.5	WSub3: -45deg	LinStatic	3.785787641	-0.084585804	0	0	0	4.049386478	3-1	79.5	
3	159	WSub3: -45deg	LinStatic	4.315787641	-0.084585804	0	0	0	10.77395793	3-1	159	
3	0	WA	LinStatic	3.445	4.22307E-18	0	0	0	-1.44921E-15	3-1	0	
3	79.5	WA	LinStatic	1.7225	4.22307E-18	0	0	0	-1.78495E-15	3-1	79.5	
3	159	WA	LinStatic	4.96825E-15	4.22307E-18	0	0	0	-2.12068E-15	3-1	159	
3	0	WS3: 45deg	Combination	25.52106277	-5.491102363	-3.084912542	-2.064040765	-543.8771236	-188.3027431	3-1	0	
3	79.5	WS3: 45deg	Combination	23.79856277	-5.491102363	-3.084912542	-2.064040765	-298.6265765	248.2398947	3-1	79.5	
3	159	WS3: 45deg	Combination	22.07606277	-5.491102363	-3.084912542	-2.064040765	-53.37602945	684.7825326	3-1	159	
3	0	WS3: 30deg	Combination	24.04388938	-5.507576451	-3.084912542	-2.064040765	-543.8771236	-188.8473271	3-1	0	
3	79.5	WS3: 30deg	Combination	22.52013938	-5.507576451	-3.084912542	-2.064040765	-298.6265765	249.0050008	3-1	79.5	
3	159	WS3: 30deg	Combination	20.99638938	-5.507576451	-3.084912542	-2.064040765	-53.37602945	686.8573287	3-1	159	
3	0	WS3: 15deg	Combination	22.48186605	-5.510715373	-3.084912542	-2.064040765	-543.8771236	-188.9596031	3-1	0	
3	79.5	WS3: 15deg	Combination	21.28936605	-5.510715373	-3.084912542	-2.064040765	-298.6265765	249.1422691	3-1	79.5	
3	159	WS3: 15deg	Combination	20.09686605	-5.510715373	-3.084912542	-2.064040765	-53.37602945	687.2441413	3-1	159	
3	0	WS3: 0deg	Combination	22.94626975	-5.50264243	-3.084912542	-2.064040765	-543.8771236	-188.6837751	3-1	0	
3	79.5	WS3: 0deg	Combination	22.15126975	-5.50264243	-3.084912542	-2.064040765	-298.6265765	248.776298	3-1	79.5	
3	159	WS3: 0deg	Combination	21.35626975	-5.50264243	-3.084912542	-2.064040765	-53.37602945	686.2363712	3-1	159	
3	0	WS3: -15deg	Combination	23.23100771	-5.482824293	-3.084912542	-2.064040765	-543.8771236	-188.0313351	3-1	0	
3	79.5	WS3: -15deg	Combination	22.83350771	-5.482824293	-3.084912542	-2.064040765	-298.6265765	247.8531962	3-1	79.5	
3	159	WS3: -15deg	Combination	22.43600771	-5.482824293	-3.084912542	-2.064040765	-53.37602945	683.7377275	3-1	159	
3	0	WS3: -30deg	Combination	23.3834394	-5.452974013	-3.084912542	-2.064040765	-543.8771236	-187.055327	3-1	0	
3	79.5	WS3: -30deg	Combination	23.4496894	-5.452974013	-3.084912542	-2.064040765	-298.6265765	246.456107	3-1	79.5	
3	159	WS3: -30deg	Combination	23.5159394	-5.452974013	-3.084912542	-2.064040765	-53.37602945	679.967541	3-1	159	
3	0	WServ1: -45deg	Combination	8.651872578	-2.017600385	-1.14141764	-0.763695083	-201.2345357	-69.210471	3-1	0	
3	79.5	WServ1: -45deg	Combination	8.676385078	-2.017600385	-1.14141764	-0.763695083	-110.4918333	91.18875958	3-1	79.5	
3	159	WServ1: -45deg	Combination	8.700897578	-2.017600385	-1.14141764	-0.763695083	-19.7491309	251.5879902	3-1	159	
3	0	WS5: 45deg	Combination	12.11928792	-4.060802036	-2.455765414	-1.643093558	-432.9570486	-136.8113994	3-1	0	
3	79.5	WS5: 45deg	Combination	11.28559792	-4.060802036	-2.455765414	-1.643093558	-237.7236983	186.0223625	3-1	79.5	
3	159	WS5: 45deg	Combination	10.45190792	-4.060802036	-2.455765414	-1.643093558	-42.49034787	508.8561243	3-1	159	

3	0	WS5: 30deg	Combination	11.404336	-4.068775495	-2.455765414	-1.643093558	-432.9570486	-137.0749781	3-1	0
3	79.5	WS5: 30deg	Combination	10.666841	-4.068775495	-2.455765414	-1.643093558	-237.7236983	186.3926738	3-1	79.5
3	159	WS5: 30deg	Combination	9.929346005	-4.068775495	-2.455765414	-1.643093558	-42.49034787	509.8603256	3-1	159
3	0	WS5: 15deg	Combination	10.64831671	-4.070294733	-2.455765414	-1.643093558	-432.9570486	-137.1293196	3-1	0
3	79.5	WS5: 15deg	Combination	10.07114671	-4.070294733	-2.455765414	-1.643093558	-237.7236983	186.4591117	3-1	79.5
3	159	WS5: 15deg	Combination	9.493976712	-4.070294733	-2.455765414	-1.643093558	-42.49034787	510.047543	3-1	159
3	0	WS5: 0deg	Combination	10.8730881	-4.066387429	-2.455765414	-1.643093558	-432.9570486	-136.9958189	3-1	0
3	79.5	WS5: 0deg	Combination	10.4883081	-4.066387429	-2.455765414	-1.643093558	-237.7236983	186.2819817	3-1	79.5
3	159	WS5: 0deg	Combination	10.1035281	-4.066387429	-2.455765414	-1.643093558	-42.49034787	509.5597823	3-1	159
3	0	WS5: -15deg	Combination	11.01090128	-4.05679545	-2.455765414	-1.643093558	-432.9570486	-136.6800379	3-1	0
3	79.5	WS5: -15deg	Combination	10.81851128	-4.05679545	-2.455765414	-1.643093558	-237.7236983	185.8352004	3-1	79.5
3	159	WS5: -15deg	Combination	10.62612128	-4.05679545	-2.455765414	-1.643093558	-42.49034787	508.3504387	3-1	159
3	0	WS5: -30deg	Combination	11.08467821	-4.042347915	-2.455765414	-1.643093558	-432.9570486	-136.20765	3-1	0
3	79.5	WS5: -30deg	Combination	11.11674321	-4.042347915	-2.455765414	-1.643093558	-237.7236983	185.1590092	3-1	79.5
3	159	WS5: -30deg	Combination	11.14880821	-4.042347915	-2.455765414	-1.643093558	-42.49034787	506.5256684	3-1	159
3	0	WS5: -45deg	Combination	10.98438245	-4.024623628	-2.455765414	-1.643093558	-432.9570486	-135.6317132	3-1	0
3	79.5	WS5: -45deg	Combination	11.24090245	-4.024623628	-2.455765414	-1.643093558	-237.7236983	184.3258653	3-1	79.5
3	159	WS5: -45deg	Combination	11.49742245	-4.024623628	-2.455765414	-1.643093558	-42.49034787	504.2834437	3-1	159
3	0	LL - 1 Lane	Combination	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-1153.328085	-204.5388081	3-1	0
3	79.5	LL - 1 Lane	Combination	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-633.2577757	239.3869591	3-1	79.5
3	159	LL - 1 Lane	Combination	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-113.1874667	683.3127262	3-1	159
3	0	WS5 + WA	Combination	12.85358123	-3.983684099	-2.455765414	-1.643093558	-432.9570486	-134.3369236	3-1	0
3	79.5	WS5 + WA	Combination	11.13108123	-3.983684099	-2.455765414	-1.643093558	-237.7236983	182.3659622	3-1	79.5
3	159	WS5 + WA	Combination	9.408581227	-3.983684099	-2.455765414	-1.643093558	-42.49034787	499.068848	3-1	159
3	0	LL - 2 Lane	Combination	-92.0666508	-9.366429375	-10.89564855	-7.290016319	-1920.927713	-337.1668477	3-1	0
3	79.5	LL - 2 Lane	Combination	-92.0666508	-9.366429375	-10.89564855	-7.290016319	-1054.723653	407.4642876	3-1	79.5
3	159	LL - 2 Lane	Combination	-92.0666508	-9.366429375	-10.89564855	-7.290016319	-188.5195934	1152.095423	3-1	159
3	0	LL - 3 Lane	Combination	-107.5997455	-12.06888511	-13.89304584	-9.295502736	-2449.375698	-425.6143103	3-1	0
3	79.5	LL - 3 Lane	Combination	-107.5997455	-12.06888511	-13.89304584	-9.295502736	-1344.878554	533.8620557	3-1	79.5
3	159	LL - 3 Lane	Combination	-107.5997455	-12.06888511	-13.89304584	-9.295502736	-240.3814092	1493.338422	3-1	159
3	0	LL - 7 Lane	Combination	-149.257454	-22.22936936	-24.76681558	-16.57088047	-4366.446127	-733.2283097	3-1	0
3	79.5	LL - 7 Lane	Combination	-149.257454	-22.22936936	-24.76681558	-16.57088047	-2397.484288	1034.006554	3-1	79.5
3	159	LL - 7 Lane	Combination	-149.257454	-22.22936936	-24.76681558	-16.57088047	-428.5224492	2801.241418	3-1	159
3	0	LL Envelope	Combination Max	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-1153.328085	-204.5388081	3-1	0
3	79.5	LL Envelope	Combination Max	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-633.2577757	1034.006554	3-1	79.5
3	159	LL Envelope	Combination Max	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-113.1874667	2801.241418	3-1	159
3	0	LL Envelope	Combination Min	-149.257454	-22.22936936	-24.76681558	-16.57088047	-4366.446127	-733.2283097	3-1	0
3	79.5	LL Envelope	Combination Min	-149.257454	-22.22936936	-24.76681558	-16.57088047	-2397.484288	239.3869591	3-1	79.5
3	159	LL Envelope	Combination Min	-149.257454	-22.22936936	-24.76681558	-16.57088047	-428.5224492	683.3127262	3-1	159
3	0	WS3 & WA envelope	Combination Max	25.52106277	-2.017600385	-1.14141764	-0.763695083	-201.2345357	-69.210471	3-1	0
3	79.5	WS3 & WA envelope	Combination Max	23.79856277	-2.017600385	-1.14141764	-0.763695083	-110.4918333	249.1422691	3-1	79.5
3	159	WS3 & WA envelope	Combination Max	23.5159394	-2.017600385	-1.14141764	-0.763695083	-19.7491309	687.2441413	3-1	159

3	0	WS3 & WA envelope	Combination Min	8.651872578	-5.510715373	-3.084912542	-2.064040765	-543.8771236	-188.9596031	3-1	0
3	79.5	WS3 & WA envelope	Combination Min	8.676385078	-5.510715373	-3.084912542	-2.064040765	-298.6265765	91.18875958	3-1	79.5
3	159	WS3 & WA envelope	Combination Min	8.700897578	-5.510715373	-3.084912542	-2.064040765	-53.37602945	251.5879902	3-1	159
3	0	WS3 + WA	Combination	23.3654291	-5.331767781	-3.084912542	-2.064040765	-543.8771236	-183.1901899	3-1	0
3	79.5	WS3 + WA	Combination	21.6429291	-5.331767781	-3.084912542	-2.064040765	-298.6265765	240.6853487	3-1	79.5
3	159	WS3 + WA	Combination	19.9204291	-5.331767781	-3.084912542	-2.064040765	-53.37602945	664.5608873	3-1	159
3	0	WS5 & WA envelope	Combination Max	12.85358123	-3.983684099	-2.455765414	-1.643093558	-432.9570486	-134.3369236	3-1	0
3	79.5	WS5 & WA envelope	Combination Max	11.28559792	-3.983684099	-2.455765414	-1.643093558	-237.7236983	186.4591117	3-1	79.5
3	159	WS5 & WA envelope	Combination Max	11.49742245	-3.983684099	-2.455765414	-1.643093558	-42.49034787	510.047543	3-1	159
3	0	WS5 & WA envelope	Combination Min	10.64831671	-4.070294733	-2.455765414	-1.643093558	-432.9570486	-137.1293196	3-1	0
3	79.5	WS5 & WA envelope	Combination Min	10.07114671	-4.070294733	-2.455765414	-1.643093558	-237.7236983	182.3659622	3-1	79.5
3	159	WS5 & WA envelope	Combination Min	9.408581227	-4.070294733	-2.455765414	-1.643093558	-42.49034787	499.068848	3-1	159
3	0	Strength 1 - Max	Combination Max	-761.1799771	-10.04743401	-11.44808856	-7.65964064	-2018.324148	-372.4934274	3-1	0
3	79.5	Strength 1 - Max	Combination Max	-752.5975777	-10.04743401	-11.44808856	-7.65964064	-1108.201108	1816.861868	3-1	79.5
3	159	Strength 1 - Max	Combination Max	-744.0151783	-10.04743401	-11.44808856	-7.65964064	-198.0780667	4931.423791	3-1	159
3	0	Strength 1 - Max	Combination Min	-909.4725997	-39.17687953	-43.34192727	-28.99904082	-7641.280722	-1297.700055	3-1	0
3	79.5	Strength 1 - Max	Combination Min	-900.8902003	-39.17687953	-43.34192727	-28.99904082	-4195.597504	426.2775763	3-1	79.5
3	159	Strength 1 - Max	Combination Min	-892.3078009	-39.17687953	-43.34192727	-28.99904082	-749.9142861	1225.04858	3-1	159
3	0	Strength 1 - Min	Combination Max	-554.8575451	-9.955435478	-11.44808856	-7.65964064	-2018.324148	-367.7655443	3-1	0
3	79.5	Strength 1 - Min	Combination Max	-549.1605175	-9.955435478	-11.44808856	-7.65964064	-1108.201108	1814.275868	3-1	79.5
3	159	Strength 1 - Min	Combination Max	-543.4634899	-9.955435478	-11.44808856	-7.65964064	-198.0780667	4921.523907	3-1	159
3	0	Strength 1 - Min	Combination Min	-703.1501677	-39.084881	-43.34192727	-28.99904082	-7641.280722	-1292.972172	3-1	0
3	79.5	Strength 1 - Min	Combination Min	-697.4531401	-39.084881	-43.34192727	-28.99904082	-4195.597504	423.6915761	3-1	79.5
3	159	Strength 1 - Min	Combination Min	-691.7561125	-39.084881	-43.34192727	-28.99904082	-749.9142861	1215.148697	3-1	159
3	0	Strength 3 - Max	Combination Max	-626.1959924	-2.293083543	-1.14141764	-0.763695083	-201.2345357	-83.76098425	3-1	0
3	79.5	Strength 3 - Max	Combination Max	-617.613593	-2.293083543	-1.14141764	-0.763695083	-110.4918333	256.492667	3-1	79.5
3	159	Strength 3 - Max	Combination Max	-607.5913169	-2.293083543	-1.14141764	-0.763695083	-19.7491309	716.4954503	3-1	159
3	0	Strength 3 - Max	Combination Min	-643.0651826	-5.786198532	-3.084912542	-2.064040765	-543.8771236	-203.5101163	3-1	0
3	79.5	Strength 3 - Max	Combination Min	-632.7357707	-5.786198532	-3.084912542	-2.064040765	-298.6265765	98.53915746	3-1	79.5
3	159	Strength 3 - Max	Combination Min	-622.4063588	-5.786198532	-3.084912542	-2.064040765	-53.37602945	280.8392992	3-1	159
3	0	Strength 3 - Min	Combination Max	-419.8735604	-2.201085013	-1.14141764	-0.763695083	-201.2345357	-79.03310124	3-1	0
3	79.5	Strength 3 - Min	Combination Max	-414.1765328	-2.201085013	-1.14141764	-0.763695083	-110.4918333	253.9066669	3-1	79.5
3	159	Strength 3 - Min	Combination Max	-407.0396286	-2.201085013	-1.14141764	-0.763695083	-19.7491309	706.595567	3-1	159
3	0	Strength 3 - Min	Combination Min	-436.7427506	-5.694200002	-3.084912542	-2.064040765	-543.8771236	-198.7822333	3-1	0
3	79.5	Strength 3 - Min	Combination Min	-429.2987105	-5.694200002	-3.084912542	-2.064040765	-298.6265765	95.95315731	3-1	79.5
3	159	Strength 3 - Min	Combination Min	-421.8546704	-5.694200002	-3.084912542	-2.064040765	-53.37602945	270.9394159	3-1	159
3	0	Strength 5 - Max	Combination Max	-725.9638709	-11.79752934	-11.28714802	-7.551959194	-1989.949963	-425.0148278	3-1	0
3	79.5	Strength 5 - Max	Combination Max	-717.2269548	-11.79752934	-11.28714802	-7.551959194	-1092.621695	1589.718358	3-1	79.5
3	159	Strength 5 - Max	Combination Max	-706.7102308	-11.79752934	-11.28714802	-7.551959194	-195.2934279	4320.974766	3-1	159
3	0	Strength 5 - Max	Combination Min	-842.5663014	-34.35542652	-35.89096645	-24.01378219	-6327.65932	-1141.538051	3-1	0
3	79.5	Strength 5 - Max	Combination Min	-832.838572	-34.35542652	-35.89096645	-24.01378219	-3474.327487	512.8887548	3-1	79.5
3	159	Strength 5 - Max	Combination Min	-823.196238	-34.35542652	-35.89096645	-24.01378219	-620.9956543	1450.792337	3-1	159

3	0	Strength 5 - Min	Combination	Max	-519.6414388	-11.70553081	-11.28714802	-7.551959194	-1989.949963	-420.2869448	3-1	0
3	79.5	Strength 5 - Min	Combination	Max	-513.7898946	-11.70553081	-11.28714802	-7.551959194	-1092.621695	1587.132358	3-1	79.5
3	159	Strength 5 - Min	Combination	Max	-506.1585424	-11.70553081	-11.28714802	-7.551959194	-195.2934279	4311.074883	3-1	159
3	0	Strength 5 - Min	Combination	Min	-636.2438694	-34.26342799	-35.89096645	-24.01378219	-6327.65932	-1136.810168	3-1	0
3	79.5	Strength 5 - Min	Combination	Min	-629.4015118	-34.26342799	-35.89096645	-24.01378219	-3474.327487	510.3027547	3-1	79.5
3	159	Strength 5 - Min	Combination	Min	-622.6445497	-34.26342799	-35.89096645	-24.01378219	-620.9956543	1440.892454	3-1	159
3	0	Service 1	Combination	Max	-563.9877553	-7.770199382	-7.683182534	-5.140632592	-1354.56262	-283.6555241	3-1	0
3	79.5	Service 1	Combination	Max	-557.4663358	-7.770199382	-7.683182534	-5.140632592	-743.749609	1131.823982	3-1	79.5
3	159	Service 1	Combination	Max	-549.6145774	-7.770199382	-7.683182534	-5.140632592	-132.9365976	3078.127673	3-1	159
3	0	Service 1	Combination	Min	-651.2236651	-24.48180743	-25.90823322	-17.33457555	-4567.680663	-814.4797086	3-1	0
3	79.5	Service 1	Combination	Min	-643.4209706	-24.48180743	-25.90823322	-17.33457555	-2507.976121	334.0753268	3-1	79.5
3	159	Service 1	Combination	Min	-635.6835577	-24.48180743	-25.90823322	-17.33457555	-448.2715801	951.8061777	3-1	159
3	0	WServ1: 45deg	Combination		9.442793224	-2.031707874	-1.14141764	-0.763695083	-201.2345357	-69.67201496	3-1	0
3	79.5	WServ1: 45deg	Combination		8.805468224	-2.031707874	-1.14141764	-0.763695083	-110.4918333	91.84876104	3-1	79.5
3	159	WServ1: 45deg	Combination		8.168143224	-2.031707874	-1.14141764	-0.763695083	-19.7491309	253.369537	3-1	159
3	0	WServ1: 30deg	Combination		8.896239071	-2.037803287	-1.14141764	-0.763695083	-201.2345357	-69.87351104	3-1	0
3	79.5	WServ1: 30deg	Combination		8.332451571	-2.037803287	-1.14141764	-0.763695083	-110.4918333	92.13185028	3-1	79.5
3	159	WServ1: 30deg	Combination		7.768664071	-2.037803287	-1.14141764	-0.763695083	-19.7491309	254.1372116	3-1	159
3	0	WServ1: 15deg	Combination		8.318290438	-2.038964688	-1.14141764	-0.763695083	-201.2345357	-69.91505313	3-1	0
3	79.5	WServ1: 15deg	Combination		7.877065438	-2.038964688	-1.14141764	-0.763695083	-110.4918333	92.18263958	3-1	79.5
3	159	WServ1: 15deg	Combination		7.435840438	-2.038964688	-1.14141764	-0.763695083	-19.7491309	254.2803323	3-1	159
3	0	WServ1: 0deg	Combination		8.490119807	-2.035977699	-1.14141764	-0.763695083	-201.2345357	-69.8129968	3-1	0
3	79.5	WServ1: 0deg	Combination		8.195969807	-2.035977699	-1.14141764	-0.763695083	-110.4918333	92.04723028	3-1	79.5
3	159	WServ1: 0deg	Combination		7.901819807	-2.035977699	-1.14141764	-0.763695083	-19.7491309	253.9074574	3-1	159
3	0	WServ1: -15deg	Combination		8.595472853	-2.028644989	-1.14141764	-0.763695083	-201.2345357	-69.57159399	3-1	0
3	79.5	WServ1: -15deg	Combination		8.448397853	-2.028644989	-1.14141764	-0.763695083	-110.4918333	91.70568259	3-1	79.5
3	159	WServ1: -15deg	Combination		8.301322853	-2.028644989	-1.14141764	-0.763695083	-19.7491309	252.9829592	3-1	159
3	0	WServ1: -30deg	Combination		8.651872578	-2.017600385	-1.14141764	-0.763695083	-201.2345357	-69.210471	3-1	0
3	79.5	WServ1: -30deg	Combination		8.676385078	-2.017600385	-1.14141764	-0.763695083	-110.4918333	91.18875958	3-1	79.5
3	159	WServ1: -30deg	Combination		8.700897578	-2.017600385	-1.14141764	-0.763695083	-19.7491309	251.5879902	3-1	159
3	0	WServ1 + WA	Combination		10.81555877	-1.972754079	-1.14141764	-0.763695083	-201.2345357	-67.78037027	3-1	0
3	79.5	WServ1 + WA	Combination		9.093058766	-1.972754079	-1.14141764	-0.763695083	-110.4918333	89.05357902	3-1	79.5
3	159	WServ1 + WA	Combination		7.370558766	-1.972754079	-1.14141764	-0.763695083	-19.7491309	245.8875283	3-1	159
3	0	WServ1 & WA envelope	Combination	Max	10.81555877	-1.972754079	-1.14141764	-0.763695083	-201.2345357	-67.78037027	3-1	0
3	79.5	WServ1 & WA envelope	Combination	Max	9.093058766	-1.972754079	-1.14141764	-0.763695083	-110.4918333	92.18263958	3-1	79.5
3	159	WServ1 & WA envelope	Combination	Max	8.700897578	-1.972754079	-1.14141764	-0.763695083	-19.7491309	254.2803323	3-1	159
3	0	WServ1 & WA envelope	Combination	Min	8.318290438	-2.038964688	-1.14141764	-0.763695083	-201.2345357	-69.91505313	3-1	0
3	79.5	WServ1 & WA envelope	Combination	Min	7.877065438	-2.038964688	-1.14141764	-0.763695083	-110.4918333	89.05357902	3-1	79.5
3	159	WServ1 & WA envelope	Combination	Min	7.370558766	-2.038964688	-1.14141764	-0.763695083	-19.7491309	245.8875283	3-1	159
3	0	Strength Envelope	Combination	Max	-419.8735604	-2.201085013	-1.14141764	-0.763695083	-201.2345357	-79.03310124	3-1	0
3	79.5	Strength Envelope	Combination	Max	-414.1765328	-2.201085013	-1.14141764	-0.763695083	-110.4918333	1816.861868	3-1	79.5
3	159	Strength Envelope	Combination	Max	-407.0396286	-2.201085013	-1.14141764	-0.763695083	-19.7491309	4931.423791	3-1	159

3	0	Strength Envelope	Combination Min	-909.4725997	-39.17687953	-43.34192727	-28.99904082	-7641.280722	-1297.700055	3-1	0
3	79.5	Strength Envelope	Combination Min	-900.8902003	-39.17687953	-43.34192727	-28.99904082	-4195.597504	95.95315731	3-1	79.5
3	159	Strength Envelope	Combination Min	-892.3078009	-39.17687953	-43.34192727	-28.99904082	-749.9142861	270.9394159	3-1	159
4	0	DEAD	LinStatic	-65.05861197	-0.011076806	0	0	0	0.238674986	4-1	0
4	79.5	DEAD	LinStatic	-56.81469242	-0.011076806	0	0	0	1.119281027	4-1	79.5
4	159	DEAD	LinStatic	-48.57077287	-0.011076806	0	0	0	1.999887068	4-1	159
4	0	R01_Z	LinStatic	0.001770451	0.003247216	0	0	0	0.105850889	4-1	0
4	79.5	R01_Z	LinStatic	0.001770451	0.003247216	0	0	0	-0.152302779	4-1	79.5
4	159	R01_Z	LinStatic	0.001770451	0.003247216	0	0	0	-0.410456447	4-1	159
4	0	R02_Z	LinStatic	-0.002446054	-0.001523647	0	0	0	-0.063244144	4-1	0
4	79.5	R02_Z	LinStatic	-0.002446054	-0.001523647	0	0	0	0.057885758	4-1	79.5
4	159	R02_Z	LinStatic	-0.002446054	-0.001523647	0	0	0	0.179015661	4-1	159
4	0	R03_Z	LinStatic	-0.01588208	0.000134422	0	0	0	-0.025225549	4-1	0
4	79.5	R03_Z	LinStatic	-0.01588208	0.000134422	0	0	0	-0.0359121	4-1	79.5
4	159	R03_Z	LinStatic	-0.01588208	0.000134422	0	0	0	-0.04659865	4-1	159
4	0	R04_Z	LinStatic	-0.049218151	-0.000205625	0	0	0	-0.048187276	4-1	0
4	79.5	R04_Z	LinStatic	-0.049218151	-0.000205625	0	0	0	-0.031840116	4-1	79.5
4	159	R04_Z	LinStatic	-0.049218151	-0.000205625	0	0	0	-0.015492957	4-1	159
4	0	R05_Z	LinStatic	-0.011501358	-0.000807931	0	0	0	0.075779495	4-1	0
4	79.5	R05_Z	LinStatic	-0.011501358	-0.000807931	0	0	0	0.140009976	4-1	79.5
4	159	R05_Z	LinStatic	-0.011501358	-0.000807931	0	0	0	0.204240456	4-1	159
4	0	R06_Z	LinStatic	0.270775226	-0.011607339	0	0	0	0.316921763	4-1	0
4	79.5	R06_Z	LinStatic	0.270775226	-0.011607339	0	0	0	1.239705238	4-1	79.5
4	159	R06_Z	LinStatic	0.270775226	-0.011607339	0	0	0	2.162488712	4-1	159
4	0	R07_Z	LinStatic	0.709370684	-0.015426734	0	0	0	0.522243623	4-1	0
4	79.5	R07_Z	LinStatic	0.709370684	-0.015426734	0	0	0	1.74866895	4-1	79.5
4	159	R07_Z	LinStatic	0.709370684	-0.015426734	0	0	0	2.975094278	4-1	159
4	0	R08_Z	LinStatic	0.833358281	0.008525697	0	0	0	-0.311697885	4-1	0
4	79.5	R08_Z	LinStatic	0.833358281	0.008525697	0	0	0	-0.989490757	4-1	79.5
4	159	R08_Z	LinStatic	0.833358281	0.008525697	0	0	0	-1.667283629	4-1	159
4	0	R09_Z	LinStatic	0.467158596	0.015886309	0	0	0	-0.468099678	4-1	0
4	79.5	R09_Z	LinStatic	0.467158596	0.015886309	0	0	0	-1.731061262	4-1	79.5
4	159	R09_Z	LinStatic	0.467158596	0.015886309	0	0	0	-2.994022846	4-1	159
4	0	R10_Z	LinStatic	0.063145324	0.00470649	0	0	0	-0.118549147	4-1	0
4	79.5	R10_Z	LinStatic	0.063145324	0.00470649	0	0	0	-0.492715092	4-1	79.5
4	159	R10_Z	LinStatic	0.063145324	0.00470649	0	0	0	-0.866881037	4-1	159
4	0	R11_Z	LinStatic	-0.055252199	0.001353754	0	0	0	0.056910863	4-1	0
4	79.5	R11_Z	LinStatic	-0.055252199	0.001353754	0	0	0	-0.050712599	4-1	79.5
4	159	R11_Z	LinStatic	-0.055252199	0.001353754	0	0	0	-0.158336062	4-1	159
4	0	R12_Z	LinStatic	-0.026297604	-0.00161813	0	0	0	-0.014831202	4-1	0
4	79.5	R12_Z	LinStatic	-0.026297604	-0.00161813	0	0	0	0.113810126	4-1	79.5
4	159	R12_Z	LinStatic	-0.026297604	-0.00161813	0	0	0	0.242451454	4-1	159

4	0	R_X	LinStatic	-0.026073079	2.040052599	0	0	0	65.91129065	4-1	0
4	79.5	R_X	LinStatic	-0.026073079	2.040052599	0	0	0	-96.27289099	4-1	79.5
4	159	R_X	LinStatic	-0.026073079	2.040052599	0	0	0	-258.4570726	4-1	159
4	0	R_Y	LinStatic	0	0	2.171756766	-4.939930749	382.7723828	0	4-1	0
4	79.5	R_Y	LinStatic	0	0	2.171756766	-4.939930749	210.1177199	0	4-1	79.5
4	159	R_Y	LinStatic	0	0	2.171756766	-4.939930749	37.46305692	0	4-1	159
4	0	Cap_R_X	LinStatic	-0.000586443	0.169672212	0	0	0	5.472124733	4-1	0
4	79.5	Cap_R_X	LinStatic	-0.000586443	0.169672212	0	0	0	-8.016816108	4-1	79.5
4	159	Cap_R_X	LinStatic	-0.000586443	0.169672212	0	0	0	-21.50575695	4-1	159
4	0	Cap_w_Y	LinStatic	-17.98917514	-0.004102521	0	0	0	0.088398143	4-1	0
4	79.5	Cap_w_Y	LinStatic	-17.98917514	-0.004102521	0	0	0	0.414548529	4-1	79.5
4	159	Cap_w_Y	LinStatic	-17.98917514	-0.004102521	0	0	0	0.740698914	4-1	159
4	0	Cap_w_Z	LinStatic	-17.98917514	-0.004102521	0	0	0	0.088398143	4-1	0
4	79.5	Cap_w_Z	LinStatic	-17.98917514	-0.004102521	0	0	0	0.414548529	4-1	79.5
4	159	Cap_w_Z	LinStatic	-17.98917514	-0.004102521	0	0	0	0.740698914	4-1	159
4	0	Col_w_X	LinStatic	-13.25	2.77473E-16	0	0	0	-5.03876E-15	4-1	0
4	79.5	Col_w_X	LinStatic	-6.625	2.77473E-16	0	0	0	-2.70978E-14	4-1	79.5
4	159	Col_w_X	LinStatic	-2.14412E-15	2.77473E-16	0	0	0	-4.91569E-14	4-1	159
4	0	Col_w_Y	LinStatic	-13.25	2.77473E-16	0	0	0	-5.03876E-15	4-1	0
4	79.5	Col_w_Y	LinStatic	-6.625	2.77473E-16	0	0	0	-2.70978E-14	4-1	79.5
4	159	Col_w_Y	LinStatic	-2.14412E-15	2.77473E-16	0	0	0	-4.91569E-14	4-1	159
4	0	Cais_w_X	LinStatic	8.88178E-16	1.0358E-16	0	0	0	-2.16337E-15	4-1	0
4	79.5	Cais_w_X	LinStatic	8.88178E-16	1.0358E-16	0	0	0	-1.03979E-14	4-1	79.5
4	159	Cais_w_X	LinStatic	8.88178E-16	1.0358E-16	0	0	0	-1.86325E-14	4-1	159
4	0	Cais_w_Y	LinStatic	8.88178E-16	1.0358E-16	0	0	0	-2.16337E-15	4-1	0
4	79.5	Cais_w_Y	LinStatic	8.88178E-16	1.0358E-16	0	0	0	-1.03979E-14	4-1	79.5
4	159	Cais_w_Y	LinStatic	8.88178E-16	1.0358E-16	0	0	0	-1.86325E-14	4-1	159
4	0	DC	LinStatic	-388.9524698	-0.443004249	0	0	0	-3.238056103	4-1	0
4	79.5	DC	LinStatic	-388.9524698	-0.443004249	0	0	0	31.98078168	4-1	79.5
4	159	DC	LinStatic	-388.9524698	-0.443004249	0	0	0	67.19961946	4-1	159
4	0	DW	LinStatic	-55.30187204	-0.067438068	0	0	0	-0.705434056	4-1	0
4	79.5	DW	LinStatic	-55.30187204	-0.067438068	0	0	0	4.655892372	4-1	79.5
4	159	DW	LinStatic	-55.30187204	-0.067438068	0	0	0	10.0172188	4-1	159
4	0	WS3	LinStatic	34.59041914	-5.310576803	-3.062177041	6.965302356	-539.7090597	-183.6232129	4-1	0
4	79.5	WS3	LinStatic	34.59041914	-5.310576803	-3.062177041	6.965302356	-296.265985	238.5676429	4-1	79.5
4	159	WS3	LinStatic	34.59041914	-5.310576803	-3.062177041	6.965302356	-52.82291026	660.7584987	4-1	159
4	0	WL5	LinStatic	0.284202726	-1.402185122	-0.955572977	2.17356953	-168.4198484	-45.67659282	4-1	0
4	79.5	WL5	LinStatic	0.284202726	-1.402185122	-0.955572977	2.17356953	-92.45179674	65.79712436	4-1	79.5
4	159	WL5	LinStatic	0.284202726	-1.402185122	-0.955572977	2.17356953	-16.48374505	177.2708415	4-1	159
4	0	PL	LinStatic	-18.28829194	-0.022301724	0	0	0	-0.233286569	4-1	0
4	79.5	PL	LinStatic	-18.28829194	-0.022301724	0	0	0	1.53970048	4-1	79.5
4	159	PL	LinStatic	-18.28829194	-0.022301724	0	0	0	3.312687529	4-1	159

4	0	LL-1 Lane	LinStatic	-15.92175596	0.293241307	0	0	0	-12.47138489	4-1	0
4	79.5	LL-1 Lane	LinStatic	-15.92175596	0.293241307	0	0	0	-35.78406878	4-1	79.5
4	159	LL-1 Lane	LinStatic	-15.92175596	0.293241307	0	0	0	-59.09675267	4-1	159
4	0	LL-2 Lane	LinStatic	-30.54085773	0.406623949	0	0	0	-17.80974644	4-1	0
4	79.5	LL-2 Lane	LinStatic	-30.54085773	0.406623949	0	0	0	-50.13635038	4-1	79.5
4	159	LL-2 Lane	LinStatic	-30.54085773	0.406623949	0	0	0	-82.46295432	4-1	159
4	0	LL-3 Lane	LinStatic	-44.04514766	0.413849696	0	0	0	-18.9113637	4-1	0
4	79.5	LL-3 Lane	LinStatic	-44.04514766	0.413849696	0	0	0	-51.81241451	4-1	79.5
4	159	LL-3 Lane	LinStatic	-44.04514766	0.413849696	0	0	0	-84.71346531	4-1	159
4	0	LL-7 Lane	LinStatic	-115.069372	-0.008552488	0	0	0	-6.638196701	4-1	0
4	79.5	LL-7 Lane	LinStatic	-115.069372	-0.008552488	0	0	0	-5.958273888	4-1	79.5
4	159	LL-7 Lane	LinStatic	-115.069372	-0.008552488	0	0	0	-5.278351075	4-1	159
4	0	CE-1 Lane	LinStatic	0.997032363	-4.387287721	-1.476794601	3.359152909	-260.2852203	-143.0651139	4-1	0
4	79.5	CE-1 Lane	LinStatic	0.997032363	-4.387287721	-1.476794601	3.359152909	-142.8800495	205.7242599	4-1	79.5
4	159	CE-1 Lane	LinStatic	0.997032363	-4.387287721	-1.476794601	3.359152909	-25.47487871	554.5136337	4-1	159
4	0	CE-2 Lane	LinStatic	1.655525737	-7.312148396	-2.475802714	5.631521054	-436.3605164	-238.4442001	4-1	0
4	79.5	CE-2 Lane	LinStatic	1.655525737	-7.312148396	-2.475802714	5.631521054	-239.5342006	342.8715973	4-1	79.5
4	159	CE-2 Lane	LinStatic	1.655525737	-7.312148396	-2.475802714	5.631521054	-42.70788489	924.1873948	4-1	159
4	0	CE-3 Lane	LinStatic	2.279804016	-9.310110226	-3.149047311	7.162899586	-555.019955	-303.940483	4-1	0
4	79.5	CE-3 Lane	LinStatic	2.279804016	-9.310110226	-3.149047311	7.162899586	-304.6706938	436.2132799	4-1	79.5
4	159	CE-3 Lane	LinStatic	2.279804016	-9.310110226	-3.149047311	7.162899586	-54.32143254	1176.367043	4-1	159
4	0	CE-7 Lane	LinStatic	3.781064036	-16.63493643	-5.603132457	12.74502133	-987.5527476	-542.462814	4-1	0
4	79.5	CE-7 Lane	LinStatic	3.781064036	-16.63493643	-5.603132457	12.74502133	-542.1037172	780.0146324	4-1	79.5
4	159	CE-7 Lane	LinStatic	3.781064036	-16.63493643	-5.603132457	12.74502133	-96.65468686	2102.492079	4-1	159
4	0	BR-1 Lane	LinStatic	0.019033347	-1.489238397	-5.01675813	11.41124003	-884.2042042	-48.11524218	4-1	0
4	79.5	BR-1 Lane	LinStatic	0.019033347	-1.489238397	-5.01675813	11.41124003	-485.3719329	70.27921042	4-1	79.5
4	159	BR-1 Lane	LinStatic	0.019033347	-1.489238397	-5.01675813	11.41124003	-86.53966149	188.673663	4-1	159
4	0	BR-2 Lane	LinStatic	0.031548425	-2.468463645	-8.339545983	18.96933408	-1469.84595	-79.75266169	4-1	0
4	79.5	BR-2 Lane	LinStatic	0.031548425	-2.468463645	-8.339545983	18.96933408	-806.8520442	116.4901981	4-1	79.5
4	159	BR-2 Lane	LinStatic	0.031548425	-2.468463645	-8.339545983	18.96933408	-143.8581386	312.7330579	4-1	159
4	0	BR-3 Lane	LinStatic	0.040413272	-3.162081529	-10.64160816	24.20566067	-1875.584676	-102.1625005	4-1	0
4	79.5	BR-3 Lane	LinStatic	0.040413272	-3.162081529	-10.64160816	24.20566067	-1029.576827	149.222981	4-1	79.5
4	159	BR-3 Lane	LinStatic	0.040413272	-3.162081529	-10.64160816	24.20566067	-183.5689789	400.6084626	4-1	159
4	0	BR-7 Lane	LinStatic	0.071961697	-5.630545174	-18.98115414	43.17499475	-3345.430626	-181.9151622	4-1	0
4	79.5	BR-7 Lane	LinStatic	0.071961697	-5.630545174	-18.98115414	43.17499475	-1836.428872	265.7131791	4-1	79.5
4	159	BR-7 Lane	LinStatic	0.071961697	-5.630545174	-18.98115414	43.17499475	-327.4271175	713.3415205	4-1	159
4	0	WSub3: 45deg	LinStatic	5.604258137	-0.160696299	0	0	0	-5.209126273	4-1	0
4	79.5	WSub3: 45deg	LinStatic	3.881758137	-0.160696299	0	0	0	7.566229479	4-1	79.5
4	159	WSub3: 45deg	LinStatic	2.159258137	-0.160696299	0	0	0	20.34158523	4-1	159
4	0	WSub3: 30deg	LinStatic	4.127466274	-0.177909671	0	0	0	-5.751034858	4-1	0
4	79.5	WSub3: 30deg	LinStatic	2.603716274	-0.177909671	0	0	0	8.392784002	4-1	79.5
4	159	WSub3: 30deg	LinStatic	1.079966274	-0.177909671	0	0	0	22.53660286	4-1	159

4	0	WSub3: 15deg	LinStatic	2.565519246	-0.181508241	0	0	0	-5.856057445	4-1	0
4	79.5	WSub3: 15deg	LinStatic	1.373019246	-0.181508241	0	0	0	8.573847751	4-1	79.5
4	159	WSub3: 15deg	LinStatic	0.180519246	-0.181508241	0	0	0	23.00375295	4-1	159
4	0	WSub3: 0deg	LinStatic	3.029732183	-0.172737454	0	0	0	-5.588639079	4-1	0
4	79.5	WSub3: 0deg	LinStatic	2.234732183	-0.172737454	0	0	0	8.143988548	4-1	79.5
4	159	WSub3: 0deg	LinStatic	1.439732183	-0.172737454	0	0	0	21.87661618	4-1	159
4	0	WSub3: -15deg	LinStatic	3.314012318	-0.152130638	0	0	0	-4.937288	4-1	0
4	79.5	WSub3: -15deg	LinStatic	2.916512318	-0.152130638	0	0	0	7.157097703	4-1	79.5
4	159	WSub3: -15deg	LinStatic	2.519012318	-0.152130638	0	0	0	19.25148341	4-1	159
4	0	WSub3: -30deg	LinStatic	3.465757266	-0.121343488	0	0	0	-3.957609436	4-1	0
4	79.5	WSub3: -30deg	LinStatic	3.532007266	-0.121343488	0	0	0	5.689197892	4-1	79.5
4	159	WSub3: -30deg	LinStatic	3.598257266	-0.121343488	0	0	0	15.33600522	4-1	159
4	0	WSub3: -45deg	LinStatic	3.257695254	-0.083851501	0	0	0	-2.757277921	4-1	0
4	79.5	WSub3: -45deg	LinStatic	3.787695254	-0.083851501	0	0	0	3.908916407	4-1	79.5
4	159	WSub3: -45deg	LinStatic	4.317695254	-0.083851501	0	0	0	10.57511074	4-1	159
4	0	WA	LinStatic	3.445	-1.06157E-16	0	0	0	1.94407E-15	4-1	0
4	79.5	WA	LinStatic	1.7225	-1.06157E-16	0	0	0	1.03836E-14	4-1	79.5
4	159	WA	LinStatic	8.32667E-17	-1.06157E-16	0	0	0	1.8823E-14	4-1	159
4	0	WS3: 45deg	Combination	40.19467728	-5.471273102	-3.062177041	6.965302356	-539.7090597	-188.8323392	4-1	0
4	79.5	WS3: 45deg	Combination	38.47217728	-5.471273102	-3.062177041	6.965302356	-296.265985	246.1338724	4-1	79.5
4	159	WS3: 45deg	Combination	36.74967728	-5.471273102	-3.062177041	6.965302356	-52.82291026	681.100084	4-1	159
4	0	WS3: 30deg	Combination	38.71788542	-5.488486474	-3.062177041	6.965302356	-539.7090597	-189.3742478	4-1	0
4	79.5	WS3: 30deg	Combination	37.19413542	-5.488486474	-3.062177041	6.965302356	-296.265985	246.9604269	4-1	79.5
4	159	WS3: 30deg	Combination	35.67038542	-5.488486474	-3.062177041	6.965302356	-52.82291026	683.2951016	4-1	159
4	0	WS3: 15deg	Combination	37.15593839	-5.492085044	-3.062177041	6.965302356	-539.7090597	-189.4792704	4-1	0
4	79.5	WS3: 15deg	Combination	35.96343839	-5.492085044	-3.062177041	6.965302356	-296.265985	247.1414906	4-1	79.5
4	159	WS3: 15deg	Combination	34.77093839	-5.492085044	-3.062177041	6.965302356	-52.82291026	683.7622517	4-1	159
4	0	WS3: 0deg	Combination	37.62015133	-5.483314257	-3.062177041	6.965302356	-539.7090597	-189.211852	4-1	0
4	79.5	WS3: 0deg	Combination	36.82515133	-5.483314257	-3.062177041	6.965302356	-296.265985	246.7116314	4-1	79.5
4	159	WS3: 0deg	Combination	36.03015133	-5.483314257	-3.062177041	6.965302356	-52.82291026	682.6351149	4-1	159
4	0	WS3: -15deg	Combination	37.90443146	-5.462707441	-3.062177041	6.965302356	-539.7090597	-188.5605009	4-1	0
4	79.5	WS3: -15deg	Combination	37.50693146	-5.462707441	-3.062177041	6.965302356	-296.265985	245.7247406	4-1	79.5
4	159	WS3: -15deg	Combination	37.10943146	-5.462707441	-3.062177041	6.965302356	-52.82291026	680.0099821	4-1	159
4	0	WS3: -30deg	Combination	38.05617641	-5.431920291	-3.062177041	6.965302356	-539.7090597	-187.5808224	4-1	0
4	79.5	WS3: -30deg	Combination	38.12242641	-5.431920291	-3.062177041	6.965302356	-296.265985	244.2568408	4-1	79.5
4	159	WS3: -30deg	Combination	38.18867641	-5.431920291	-3.062177041	6.965302356	-52.82291026	676.0945039	4-1	159
4	0	WServ1: -45deg	Combination	14.08078527	-2.009810508	-1.133005505	2.577161872	-199.6923521	-69.40490427	4-1	0
4	79.5	WServ1: -45deg	Combination	14.10529777	-2.009810508	-1.133005505	2.577161872	-109.6184144	90.37503109	4-1	79.5
4	159	WServ1: -45deg	Combination	14.12981027	-2.009810508	-1.133005505	2.577161872	-19.5444768	250.1549665	4-1	159
4	0	WS5: 45deg	Combination	19.73842653	-4.050281303	-2.437666665	5.54477587	-429.6390333	-137.071445	4-1	0
4	79.5	WS5: 45deg	Combination	18.90473653	-4.050281303	-2.437666665	5.54477587	-235.8445335	184.9259186	4-1	79.5
4	159	WS5: 45deg	Combination	18.07104653	-4.050281303	-2.437666665	5.54477587	-42.05003361	506.9232822	4-1	159

4	0	WS5: 30deg	Combination	19.02365927	-4.058612575	-2.437666665	5.54477587	-429.6390333	-137.3337287	4-1		0
4	79.5	WS5: 30deg	Combination	18.28616427	-4.058612575	-2.437666665	5.54477587	-235.8445335	185.325971	4-1		79.5
4	159	WS5: 30deg	Combination	17.54866927	-4.058612575	-2.437666665	5.54477587	-42.05003361	507.9856707	4-1		159
4	0	WS5: 15deg	Combination	18.26767691	-4.060354283	-2.437666665	5.54477587	-429.6390333	-137.3845597	4-1		0
4	79.5	WS5: 15deg	Combination	17.69050691	-4.060354283	-2.437666665	5.54477587	-235.8445335	185.4136058	4-1		79.5
4	159	WS5: 15deg	Combination	17.11333691	-4.060354283	-2.437666665	5.54477587	-42.05003361	508.2117714	4-1		159
4	0	WS5: 0deg	Combination	18.49235597	-4.056109222	-2.437666665	5.54477587	-429.6390333	-137.2551292	4-1		0
4	79.5	WS5: 0deg	Combination	18.10757597	-4.056109222	-2.437666665	5.54477587	-235.8445335	185.205554	4-1		79.5
4	159	WS5: 0deg	Combination	17.72279597	-4.056109222	-2.437666665	5.54477587	-42.05003361	507.6662372	4-1		159
4	0	WS5: -15deg	Combination	18.62994755	-4.046135523	-2.437666665	5.54477587	-429.6390333	-136.9398753	4-1		0
4	79.5	WS5: -15deg	Combination	18.43755755	-4.046135523	-2.437666665	5.54477587	-235.8445335	184.7278988	4-1		79.5
4	159	WS5: -15deg	Combination	18.24516755	-4.046135523	-2.437666665	5.54477587	-42.05003361	506.3956729	4-1		159
4	0	WS5: -30deg	Combination	18.70339211	-4.031234543	-2.437666665	5.54477587	-429.6390333	-136.4657108	4-1		0
4	79.5	WS5: -30deg	Combination	18.73545711	-4.031234543	-2.437666665	5.54477587	-235.8445335	184.0174353	4-1		79.5
4	159	WS5: -30deg	Combination	18.76752211	-4.031234543	-2.437666665	5.54477587	-42.05003361	504.5005815	4-1		159
4	0	WS5: -45deg	Combination	18.60269009	-4.013088421	-2.437666665	5.54477587	-429.6390333	-135.8847504	4-1		0
4	79.5	WS5: -45deg	Combination	18.85921009	-4.013088421	-2.437666665	5.54477587	-235.8445335	183.1557791	4-1		79.5
4	159	WS5: -45deg	Combination	19.11573009	-4.013088421	-2.437666665	5.54477587	-42.05003361	502.1963085	4-1		159
4	0	LL - 1 Lane	Combination	-33.19398219	-5.605586535	-6.493552732	14.77039294	-1144.489425	-203.8850275	4-1		0
4	79.5	LL - 1 Lane	Combination	-33.19398219	-5.605586535	-6.493552732	14.77039294	-628.2519824	241.7591021	4-1		79.5
4	159	LL - 1 Lane	Combination	-33.19398219	-5.605586535	-6.493552732	14.77039294	-112.0145402	687.4032316	4-1		159
4	0	WS5 + WA	Combination	20.47096559	-3.972504294	-2.437666665	5.54477587	-429.6390333	-134.5502279	4-1		0
4	79.5	WS5 + WA	Combination	18.74846559	-3.972504294	-2.437666665	5.54477587	-235.8445335	181.2638635	4-1		79.5
4	159	WS5 + WA	Combination	17.02596559	-3.972504294	-2.437666665	5.54477587	-42.05003361	497.0779549	4-1		159
4	0	LL - 2 Lane	Combination	-47.1420755	-9.396289816	-10.8153487	24.60085513	-1906.206466	-336.2398948	4-1		0
4	79.5	LL - 2 Lane	Combination	-47.1420755	-9.396289816	-10.8153487	24.60085513	-1046.386245	410.7651455	4-1		79.5
4	159	LL - 2 Lane	Combination	-47.1420755	-9.396289816	-10.8153487	24.60085513	-186.5660235	1157.770186	4-1		159
4	0	LL - 3 Lane	Combination	-60.01322231	-12.08064378	-13.79065547	31.36856026	-2430.604631	-425.2476338	4-1		0
4	79.5	LL - 3 Lane	Combination	-60.01322231	-12.08064378	-13.79065547	31.36856026	-1334.247521	535.1635469	4-1		79.5
4	159	LL - 3 Lane	Combination	-60.01322231	-12.08064378	-13.79065547	31.36856026	-237.8904114	1495.574728	4-1		159
4	0	LL - 7 Lane	Combination	-129.5046382	-22.29633582	-24.5842866	55.92001608	-4332.983373	-731.2494595	4-1		0
4	79.5	LL - 7 Lane	Combination	-129.5046382	-22.29633582	-24.5842866	55.92001608	-2378.532589	1041.309238	4-1		79.5
4	159	LL - 7 Lane	Combination	-129.5046382	-22.29633582	-24.5842866	55.92001608	-424.0818043	2813.867936	4-1		159
4	0	LL Envelope	Combination Max	-33.19398219	-5.605586535	-6.493552732	55.92001608	-1144.489425	-203.8850275	4-1		0
4	79.5	LL Envelope	Combination Max	-33.19398219	-5.605586535	-6.493552732	55.92001608	-628.2519824	1041.309238	4-1		79.5
4	159	LL Envelope	Combination Max	-33.19398219	-5.605586535	-6.493552732	55.92001608	-112.0145402	2813.867936	4-1		159
4	0	LL Envelope	Combination Min	-129.5046382	-22.29633582	-24.5842866	14.77039294	-4332.983373	-731.2494595	4-1		0
4	79.5	LL Envelope	Combination Min	-129.5046382	-22.29633582	-24.5842866	14.77039294	-2378.532589	241.7591021	4-1		79.5
4	159	LL Envelope	Combination Min	-129.5046382	-22.29633582	-24.5842866	14.77039294	-424.0818043	687.4032316	4-1		159
4	0	WS3 & WA envelope	Combination Max	40.19467728	-2.009810508	-1.133005505	6.965302356	-199.6923521	-69.40490427	4-1		0
4	79.5	WS3 & WA envelope	Combination Max	38.47217728	-2.009810508	-1.133005505	6.965302356	-109.6184144	247.1414906	4-1		79.5
4	159	WS3 & WA envelope	Combination Max	38.18867641	-2.009810508	-1.133005505	6.965302356	-19.5444768	683.7622517	4-1		159

4	0	WS3 & WA envelope	Combination Min	14.08078527	-5.492085044	-3.062177041	2.577161872	-539.7090597	-189.4792704	4-1	0
4	79.5	WS3 & WA envelope	Combination Min	14.10529777	-5.492085044	-3.062177041	2.577161872	-296.265985	90.37503109	4-1	79.5
4	159	WS3 & WA envelope	Combination Min	14.12981027	-5.492085044	-3.062177041	2.577161872	-52.82291026	250.1549665	4-1	159
4	0	WS3 + WA	Combination	38.03541914	-5.310576803	-3.062177041	6.965302356	-539.7090597	-183.6232129	4-1	0
4	79.5	WS3 + WA	Combination	36.31291914	-5.310576803	-3.062177041	6.965302356	-296.265985	238.5676429	4-1	79.5
4	159	WS3 + WA	Combination	34.59041914	-5.310576803	-3.062177041	6.965302356	-52.82291026	660.7584987	4-1	159
4	0	WS5 & WA envelope	Combination Max	20.47096559	-3.972504294	-2.437666665	5.54477587	-429.6390333	-134.5502279	4-1	0
4	79.5	WS5 & WA envelope	Combination Max	18.90473653	-3.972504294	-2.437666665	5.54477587	-235.8445335	185.4136058	4-1	79.5
4	159	WS5 & WA envelope	Combination Max	19.11573009	-3.972504294	-2.437666665	5.54477587	-42.05003361	508.2117714	4-1	159
4	0	WS5 & WA envelope	Combination Min	18.26767691	-4.060354283	-2.437666665	5.54477587	-429.6390333	-137.3845597	4-1	0
4	79.5	WS5 & WA envelope	Combination Min	17.69050691	-4.060354283	-2.437666665	5.54477587	-235.8445335	181.2638635	4-1	79.5
4	159	WS5 & WA envelope	Combination Min	17.02596559	-4.060354283	-2.437666665	5.54477587	-42.05003361	497.0779549	4-1	159
4	0	Strength 1 - Max	Combination Max	-705.1111291	-10.47853486	-11.36371728	97.86002814	-2002.856493	-361.6061756	4-1	0
4	79.5	Strength 1 - Max	Combination Max	-696.5287296	-10.47853486	-11.36371728	97.86002814	-1099.440969	1870.650084	4-1	79.5
4	159	Strength 1 - Max	Combination Max	-687.9463302	-10.47853486	-11.36371728	97.86002814	-196.0254453	5025.794099	4-1	159
4	0	Strength 1 - Max	Combination Min	-873.654777	-39.6873461	-43.02250154	25.84818764	-7582.720903	-1284.493932	4-1	0
4	79.5	Strength 1 - Max	Combination Min	-865.0723776	-39.6873461	-43.02250154	25.84818764	-4162.43203	471.4373456	4-1	79.5
4	159	Strength 1 - Max	Combination Min	-856.4899781	-39.6873461	-43.02250154	25.84818764	-742.1431576	1304.480867	4-1	159
4	0	Strength 1 - Min	Combination Max	-499.2006592	-10.26228413	-11.36371728	97.86002814	-2002.856493	-359.9567732	4-1	0
4	79.5	Strength 1 - Min	Combination Max	-493.5036316	-10.26228413	-11.36371728	97.86002814	-1099.440969	1855.107553	4-1	79.5
4	159	Strength 1 - Min	Combination Max	-487.806604	-10.26228413	-11.36371728	97.86002814	-196.0254453	4993.059636	4-1	159
4	0	Strength 1 - Min	Combination Min	-667.7443072	-39.47109538	-43.02250154	25.84818764	-7582.720903	-1282.844529	4-1	0
4	79.5	Strength 1 - Min	Combination Min	-662.0472796	-39.47109538	-43.02250154	25.84818764	-4162.43203	455.8948151	4-1	79.5
4	159	Strength 1 - Min	Combination Min	-656.350252	-39.47109538	-43.02250154	25.84818764	-742.1431576	1271.746403	4-1	159
4	0	Strength 3 - Max	Combination Max	-610.2719829	-2.678568928	-1.133005505	6.965302356	-199.6923521	-74.21228175	4-1	0
4	79.5	Strength 3 - Max	Combination Max	-601.6895835	-2.678568928	-1.133005505	6.965302356	-109.6184144	295.5004076	4-1	79.5
4	159	Strength 3 - Max	Combination Max	-591.6681849	-2.678568928	-1.133005505	6.965302356	-19.5444768	785.287463	4-1	159
4	0	Strength 3 - Max	Combination Min	-636.3858749	-6.160843465	-3.062177041	2.577161872	-539.7090597	-194.2866479	4-1	0
4	79.5	Strength 3 - Max	Combination Min	-626.056463	-6.160843465	-3.062177041	2.577161872	-296.265985	138.733948	4-1	79.5
4	159	Strength 3 - Max	Combination Min	-615.7270511	-6.160843465	-3.062177041	2.577161872	-52.82291026	351.6801778	4-1	159
4	0	Strength 3 - Min	Combination Max	-404.3615131	-2.462318201	-1.133005505	6.965302356	-199.6923521	-72.56287942	4-1	0
4	79.5	Strength 3 - Min	Combination Max	-398.6644855	-2.462318201	-1.133005505	6.965302356	-109.6184144	279.9578771	4-1	79.5
4	159	Strength 3 - Min	Combination Max	-391.5284588	-2.462318201	-1.133005505	6.965302356	-19.5444768	752.5529998	4-1	159
4	0	Strength 3 - Min	Combination Min	-430.4754051	-5.944592738	-3.062177041	2.577161872	-539.7090597	-192.6372455	4-1	0
4	79.5	Strength 3 - Min	Combination Min	-423.031365	-5.944592738	-3.062177041	2.577161872	-296.265985	123.1914176	4-1	79.5
4	159	Strength 3 - Min	Combination Min	-415.5873249	-5.944592738	-3.062177041	2.577161872	-52.82291026	318.9457146	4-1	159
4	0	Strength 5 - Max	Combination Max	-674.8075706	-12.20880454	-11.20396285	81.03679758	-1974.699756	-414.6023925	4-1	0
4	79.5	Strength 5 - Max	Combination Max	-666.0689002	-12.20880454	-11.20396285	81.03679758	-1083.98471	1639.539994	4-1	79.5
4	159	Strength 5 - Max	Combination Max	-655.5530072	-12.20880454	-11.20396285	81.03679758	-193.2696629	4408.458696	4-1	159
4	0	Strength 5 - Max	Combination Min	-807.0302448	-34.82916606	-35.62645357	25.48480634	-6279.166587	-1129.378708	4-1	0
4	79.5	Strength 5 - Max	Combination Min	-797.3025154	-34.82916606	-35.62645357	25.48480634	-3446.863528	555.9975683	4-1	79.5
4	159	Strength 5 - Max	Combination Min	-787.6621573	-34.82916606	-35.62645357	25.48480634	-614.5604695	1526.597529	4-1	159

4	0	Strength 5 - Min	Combination	Max	-468.8971007	-11.99255381	-11.20396285	81.03679758	-1974.699756	-412.9529901	4-1	0
4	79.5	Strength 5 - Min	Combination	Max	-463.0438022	-11.99255381	-11.20396285	81.03679758	-1083.98471	1623.997464	4-1	79.5
4	159	Strength 5 - Min	Combination	Max	-455.4132811	-11.99255381	-11.20396285	81.03679758	-193.2696629	4375.724233	4-1	159
4	0	Strength 5 - Min	Combination	Min	-601.119775	-34.61291533	-35.62645357	25.48480634	-6279.166587	-1127.729305	4-1	0
4	79.5	Strength 5 - Min	Combination	Min	-594.2774174	-34.61291533	-35.62645357	25.48480634	-3446.863528	540.4550378	4-1	79.5
4	159	Strength 5 - Min	Combination	Min	-587.5224311	-34.61291533	-35.62645357	25.48480634	-614.5604695	1493.863066	4-1	159
4	0	Service 1	Combination	Max	-526.2634809	-8.092019075	-7.626558237	58.49717795	-1344.181777	-275.5304314	4-1	0
4	79.5	Service 1	Combination	Max	-519.7420613	-8.092019075	-7.626558237	58.49717795	-737.8703968	1170.507545	4-1	79.5
4	159	Service 1	Combination	Max	-511.8892866	-8.092019075	-7.626558237	58.49717795	-131.559017	3146.076694	4-1	159
4	0	Service 1	Combination	Min	-625.0698947	-24.84992641	-25.7172921	17.34755481	-4532.675725	-805.0616047	4-1	0
4	79.5	Service 1	Combination	Min	-617.2672002	-24.84992641	-25.7172921	17.34755481	-2488.151003	367.785085	4-1	79.5
4	159	Service 1	Combination	Min	-609.5312977	-24.84992641	-25.7172921	17.34755481	-443.6262811	1011.100601	4-1	159
4	0	WServ1: 45deg	Combination		14.87203059	-2.024371048	-1.133005505	2.577161872	-199.6923521	-69.8679655	4-1	0
4	79.5	WServ1: 45deg	Combination		14.23470559	-2.024371048	-1.133005505	2.577161872	-109.6184144	91.06953278	4-1	79.5
4	159	WServ1: 45deg	Combination		13.59738059	-2.024371048	-1.133005505	2.577161872	-19.5444768	252.0070311	4-1	159
4	0	WServ1: 30deg	Combination		14.3256176	-2.030739995	-1.133005505	2.577161872	-199.6923521	-70.06847168	4-1	0
4	79.5	WServ1: 30deg	Combination		13.7618301	-2.030739995	-1.133005505	2.577161872	-109.6184144	91.37535795	4-1	79.5
4	159	WServ1: 30deg	Combination		13.1980426	-2.030739995	-1.133005505	2.577161872	-19.5444768	252.8191876	4-1	159
4	0	WServ1: 15deg	Combination		13.7476972	-2.032071466	-1.133005505	2.577161872	-199.6923521	-70.10733004	4-1	0
4	79.5	WServ1: 15deg	Combination		13.3064722	-2.032071466	-1.133005505	2.577161872	-109.6184144	91.44235154	4-1	79.5
4	159	WServ1: 15deg	Combination		12.8652472	-2.032071466	-1.133005505	2.577161872	-19.5444768	252.9920331	4-1	159
4	0	WServ1: 0deg	Combination		13.91945599	-2.028826275	-1.133005505	2.577161872	-199.6923521	-70.00838524	4-1	0
4	79.5	WServ1: 0deg	Combination		13.62530599	-2.028826275	-1.133005505	2.577161872	-109.6184144	91.28330364	4-1	79.5
4	159	WServ1: 0deg	Combination		13.33115599	-2.028826275	-1.133005505	2.577161872	-19.5444768	252.5749925	4-1	159
4	0	WServ1: -15deg	Combination		14.02463964	-2.021201753	-1.133005505	2.577161872	-199.6923521	-69.76738534	4-1	0
4	79.5	WServ1: -15deg	Combination		13.87756464	-2.021201753	-1.133005505	2.577161872	-109.6184144	90.91815402	4-1	79.5
4	159	WServ1: -15deg	Combination		13.73048964	-2.021201753	-1.133005505	2.577161872	-19.5444768	251.6036934	4-1	159
4	0	WServ1: -30deg	Combination		14.08078527	-2.009810508	-1.133005505	2.577161872	-199.6923521	-69.40490427	4-1	0
4	79.5	WServ1: -30deg	Combination		14.10529777	-2.009810508	-1.133005505	2.577161872	-109.6184144	90.37503109	4-1	79.5
4	159	WServ1: -30deg	Combination		14.12981027	-2.009810508	-1.133005505	2.577161872	-19.5444768	250.1549665	4-1	159
4	0	WServ1 + WA	Combination		16.24345508	-1.964913417	-1.133005505	2.577161872	-199.6923521	-67.94058878	4-1	0
4	79.5	WServ1 + WA	Combination		14.52095508	-1.964913417	-1.133005505	2.577161872	-109.6184144	88.27002787	4-1	79.5
4	159	WServ1 + WA	Combination		12.79845508	-1.964913417	-1.133005505	2.577161872	-19.5444768	244.4806445	4-1	159
4	0	WServ1 & WA envelope	Combination	Max	16.24345508	-1.964913417	-1.133005505	2.577161872	-199.6923521	-67.94058878	4-1	0
4	79.5	WServ1 & WA envelope	Combination	Max	14.52095508	-1.964913417	-1.133005505	2.577161872	-109.6184144	91.44235154	4-1	79.5
4	159	WServ1 & WA envelope	Combination	Max	14.12981027	-1.964913417	-1.133005505	2.577161872	-19.5444768	252.9920331	4-1	159
4	0	WServ1 & WA envelope	Combination	Min	13.7476972	-2.032071466	-1.133005505	2.577161872	-199.6923521	-70.10733004	4-1	0
4	79.5	WServ1 & WA envelope	Combination	Min	13.3064722	-2.032071466	-1.133005505	2.577161872	-109.6184144	88.27002787	4-1	79.5
4	159	WServ1 & WA envelope	Combination	Min	12.79845508	-2.032071466	-1.133005505	2.577161872	-19.5444768	244.4806445	4-1	159
4	0	Strength Envelope	Combination	Max	-404.3615131	-2.462318201	-1.133005505	97.86002814	-199.6923521	-72.56287942	4-1	0
4	79.5	Strength Envelope	Combination	Max	-398.6644855	-2.462318201	-1.133005505	97.86002814	-109.6184144	1870.650084	4-1	79.5
4	159	Strength Envelope	Combination	Max	-391.5284588	-2.462318201	-1.133005505	97.86002814	-19.5444768	5025.794099	4-1	159

4	0	Strength Envelope	Combination Min	-873.654777	-39.6873461	-43.02250154	2.577161872	-7582.720903	-1284.493932	4-1	0
4	79.5	Strength Envelope	Combination Min	-865.0723776	-39.6873461	-43.02250154	2.577161872	-4162.43203	123.1914176	4-1	79.5
4	159	Strength Envelope	Combination Min	-856.4899781	-39.6873461	-43.02250154	2.577161872	-742.1431576	318.9457146	4-1	159
5	0	DEAD	LinStatic	-67.95645248	-0.047534588	0	0	0	1.159404885	5-1	0
5	79.5	DEAD	LinStatic	-59.71253293	-0.047534588	0	0	0	4.938404633	5-1	79.5
5	159	DEAD	LinStatic	-51.46861338	-0.047534588	0	0	0	8.71740438	5-1	159
5	0	R01_Z	LinStatic	0.000979707	0.003248204	0	0	0	0.103810412	5-1	0
5	79.5	R01_Z	LinStatic	0.000979707	0.003248204	0	0	0	-0.15442183	5-1	79.5
5	159	R01_Z	LinStatic	0.000979707	0.003248204	0	0	0	-0.412654071	5-1	159
5	0	R02_Z	LinStatic	0.000714996	-0.001771949	0	0	0	-0.054400179	5-1	0
5	79.5	R02_Z	LinStatic	0.000714996	-0.001771949	0	0	0	0.086469774	5-1	79.5
5	159	R02_Z	LinStatic	0.000714996	-0.001771949	0	0	0	0.227339728	5-1	159
5	0	R03_Z	LinStatic	0.001340152	-0.000333325	0	0	0	-0.010402011	5-1	0
5	79.5	R03_Z	LinStatic	0.001340152	-0.000333325	0	0	0	0.016097312	5-1	79.5
5	159	R03_Z	LinStatic	0.001340152	-0.000333325	0	0	0	0.042596635	5-1	159
5	0	R04_Z	LinStatic	-0.000956418	-0.000704782	0	0	0	-0.032096618	5-1	0
5	79.5	R04_Z	LinStatic	-0.000956418	-0.000704782	0	0	0	0.023933539	5-1	79.5
5	159	R04_Z	LinStatic	-0.000956418	-0.000704782	0	0	0	0.079963695	5-1	159
5	0	R05_Z	LinStatic	-0.011434738	0.001191511	0	0	0	0.012696468	5-1	0
5	79.5	R05_Z	LinStatic	-0.011434738	0.001191511	0	0	0	-0.082028652	5-1	79.5
5	159	R05_Z	LinStatic	-0.011434738	0.001191511	0	0	0	-0.176753772	5-1	159
5	0	R06_Z	LinStatic	-0.043927149	-5.50976E-05	0	0	0	-0.043854104	5-1	0
5	79.5	R06_Z	LinStatic	-0.043927149	-5.50976E-05	0	0	0	-0.039473841	5-1	79.5
5	159	R06_Z	LinStatic	-0.043927149	-5.50976E-05	0	0	0	-0.035093578	5-1	159
5	0	R07_Z	LinStatic	-0.032867197	-0.000201319	0	0	0	0.046222081	5-1	0
5	79.5	R07_Z	LinStatic	-0.032867197	-0.000201319	0	0	0	0.062226925	5-1	79.5
5	159	R07_Z	LinStatic	-0.032867197	-0.000201319	0	0	0	0.07823177	5-1	159
5	0	R08_Z	LinStatic	0.189158576	-0.009186699	0	0	0	0.244559761	5-1	0
5	79.5	R08_Z	LinStatic	0.189158576	-0.009186699	0	0	0	0.974902369	5-1	79.5
5	159	R08_Z	LinStatic	0.189158576	-0.009186699	0	0	0	1.705244978	5-1	159
5	0	R09_Z	LinStatic	0.638872712	-0.016215531	0	0	0	0.540187366	5-1	0
5	79.5	R09_Z	LinStatic	0.638872712	-0.016215531	0	0	0	1.829322113	5-1	79.5
5	159	R09_Z	LinStatic	0.638872712	-0.016215531	0	0	0	3.11845686	5-1	159
5	0	R10_Z	LinStatic	0.885330255	0.004802829	0	0	0	-0.119802334	5-1	0
5	79.5	R10_Z	LinStatic	0.885330255	0.004802829	0	0	0	-0.501627224	5-1	79.5
5	159	R10_Z	LinStatic	0.885330255	0.004802829	0	0	0	-0.883452114	5-1	159
5	0	R11_Z	LinStatic	0.608031973	0.019660003	0	0	0	-0.51325681	5-1	0
5	79.5	R11_Z	LinStatic	0.608031973	0.019660003	0	0	0	-2.076227018	5-1	79.5
5	159	R11_Z	LinStatic	0.608031973	0.019660003	0	0	0	-3.639197225	5-1	159
5	0	R12_Z	LinStatic	0.096728717	0.004499313	0	0	0	-0.207439614	5-1	0
5	79.5	R12_Z	LinStatic	0.096728717	0.004499313	0	0	0	-0.565134997	5-1	79.5
5	159	R12_Z	LinStatic	0.096728717	0.004499313	0	0	0	-0.922830381	5-1	159

5	0	R_X	LinStatic	0.624091414	2.051596028	0	0	0	65.47323562	5-1	0
5	79.5	R_X	LinStatic	0.624091414	2.051596028	0	0	0	-97.62864862	5-1	79.5
5	159	R_X	LinStatic	0.624091414	2.051596028	0	0	0	-260.7305329	5-1	159
5	0	R_Y	LinStatic	0	0	2.020869142	-12.40359768	369.929739	0	5-1	0
5	79.5	R_Y	LinStatic	0	0	2.020869142	-12.40359768	209.2706422	0	5-1	79.5
5	159	R_Y	LinStatic	0	0	2.020869142	-12.40359768	48.61154538	0	5-1	159
5	0	Cap_R_X	LinStatic	0.053427357	0.174213795	0	0	0	5.540991469	5-1	0
5	79.5	Cap_R_X	LinStatic	0.053427357	0.174213795	0	0	0	-8.309005199	5-1	79.5
5	159	Cap_R_X	LinStatic	0.053427357	0.174213795	0	0	0	-22.15900187	5-1	159
5	0	Cap_w_Y	LinStatic	-19.0624494	-0.017605403	0	0	0	0.429409217	5-1	0
5	79.5	Cap_w_Y	LinStatic	-19.0624494	-0.017605403	0	0	0	1.829038753	5-1	79.5
5	159	Cap_w_Y	LinStatic	-19.0624494	-0.017605403	0	0	0	3.228668289	5-1	159
5	0	Cap_w_Z	LinStatic	-19.0624494	-0.017605403	0	0	0	0.429409217	5-1	0
5	79.5	Cap_w_Z	LinStatic	-19.0624494	-0.017605403	0	0	0	1.829038753	5-1	79.5
5	159	Cap_w_Z	LinStatic	-19.0624494	-0.017605403	0	0	0	3.228668289	5-1	159
5	0	Col_w_X	LinStatic	-13.25	-1.04953E-16	0	0	0	7.15884E-15	5-1	0
5	79.5	Col_w_X	LinStatic	-6.625	-1.04953E-16	0	0	0	1.55026E-14	5-1	79.5
5	159	Col_w_X	LinStatic	3.51594E-14	-1.04953E-16	0	0	0	2.38463E-14	5-1	159
5	0	Col_w_Y	LinStatic	-13.25	-1.04953E-16	0	0	0	7.15884E-15	5-1	0
5	79.5	Col_w_Y	LinStatic	-6.625	-1.04953E-16	0	0	0	1.55026E-14	5-1	79.5
5	159	Col_w_Y	LinStatic	3.51594E-14	-1.04953E-16	0	0	0	2.38463E-14	5-1	159
5	0	Cais_w_X	LinStatic	1.15463E-14	-3.99748E-17	0	0	0	2.39618E-15	5-1	0
5	79.5	Cais_w_X	LinStatic	1.15463E-14	-3.99748E-17	0	0	0	5.57418E-15	5-1	79.5
5	159	Cais_w_X	LinStatic	1.15463E-14	-3.99748E-17	0	0	0	8.75217E-15	5-1	159
5	0	Cais_w_Y	LinStatic	1.15463E-14	-3.99748E-17	0	0	0	2.39618E-15	5-1	0
5	79.5	Cais_w_Y	LinStatic	1.15463E-14	-3.99748E-17	0	0	0	5.57418E-15	5-1	79.5
5	159	Cais_w_Y	LinStatic	1.15463E-14	-3.99748E-17	0	0	0	8.75217E-15	5-1	159
5	0	DC	LinStatic	-412.7807902	-0.730919586	0	0	0	4.049815294	5-1	0
5	79.5	DC	LinStatic	-412.7807902	-0.730919586	0	0	0	62.15792241	5-1	79.5
5	159	DC	LinStatic	-412.7807902	-0.730919586	0	0	0	120.2660295	5-1	159
5	0	DW	LinStatic	-59.02220086	-0.124858193	0	0	0	0.85485996	5-1	0
5	79.5	DW	LinStatic	-59.02220086	-0.124858193	0	0	0	10.78108628	5-1	79.5
5	159	DW	LinStatic	-59.02220086	-0.124858193	0	0	0	20.7073126	5-1	159
5	0	WS3	LinStatic	51.59915728	-5.276625686	-2.84942549	17.48907273	-521.6009319	-184.2767709	5-1	0
5	79.5	WS3	LinStatic	51.59915728	-5.276625686	-2.84942549	17.48907273	-295.0716055	235.2149711	5-1	79.5
5	159	WS3	LinStatic	51.59915728	-5.276625686	-2.84942549	17.48907273	-68.54227899	654.7067132	5-1	159
5	0	WL5	LinStatic	0.395327333	-1.408912848	-0.889182422	5.457582979	-162.7690851	-45.41014139	5-1	0
5	79.5	WL5	LinStatic	0.395327333	-1.408912848	-0.889182422	5.457582979	-92.07908256	66.59843	5-1	79.5
5	159	WL5	LinStatic	0.395327333	-1.408912848	-0.889182422	5.457582979	-21.38907997	178.6070014	5-1	159
5	0	PL	LinStatic	-19.51860218	-0.04129052	0	0	0	0.282701615	5-1	0
5	79.5	PL	LinStatic	-19.51860218	-0.04129052	0	0	0	3.565297992	5-1	79.5
5	159	PL	LinStatic	-19.51860218	-0.04129052	0	0	0	6.847894369	5-1	159

5	0	LL-1 Lane	LinStatic	16.05486284	0.335380291	0	0	0	-13.75009092	5-1	0
5	79.5	LL-1 Lane	LinStatic	16.05486284	0.335380291	0	0	0	-40.41282402	5-1	79.5
5	159	LL-1 Lane	LinStatic	16.05486284	0.335380291	0	0	0	-67.07555713	5-1	159
5	0	LL-2 Lane	LinStatic	14.31647886	0.457995048	0	0	0	-19.39454948	5-1	0
5	79.5	LL-2 Lane	LinStatic	14.31647886	0.457995048	0	0	0	-55.80515577	5-1	79.5
5	159	LL-2 Lane	LinStatic	14.31647886	0.457995048	0	0	0	-92.21576206	5-1	159
5	0	LL-3 Lane	LinStatic	2.398908482	0.455493188	0	0	0	-20.24136415	5-1	0
5	79.5	LL-3 Lane	LinStatic	2.398908482	0.455493188	0	0	0	-56.45307259	5-1	79.5
5	159	LL-3 Lane	LinStatic	2.398908482	0.455493188	0	0	0	-92.66478103	5-1	159
5	0	LL-7 Lane	LinStatic	-108.8854122	-0.103338524	0	0	0	-4.118743804	5-1	0
5	79.5	LL-7 Lane	LinStatic	-108.8854122	-0.103338524	0	0	0	4.096668889	5-1	79.5
5	159	LL-7 Lane	LinStatic	-108.8854122	-0.103338524	0	0	0	12.31208158	5-1	159
5	0	CE-1 Lane	LinStatic	1.570852228	-4.407750867	-1.374191017	8.434446422	-251.5522225	-142.2485413	5-1	0
5	79.5	CE-1 Lane	LinStatic	1.570852228	-4.407750867	-1.374191017	8.434446422	-142.3040367	208.1676527	5-1	79.5
5	159	CE-1 Lane	LinStatic	1.570852228	-4.407750867	-1.374191017	8.434446422	-33.05585086	558.5838466	5-1	159
5	0	CE-2 Lane	LinStatic	2.614185626	-7.346292992	-2.303790822	14.14010135	-421.7199024	-237.0820138	5-1	0
5	79.5	CE-2 Lane	LinStatic	2.614185626	-7.346292992	-2.303790822	14.14010135	-238.5685321	346.948279	5-1	79.5
5	159	CE-2 Lane	LinStatic	2.614185626	-7.346292992	-2.303790822	14.14010135	-55.41716174	930.9785719	5-1	159
5	0	CE-3 Lane	LinStatic	2.538944412	-9.404516425	-2.930260256	17.98521664	-536.3981215	-300.6014787	5-1	0
5	79.5	CE-3 Lane	LinStatic	2.538944412	-9.404516425	-2.930260256	17.98521664	-303.4424311	447.0575771	5-1	79.5
5	159	CE-3 Lane	LinStatic	2.538944412	-9.404516425	-2.930260256	17.98521664	-70.48674081	1194.716633	5-1	159
5	0	CE-7 Lane	LinStatic	5.955469301	-16.71295926	-5.213842386	32.00128201	-954.4187265	-539.3530453	5-1	0
5	79.5	CE-7 Lane	LinStatic	5.955469301	-16.71295926	-5.213842386	32.00128201	-539.9182568	789.3272161	5-1	79.5
5	159	CE-7 Lane	LinStatic	5.955469301	-16.71295926	-5.213842386	32.00128201	-125.4177871	2118.007478	5-1	159
5	0	BR-1 Lane	LinStatic	-0.455586733	-1.497665101	-4.668207718	28.65231064	-854.537697	-47.795462	5-1	0
5	79.5	BR-1 Lane	LinStatic	-0.455586733	-1.497665101	-4.668207718	28.65231064	-483.4151834	71.26891349	5-1	79.5
5	159	BR-1 Lane	LinStatic	-0.455586733	-1.497665101	-4.668207718	28.65231064	-112.2926698	190.333289	5-1	159
5	0	BR-2 Lane	LinStatic	-0.755150611	-2.482431194	-7.760137505	47.62981509	-1420.530198	-79.2226151	5-1	0
5	79.5	BR-2 Lane	LinStatic	-0.755150611	-2.482431194	-7.760137505	47.62981509	-803.5992659	118.1306648	5-1	79.5
5	159	BR-2 Lane	LinStatic	-0.755150611	-2.482431194	-7.760137505	47.62981509	-186.6683343	315.4839448	5-1	159
5	0	BR-3 Lane	LinStatic	-0.967341692	-3.179973844	-9.902258796	60.77762863	-1812.655721	-101.4835152	5-1	0
5	79.5	BR-3 Lane	LinStatic	-0.967341692	-3.179973844	-9.902258796	60.77762863	-1025.426147	151.3244054	5-1	79.5
5	159	BR-3 Lane	LinStatic	-0.967341692	-3.179973844	-9.902258796	60.77762863	-238.1965724	404.1323259	5-1	159
5	0	BR-7 Lane	LinStatic	-1.722492304	-5.662405038	-17.6623963	108.4074437	-3233.185919	-180.7061303	5-1	0
5	79.5	BR-7 Lane	LinStatic	-1.722492304	-5.662405038	-17.6623963	108.4074437	-1829.025413	269.4550702	5-1	79.5
5	159	BR-7 Lane	LinStatic	-1.722492304	-5.662405038	-17.6623963	108.4074437	-424.8649067	719.6162707	5-1	159
5	0	WSub3: 45deg	LinStatic	5.681737938	-0.163390456	0	0	0	-5.315471002	5-1	0
5	79.5	WSub3: 45deg	LinStatic	3.959237938	-0.163390456	0	0	0	7.674070288	5-1	79.5
5	159	WSub3: 45deg	LinStatic	2.236737938	-0.163390456	0	0	0	20.66361158	5-1	159
5	0	WSub3: 30deg	LinStatic	4.135148239	-0.18186816	0	0	0	-5.843805596	5-1	0
5	79.5	WSub3: 30deg	LinStatic	2.611398239	-0.18186816	0	0	0	8.614713133	5-1	79.5
5	159	WSub3: 30deg	LinStatic	1.087648239	-0.18186816	0	0	0	23.07323186	5-1	159

5	0	WSub3: 15deg	LinStatic	2.518457222	-0.186232706	0	0	0	-5.933154964	5-1	0
5	79.5	WSub3: 15deg	LinStatic	1.325957222	-0.186232706	0	0	0	8.872345175	5-1	79.5
5	159	WSub3: 15deg	LinStatic	0.133457222	-0.186232706	0	0	0	23.67784531	5-1	159
5	0	WSub3: 0deg	LinStatic	3.060500047	-0.176289638	0	0	0	-5.686164036	5-1	0
5	79.5	WSub3: 0deg	LinStatic	2.265500047	-0.176289638	0	0	0	8.328862202	5-1	79.5
5	159	WSub3: 0deg	LinStatic	1.470500047	-0.176289638	0	0	0	22.34388844	5-1	159
5	0	WSub3: -15deg	LinStatic	3.415658294	-0.154327659	0	0	0	-5.047009613	5-1	0
5	79.5	WSub3: -15deg	LinStatic	3.018158294	-0.154327659	0	0	0	7.222039253	5-1	79.5
5	159	WSub3: -15deg	LinStatic	2.620658294	-0.154327659	0	0	0	19.49108812	5-1	159
5	0	WSub3: -30deg	LinStatic	3.641522183	-0.121912851	0	0	0	-4.075395701	5-1	0
5	79.5	WSub3: -30deg	LinStatic	3.707772183	-0.121912851	0	0	0	5.616675992	5-1	79.5
5	159	WSub3: -30deg	LinStatic	3.774022183	-0.121912851	0	0	0	15.30874769	5-1	159
5	0	WSub3: -45deg	LinStatic	3.488274177	-0.082881601	0	0	0	-2.873553947	5-1	0
5	79.5	WSub3: -45deg	LinStatic	4.018274177	-0.082881601	0	0	0	3.715533299	5-1	79.5
5	159	WSub3: -45deg	LinStatic	4.548274177	-0.082881601	0	0	0	10.30462054	5-1	159
5	0	WA	LinStatic	3.445	3.42563E-17	0	0	0	-2.53178E-15	5-1	0
5	79.5	WA	LinStatic	1.7225	3.42563E-17	0	0	0	-5.25516E-15	5-1	79.5
5	159	WA	LinStatic	-1.23512E-14	3.42563E-17	0	0	0	-7.97854E-15	5-1	159
5	0	WS3: 45deg	Combination	57.28089522	-5.440016143	-2.84942549	17.48907273	-521.6009319	-189.5922419	5-1	0
5	79.5	WS3: 45deg	Combination	55.55839522	-5.440016143	-2.84942549	17.48907273	-295.0716055	242.8890414	5-1	79.5
5	159	WS3: 45deg	Combination	53.83589522	-5.440016143	-2.84942549	17.48907273	-68.54227899	675.3703248	5-1	159
5	0	WS3: 30deg	Combination	55.73430552	-5.458493847	-2.84942549	17.48907273	-521.6009319	-190.1205765	5-1	0
5	79.5	WS3: 30deg	Combination	54.21055552	-5.458493847	-2.84942549	17.48907273	-295.0716055	243.8296843	5-1	79.5
5	159	WS3: 30deg	Combination	52.68680552	-5.458493847	-2.84942549	17.48907273	-68.54227899	677.7799451	5-1	159
5	0	WS3: 15deg	Combination	54.1176145	-5.462858393	-2.84942549	17.48907273	-521.6009319	-190.2099259	5-1	0
5	79.5	WS3: 15deg	Combination	52.9251145	-5.462858393	-2.84942549	17.48907273	-295.0716055	244.0873163	5-1	79.5
5	159	WS3: 15deg	Combination	51.7326145	-5.462858393	-2.84942549	17.48907273	-68.54227899	678.3845585	5-1	159
5	0	WS3: 0deg	Combination	54.65965733	-5.452915325	-2.84942549	17.48907273	-521.6009319	-189.962935	5-1	0
5	79.5	WS3: 0deg	Combination	53.86465733	-5.452915325	-2.84942549	17.48907273	-295.0716055	243.5438333	5-1	79.5
5	159	WS3: 0deg	Combination	53.06965733	-5.452915325	-2.84942549	17.48907273	-68.54227899	677.0506017	5-1	159
5	0	WS3: -15deg	Combination	55.01481557	-5.430953345	-2.84942549	17.48907273	-521.6009319	-189.3237805	5-1	0
5	79.5	WS3: -15deg	Combination	54.61731557	-5.430953345	-2.84942549	17.48907273	-295.0716055	242.4370104	5-1	79.5
5	159	WS3: -15deg	Combination	54.21981557	-5.430953345	-2.84942549	17.48907273	-68.54227899	674.1978013	5-1	159
5	0	WS3: -30deg	Combination	55.24067946	-5.398538538	-2.84942549	17.48907273	-521.6009319	-188.3521666	5-1	0
5	79.5	WS3: -30deg	Combination	55.30692946	-5.398538538	-2.84942549	17.48907273	-295.0716055	240.8316471	5-1	79.5
5	159	WS3: -30deg	Combination	55.37317946	-5.398538538	-2.84942549	17.48907273	-68.54227899	670.0154609	5-1	159
5	0	WServ1: -45deg	Combination	20.4390514	-1.997459259	-1.054287431	6.470956909	-192.9923448	-69.69030165	5-1	0
5	79.5	WServ1: -45deg	Combination	20.4635639	-1.997459259	-1.054287431	6.470956909	-109.176494	89.10770944	5-1	79.5
5	159	WServ1: -45deg	Combination	20.4880764	-1.997459259	-1.054287431	6.470956909	-25.36064323	247.9057205	5-1	159
5	0	WS5: 45deg	Combination	28.11928062	-4.041880661	-2.26830436	13.92229418	-415.2239362	-137.1727865	5-1	0
5	79.5	WS5: 45deg	Combination	27.28559062	-4.041880661	-2.26830436	13.92229418	-234.8937396	184.156726	5-1	79.5
5	159	WS5: 45deg	Combination	26.45190062	-4.041880661	-2.26830436	13.92229418	-54.563543	505.4862386	5-1	159

5	0	WS5: 30deg	Combination	27.3707312	-4.050823869	-2.26830436	13.92229418	-415.2239362	-137.4285004	5-1	0
5	79.5	WS5: 30deg	Combination	26.6332362	-4.050823869	-2.26830436	13.92229418	-234.8937396	184.6119972	5-1	79.5
5	159	WS5: 30deg	Combination	25.8957412	-4.050823869	-2.26830436	13.92229418	-54.563543	506.6524948	5-1	159
5	0	WS5: 15deg	Combination	26.58825275	-4.05293631	-2.26830436	13.92229418	-415.2239362	-137.4717455	5-1	0
5	79.5	WS5: 15deg	Combination	26.01108275	-4.05293631	-2.26830436	13.92229418	-234.8937396	184.7366911	5-1	79.5
5	159	WS5: 15deg	Combination	25.43391275	-4.05293631	-2.26830436	13.92229418	-54.563543	506.9451277	5-1	159
5	0	WS5: 0deg	Combination	26.85060148	-4.048123865	-2.26830436	13.92229418	-415.2239362	-137.3522019	5-1	0
5	79.5	WS5: 0deg	Combination	26.46582148	-4.048123865	-2.26830436	13.92229418	-234.8937396	184.4736453	5-1	79.5
5	159	WS5: 0deg	Combination	26.08104148	-4.048123865	-2.26830436	13.92229418	-54.563543	506.2994926	5-1	159
5	0	WS5: -15deg	Combination	27.02249807	-4.037494267	-2.26830436	13.92229418	-415.2239362	-137.0428512	5-1	0
5	79.5	WS5: -15deg	Combination	26.83010807	-4.037494267	-2.26830436	13.92229418	-234.8937396	183.937943	5-1	79.5
5	159	WS5: -15deg	Combination	26.63771807	-4.037494267	-2.26830436	13.92229418	-54.563543	504.9187372	5-1	159
5	0	WS5: -30deg	Combination	27.13181619	-4.0218055	-2.26830436	13.92229418	-415.2239362	-136.57259	5-1	0
5	79.5	WS5: -30deg	Combination	27.16388119	-4.0218055	-2.26830436	13.92229418	-234.8937396	183.1609472	5-1	79.5
5	159	WS5: -30deg	Combination	27.19594619	-4.0218055	-2.26830436	13.92229418	-54.563543	502.8944845	5-1	159
5	0	WS5: -45deg	Combination	27.05764416	-4.002914375	-2.26830436	13.92229418	-415.2239362	-135.9908986	5-1	0
5	79.5	WS5: -45deg	Combination	27.31416416	-4.002914375	-2.26830436	13.92229418	-234.8937396	182.2407941	5-1	79.5
5	159	WS5: -45deg	Combination	27.57068416	-4.002914375	-2.26830436	13.92229418	-54.563543	500.4724869	5-1	159
5	0	LL - 1 Lane	Combination	-2.348473847	-5.611326198	-6.042398735	37.08675706	-1106.089919	-203.5113926	5-1	0
5	79.5	LL - 1 Lane	Combination	-2.348473847	-5.611326198	-6.042398735	37.08675706	-625.7192201	242.5890401	5-1	79.5
5	159	LL - 1 Lane	Combination	-2.348473847	-5.611326198	-6.042398735	37.08675706	-145.3485207	688.6894728	5-1	159
5	0	WS5 + WA	Combination	28.81431946	-3.96279968	-2.26830436	13.92229418	-415.2239362	-134.6000985	5-1	0
5	79.5	WS5 + WA	Combination	27.09181946	-3.96279968	-2.26830436	13.92229418	-234.8937396	180.442476	5-1	79.5
5	159	WS5 + WA	Combination	25.36931946	-3.96279968	-2.26830436	13.92229418	-54.563543	495.4850506	5-1	159
5	0	LL - 2 Lane	Combination	-3.343088305	-9.412019659	-10.06392833	61.76991644	-1842.2501	-335.4164768	5-1	0
5	79.5	LL - 2 Lane	Combination	-3.343088305	-9.412019659	-10.06392833	61.76991644	-1042.167798	412.8390861	5-1	79.5
5	159	LL - 2 Lane	Combination	-3.343088305	-9.412019659	-10.06392833	61.76991644	-242.085496	1161.094649	5-1	159
5	0	LL - 3 Lane	Combination	-15.54809098	-12.1702876	-12.83251905	78.76284526	-2349.053842	-422.0436564	5-1	0
5	79.5	LL - 3 Lane	Combination	-15.54809098	-12.1702876	-12.83251905	78.76284526	-1328.868578	545.4942079	5-1	79.5
5	159	LL - 3 Lane	Combination	-15.54809098	-12.1702876	-12.83251905	78.76284526	-308.6833132	1513.032072	5-1	159
5	0	LL - 7 Lane	Combination	-124.1710374	-22.51999335	-22.87623869	140.4087257	-4187.604645	-723.8952178	5-1	0
5	79.5	LL - 7 Lane	Combination	-124.1710374	-22.51999335	-22.87623869	140.4087257	-2368.943669	1066.444253	5-1	79.5
5	159	LL - 7 Lane	Combination	-124.1710374	-22.51999335	-22.87623869	140.4087257	-550.2826938	2856.783724	5-1	159
5	0	LL Envelope	Combination Max	-2.348473847	-5.611326198	-6.042398735	140.4087257	-1106.089919	-203.5113926	5-1	0
5	79.5	LL Envelope	Combination Max	-2.348473847	-5.611326198	-6.042398735	140.4087257	-625.7192201	1066.444253	5-1	79.5
5	159	LL Envelope	Combination Max	-2.348473847	-5.611326198	-6.042398735	140.4087257	-145.3485207	2856.783724	5-1	159
5	0	LL Envelope	Combination Min	-124.1710374	-22.51999335	-22.87623869	37.08675706	-4187.604645	-723.8952178	5-1	0
5	79.5	LL Envelope	Combination Min	-124.1710374	-22.51999335	-22.87623869	37.08675706	-2368.943669	242.5890401	5-1	79.5
5	159	LL Envelope	Combination Min	-124.1710374	-22.51999335	-22.87623869	37.08675706	-550.2826938	688.6894728	5-1	159
5	0	WS3 & WA envelope	Combination Max	57.28089522	-1.997459259	-1.054287431	17.48907273	-192.9923448	-69.69030165	5-1	0
5	79.5	WS3 & WA envelope	Combination Max	55.55839522	-1.997459259	-1.054287431	17.48907273	-109.176494	244.0873163	5-1	79.5
5	159	WS3 & WA envelope	Combination Max	55.37317946	-1.997459259	-1.054287431	17.48907273	-25.36064323	678.3845585	5-1	159

5	0	WS3 & WA envelope	Combination	Min	20.4390514	-5.462858393	-2.84942549	6.470956909	-521.6009319	-190.2099259	5-1	0
5	79.5	WS3 & WA envelope	Combination	Min	20.4635639	-5.462858393	-2.84942549	6.470956909	-295.0716055	89.10770944	5-1	79.5
5	159	WS3 & WA envelope	Combination	Min	20.4880764	-5.462858393	-2.84942549	6.470956909	-68.54227899	247.9057205	5-1	159
5	0	WS3 + WA	Combination		55.04415728	-5.276625686	-2.84942549	17.48907273	-521.6009319	-184.2767709	5-1	0
5	79.5	WS3 + WA	Combination		53.32165728	-5.276625686	-2.84942549	17.48907273	-295.0716055	235.2149711	5-1	79.5
5	159	WS3 + WA	Combination		51.59915728	-5.276625686	-2.84942549	17.48907273	-68.54227899	654.7067132	5-1	159
5	0	WS5 & WA envelope	Combination	Max	28.81431946	-3.96279968	-2.26830436	13.92229418	-415.2239362	-134.6000985	5-1	0
5	79.5	WS5 & WA envelope	Combination	Max	27.31416416	-3.96279968	-2.26830436	13.92229418	-234.8937396	184.7366911	5-1	79.5
5	159	WS5 & WA envelope	Combination	Max	27.57068416	-3.96279968	-2.26830436	13.92229418	-54.563543	506.9451277	5-1	159
5	0	WS5 & WA envelope	Combination	Min	26.58825275	-4.05293631	-2.26830436	13.92229418	-415.2239362	-137.4717455	5-1	0
5	79.5	WS5 & WA envelope	Combination	Min	26.01108275	-4.05293631	-2.26830436	13.92229418	-234.8937396	180.442476	5-1	79.5
5	159	WS5 & WA envelope	Combination	Min	25.36931946	-4.05293631	-2.26830436	13.92229418	-54.563543	495.4850506	5-1	159
5	0	Strength 1 - Max	Combination	Max	-690.1196839	-10.98017585	-10.57419779	245.71527	-1935.657359	-348.3511218	5-1	0
5	79.5	Strength 1 - Max	Combination	Max	-681.5372844	-10.98017585	-10.57419779	245.71527	-1095.008635	1966.319481	5-1	79.5
5	159	Strength 1 - Max	Combination	Max	-672.954885	-10.98017585	-10.57419779	245.71527	-254.3599112	5191.661779	5-1	159
5	0	Strength 1 - Max	Combination	Min	-903.3091701	-40.57034336	-40.0334177	64.90182486	-7328.308129	-1259.022816	5-1	0
5	79.5	Strength 1 - Max	Combination	Min	-894.7267707	-40.57034336	-40.0334177	64.90182486	-4145.651421	524.5728584	5-1	79.5
5	159	Strength 1 - Max	Combination	Min	-886.1443713	-40.57034336	-40.0334177	64.90182486	-962.9947141	1397.496839	5-1	159
5	0	Strength 1 - Min	Combination	Max	-471.6927782	-10.60158743	-10.57419779	245.71527	-1935.657359	-350.9009799	5-1	0
5	79.5	Strength 1 - Min	Combination	Max	-465.9957506	-10.60158743	-10.57419779	245.71527	-1095.008635	1933.671844	5-1	79.5
5	159	Strength 1 - Min	Combination	Max	-460.298723	-10.60158743	-10.57419779	245.71527	-254.3599112	5128.916361	5-1	159
5	0	Strength 1 - Min	Combination	Min	-684.8822645	-40.19175494	-40.0334177	64.90182486	-7328.308129	-1261.572674	5-1	0
5	79.5	Strength 1 - Min	Combination	Min	-679.1852369	-40.19175494	-40.0334177	64.90182486	-4145.651421	491.9252206	5-1	79.5
5	159	Strength 1 - Min	Combination	Min	-673.4882093	-40.19175494	-40.0334177	64.90182486	-962.9947141	1334.751421	5-1	159
5	0	Strength 3 - Max	Combination	Max	-632.1739594	-3.157814266	-1.054287431	17.48907273	-192.9923448	-61.89648649	5-1	0
5	79.5	Strength 3 - Max	Combination	Max	-623.59156	-3.157814266	-1.054287431	17.48907273	-109.176494	344.1293545	5-1	79.5
5	159	Strength 3 - Max	Combination	Max	-613.4718763	-3.157814266	-1.054287431	17.48907273	-25.36064323	870.6748198	5-1	159
5	0	Strength 3 - Max	Combination	Min	-669.0158032	-6.6232134	-2.84942549	6.470956909	-521.6009319	-182.4161107	5-1	0
5	79.5	Strength 3 - Max	Combination	Min	-658.6863913	-6.6232134	-2.84942549	6.470956909	-295.0716055	189.1497477	5-1	79.5
5	159	Strength 3 - Max	Combination	Min	-648.3569794	-6.6232134	-2.84942549	6.470956909	-68.54227899	440.1959818	5-1	159
5	0	Strength 3 - Min	Combination	Max	-413.7470537	-2.779225841	-1.054287431	17.48907273	-192.9923448	-64.44634452	5-1	0
5	79.5	Strength 3 - Min	Combination	Max	-408.0500261	-2.779225841	-1.054287431	17.48907273	-109.176494	311.4817167	5-1	79.5
5	159	Strength 3 - Min	Combination	Max	-400.8157143	-2.779225841	-1.054287431	17.48907273	-25.36064323	807.9294022	5-1	159
5	0	Strength 3 - Min	Combination	Min	-450.5888976	-6.244624975	-2.84942549	6.470956909	-521.6009319	-184.9659688	5-1	0
5	79.5	Strength 3 - Min	Combination	Min	-443.1448575	-6.244624975	-2.84942549	6.470956909	-295.0716055	156.5021099	5-1	79.5
5	159	Strength 3 - Min	Combination	Min	-435.7008174	-6.244624975	-2.84942549	6.470956909	-68.54227899	377.4505642	5-1	159
5	0	Strength 5 - Max	Combination	Max	-663.8109749	-12.69844505	-10.42554265	203.4740739	-1908.445328	-401.5466633	5-1	0
5	79.5	Strength 5 - Max	Combination	Max	-655.0062307	-12.69844505	-10.42554265	203.4740739	-1079.614687	1724.478471	5-1	79.5
5	159	Strength 5 - Max	Combination	Max	-644.4448113	-12.69844505	-10.42554265	203.4740739	-250.7840459	4555.893417	5-1	159
5	0	Strength 5 - Max	Combination	Min	-830.4975024	-35.61528233	-33.15122659	63.98941621	-6068.490207	-1106.936474	5-1	0
5	79.5	Strength 5 - Max	Combination	Min	-820.769773	-35.61528233	-33.15122659	63.98941621	-3432.967693	607.9797184	5-1	79.5
5	159	Strength 5 - Max	Combination	Min	-811.1066368	-35.61528233	-33.15122659	63.98941621	-797.4451796	1617.5061	5-1	159

5	0	Strength 5 - Min	Combination	Max	-445.3840692	-12.31985663	-10.42554265	203.4740739	-1908.445328	-404.0965214	5-1	0
5	79.5	Strength 5 - Min	Combination	Max	-439.4646969	-12.31985663	-10.42554265	203.4740739	-1079.614687	1691.830833	5-1	79.5
5	159	Strength 5 - Min	Combination	Max	-431.7886493	-12.31985663	-10.42554265	203.4740739	-250.7840459	4493.147999	5-1	159
5	0	Strength 5 - Min	Combination	Min	-612.0705967	-35.23669391	-33.15122659	63.98941621	-6068.490207	-1109.486332	5-1	0
5	79.5	Strength 5 - Min	Combination	Min	-605.2282391	-35.23669391	-33.15122659	63.98941621	-3432.967693	575.3320806	5-1	79.5
5	159	Strength 5 - Min	Combination	Min	-598.4504748	-35.23669391	-33.15122659	63.98941621	-797.4451796	1554.760683	5-1	159
5	0	Service 1	Combination	Max	-519.5712292	-8.466990069	-7.096686166	146.8796826	-1299.082264	-265.6297177	5-1	0
5	79.5	Service 1	Combination	Max	-513.0498096	-8.466990069	-7.096686166	146.8796826	-734.8957141	1234.633974	5-1	79.5
5	159	Service 1	Combination	Max	-505.1320019	-8.466990069	-7.096686166	146.8796826	-170.7091639	3257.476757	5-1	159
5	0	Service 1	Combination	Min	-643.9069636	-25.44456332	-23.93052612	43.55771397	-4380.59699	-788.2088103	5-1	0
5	79.5	Service 1	Combination	Min	-636.104269	-25.44456332	-23.93052612	43.55771397	-2478.120163	407.4959928	5-1	79.5
5	159	Service 1	Combination	Min	-628.3509537	-25.44456332	-23.93052612	43.55771397	-575.643337	1080.621703	5-1	159
5	0	WServ1: 45deg	Combination		21.19393123	-2.012805973	-1.054287431	6.470956909	-192.9923448	-70.14912951	5-1	0
5	79.5	WServ1: 45deg	Combination		20.55660623	-2.012805973	-1.054287431	6.470956909	-109.176494	89.86894533	5-1	79.5
5	159	WServ1: 45deg	Combination		19.91928123	-2.012805973	-1.054287431	6.470956909	-25.36064323	249.8870202	5-1	159
5	0	WServ1: 30deg	Combination		20.62169304	-2.019642723	-1.054287431	6.470956909	-192.9923448	-70.34461331	5-1	0
5	79.5	WServ1: 30deg	Combination		20.05790554	-2.019642723	-1.054287431	6.470956909	-109.176494	90.21698318	5-1	79.5
5	159	WServ1: 30deg	Combination		19.49411804	-2.019642723	-1.054287431	6.470956909	-25.36064323	250.7785797	5-1	159
5	0	WServ1: 15deg	Combination		20.02351737	-2.021257605	-1.054287431	6.470956909	-192.9923448	-70.37767258	5-1	0
5	79.5	WServ1: 15deg	Combination		19.58229237	-2.021257605	-1.054287431	6.470956909	-109.176494	90.31230704	5-1	79.5
5	159	WServ1: 15deg	Combination		19.14106737	-2.021257605	-1.054287431	6.470956909	-25.36064323	251.0022867	5-1	159
5	0	WServ1: 0deg	Combination		20.22407321	-2.01757867	-1.054287431	6.470956909	-192.9923448	-70.28628594	5-1	0
5	79.5	WServ1: 0deg	Combination		19.92992321	-2.01757867	-1.054287431	6.470956909	-109.176494	90.11121834	5-1	79.5
5	159	WServ1: 0deg	Combination		19.63577321	-2.01757867	-1.054287431	6.470956909	-25.36064323	250.5087226	5-1	159
5	0	WServ1: -15deg	Combination		20.35548176	-2.009452738	-1.054287431	6.470956909	-192.9923448	-70.0497988	5-1	0
5	79.5	WServ1: -15deg	Combination		20.20840676	-2.009452738	-1.054287431	6.470956909	-109.176494	89.70169385	5-1	79.5
5	159	WServ1: -15deg	Combination		20.06133176	-2.009452738	-1.054287431	6.470956909	-25.36064323	249.4531865	5-1	159
5	0	WServ1: -30deg	Combination		20.4390514	-1.997459259	-1.054287431	6.470956909	-192.9923448	-69.69030165	5-1	0
5	79.5	WServ1: -30deg	Combination		20.4635639	-1.997459259	-1.054287431	6.470956909	-109.176494	89.10770944	5-1	79.5
5	159	WServ1: -30deg	Combination		20.4880764	-1.997459259	-1.054287431	6.470956909	-25.36064323	247.9057205	5-1	159
5	0	WServ1 + WA	Combination		22.53668819	-1.952351504	-1.054287431	6.470956909	-192.9923448	-68.18240524	5-1	0
5	79.5	WServ1 + WA	Combination		20.81418819	-1.952351504	-1.054287431	6.470956909	-109.176494	87.02953932	5-1	79.5
5	159	WServ1 + WA	Combination		19.09168819	-1.952351504	-1.054287431	6.470956909	-25.36064323	242.2414839	5-1	159
5	0	WServ1 & WA envelope	Combination	Max	22.53668819	-1.952351504	-1.054287431	6.470956909	-192.9923448	-68.18240524	5-1	0
5	79.5	WServ1 & WA envelope	Combination	Max	20.81418819	-1.952351504	-1.054287431	6.470956909	-109.176494	90.31230704	5-1	79.5
5	159	WServ1 & WA envelope	Combination	Max	20.4880764	-1.952351504	-1.054287431	6.470956909	-25.36064323	251.0022867	5-1	159
5	0	WServ1 & WA envelope	Combination	Min	20.02351737	-2.021257605	-1.054287431	6.470956909	-192.9923448	-70.37767258	5-1	0
5	79.5	WServ1 & WA envelope	Combination	Min	19.58229237	-2.021257605	-1.054287431	6.470956909	-109.176494	87.02953932	5-1	79.5
5	159	WServ1 & WA envelope	Combination	Min	19.09168819	-2.021257605	-1.054287431	6.470956909	-25.36064323	242.2414839	5-1	159
5	0	Strength Envelope	Combination	Max	-413.7470537	-2.779225841	-1.054287431	245.71527	-192.9923448	-61.89648649	5-1	0
5	79.5	Strength Envelope	Combination	Max	-408.0500261	-2.779225841	-1.054287431	245.71527	-109.176494	1966.319481	5-1	79.5
5	159	Strength Envelope	Combination	Max	-400.8157143	-2.779225841	-1.054287431	245.71527	-25.36064323	5191.661779	5-1	159

5	0	Strength Envelope	Combination Min	-903.3091701	-40.57034336	-40.0334177	6.470956909	-7328.308129	-1261.572674	5-1	0
5	79.5	Strength Envelope	Combination Min	-894.7267707	-40.57034336	-40.0334177	6.470956909	-4145.651421	156.5021099	5-1	79.5
5	159	Strength Envelope	Combination Min	-886.1443713	-40.57034336	-40.0334177	6.470956909	-962.9947141	377.4505642	5-1	159
6	0	DEAD	LinStatic	-46.04845286	0.73019507	0	0	0	-23.37374717	6-1	0
6	79.5	DEAD	LinStatic	-37.80453331	0.73019507	0	0	0	-81.4242552	6-1	79.5
6	159	DEAD	LinStatic	-29.56061376	0.73019507	0	0	0	-139.4747632	6-1	159
6	0	R01_Z	LinStatic	-0.002788846	0.003034235	0	0	0	0.109525153	6-1	0
6	79.5	R01_Z	LinStatic	-0.002788846	0.003034235	0	0	0	-0.131696509	6-1	79.5
6	159	R01_Z	LinStatic	-0.002788846	0.003034235	0	0	0	-0.372918172	6-1	159
6	0	R02_Z	LinStatic	0.001376245	-0.001622933	0	0	0	-0.058536946	6-1	0
6	79.5	R02_Z	LinStatic	0.001376245	-0.001622933	0	0	0	0.070486209	6-1	79.5
6	159	R02_Z	LinStatic	0.001376245	-0.001622933	0	0	0	0.199509365	6-1	159
6	0	R03_Z	LinStatic	0.000335336	-0.00032049	0	0	0	-0.010700513	6-1	0
6	79.5	R03_Z	LinStatic	0.000335336	-0.00032049	0	0	0	0.014778431	6-1	79.5
6	159	R03_Z	LinStatic	0.000335336	-0.00032049	0	0	0	0.040257375	6-1	159
6	0	R04_Z	LinStatic	0.001460592	-0.000842276	0	0	0	-0.027531308	6-1	0
6	79.5	R04_Z	LinStatic	0.001460592	-0.000842276	0	0	0	0.039429595	6-1	79.5
6	159	R04_Z	LinStatic	0.001460592	-0.000842276	0	0	0	0.106390498	6-1	159
6	0	R05_Z	LinStatic	0.000750947	0.000721657	0	0	0	0.027145866	6-1	0
6	79.5	R05_Z	LinStatic	0.000750947	0.000721657	0	0	0	-0.030225857	6-1	79.5
6	159	R05_Z	LinStatic	0.000750947	0.000721657	0	0	0	-0.087597579	6-1	159
6	0	R06_Z	LinStatic	0.001762761	-0.000461578	0	0	0	-0.031006278	6-1	0
6	79.5	R06_Z	LinStatic	0.001762761	-0.000461578	0	0	0	0.005689185	6-1	79.5
6	159	R06_Z	LinStatic	0.001762761	-0.000461578	0	0	0	0.042384647	6-1	159
6	0	R07_Z	LinStatic	-0.006391108	0.001185629	0	0	0	0.002508675	6-1	0
6	79.5	R07_Z	LinStatic	-0.006391108	0.001185629	0	0	0	-0.091748848	6-1	79.5
6	159	R07_Z	LinStatic	-0.006391108	0.001185629	0	0	0	-0.18600637	6-1	159
6	0	R08_Z	LinStatic	-0.03264929	0.000286046	0	0	0	-0.05150058	6-1	0
6	79.5	R08_Z	LinStatic	-0.03264929	0.000286046	0	0	0	-0.074241247	6-1	79.5
6	159	R08_Z	LinStatic	-0.03264929	0.000286046	0	0	0	-0.096981914	6-1	159
6	0	R09_Z	LinStatic	-0.052394122	-0.00031927	0	0	0	0.043622718	6-1	0
6	79.5	R09_Z	LinStatic	-0.052394122	-0.00031927	0	0	0	0.069004703	6-1	79.5
6	159	R09_Z	LinStatic	-0.052394122	-0.00031927	0	0	0	0.094386688	6-1	159
6	0	R10_Z	LinStatic	0.071199105	-0.010295131	0	0	0	0.355215263	6-1	0
6	79.5	R10_Z	LinStatic	0.071199105	-0.010295131	0	0	0	1.173678157	6-1	79.5
6	159	R10_Z	LinStatic	0.071199105	-0.010295131	0	0	0	1.99214105	6-1	159
6	0	R11_Z	LinStatic	0.44937151	-0.025278901	0	0	0	0.898911687	6-1	0
6	79.5	R11_Z	LinStatic	0.44937151	-0.025278901	0	0	0	2.908584353	6-1	79.5
6	159	R11_Z	LinStatic	0.44937151	-0.025278901	0	0	0	4.918257018	6-1	159
6	0	R12_Z	LinStatic	0.928766455	0.000107138	0	0	0	-0.070243661	6-1	0
6	79.5	R12_Z	LinStatic	0.928766455	0.000107138	0	0	0	-0.078761119	6-1	79.5
6	159	R12_Z	LinStatic	0.928766455	0.000107138	0	0	0	-0.087278577	6-1	159

6	0	R_X	LinStatic	-2.056691948	1.906543344	0	0	0	69.87643967	6-1	0
6	79.5	R_X	LinStatic	-2.056691948	1.906543344	0	0	0	-81.69375616	6-1	79.5
6	159	R_X	LinStatic	-2.056691948	1.906543344	0	0	0	-233.263952	6-1	159
6	0	R_Y	LinStatic	0	0	1.674185613	-18.79055085	348.1296951	0	6-1	0
6	79.5	R_Y	LinStatic	0	0	1.674185613	-18.79055085	215.0319389	0	6-1	79.5
6	159	R_Y	LinStatic	0	0	1.674185613	-18.79055085	81.9341827	0	6-1	159
6	0	Cap_R_X	LinStatic	-0.150707623	0.166888496	0	0	0	6.036356705	6-1	0
6	79.5	Cap_R_X	LinStatic	-0.150707623	0.166888496	0	0	0	-7.231278739	6-1	79.5
6	159	Cap_R_X	LinStatic	-0.150707623	0.166888496	0	0	0	-20.49891418	6-1	159
6	0	Cap_w_Y	LinStatic	-10.94837546	0.270442618	0	0	0	-8.656943394	6-1	0
6	79.5	Cap_w_Y	LinStatic	-10.94837546	0.270442618	0	0	0	-30.15713155	6-1	79.5
6	159	Cap_w_Y	LinStatic	-10.94837546	0.270442618	0	0	0	-51.65731972	6-1	159
6	0	Cap_w_Z	LinStatic	-10.94837546	0.270442618	0	0	0	-8.656943394	6-1	0
6	79.5	Cap_w_Z	LinStatic	-10.94837546	0.270442618	0	0	0	-30.15713155	6-1	79.5
6	159	Cap_w_Z	LinStatic	-10.94837546	0.270442618	0	0	0	-51.65731972	6-1	159
6	0	Col_w_X	LinStatic	-13.25	-6.34459E-16	0	0	0	2.3916E-14	6-1	0
6	79.5	Col_w_X	LinStatic	-6.625	-6.34459E-16	0	0	0	7.43555E-14	6-1	79.5
6	159	Col_w_X	LinStatic	-6.6093E-14	-6.34459E-16	0	0	0	1.24795E-13	6-1	159
6	0	Col_w_Y	LinStatic	-13.25	-6.34459E-16	0	0	0	2.3916E-14	6-1	0
6	79.5	Col_w_Y	LinStatic	-6.625	-6.34459E-16	0	0	0	7.43555E-14	6-1	79.5
6	159	Col_w_Y	LinStatic	-6.6093E-14	-6.34459E-16	0	0	0	1.24795E-13	6-1	159
6	0	Cais_w_X	LinStatic	-1.95399E-14	-1.83276E-16	0	0	0	6.93461E-15	6-1	0
6	79.5	Cais_w_X	LinStatic	-1.95399E-14	-1.83276E-16	0	0	0	2.1505E-14	6-1	79.5
6	159	Cais_w_X	LinStatic	-1.95399E-14	-1.83276E-16	0	0	0	3.60755E-14	6-1	159
6	0	Cais_w_Y	LinStatic	-1.95399E-14	-1.83276E-16	0	0	0	6.93461E-15	6-1	0
6	79.5	Cais_w_Y	LinStatic	-1.95399E-14	-1.83276E-16	0	0	0	2.1505E-14	6-1	79.5
6	159	Cais_w_Y	LinStatic	-1.95399E-14	-1.83276E-16	0	0	0	3.60755E-14	6-1	159
6	0	DC	LinStatic	-224.4769687	6.069962083	0	0	0	-210.38027	6-1	0
6	79.5	DC	LinStatic	-224.4769687	6.069962083	0	0	0	-692.9422556	6-1	79.5
6	159	DC	LinStatic	-224.4769687	6.069962083	0	0	0	-1175.504241	6-1	159
6	0	DW	LinStatic	-34.4418375	0.855626669	0	0	0	-30.05334906	6-1	0
6	79.5	DW	LinStatic	-34.4418375	0.855626669	0	0	0	-98.07566923	6-1	79.5
6	159	DW	LinStatic	-34.4418375	0.855626669	0	0	0	-166.0979894	6-1	159
6	0	WS3	LinStatic	43.86551353	-6.0301805	-2.360601714	26.49467669	-490.8628701	-160.1023031	6-1	0
6	79.5	WS3	LinStatic	43.86551353	-6.0301805	-2.360601714	26.49467669	-303.1950339	319.2970467	6-1	79.5
6	159	WS3	LinStatic	43.86551353	-6.0301805	-2.360601714	26.49467669	-115.5271976	798.6963964	6-1	159
6	0	WL5	LinStatic	2.138991641	-1.331113351	-0.73664167	8.267842372	-153.1770659	-47.74702653	6-1	0
6	79.5	WL5	LinStatic	2.138991641	-1.331113351	-0.73664167	8.267842372	-94.61405312	58.07648485	6-1	79.5
6	159	WL5	LinStatic	2.138991641	-1.331113351	-0.73664167	8.267842372	-36.05104039	163.8999962	6-1	159
6	0	PL	LinStatic	-11.38989253	0.282955165	0	0	0	-9.938622347	6-1	0
6	79.5	PL	LinStatic	-11.38989253	0.282955165	0	0	0	-32.43355794	6-1	79.5
6	159	PL	LinStatic	-11.38989253	0.282955165	0	0	0	-54.92849353	6-1	159

6	0	LL-1 Lane	LinStatic	23.87206954	-0.453848229	0	0	0	11.05393793	6-1	0
6	79.5	LL-1 Lane	LinStatic	23.87206954	-0.453848229	0	0	0	47.13487212	6-1	79.5
6	159	LL-1 Lane	LinStatic	23.87206954	-0.453848229	0	0	0	83.2158063	6-1	159
6	0	LL-2 Lane	LinStatic	28.9469251	-0.521296198	0	0	0	11.36942185	6-1	0
6	79.5	LL-2 Lane	LinStatic	28.9469251	-0.521296198	0	0	0	52.8124696	6-1	79.5
6	159	LL-2 Lane	LinStatic	28.9469251	-0.521296198	0	0	0	94.25551734	6-1	159
6	0	LL-3 Lane	LinStatic	23.08653159	-0.365205739	0	0	0	5.517579461	6-1	0
6	79.5	LL-3 Lane	LinStatic	23.08653159	-0.365205739	0	0	0	34.55143569	6-1	79.5
6	159	LL-3 Lane	LinStatic	23.08653159	-0.365205739	0	0	0	63.58529191	6-1	159
6	0	LL-7 Lane	LinStatic	-57.42506011	1.485332852	0	0	0	-54.23071243	6-1	0
6	79.5	LL-7 Lane	LinStatic	-57.42506011	1.485332852	0	0	0	-172.3146741	6-1	79.5
6	159	LL-7 Lane	LinStatic	-57.42506011	1.485332852	0	0	0	-290.3986359	6-1	159
6	0	CE-1 Lane	LinStatic	6.983293468	-4.173267867	-1.138446217	12.77757457	-236.7281927	-149.2788167	6-1	0
6	79.5	CE-1 Lane	LinStatic	6.983293468	-4.173267867	-1.138446217	12.77757457	-146.2217185	182.4959788	6-1	79.5
6	159	CE-1 Lane	LinStatic	6.983293468	-4.173267867	-1.138446217	12.77757457	-55.71524424	514.2707742	6-1	159
6	0	CE-2 Lane	LinStatic	11.64457375	-6.955412738	-1.908571599	21.42122796	-396.8678525	-248.8015015	6-1	0
6	79.5	CE-2 Lane	LinStatic	11.64457375	-6.955412738	-1.908571599	21.42122796	-245.1364104	304.1538112	6-1	79.5
6	159	CE-2 Lane	LinStatic	11.64457375	-6.955412738	-1.908571599	21.42122796	-93.40496828	857.1091239	6-1	159
6	0	CE-3 Lane	LinStatic	7.176552105	-8.870062305	-2.427569139	27.24629873	-504.788058	-316.6705629	6-1	0
6	79.5	CE-3 Lane	LinStatic	7.176552105	-8.870062305	-2.427569139	27.24629873	-311.7963114	388.4993903	6-1	79.5
6	159	CE-3 Lane	LinStatic	7.176552105	-8.870062305	-2.427569139	27.24629873	-118.8045649	1093.669344	6-1	159
6	0	CE-7 Lane	LinStatic	26.48130574	-15.82357986	-4.319398881	48.47962118	-898.1746135	-566.0188375	6-1	0
6	79.5	CE-7 Lane	LinStatic	26.48130574	-15.82357986	-4.319398881	48.47962118	-554.7824024	691.9557611	6-1	79.5
6	159	CE-7 Lane	LinStatic	26.48130574	-15.82357986	-4.319398881	48.47962118	-211.3901914	1949.93036	6-1	159
6	0	BR-1 Lane	LinStatic	1.501385122	-1.391776641	-3.867368766	43.40617245	-804.1795958	-51.00980096	6-1	0
6	79.5	BR-1 Lane	LinStatic	1.501385122	-1.391776641	-3.867368766	43.40617245	-496.7237789	59.636442	6-1	79.5
6	159	BR-1 Lane	LinStatic	1.501385122	-1.391776641	-3.867368766	43.40617245	-189.267962	170.282685	6-1	159
6	0	BR-2 Lane	LinStatic	2.488597257	-2.306917446	-6.428872753	72.15571525	-1336.818029	-84.550492	6-1	0
6	79.5	BR-2 Lane	LinStatic	2.488597257	-2.306917446	-6.428872753	72.15571525	-825.7226455	98.84944495	6-1	79.5
6	159	BR-2 Lane	LinStatic	2.488597257	-2.306917446	-6.428872753	72.15571525	-314.6272616	282.2493819	6-1	159
6	0	BR-3 Lane	LinStatic	3.187872519	-2.955142183	-8.203509503	92.07369914	-1705.835506	-108.3084815	6-1	0
6	79.5	BR-3 Lane	LinStatic	3.187872519	-2.955142183	-8.203509503	92.07369914	-1053.656501	126.625322	6-1	79.5
6	159	BR-3 Lane	LinStatic	3.187872519	-2.955142183	-8.203509503	92.07369914	-401.4774952	361.5591256	6-1	159
6	0	BR-7 Lane	LinStatic	5.676469776	-5.262059629	-14.63238226	164.2294144	-3042.653536	-192.8589735	6-1	0
6	79.5	BR-7 Lane	LinStatic	5.676469776	-5.262059629	-14.63238226	164.2294144	-1879.379146	225.474767	6-1	79.5
6	159	BR-7 Lane	LinStatic	5.676469776	-5.262059629	-14.63238226	164.2294144	-716.1047568	643.8085075	6-1	159
6	0	WSub3: 45deg	LinStatic	4.901977297	-0.190997186	0	0	0	-4.695705663	6-1	0
6	79.5	WSub3: 45deg	LinStatic	3.179477297	-0.190997186	0	0	0	10.48857059	6-1	79.5
6	159	WSub3: 45deg	LinStatic	1.456977297	-0.190997186	0	0	0	25.67284684	6-1	159
6	0	WSub3: 30deg	LinStatic	3.862645532	-0.191459478	0	0	0	-5.818757937	6-1	0
6	79.5	WSub3: 30deg	LinStatic	2.338895532	-0.191459478	0	0	0	9.402270569	6-1	79.5
6	159	WSub3: 30deg	LinStatic	0.815145532	-0.191459478	0	0	0	24.62329907	6-1	159

6	0	WSub3: 15deg	LinStatic	2.65574091	-0.181275117	0	0	0	-6.372332241	6-1	0
6	79.5	WSub3: 15deg	LinStatic	1.46324091	-0.181275117	0	0	0	8.039039566	6-1	79.5
6	159	WSub3: 15deg	LinStatic	0.27074091	-0.181275117	0	0	0	22.45041137	6-1	159
6	0	WSub3: 0deg	LinStatic	2.619591813	-0.191861676	0	0	0	-5.464528368	6-1	0
6	79.5	WSub3: 0deg	LinStatic	1.824591813	-0.191861676	0	0	0	9.788474838	6-1	79.5
6	159	WSub3: 0deg	LinStatic	1.029591813	-0.191861676	0	0	0	25.04147804	6-1	159
6	0	WSub3: -15deg	LinStatic	2.463409426	-0.188061613	0	0	0	-4.220748959	6-1	0
6	79.5	WSub3: -15deg	LinStatic	2.065909426	-0.188061613	0	0	0	10.73014928	6-1	79.5
6	159	WSub3: -15deg	LinStatic	1.668409426	-0.188061613	0	0	0	25.68104752	6-1	159
6	0	WSub3: -30deg	LinStatic	2.165684581	-0.174248241	0	0	0	-2.614788149	6-1	0
6	79.5	WSub3: -30deg	LinStatic	2.231934581	-0.174248241	0	0	0	11.237947	6-1	79.5
6	159	WSub3: -30deg	LinStatic	2.298184581	-0.174248241	0	0	0	25.09068215	6-1	159
6	0	WSub3: -45deg	LinStatic	1.642963923	-0.148350476	0	0	0	-0.940511938	6-1	0
6	79.5	WSub3: -45deg	LinStatic	2.172963923	-0.148350476	0	0	0	10.85335094	6-1	79.5
6	159	WSub3: -45deg	LinStatic	2.702963923	-0.148350476	0	0	0	22.64721382	6-1	159
6	0	WA	LinStatic	3.445	2.33283E-16	0	0	0	-8.8252E-15	6-1	0
6	79.5	WA	LinStatic	1.7225	2.33283E-16	0	0	0	-2.73712E-14	6-1	79.5
6	159	WA	LinStatic	2.31759E-14	2.33283E-16	0	0	0	-4.59171E-14	6-1	159
6	0	WS3: 45deg	Combination	48.76749083	-6.221177686	-2.360601714	26.49467669	-490.8628701	-164.7980088	6-1	0
6	79.5	WS3: 45deg	Combination	47.04499083	-6.221177686	-2.360601714	26.49467669	-303.1950339	329.7856172	6-1	79.5
6	159	WS3: 45deg	Combination	45.32249083	-6.221177686	-2.360601714	26.49467669	-115.5271976	824.3692432	6-1	159
6	0	WS3: 30deg	Combination	47.72815906	-6.221639978	-2.360601714	26.49467669	-490.8628701	-165.921061	6-1	0
6	79.5	WS3: 30deg	Combination	46.20440906	-6.221639978	-2.360601714	26.49467669	-303.1950339	328.6993172	6-1	79.5
6	159	WS3: 30deg	Combination	44.68065906	-6.221639978	-2.360601714	26.49467669	-115.5271976	823.3196955	6-1	159
6	0	WS3: 15deg	Combination	46.52125444	-6.211455617	-2.360601714	26.49467669	-490.8628701	-166.4746353	6-1	0
6	79.5	WS3: 15deg	Combination	45.32875444	-6.211455617	-2.360601714	26.49467669	-303.1950339	327.3360862	6-1	79.5
6	159	WS3: 15deg	Combination	44.13625444	-6.211455617	-2.360601714	26.49467669	-115.5271976	821.1468078	6-1	159
6	0	WS3: 0deg	Combination	46.48510534	-6.222042176	-2.360601714	26.49467669	-490.8628701	-165.5668315	6-1	0
6	79.5	WS3: 0deg	Combination	45.69010534	-6.222042176	-2.360601714	26.49467669	-303.1950339	329.0855215	6-1	79.5
6	159	WS3: 0deg	Combination	44.89510534	-6.222042176	-2.360601714	26.49467669	-115.5271976	823.7378744	6-1	159
6	0	WS3: -15deg	Combination	46.32892296	-6.218242113	-2.360601714	26.49467669	-490.8628701	-164.3230521	6-1	0
6	79.5	WS3: -15deg	Combination	45.93142296	-6.218242113	-2.360601714	26.49467669	-303.1950339	330.0271959	6-1	79.5
6	159	WS3: -15deg	Combination	45.53392296	-6.218242113	-2.360601714	26.49467669	-115.5271976	824.3774439	6-1	159
6	0	WS3: -30deg	Combination	46.03119811	-6.204428741	-2.360601714	26.49467669	-490.8628701	-162.7170912	6-1	0
6	79.5	WS3: -30deg	Combination	46.09744811	-6.204428741	-2.360601714	26.49467669	-303.1950339	330.5349937	6-1	79.5
6	159	WS3: -30deg	Combination	46.16369811	-6.204428741	-2.360601714	26.49467669	-115.5271976	823.7870786	6-1	159
6	0	WServ1: -45deg	Combination	17.0315433	-2.295638634	-0.873422634	9.803030376	-181.619262	-60.20532376	6-1	0
6	79.5	WServ1: -45deg	Combination	17.0560558	-2.295638634	-0.873422634	9.803030376	-112.1821625	122.2979477	6-1	79.5
6	159	WServ1: -45deg	Combination	17.0805683	-2.295638634	-0.873422634	9.803030376	-42.74506312	304.8012191	6-1	159
6	0	WS5: 45deg	Combination	25.7424572	-4.34216335	-1.879172899	21.09126589	-390.754695	-127.5092628	6-1	0
6	79.5	WS5: 45deg	Combination	24.9087672	-4.34216335	-1.879172899	21.09126589	-241.3604495	217.6927236	6-1	79.5
6	159	WS5: 45deg	Combination	24.0750772	-4.34216335	-1.879172899	21.09126589	-91.96620403	562.89471	6-1	159

6	0	WS5: 30deg	Combination	25.23942063	-4.3423871	-1.879172899	21.09126589	-390.754695	-128.0528201	6-1		0
6	79.5	WS5: 30deg	Combination	24.50192563	-4.3423871	-1.879172899	21.09126589	-241.3604495	217.1669544	6-1		79.5
6	159	WS5: 30deg	Combination	23.76443063	-4.3423871	-1.879172899	21.09126589	-91.96620403	562.3867288	6-1		159
6	0	WS5: 15deg	Combination	24.65527879	-4.337457869	-1.879172899	21.09126589	-390.754695	-128.32075	6-1		0
6	79.5	WS5: 15deg	Combination	24.07810879	-4.337457869	-1.879172899	21.09126589	-241.3604495	216.5071506	6-1		79.5
6	159	WS5: 15deg	Combination	23.50093879	-4.337457869	-1.879172899	21.09126589	-91.96620403	561.3350512	6-1		159
6	0	WS5: 0deg	Combination	24.63778263	-4.342581764	-1.879172899	21.09126589	-390.754695	-127.881373	6-1		0
6	79.5	WS5: 0deg	Combination	24.25300263	-4.342581764	-1.879172899	21.09126589	-241.3604495	217.3538773	6-1		79.5
6	159	WS5: 0deg	Combination	23.86822263	-4.342581764	-1.879172899	21.09126589	-91.96620403	562.5891275	6-1		159
6	0	WS5: -15deg	Combination	24.56219035	-4.340742533	-1.879172899	21.09126589	-390.754695	-127.2793837	6-1		0
6	79.5	WS5: -15deg	Combination	24.36980035	-4.340742533	-1.879172899	21.09126589	-241.3604495	217.8096477	6-1		79.5
6	159	WS5: -15deg	Combination	24.17741035	-4.340742533	-1.879172899	21.09126589	-91.96620403	562.8986791	6-1		159
6	0	WS5: -30deg	Combination	24.41809153	-4.334056861	-1.879172899	21.09126589	-390.754695	-126.5020987	6-1		0
6	79.5	WS5: -30deg	Combination	24.45015653	-4.334056861	-1.879172899	21.09126589	-241.3604495	218.0554218	6-1		79.5
6	159	WS5: -30deg	Combination	24.48222153	-4.334056861	-1.879172899	21.09126589	-91.96620403	562.6129422	6-1		159
6	0	WS5: -45deg	Combination	24.16509473	-4.321522343	-1.879172899	21.09126589	-390.754695	-125.691749	6-1		0
6	79.5	WS5: -45deg	Combination	24.42161473	-4.321522343	-1.879172899	21.09126589	-241.3604495	217.8692773	6-1		79.5
6	159	WS5: -45deg	Combination	24.67813473	-4.321522343	-1.879172899	21.09126589	-91.96620403	561.4303036	6-1		159
6	0	LL - 1 Lane	Combination	20.96685561	-5.735937572	-5.005814982	56.18374703	-1040.907788	-199.1733021	6-1		0
6	79.5	LL - 1 Lane	Combination	20.96685561	-5.735937572	-5.005814982	56.18374703	-642.9454974	256.8337349	6-1		79.5
6	159	LL - 1 Lane	Combination	20.96685561	-5.735937572	-5.005814982	56.18374703	-244.9832063	712.8407719	6-1		159
6	0	WS5 + WA	Combination	26.81490019	-4.249720713	-1.879172899	21.09126589	-390.754695	-125.2365412	6-1		0
6	79.5	WS5 + WA	Combination	25.09240019	-4.249720713	-1.879172899	21.09126589	-241.3604495	212.6162554	6-1		79.5
6	159	WS5 + WA	Combination	23.36990019	-4.249720713	-1.879172899	21.09126589	-91.96620403	550.4690521	6-1		159
6	0	LL - 2 Lane	Combination	31.69020358	-9.500671218	-8.337444352	93.57694321	-1733.685882	-331.921194	6-1		0
6	79.5	LL - 2 Lane	Combination	31.69020358	-9.500671218	-8.337444352	93.57694321	-1070.859056	423.3821678	6-1		79.5
6	159	LL - 2 Lane	Combination	31.69020358	-9.500671218	-8.337444352	93.57694321	-408.0322299	1178.68553	6-1		159
6	0	LL - 3 Lane	Combination	22.06106369	-11.90745506	-10.63107864	119.3199979	-2210.623564	-429.4000873	6-1		0
6	79.5	LL - 3 Lane	Combination	22.06106369	-11.90745506	-10.63107864	119.3199979	-1365.452812	517.2425901	6-1		79.5
6	159	LL - 3 Lane	Combination	22.06106369	-11.90745506	-10.63107864	119.3199979	-520.2820602	1463.885268	6-1		159
6	0	LL - 7 Lane	Combination	-36.65717712	-19.31735147	-18.95178114	212.7090356	-3940.828149	-823.0471458	6-1		0
6	79.5	LL - 7 Lane	Combination	-36.65717712	-19.31735147	-18.95178114	212.7090356	-2434.161549	712.682296	6-1		79.5
6	159	LL - 7 Lane	Combination	-36.65717712	-19.31735147	-18.95178114	212.7090356	-927.4949482	2248.411738	6-1		159
6	0	LL Envelope	Combination Max	31.69020358	-5.735937572	-5.005814982	212.7090356	-1040.907788	-199.1733021	6-1		0
6	79.5	LL Envelope	Combination Max	31.69020358	-5.735937572	-5.005814982	212.7090356	-642.9454974	712.682296	6-1		79.5
6	159	LL Envelope	Combination Max	31.69020358	-5.735937572	-5.005814982	212.7090356	-244.9832063	2248.411738	6-1		159
6	0	LL Envelope	Combination Min	-36.65717712	-19.31735147	-18.95178114	56.18374703	-3940.828149	-823.0471458	6-1		0
6	79.5	LL Envelope	Combination Min	-36.65717712	-19.31735147	-18.95178114	56.18374703	-2434.161549	256.8337349	6-1		79.5
6	159	LL Envelope	Combination Min	-36.65717712	-19.31735147	-18.95178114	56.18374703	-927.4949482	712.8407719	6-1		159
6	0	WS3 & WA envelope	Combination Max	48.76749083	-2.295638634	-0.873422634	26.49467669	-181.619262	-60.20532376	6-1		0
6	79.5	WS3 & WA envelope	Combination Max	47.04499083	-2.295638634	-0.873422634	26.49467669	-112.1821625	330.5349937	6-1		79.5
6	159	WS3 & WA envelope	Combination Max	46.16369811	-2.295638634	-0.873422634	26.49467669	-42.74506312	824.3774439	6-1		159

6	0	WS3 & WA envelope	Combination Min	17.0315433	-6.222042176	-2.360601714	9.803030376	-490.8628701	-166.4746353	6-1	0
6	79.5	WS3 & WA envelope	Combination Min	17.0560558	-6.222042176	-2.360601714	9.803030376	-303.1950339	122.2979477	6-1	79.5
6	159	WS3 & WA envelope	Combination Min	17.0805683	-6.222042176	-2.360601714	9.803030376	-115.5271976	304.8012191	6-1	159
6	0	WS3 + WA	Combination	47.31051353	-6.0301805	-2.360601714	26.49467669	-490.8628701	-160.1023031	6-1	0
6	79.5	WS3 + WA	Combination	45.58801353	-6.0301805	-2.360601714	26.49467669	-303.1950339	319.2970467	6-1	79.5
6	159	WS3 + WA	Combination	43.86551353	-6.0301805	-2.360601714	26.49467669	-115.5271976	798.6963964	6-1	159
6	0	WS5 & WA envelope	Combination Max	26.81490019	-4.249720713	-1.879172899	21.09126589	-390.754695	-125.2365412	6-1	0
6	79.5	WS5 & WA envelope	Combination Max	25.09240019	-4.249720713	-1.879172899	21.09126589	-241.3604495	218.0554218	6-1	79.5
6	159	WS5 & WA envelope	Combination Max	24.67813473	-4.249720713	-1.879172899	21.09126589	-91.96620403	562.8986791	6-1	159
6	0	WS5 & WA envelope	Combination Min	24.16509473	-4.342581764	-1.879172899	21.09126589	-390.754695	-128.32075	6-1	0
6	79.5	WS5 & WA envelope	Combination Min	24.07810879	-4.342581764	-1.879172899	21.09126589	-241.3604495	212.6162554	6-1	79.5
6	159	WS5 & WA envelope	Combination Min	23.36990019	-4.342581764	-1.879172899	21.09126589	-91.96620403	550.4690521	6-1	159
6	0	Strength 1 - Max	Combination Max	-330.9166769	-0.254254307	-8.760176219	372.2408122	-1821.58863	-685.8258236	6-1	0
6	79.5	Strength 1 - Max	Combination Max	-322.3342775	-0.254254307	-8.760176219	372.2408122	-1125.15462	132.1223757	6-1	79.5
6	159	Strength 1 - Max	Combination Max	-313.7518781	-0.254254307	-8.760176219	372.2408122	-428.720611	2041.849802	6-1	159
6	0	Strength 1 - Max	Combination Min	-450.5245932	-24.02172863	-33.16561699	98.3215573	-6896.449261	-1777.60505	6-1	0
6	79.5	Strength 1 - Max	Combination Min	-441.9421937	-24.02172863	-33.16561699	98.3215573	-4259.78271	-665.6126062	6-1	79.5
6	159	Strength 1 - Max	Combination Min	-433.3597943	-24.02172863	-33.16561699	98.3215573	-1623.116159	-645.3993888	6-1	159
6	0	Strength 1 - Min	Combination Max	-206.9572175	-3.361591979	-8.760176219	372.2408122	-1821.58863	-578.4665709	6-1	0
6	79.5	Strength 1 - Min	Combination Max	-201.2601899	-3.361591979	-8.760176219	372.2408122	-1125.15462	486.5149734	6-1	79.5
6	159	Strength 1 - Min	Combination Max	-195.5631623	-3.361591979	-8.760176219	372.2408122	-428.720611	2643.275744	6-1	159
6	0	Strength 1 - Min	Combination Min	-326.5651337	-27.1290663	-33.16561699	98.3215573	-6896.449261	-1670.245797	6-1	0
6	79.5	Strength 1 - Min	Combination Min	-320.8681061	-27.1290663	-33.16561699	98.3215573	-4259.78271	-311.2200086	6-1	79.5
6	159	Strength 1 - Min	Combination Min	-315.1710786	-27.1290663	-33.16561699	98.3215573	-1623.116159	-43.97344622	6-1	159
6	0	Strength 3 - Max	Combination Max	-341.0520424	7.48799781	-0.873422634	26.49467669	-181.619262	-397.4778688	6-1	0
6	79.5	Strength 3 - Max	Combination Max	-332.4696429	7.48799781	-0.873422634	26.49467669	-112.1821625	-784.5366487	6-1	79.5
6	159	Strength 3 - Max	Combination Max	-323.0460362	7.48799781	-0.873422634	26.49467669	-42.74506312	-1068.493296	6-1	159
6	0	Strength 3 - Max	Combination Min	-372.7879899	3.561594269	-2.360601714	9.803030376	-490.8628701	-503.7471804	6-1	0
6	79.5	Strength 3 - Max	Combination Min	-362.458578	3.561594269	-2.360601714	9.803030376	-303.1950339	-992.7736947	6-1	79.5
6	159	Strength 3 - Max	Combination Min	-352.129166	3.561594269	-2.360601714	9.803030376	-115.5271976	-1588.069521	6-1	159
6	0	Strength 3 - Min	Combination Max	-217.092583	4.380660138	-0.873422634	26.49467669	-181.619262	-290.1186161	6-1	0
6	79.5	Strength 3 - Min	Combination Max	-211.3955554	4.380660138	-0.873422634	26.49467669	-112.1821625	-430.1440511	6-1	79.5
6	159	Strength 3 - Min	Combination Max	-204.8573205	4.380660138	-0.873422634	26.49467669	-42.74506312	-467.0673532	6-1	159
6	0	Strength 3 - Min	Combination Min	-248.8285305	0.454256597	-2.360601714	9.803030376	-490.8628701	-396.3879277	6-1	0
6	79.5	Strength 3 - Min	Combination Min	-241.3844904	0.454256597	-2.360601714	9.803030376	-303.1950339	-638.3810971	6-1	79.5
6	159	Strength 3 - Min	Combination Min	-233.9404503	0.454256597	-2.360601714	9.803030376	-115.5271976	-986.643578	6-1	159
6	0	Strength 5 - Max	Combination Max	-320.2228582	-2.209599991	-8.637023125	308.2484639	-1795.980209	-731.393044	6-1	0
6	79.5	Strength 5 - Max	Combination Max	-311.6404588	-2.209599991	-8.637023125	308.2484639	-1109.336871	65.1048791	6-1	79.5
6	159	Strength 5 - Max	Combination Max	-301.7498248	-2.209599991	-8.637023125	308.2484639	-422.6935325	1705.383786	6-1	159
6	0	Strength 5 - Max	Combination Min	-415.1416276	-20.6373698	-27.46407743	96.93932438	-5710.872696	-1576.706942	6-1	0
6	79.5	Strength 5 - Max	Combination Min	-404.9237141	-20.6373698	-27.46407743	96.93932438	-3527.47854	-555.7298447	6-1	79.5
6	159	Strength 5 - Max	Combination Min	-395.3270233	-20.6373698	-27.46407743	96.93932438	-1344.084384	-380.0666455	6-1	159

6	0	Strength 5 - Min	Combination	Max	-196.2633988	-5.316937663	-8.637023125	308.2484639	-1795.980209	-624.0337913	6-1	0
6	79.5	Strength 5 - Min	Combination	Max	-190.5663712	-5.316937663	-8.637023125	308.2484639	-1109.336871	419.4974767	6-1	79.5
6	159	Strength 5 - Min	Combination	Max	-183.561109	-5.316937663	-8.637023125	308.2484639	-422.6935325	2306.809728	6-1	159
6	0	Strength 5 - Min	Combination	Min	-291.1821682	-23.74470748	-27.46407743	96.93932438	-5710.872696	-1469.347689	6-1	0
6	79.5	Strength 5 - Min	Combination	Min	-283.8496265	-23.74470748	-27.46407743	96.93932438	-3527.47854	-201.3372471	6-1	79.5
6	159	Strength 5 - Min	Combination	Min	-277.1383075	-23.74470748	-27.46407743	96.93932438	-1344.084384	221.3592971	6-1	159
6	0	Service 1	Combination	Max	-253.6018155	-0.311320536	-5.879237617	222.5120659	-1222.52705	-522.2185204	6-1	0
6	79.5	Service 1	Combination	Max	-247.0803959	-0.311320536	-5.879237617	222.5120659	-755.1276599	-37.46193633	6-1	79.5
6	159	Service 1	Combination	Max	-239.7086481	-0.311320536	-5.879237617	222.5120659	-287.7282694	1072.354398	6-1	159
6	0	Service 1	Combination	Min	-324.5928929	-13.96372325	-19.82520377	65.9867774	-4122.447411	-1148.450127	6-1	0
6	79.5	Service 1	Combination	Min	-316.6088775	-13.96372325	-19.82520377	65.9867774	-2546.343711	-497.4685378	6-1	79.5
6	159	Service 1	Combination	Min	-308.9063571	-13.96372325	-19.82520377	65.9867774	-970.2400113	-472.7185552	6-1	159
6	0	WServ1: 45deg	Combination		18.04397161	-2.301835744	-0.873422634	9.803030376	-181.619262	-60.97526324	6-1	0
6	79.5	WServ1: 45deg	Combination		17.40664661	-2.301835744	-0.873422634	9.803030376	-112.1821625	122.0206784	6-1	79.5
6	159	WServ1: 45deg	Combination		16.76932161	-2.301835744	-0.873422634	9.803030376	-42.74506312	305.01662	6-1	159
6	0	WServ1: 30deg	Combination		17.65941885	-2.302006792	-0.873422634	9.803030376	-181.619262	-61.39079258	6-1	0
6	79.5	WServ1: 30deg	Combination		17.09563135	-2.302006792	-0.873422634	9.803030376	-112.1821625	121.6187474	6-1	79.5
6	159	WServ1: 30deg	Combination		16.53184385	-2.302006792	-0.873422634	9.803030376	-42.74506312	304.6282873	6-1	159
6	0	WServ1: 15deg	Combination		17.21286414	-2.298238578	-0.873422634	9.803030376	-181.619262	-61.59561508	6-1	0
6	79.5	WServ1: 15deg	Combination		16.77163914	-2.298238578	-0.873422634	9.803030376	-112.1821625	121.1143519	6-1	79.5
6	159	WServ1: 15deg	Combination		16.33041414	-2.298238578	-0.873422634	9.803030376	-42.74506312	303.8243189	6-1	159
6	0	WServ1: 0deg	Combination		17.19948898	-2.302155605	-0.873422634	9.803030376	-181.619262	-61.25972764	6-1	0
6	79.5	WServ1: 0deg	Combination		16.90533898	-2.302155605	-0.873422634	9.803030376	-112.1821625	121.761643	6-1	79.5
6	159	WServ1: 0deg	Combination		16.61118898	-2.302155605	-0.873422634	9.803030376	-42.74506312	304.7830135	6-1	159
6	0	WServ1: -15deg	Combination		17.14170149	-2.300749582	-0.873422634	9.803030376	-181.619262	-60.79952926	6-1	0
6	79.5	WServ1: -15deg	Combination		16.99462649	-2.300749582	-0.873422634	9.803030376	-112.1821625	122.1100625	6-1	79.5
6	159	WServ1: -15deg	Combination		16.84755149	-2.300749582	-0.873422634	9.803030376	-42.74506312	305.0196543	6-1	159
6	0	WServ1: -30deg	Combination		17.0315433	-2.295638634	-0.873422634	9.803030376	-181.619262	-60.20532376	6-1	0
6	79.5	WServ1: -30deg	Combination		17.0560558	-2.295638634	-0.873422634	9.803030376	-112.1821625	122.2979477	6-1	79.5
6	159	WServ1: -30deg	Combination		17.0805683	-2.295638634	-0.873422634	9.803030376	-42.74506312	304.8012191	6-1	159
6	0	WServ1 + WA	Combination		19.67524001	-2.231166785	-0.873422634	9.803030376	-181.619262	-59.23785215	6-1	0
6	79.5	WServ1 + WA	Combination		17.95274001	-2.231166785	-0.873422634	9.803030376	-112.1821625	118.1399073	6-1	79.5
6	159	WServ1 + WA	Combination		16.23024001	-2.231166785	-0.873422634	9.803030376	-42.74506312	295.5176667	6-1	159
6	0	WServ1 & WA envelope	Combination	Max	19.67524001	-2.231166785	-0.873422634	9.803030376	-181.619262	-59.23785215	6-1	0
6	79.5	WServ1 & WA envelope	Combination	Max	17.95274001	-2.231166785	-0.873422634	9.803030376	-112.1821625	122.2979477	6-1	79.5
6	159	WServ1 & WA envelope	Combination	Max	17.0805683	-2.231166785	-0.873422634	9.803030376	-42.74506312	305.0196543	6-1	159
6	0	WServ1 & WA envelope	Combination	Min	17.0315433	-2.302155605	-0.873422634	9.803030376	-181.619262	-61.59561508	6-1	0
6	79.5	WServ1 & WA envelope	Combination	Min	16.77163914	-2.302155605	-0.873422634	9.803030376	-112.1821625	118.1399073	6-1	79.5
6	159	WServ1 & WA envelope	Combination	Min	16.23024001	-2.302155605	-0.873422634	9.803030376	-42.74506312	295.5176667	6-1	159
6	0	Strength Envelope	Combination	Max	-196.2633988	7.48799781	-0.873422634	372.2408122	-181.619262	-290.1186161	6-1	0
6	79.5	Strength Envelope	Combination	Max	-190.5663712	7.48799781	-0.873422634	372.2408122	-112.1821625	486.5149734	6-1	79.5
6	159	Strength Envelope	Combination	Max	-183.561109	7.48799781	-0.873422634	372.2408122	-42.74506312	2643.275744	6-1	159

6	0	Strength Envelope	Combination Min	-450.5245932	-27.1290663	-33.16561699	9.803030376	-6896.449261	-1777.60505	6-1	0
6	79.5	Strength Envelope	Combination Min	-441.9421937	-27.1290663	-33.16561699	9.803030376	-4259.78271	-992.7736947	6-1	79.5
6	159	Strength Envelope	Combination Min	-433.3597943	-27.1290663	-33.16561699	9.803030376	-1623.116159	-1588.069521	6-1	159
7	0	DEAD	LinStatic	-0.73019507	-21.46061375	0	0	0	-285.2747632	7-1	0
7	21.375	DEAD	LinStatic	-0.73019507	-16.65123875	0	0	0	122.0456605	7-1	21.375
7	42.75	DEAD	LinStatic	-0.73019507	-11.84186375	0	0	0	426.5656935	7-1	42.75
7	64.125	DEAD	LinStatic	-0.73019507	-7.032488754	0	0	0	628.285336	7-1	64.125
7	85.5	DEAD	LinStatic	-0.73019507	-2.223113754	0	0	0	727.2045878	7-1	85.5
7	85.5	DEAD	LinStatic	-0.73019507	-2.223113754	0	0	0	727.2045878	7-2	0
7	105.14	DEAD	LinStatic	-0.73019507	2.195886246	0	0	0	727.4719619	7-2	19.64
7	124.78	DEAD	LinStatic	-0.73019507	6.614886247	0	0	0	640.950176	7-2	39.28
7	144.42	DEAD	LinStatic	-0.73019507	11.03388625	0	0	0	467.6392301	7-2	58.92
7	164.06	DEAD	LinStatic	-0.73019507	15.45288625	0	0	0	207.5391242	7-2	78.56
7	183.7	DEAD	LinStatic	-0.73019507	19.87188625	0	0	0	-139.3501417	7-2	98.2
7	183.7	DEAD	LinStatic	-0.73019507	19.87188625	0	0	0	-139.3501417	7-3	0
7	199.85	DEAD	LinStatic	-0.73019507	23.50563625	0	0	0	-489.6236358	7-3	16.15
7	216	DEAD	LinStatic	-0.73019507	27.13938625	0	0	0	-898.5821925	7-3	32.3
7	0	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	8.62263868	7-1	0
7	21.375	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	8.040404626	7-1	21.375
7	42.75	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	7.458170572	7-1	42.75
7	64.125	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	6.875936517	7-1	64.125
7	85.5	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	6.293702463	7-1	85.5
7	85.5	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	6.293702463	7-2	0
7	105.14	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	5.758728108	7-2	19.64
7	124.78	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	5.223753754	7-2	39.28
7	144.42	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	4.6887794	7-2	58.92
7	164.06	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	4.153805045	7-2	78.56
7	183.7	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	3.618830691	7-2	98.2
7	183.7	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	3.618830691	7-3	0
7	199.85	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	3.178920516	7-3	16.15
7	216	R01_Z	LinStatic	-0.014497623	0.02723902	0	0	0	2.739010342	7-3	32.3
7	0	R02_Z	LinStatic	0.024556494	0.553723387	0	0	0	4.793985665	7-1	0
7	21.375	R02_Z	LinStatic	0.024556494	0.553723387	0	0	0	-7.041851728	7-1	21.375
7	42.75	R02_Z	LinStatic	0.024556494	0.553723387	0	0	0	-18.87768912	7-1	42.75
7	64.125	R02_Z	LinStatic	0.024556494	0.553723387	0	0	0	-30.71352651	7-1	64.125
7	85.5	R02_Z	LinStatic	0.024556494	0.553723387	0	0	0	-42.54936391	7-1	85.5
7	85.5	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	-42.54936391	7-2	0
7	105.14	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	-33.78449122	7-2	19.64
7	124.78	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	-25.01961854	7-2	39.28
7	144.42	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	-16.25474585	7-2	58.92
7	164.06	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	-7.489873171	7-2	78.56
7	183.7	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	1.274999512	7-2	98.2

7	183.7	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	1.274999512	7-3	0
7	199.85	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	8.482366816	7-3	16.15
7	216	R02_Z	LinStatic	0.024556494	-0.446276613	0	0	0	15.68973412	7-3	32.3
7	0	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	2.904294328	7-1	0
7	21.375	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-0.068200787	7-1	21.375
7	42.75	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-3.040695902	7-1	42.75
7	64.125	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-6.013191018	7-1	64.125
7	85.5	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-8.985686133	7-1	85.5
7	85.5	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-8.985686133	7-2	0
7	105.14	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-11.71690504	7-2	19.64
7	124.78	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-14.44812394	7-2	39.28
7	144.42	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-17.17934284	7-2	58.92
7	164.06	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-19.91056175	7-2	78.56
7	183.7	R03_Z	LinStatic	0.015123384	0.139064099	0	0	0	-22.64178065	7-2	98.2
7	183.7	R03_Z	LinStatic	0.015123384	-0.860935901	0	0	0	-22.64178065	7-3	0
7	199.85	R03_Z	LinStatic	0.015123384	-0.860935901	0	0	0	-8.73766585	7-3	16.15
7	216	R03_Z	LinStatic	0.015123384	-0.860935901	0	0	0	5.166448952	7-3	32.3
7	0	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	0.299332966	7-1	0
7	21.375	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	1.191878641	7-1	21.375
7	42.75	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	2.084424315	7-1	42.75
7	64.125	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	2.97696999	7-1	64.125
7	85.5	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	3.869515665	7-1	85.5
7	85.5	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	3.869515665	7-2	0
7	105.14	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	4.689613773	7-2	19.64
7	124.78	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	5.50971188	7-2	39.28
7	144.42	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	6.329809988	7-2	58.92
7	164.06	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	7.149908096	7-2	78.56
7	183.7	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	7.970006204	7-2	98.2
7	183.7	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	7.970006204	7-3	0
7	199.85	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	8.644374047	7-3	16.15
7	216	R04_Z	LinStatic	0.001254725	-0.041756523	0	0	0	9.31874189	7-3	32.3
7	0	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	-0.085460372	7-1	0
7	21.375	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	0.825654039	7-1	21.375
7	42.75	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	1.736768451	7-1	42.75
7	64.125	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	2.647882862	7-1	64.125
7	85.5	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	3.558997274	7-1	85.5
7	85.5	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	3.558997274	7-2	0
7	105.14	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	4.396156902	7-2	19.64
7	124.78	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	5.233316529	7-2	39.28
7	144.42	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	6.070476157	7-2	58.92
7	164.06	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	6.907635785	7-2	78.56
7	183.7	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	7.744795413	7-2	98.2

7	183.7	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	7.744795413	7-3	0
7	199.85	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	8.433192968	7-3	16.15
7	216	R05_Z	LinStatic	-0.000201686	-0.042625236	0	0	0	9.121590524	7-3	32.3
7	0	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	-0.218923539	7-1	0
7	21.375	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	0.004752083	7-1	21.375
7	42.75	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	0.228427706	7-1	42.75
7	64.125	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	0.452103328	7-1	64.125
7	85.5	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	0.67577895	7-1	85.5
7	85.5	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	0.67577895	7-2	0
7	105.14	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	0.881298914	7-2	19.64
7	124.78	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	1.086818877	7-2	39.28
7	144.42	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	1.292338841	7-2	58.92
7	164.06	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	1.497858804	7-2	78.56
7	183.7	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	1.703378768	7-2	98.2
7	183.7	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	1.703378768	7-3	0
7	199.85	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	1.872378127	7-3	16.15
7	216	R06_Z	LinStatic	-0.001408682	-0.010464357	0	0	0	2.041377486	7-3	32.3
7	0	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	0.006939212	7-1	0
7	21.375	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.013764925	7-1	21.375
7	42.75	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.034469062	7-1	42.75
7	64.125	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.055173199	7-1	64.125
7	85.5	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.075877336	7-1	85.5
7	85.5	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.075877336	7-2	0
7	105.14	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.094900927	7-2	19.64
7	124.78	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.113924517	7-2	39.28
7	144.42	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.132948108	7-2	58.92
7	164.06	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.151971699	7-2	78.56
7	183.7	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.170995289	7-2	98.2
7	183.7	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.170995289	7-3	0
7	199.85	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.186638415	7-3	16.15
7	216	R07_Z	LinStatic	0.000223072	0.000968615	0	0	0	-0.202281541	7-3	32.3
7	0	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.084024296	7-1	0
7	21.375	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.102437753	7-1	21.375
7	42.75	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.12085121	7-1	42.75
7	64.125	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.139264667	7-1	64.125
7	85.5	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.157678124	7-1	85.5
7	85.5	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.157678124	7-2	0
7	105.14	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.174596968	7-2	19.64
7	124.78	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.191515813	7-2	39.28
7	144.42	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.208434657	7-2	58.92
7	164.06	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.225353501	7-2	78.56
7	183.7	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.242272346	7-2	98.2

7	183.7	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.242272346	7-3	0
7	199.85	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.256184735	7-3	16.15
7	216	R08_Z	LinStatic	-0.00067627	0.000861448	0	0	0	-0.270097125	7-3	32.3
7	0	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	0.059380396	7-1	0
7	21.375	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	0.031321761	7-1	21.375
7	42.75	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	0.003263127	7-1	42.75
7	64.125	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.024795508	7-1	64.125
7	85.5	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.052854143	7-1	85.5
7	85.5	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.052854143	7-2	0
7	105.14	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.07863527	7-2	19.64
7	124.78	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.104416396	7-2	39.28
7	144.42	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.130197523	7-2	58.92
7	164.06	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.15597865	7-2	78.56
7	183.7	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.181759777	7-2	98.2
7	183.7	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.181759777	7-3	0
7	199.85	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.202959634	7-3	16.15
7	216	R09_Z	LinStatic	0.000457633	0.001312685	0	0	0	-0.224159491	7-3	32.3
7	0	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	0.054163504	7-1	0
7	21.375	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	0.042884885	7-1	21.375
7	42.75	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	0.031606267	7-1	42.75
7	64.125	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	0.020327649	7-1	64.125
7	85.5	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	0.00904903	7-1	85.5
7	85.5	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	0.00904903	7-2	0
7	105.14	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.001314107	7-2	19.64
7	124.78	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.011677245	7-2	39.28
7	144.42	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.022040383	7-2	58.92
7	164.06	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.03240352	7-2	78.56
7	183.7	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.042766658	7-2	98.2
7	183.7	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.042766658	7-3	0
7	199.85	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.051288281	7-3	16.15
7	216	R10_Z	LinStatic	0.000431035	0.000527655	0	0	0	-0.059809903	7-3	32.3
7	0	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.176420992	7-1	0
7	21.375	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.150588069	7-1	21.375
7	42.75	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.124755145	7-1	42.75
7	64.125	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.098922222	7-1	64.125
7	85.5	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.073089298	7-1	85.5
7	85.5	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.073089298	7-2	0
7	105.14	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.049353222	7-2	19.64
7	124.78	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.025617147	7-2	39.28
7	144.42	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	0.001881071	7-2	58.92
7	164.06	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	-0.021855005	7-2	78.56
7	183.7	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	-0.045591081	7-2	98.2

7	183.7	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	-0.045591081	7-3	0
7	199.85	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	-0.06510929	7-3	16.15
7	216	R11_Z	LinStatic	0.001434184	0.001208558	0	0	0	-0.084627499	7-3	32.3
7	0	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.116031614	7-1	0
7	21.375	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.096655928	7-1	21.375
7	42.75	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.077280243	7-1	42.75
7	64.125	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.057904557	7-1	64.125
7	85.5	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.038528871	7-1	85.5
7	85.5	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.038528871	7-2	0
7	105.14	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.020725902	7-2	19.64
7	124.78	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	-0.002922933	7-2	39.28
7	144.42	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	0.014880037	7-2	58.92
7	164.06	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	0.032683006	7-2	78.56
7	183.7	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	0.050485975	7-2	98.2
7	183.7	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	0.050485975	7-3	0
7	199.85	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	0.065125382	7-3	16.15
7	216	R12_Z	LinStatic	-0.000943739	-0.000906465	0	0	0	0.079764789	7-3	32.3
7	0	R_X	LinStatic	0.904527349	2.088025355	0	0	0	259.6960041	7-1	0
7	21.375	R_X	LinStatic	0.904527349	2.088025355	0	0	0	215.0644621	7-1	21.375
7	42.75	R_X	LinStatic	0.904527349	2.088025355	0	0	0	170.4329201	7-1	42.75
7	64.125	R_X	LinStatic	0.904527349	2.088025355	0	0	0	125.8013782	7-1	64.125
7	85.5	R_X	LinStatic	0.904527349	2.088025355	0	0	0	81.16983621	7-1	85.5
7	85.5	R_X	LinStatic	-0.095472651	2.088025355	0	0	0	108.1698362	7-2	0
7	105.14	R_X	LinStatic	-0.095472651	2.088025355	0	0	0	67.16101823	7-2	19.64
7	124.78	R_X	LinStatic	-0.095472651	2.088025355	0	0	0	26.15220025	7-2	39.28
7	144.42	R_X	LinStatic	-0.095472651	2.088025355	0	0	0	-14.85661773	7-2	58.92
7	164.06	R_X	LinStatic	-0.095472651	2.088025355	0	0	0	-55.86543571	7-2	78.56
7	183.7	R_X	LinStatic	-0.095472651	2.088025355	0	0	0	-96.87425369	7-2	98.2
7	183.7	R_X	LinStatic	-1.095472651	2.088025355	0	0	0	-69.87425369	7-3	0
7	199.85	R_X	LinStatic	-1.095472651	2.088025355	0	0	0	-103.5958632	7-3	16.15
7	216	R_X	LinStatic	-1.095472651	2.088025355	0	0	0	-137.3174727	7-3	32.3
7	0	R_Y	LinStatic	0	0	-0.854644284	-44.02387763	-23.91136316	0	7-1	0
7	21.375	R_Y	LinStatic	0	0	-0.854644284	-44.02387763	-5.643341581	0	7-1	21.375
7	42.75	R_Y	LinStatic	0	0	-0.854644284	-44.02387763	12.62467999	0	7-1	42.75
7	64.125	R_Y	LinStatic	0	0	-0.854644284	-44.02387763	30.89270157	0	7-1	64.125
7	85.5	R_Y	LinStatic	0	0	-0.854644284	-44.02387763	49.16072314	0	7-1	85.5
7	85.5	R_Y	LinStatic	0	0	0.145355716	-17.02387763	49.16072314	0	7-2	0
7	105.14	R_Y	LinStatic	0	0	0.145355716	-17.02387763	46.30593688	0	7-2	19.64
7	124.78	R_Y	LinStatic	0	0	0.145355716	-17.02387763	43.45115062	0	7-2	39.28
7	144.42	R_Y	LinStatic	0	0	0.145355716	-17.02387763	40.59636437	0	7-2	58.92
7	164.06	R_Y	LinStatic	0	0	0.145355716	-17.02387763	37.74157811	0	7-2	78.56
7	183.7	R_Y	LinStatic	0	0	0.145355716	-17.02387763	34.88679185	0	7-2	98.2

7	183.7	R_Y	LinStatic	0	0	1.145355716	9.976122369	34.88679185	0	7-3	0
7	199.85	R_Y	LinStatic	0	0	1.145355716	9.976122369	16.38929704	0	7-3	16.15
7	216	R_Y	LinStatic	0	0	1.145355716	9.976122369	-2.108197773	0	7-3	32.3
7	0	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	19.08241296	7-1	0
7	21.375	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	16.06472051	7-1	21.375
7	42.75	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	13.04702807	7-1	42.75
7	64.125	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	10.02933563	7-1	64.125
7	85.5	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	7.011643193	7-1	85.5
7	85.5	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	7.011643193	7-2	0
7	105.14	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	4.238895612	7-2	19.64
7	124.78	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	1.466148032	7-2	39.28
7	144.42	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	-1.306599549	7-2	58.92
7	164.06	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	-4.079347129	7-2	78.56
7	183.7	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	-6.85209471	7-2	98.2
7	183.7	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	-6.85209471	7-3	0
7	199.85	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	-9.132128998	7-3	16.15
7	216	Cap_R_X	LinStatic	0.155308982	0.141178594	0	0	0	-11.41216329	7-3	32.3
7	0	Cap_w_Y	LinStatic	-0.270442618	-7.948375464	0	0	0	-105.6573197	7-1	0
7	21.375	Cap_w_Y	LinStatic	-0.270442618	-6.167125464	0	0	0	45.20209646	7-1	21.375
7	42.75	Cap_w_Y	LinStatic	-0.270442618	-4.385875464	0	0	0	157.9872939	7-1	42.75
7	64.125	Cap_w_Y	LinStatic	-0.270442618	-2.604625464	0	0	0	232.6982726	7-1	64.125
7	85.5	Cap_w_Y	LinStatic	-0.270442618	-0.823375464	0	0	0	269.3350325	7-1	85.5
7	85.5	Cap_w_Y	LinStatic	-0.270442618	-0.823375464	0	0	0	269.3350325	7-2	0
7	105.14	Cap_w_Y	LinStatic	-0.270442618	0.813291202	0	0	0	269.4340599	7-2	19.64
7	124.78	Cap_w_Y	LinStatic	-0.270442618	2.449957869	0	0	0	237.3889541	7-2	39.28
7	144.42	Cap_w_Y	LinStatic	-0.270442618	4.086624536	0	0	0	173.1997148	7-2	58.92
7	164.06	Cap_w_Y	LinStatic	-0.270442618	5.723291202	0	0	0	76.8663423	7-2	78.56
7	183.7	Cap_w_Y	LinStatic	-0.270442618	7.359957869	0	0	0	-51.61116358	7-2	98.2
7	183.7	Cap_w_Y	LinStatic	-0.270442618	7.359957869	0	0	0	-51.61116358	7-3	0
7	199.85	Cap_w_Y	LinStatic	-0.270442618	8.705791202	0	0	0	-181.3420873	7-3	16.15
7	216	Cap_w_Y	LinStatic	-0.270442618	10.05162454	0	0	0	-332.8082194	7-3	32.3
7	0	Cap_w_Z	LinStatic	-0.270442618	-7.948375464	0	0	0	-105.6573197	7-1	0
7	21.375	Cap_w_Z	LinStatic	-0.270442618	-6.167125464	0	0	0	45.20209646	7-1	21.375
7	42.75	Cap_w_Z	LinStatic	-0.270442618	-4.385875464	0	0	0	157.9872939	7-1	42.75
7	64.125	Cap_w_Z	LinStatic	-0.270442618	-2.604625464	0	0	0	232.6982726	7-1	64.125
7	85.5	Cap_w_Z	LinStatic	-0.270442618	-0.823375464	0	0	0	269.3350325	7-1	85.5
7	85.5	Cap_w_Z	LinStatic	-0.270442618	-0.823375464	0	0	0	269.3350325	7-2	0
7	105.14	Cap_w_Z	LinStatic	-0.270442618	0.813291202	0	0	0	269.4340599	7-2	19.64
7	124.78	Cap_w_Z	LinStatic	-0.270442618	2.449957869	0	0	0	237.3889541	7-2	39.28
7	144.42	Cap_w_Z	LinStatic	-0.270442618	4.086624536	0	0	0	173.1997148	7-2	58.92
7	164.06	Cap_w_Z	LinStatic	-0.270442618	5.723291202	0	0	0	76.8663423	7-2	78.56
7	183.7	Cap_w_Z	LinStatic	-0.270442618	7.359957869	0	0	0	-51.61116358	7-2	98.2

7	183.7	Cap_w_Z	LinStatic	-0.270442618	7.359957869	0	0	0	-51.61116358	7-3	0
7	199.85	Cap_w_Z	LinStatic	-0.270442618	8.705791202	0	0	0	-181.3420873	7-3	16.15
7	216	Cap_w_Z	LinStatic	-0.270442618	10.05162454	0	0	0	-332.8082194	7-3	32.3
7	0	Col_w_X	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-1.13687E-13	7-1	0
7	21.375	Col_w_X	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-1.51656E-13	7-1	21.375
7	42.75	Col_w_X	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-1.89626E-13	7-1	42.75
7	64.125	Col_w_X	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-2.27596E-13	7-1	64.125
7	85.5	Col_w_X	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-2.65565E-13	7-1	85.5
7	85.5	Col_w_X	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-2.27374E-13	7-2	0
7	105.14	Col_w_X	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-2.62261E-13	7-2	19.64
7	124.78	Col_w_X	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-2.97149E-13	7-2	39.28
7	144.42	Col_w_X	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-3.32037E-13	7-2	58.92
7	164.06	Col_w_X	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-3.66924E-13	7-2	78.56
7	183.7	Col_w_X	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-4.01812E-13	7-2	98.2
7	183.7	Col_w_X	LinStatic	6.1546E-16	0	0	0	0	-3.41061E-13	7-3	0
7	199.85	Col_w_X	LinStatic	6.1546E-16	0	0	0	0	-3.41061E-13	7-3	16.15
7	216	Col_w_X	LinStatic	6.1546E-16	0	0	0	0	-3.41061E-13	7-3	32.3
7	0	Col_w_Y	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-1.13687E-13	7-1	0
7	21.375	Col_w_Y	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-1.51656E-13	7-1	21.375
7	42.75	Col_w_Y	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-1.89626E-13	7-1	42.75
7	64.125	Col_w_Y	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-2.27596E-13	7-1	64.125
7	85.5	Col_w_Y	LinStatic	5.93817E-16	1.77636E-15	0	0	0	-2.65565E-13	7-1	85.5
7	85.5	Col_w_Y	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-2.27374E-13	7-2	0
7	105.14	Col_w_Y	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-2.62261E-13	7-2	19.64
7	124.78	Col_w_Y	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-2.97149E-13	7-2	39.28
7	144.42	Col_w_Y	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-3.32037E-13	7-2	58.92
7	164.06	Col_w_Y	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-3.66924E-13	7-2	78.56
7	183.7	Col_w_Y	LinStatic	6.1546E-16	1.77636E-15	0	0	0	-4.01812E-13	7-2	98.2
7	183.7	Col_w_Y	LinStatic	6.1546E-16	0	0	0	0	-3.41061E-13	7-3	0
7	199.85	Col_w_Y	LinStatic	6.1546E-16	0	0	0	0	-3.41061E-13	7-3	16.15
7	216	Col_w_Y	LinStatic	6.1546E-16	0	0	0	0	-3.41061E-13	7-3	32.3
7	0	Cais_w_X	LinStatic	1.74856E-16	8.88178E-16	0	0	0	0	7-1	0
7	21.375	Cais_w_X	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-1.89848E-14	7-1	21.375
7	42.75	Cais_w_X	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-3.79696E-14	7-1	42.75
7	64.125	Cais_w_X	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-5.69544E-14	7-1	64.125
7	85.5	Cais_w_X	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-7.59393E-14	7-1	85.5
7	85.5	Cais_w_X	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-8.52651E-14	7-2	0
7	105.14	Cais_w_X	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-7.65432E-14	7-2	19.64
7	124.78	Cais_w_X	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-6.78213E-14	7-2	39.28
7	144.42	Cais_w_X	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-5.90994E-14	7-2	58.92
7	164.06	Cais_w_X	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-5.03775E-14	7-2	78.56
7	183.7	Cais_w_X	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-4.16556E-14	7-2	98.2

7	183.7	Cais_w_X	LinStatic	1.69736E-16	0	0	0	0	-8.52651E-14	7-3	0
7	199.85	Cais_w_X	LinStatic	1.69736E-16	0	0	0	0	-8.52651E-14	7-3	16.15
7	216	Cais_w_X	LinStatic	1.69736E-16	0	0	0	0	-8.52651E-14	7-3	32.3
7	0	Cais_w_Y	LinStatic	1.74856E-16	8.88178E-16	0	0	0	0	7-1	0
7	21.375	Cais_w_Y	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-1.89848E-14	7-1	21.375
7	42.75	Cais_w_Y	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-3.79696E-14	7-1	42.75
7	64.125	Cais_w_Y	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-5.69544E-14	7-1	64.125
7	85.5	Cais_w_Y	LinStatic	1.74856E-16	8.88178E-16	0	0	0	-7.59393E-14	7-1	85.5
7	85.5	Cais_w_Y	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-8.52651E-14	7-2	0
7	105.14	Cais_w_Y	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-7.65432E-14	7-2	19.64
7	124.78	Cais_w_Y	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-6.78213E-14	7-2	39.28
7	144.42	Cais_w_Y	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-5.90994E-14	7-2	58.92
7	164.06	Cais_w_Y	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-5.03775E-14	7-2	78.56
7	183.7	Cais_w_Y	LinStatic	1.69736E-16	-4.44089E-16	0	0	0	-4.16556E-14	7-2	98.2
7	183.7	Cais_w_Y	LinStatic	1.69736E-16	0	0	0	0	-8.52651E-14	7-3	0
7	199.85	Cais_w_Y	LinStatic	1.69736E-16	0	0	0	0	-8.52651E-14	7-3	16.15
7	216	Cais_w_Y	LinStatic	1.69736E-16	0	0	0	0	-8.52651E-14	7-3	32.3
7	0	DC	LinStatic	-4.870177581	-111.3664878	0	0	0	-2757.661216	7-1	0
7	21.375	DC	LinStatic	-4.870177581	-111.3664878	0	0	0	-377.2025385	7-1	21.375
7	42.75	DC	LinStatic	-4.870177581	-111.3664878	0	0	0	2003.256139	7-1	42.75
7	64.125	DC	LinStatic	-4.870177581	-111.3664878	0	0	0	4383.714816	7-1	64.125
7	85.5	DC	LinStatic	-4.870177581	-111.3664878	0	0	0	6764.173493	7-1	85.5
7	85.5	DC	LinStatic	-4.870177581	66.43351218	0	0	0	6764.173493	7-2	0
7	105.14	DC	LinStatic	-4.870177581	66.43351218	0	0	0	5459.419313	7-2	19.64
7	124.78	DC	LinStatic	-4.870177581	66.43351218	0	0	0	4154.665134	7-2	39.28
7	144.42	DC	LinStatic	-4.870177581	66.43351218	0	0	0	2849.910955	7-2	58.92
7	164.06	DC	LinStatic	-4.870177581	66.43351218	0	0	0	1545.156776	7-2	78.56
7	183.7	DC	LinStatic	-4.870177581	66.43351218	0	0	0	240.4025963	7-2	98.2
7	183.7	DC	LinStatic	-4.870177581	244.2335122	0	0	0	240.4025963	7-3	0
7	199.85	DC	LinStatic	-4.870177581	244.2335122	0	0	0	-3703.968625	7-3	16.15
7	216	DC	LinStatic	-4.870177581	244.2335122	0	0	0	-7648.339847	7-3	32.3
7	0	DW	LinStatic	-0.651796427	-15.92385955	0	0	0	-415.40584	7-1	0
7	21.375	DW	LinStatic	-0.651796427	-15.92385955	0	0	0	-75.03334221	7-1	21.375
7	42.75	DW	LinStatic	-0.651796427	-15.92385955	0	0	0	265.3391556	7-1	42.75
7	64.125	DW	LinStatic	-0.651796427	-15.92385955	0	0	0	605.7116533	7-1	64.125
7	85.5	DW	LinStatic	-0.651796427	-15.92385955	0	0	0	946.0841511	7-1	85.5
7	85.5	DW	LinStatic	-0.651796427	9.386140455	0	0	0	946.0841511	7-2	0
7	105.14	DW	LinStatic	-0.651796427	9.386140455	0	0	0	761.7403526	7-2	19.64
7	124.78	DW	LinStatic	-0.651796427	9.386140455	0	0	0	577.3965541	7-2	39.28
7	144.42	DW	LinStatic	-0.651796427	9.386140455	0	0	0	393.0527555	7-2	58.92
7	164.06	DW	LinStatic	-0.651796427	9.386140455	0	0	0	208.708957	7-2	78.56
7	183.7	DW	LinStatic	-0.651796427	9.386140455	0	0	0	24.36515845	7-2	98.2

7	183.7	DW	LinStatic	-0.651796427	34.69614045	0	0	0	24.36515845	7-3	0
7	199.85	DW	LinStatic	-0.651796427	34.69614045	0	0	0	-535.9775099	7-3	16.15
7	216	DW	LinStatic	-0.651796427	34.69614045	0	0	0	-1096.320178	7-3	32.3
7	0	WS3	LinStatic	-2.381772445	-6.966123446	1.205048441	62.07366746	33.71502205	-743.2007289	7-1	0
7	21.375	WS3	LinStatic	-2.381772445	-6.966123446	1.205048441	62.07366746	7.957111629	-594.2998402	7-1	21.375
7	42.75	WS3	LinStatic	-2.381772445	-6.966123446	1.205048441	62.07366746	-17.80079879	-445.3989516	7-1	42.75
7	64.125	WS3	LinStatic	-2.381772445	-6.966123446	1.205048441	62.07366746	-43.55870921	-296.4980629	7-1	64.125
7	85.5	WS3	LinStatic	-2.381772445	-6.966123446	1.205048441	62.07366746	-69.31661963	-147.5971742	7-1	85.5
7	85.5	WS3	LinStatic	0.318227555	-5.416123446	-0.204951559	24.00366746	-69.31661963	-220.4971742	7-2	0
7	105.14	WS3	LinStatic	0.318227555	-5.416123446	-0.204951559	24.00366746	-65.29137101	-114.1245098	7-2	19.64
7	124.78	WS3	LinStatic	0.318227555	-5.416123446	-0.204951559	24.00366746	-61.26612238	-7.751845279	7-2	39.28
7	144.42	WS3	LinStatic	0.318227555	-5.416123446	-0.204951559	24.00366746	-57.24087376	98.62081921	7-2	58.92
7	164.06	WS3	LinStatic	0.318227555	-5.416123446	-0.204951559	24.00366746	-53.21562513	204.9934837	7-2	78.56
7	183.7	WS3	LinStatic	0.318227555	-5.416123446	-0.204951559	24.00366746	-49.19037651	311.3661482	7-2	98.2
7	183.7	WS3	LinStatic	3.018227555	-6.896123446	-1.614951559	-14.06633254	-49.19037651	238.4661482	7-3	0
7	199.85	WS3	LinStatic	3.018227555	-6.896123446	-1.614951559	-14.06633254	-23.10890882	349.8385418	7-3	16.15
7	216	WS3	LinStatic	3.018227555	-6.896123446	-1.614951559	-14.06633254	2.97255886	461.2109355	7-3	32.3
7	0	WL5	LinStatic	-0.632405469	-1.735474987	0.376043485	19.37050616	10.52099979	-187.120441	7-1	0
7	21.375	WL5	LinStatic	-0.632405469	-1.735474987	0.376043485	19.37050616	2.483070296	-150.0246631	7-1	21.375
7	42.75	WL5	LinStatic	-0.632405469	-1.735474987	0.376043485	19.37050616	-5.554859197	-112.9288853	7-1	42.75
7	64.125	WL5	LinStatic	-0.632405469	-1.735474987	0.376043485	19.37050616	-13.59278869	-75.8331074	7-1	64.125
7	85.5	WL5	LinStatic	-0.632405469	-1.735474987	0.376043485	19.37050616	-21.63071818	-38.73732954	7-1	85.5
7	85.5	WL5	LinStatic	0.057594531	-1.285474987	-0.063956515	7.490506158	-21.63071818	-57.36732954	7-2	0
7	105.14	WL5	LinStatic	0.057594531	-1.285474987	-0.063956515	7.490506158	-20.37461223	-32.12060079	7-2	19.64
7	124.78	WL5	LinStatic	0.057594531	-1.285474987	-0.063956515	7.490506158	-19.11850627	-6.873872036	7-2	39.28
7	144.42	WL5	LinStatic	0.057594531	-1.285474987	-0.063956515	7.490506158	-17.86240032	18.37285672	7-2	58.92
7	164.06	WL5	LinStatic	0.057594531	-1.285474987	-0.063956515	7.490506158	-16.60629437	43.61958547	7-2	78.56
7	183.7	WL5	LinStatic	0.057594531	-1.285474987	-0.063956515	7.490506158	-15.35018841	68.86631422	7-2	98.2
7	183.7	WL5	LinStatic	0.747594531	-0.935474987	-0.503956515	-4.389493842	-15.35018841	50.23631422	7-3	0
7	199.85	WL5	LinStatic	0.747594531	-0.935474987	-0.503956515	-4.389493842	-7.211290697	65.34423527	7-3	16.15
7	216	WL5	LinStatic	0.747594531	-0.935474987	-0.503956515	-4.389493842	0.92760702	80.45215632	7-3	32.3
7	0	PL	LinStatic	-0.215548641	-5.266009656	0	0	0	-137.3744323	7-1	0
7	21.375	PL	LinStatic	-0.215548641	-5.266009656	0	0	0	-24.81347587	7-1	21.375
7	42.75	PL	LinStatic	-0.215548641	-5.266009656	0	0	0	87.74748053	7-1	42.75
7	64.125	PL	LinStatic	-0.215548641	-5.266009656	0	0	0	200.3084369	7-1	64.125
7	85.5	PL	LinStatic	-0.215548641	-5.266009656	0	0	0	312.8693933	7-1	85.5
7	85.5	PL	LinStatic	-0.215548641	3.103990344	0	0	0	312.8693933	7-2	0
7	105.14	PL	LinStatic	-0.215548641	3.103990344	0	0	0	251.907023	7-2	19.64
7	124.78	PL	LinStatic	-0.215548641	3.103990344	0	0	0	190.9446526	7-2	39.28
7	144.42	PL	LinStatic	-0.215548641	3.103990344	0	0	0	129.9822822	7-2	58.92
7	164.06	PL	LinStatic	-0.215548641	3.103990344	0	0	0	69.01991189	7-2	78.56
7	183.7	PL	LinStatic	-0.215548641	3.103990344	0	0	0	8.057541535	7-2	98.2

7	183.7	PL	LinStatic	-0.215548641	11.47399034	0	0	0	8.057541535	7-3	0
7	199.85	PL	LinStatic	-0.215548641	11.47399034	0	0	0	-177.2474025	7-3	16.15
7	216	PL	LinStatic	-0.215548641	11.47399034	0	0	0	-362.5523466	7-3	32.3
7	0	LL-1 Lane	LinStatic	-0.884141939	-27.23358425	0	0	0	-725.0867199	7-1	0
7	21.375	LL-1 Lane	LinStatic	-0.884141939	-27.23358425	0	0	0	-142.9688566	7-1	21.375
7	42.75	LL-1 Lane	LinStatic	-0.884141939	-27.23358425	0	0	0	439.1490067	7-1	42.75
7	64.125	LL-1 Lane	LinStatic	-0.884141939	-27.23358425	0	0	0	1021.26687	7-1	64.125
7	85.5	LL-1 Lane	LinStatic	-0.884141939	-27.23358425	0	0	0	1603.384733	7-1	85.5
7	85.5	LL-1 Lane	LinStatic	-0.884141939	14.92641575	0	0	0	1603.384733	7-2	0
7	105.14	LL-1 Lane	LinStatic	-0.884141939	14.92641575	0	0	0	1310.229928	7-2	19.64
7	124.78	LL-1 Lane	LinStatic	-0.884141939	14.92641575	0	0	0	1017.075123	7-2	39.28
7	144.42	LL-1 Lane	LinStatic	-0.884141939	14.92641575	0	0	0	723.9203174	7-2	58.92
7	164.06	LL-1 Lane	LinStatic	-0.884141939	14.92641575	0	0	0	430.765512	7-2	78.56
7	183.7	LL-1 Lane	LinStatic	-0.884141939	14.92641575	0	0	0	137.6107067	7-2	98.2
7	183.7	LL-1 Lane	LinStatic	-0.884141939	50.98641575	0	0	0	137.6107067	7-3	0
7	199.85	LL-1 Lane	LinStatic	-0.884141939	50.98641575	0	0	0	-685.8199077	7-3	16.15
7	216	LL-1 Lane	LinStatic	-0.884141939	50.98641575	0	0	0	-1509.250522	7-3	32.3
7	0	LL-2 Lane	LinStatic	-1.348551906	-40.94532871	0	0	0	-1089.06236	7-1	0
7	21.375	LL-2 Lane	LinStatic	-1.348551906	-40.94532871	0	0	0	-213.8559588	7-1	21.375
7	42.75	LL-2 Lane	LinStatic	-1.348551906	-40.94532871	0	0	0	661.3504425	7-1	42.75
7	64.125	LL-2 Lane	LinStatic	-1.348551906	-40.94532871	0	0	0	1536.556844	7-1	64.125
7	85.5	LL-2 Lane	LinStatic	-1.348551906	-40.94532871	0	0	0	2411.763245	7-1	85.5
7	85.5	LL-2 Lane	LinStatic	-1.348551906	22.53467129	0	0	0	2411.763245	7-2	0
7	105.14	LL-2 Lane	LinStatic	-1.348551906	22.53467129	0	0	0	1969.182301	7-2	19.64
7	124.78	LL-2 Lane	LinStatic	-1.348551906	22.53467129	0	0	0	1526.601357	7-2	39.28
7	144.42	LL-2 Lane	LinStatic	-1.348551906	22.53467129	0	0	0	1084.020413	7-2	58.92
7	164.06	LL-2 Lane	LinStatic	-1.348551906	22.53467129	0	0	0	641.4394688	7-2	78.56
7	183.7	LL-2 Lane	LinStatic	-1.348551906	22.53467129	0	0	0	198.8585247	7-2	98.2
7	183.7	LL-2 Lane	LinStatic	-1.348551906	77.36467129	0	0	0	198.8585247	7-3	0
7	199.85	LL-2 Lane	LinStatic	-1.348551906	77.36467129	0	0	0	-1050.580917	7-3	16.15
7	216	LL-2 Lane	LinStatic	-1.348551906	77.36467129	0	0	0	-2300.020358	7-3	32.3
7	0	LL-3 Lane	LinStatic	-1.560316313	-46.54647279	0	0	0	-1236.297093	7-1	0
7	21.375	LL-3 Lane	LinStatic	-1.560316313	-46.54647279	0	0	0	-241.3662366	7-1	21.375
7	42.75	LL-3 Lane	LinStatic	-1.560316313	-46.54647279	0	0	0	753.5646193	7-1	42.75
7	64.125	LL-3 Lane	LinStatic	-1.560316313	-46.54647279	0	0	0	1748.495475	7-1	64.125
7	85.5	LL-3 Lane	LinStatic	-1.560316313	-46.54647279	0	0	0	2743.426331	7-1	85.5
7	85.5	LL-3 Lane	LinStatic	-1.560316313	25.75352721	0	0	0	2743.426331	7-2	0
7	105.14	LL-3 Lane	LinStatic	-1.560316313	25.75352721	0	0	0	2237.627057	7-2	19.64
7	124.78	LL-3 Lane	LinStatic	-1.560316313	25.75352721	0	0	0	1731.827783	7-2	39.28
7	144.42	LL-3 Lane	LinStatic	-1.560316313	25.75352721	0	0	0	1226.028508	7-2	58.92
7	164.06	LL-3 Lane	LinStatic	-1.560316313	25.75352721	0	0	0	720.2292339	7-2	78.56
7	183.7	LL-3 Lane	LinStatic	-1.560316313	25.75352721	0	0	0	214.4299595	7-2	98.2

7	183.7	LL-3 Lane	LinStatic	-1.560316313	88.93352721	0	0	0	214.4299595	7-3	0
7	199.85	LL-3 Lane	LinStatic	-1.560316313	88.93352721	0	0	0	-1221.846505	7-3	16.15
7	216	LL-3 Lane	LinStatic	-1.560316313	88.93352721	0	0	0	-2658.122969	7-3	32.3
7	0	LL-7 Lane	LinStatic	-1.649598659	-42.6725292	0	0	0	-1119.419411	7-1	0
7	21.375	LL-7 Lane	LinStatic	-1.649598659	-42.6725292	0	0	0	-207.2940993	7-1	21.375
7	42.75	LL-7 Lane	LinStatic	-1.649598659	-42.6725292	0	0	0	704.8312124	7-1	42.75
7	64.125	LL-7 Lane	LinStatic	-1.649598659	-42.6725292	0	0	0	1616.956524	7-1	64.125
7	85.5	LL-7 Lane	LinStatic	-1.649598659	-42.6725292	0	0	0	2529.081836	7-1	85.5
7	85.5	LL-7 Lane	LinStatic	-1.649598659	24.6774708	0	0	0	2529.081836	7-2	0
7	105.14	LL-7 Lane	LinStatic	-1.649598659	24.6774708	0	0	0	2044.416309	7-2	19.64
7	124.78	LL-7 Lane	LinStatic	-1.649598659	24.6774708	0	0	0	1559.750783	7-2	39.28
7	144.42	LL-7 Lane	LinStatic	-1.649598659	24.6774708	0	0	0	1075.085256	7-2	58.92
7	164.06	LL-7 Lane	LinStatic	-1.649598659	24.6774708	0	0	0	590.4197298	7-2	78.56
7	183.7	LL-7 Lane	LinStatic	-1.649598659	24.6774708	0	0	0	105.7542033	7-2	98.2
7	183.7	LL-7 Lane	LinStatic	-1.649598659	89.4674708	0	0	0	105.7542033	7-3	0
7	199.85	LL-7 Lane	LinStatic	-1.649598659	89.4674708	0	0	0	-1339.14545	7-3	16.15
7	216	LL-7 Lane	LinStatic	-1.649598659	89.4674708	0	0	0	-2784.045103	7-3	32.3
7	0	CE-1 Lane	LinStatic	-1.983126778	-5.552013997	0.581158113	29.93623679	16.25972695	-588.9422211	7-1	0
7	21.375	CE-1 Lane	LinStatic	-1.983126778	-5.552013997	0.581158113	29.93623679	3.837472275	-470.2679219	7-1	21.375
7	42.75	CE-1 Lane	LinStatic	-1.983126778	-5.552013997	0.581158113	29.93623679	-8.584782396	-351.5936227	7-1	42.75
7	64.125	CE-1 Lane	LinStatic	-1.983126778	-5.552013997	0.581158113	29.93623679	-21.00703707	-232.9193235	7-1	64.125
7	85.5	CE-1 Lane	LinStatic	-1.983126778	-5.552013997	0.581158113	29.93623679	-33.42929174	-114.2450243	7-1	85.5
7	85.5	CE-1 Lane	LinStatic	0.176873222	-3.962013997	-0.098841887	11.57623679	-33.42929174	-172.5650243	7-2	0
7	105.14	CE-1 Lane	LinStatic	0.176873222	-3.962013997	-0.098841887	11.57623679	-31.48803708	-94.75106941	7-2	19.64
7	124.78	CE-1 Lane	LinStatic	0.176873222	-3.962013997	-0.098841887	11.57623679	-29.54678242	-16.9371145	7-2	39.28
7	144.42	CE-1 Lane	LinStatic	0.176873222	-3.962013997	-0.098841887	11.57623679	-27.60552777	60.87684041	7-2	58.92
7	164.06	CE-1 Lane	LinStatic	0.176873222	-3.962013997	-0.098841887	11.57623679	-25.66427311	138.6907953	7-2	78.56
7	183.7	CE-1 Lane	LinStatic	0.176873222	-3.962013997	-0.098841887	11.57623679	-23.72301846	216.5047502	7-2	98.2
7	183.7	CE-1 Lane	LinStatic	2.336873222	-2.722013997	-0.778841887	-6.783763211	-23.72301846	158.1847502	7-3	0
7	199.85	CE-1 Lane	LinStatic	2.336873222	-2.722013997	-0.778841887	-6.783763211	-11.14472199	202.1452763	7-3	16.15
7	216	CE-1 Lane	LinStatic	2.336873222	-2.722013997	-0.778841887	-6.783763211	1.433574486	246.1058024	7-3	32.3
7	0	CE-2 Lane	LinStatic	-3.305040382	-9.252736444	0.974294484	50.1872205	27.258954	-981.6126887	7-1	0
7	21.375	CE-2 Lane	LinStatic	-3.305040382	-9.252736444	0.974294484	50.1872205	6.433409402	-783.8354472	7-1	21.375
7	42.75	CE-2 Lane	LinStatic	-3.305040382	-9.252736444	0.974294484	50.1872205	-14.39213519	-586.0582057	7-1	42.75
7	64.125	CE-2 Lane	LinStatic	-3.305040382	-9.252736444	0.974294484	50.1872205	-35.21767979	-388.2809642	7-1	64.125
7	85.5	CE-2 Lane	LinStatic	-3.305040382	-9.252736444	0.974294484	50.1872205	-56.04322438	-190.5037227	7-1	85.5
7	85.5	CE-2 Lane	LinStatic	0.294959618	-6.602736444	-0.165705516	19.4072205	-56.04322438	-287.7037227	7-2	0
7	105.14	CE-2 Lane	LinStatic	0.294959618	-6.602736444	-0.165705516	19.4072205	-52.78876805	-158.025979	7-2	19.64
7	124.78	CE-2 Lane	LinStatic	0.294959618	-6.602736444	-0.165705516	19.4072205	-49.53431171	-28.3482352	7-2	39.28
7	144.42	CE-2 Lane	LinStatic	0.294959618	-6.602736444	-0.165705516	19.4072205	-46.27985538	101.3295086	7-2	58.92
7	164.06	CE-2 Lane	LinStatic	0.294959618	-6.602736444	-0.165705516	19.4072205	-43.02539904	231.0072523	7-2	78.56
7	183.7	CE-2 Lane	LinStatic	0.294959618	-6.602736444	-0.165705516	19.4072205	-39.77094271	360.6849961	7-2	98.2

7	183.7	CE-2 Lane	LinStatic	3.894959618	-4.542736444	-1.305705516	-11.3727795	-39.77094271	263.4849961	7-3		0
7	199.85	CE-2 Lane	LinStatic	3.894959618	-4.542736444	-1.305705516	-11.3727795	-18.68379862	336.8501897	7-3		16.15
7	216	CE-2 Lane	LinStatic	3.894959618	-4.542736444	-1.305705516	-11.3727795	2.403345461	410.2153832	7-3		32.3
7	0	CE-3 Lane	LinStatic	-4.232289814	-12.13012898	1.239234212	63.83462257	34.67147658	-1255.501146	7-1		0
7	21.375	CE-3 Lane	LinStatic	-4.232289814	-12.13012898	1.239234212	63.83462257	8.182845292	-996.2196392	7-1		21.375
7	42.75	CE-3 Lane	LinStatic	-4.232289814	-12.13012898	1.239234212	63.83462257	-18.30578599	-736.9381322	7-1		42.75
7	64.125	CE-3 Lane	LinStatic	-4.232289814	-12.13012898	1.239234212	63.83462257	-44.79441727	-477.6566252	7-1		64.125
7	85.5	CE-3 Lane	LinStatic	-4.232289814	-12.13012898	1.239234212	63.83462257	-71.28304856	-218.3751183	7-1		85.5
7	85.5	CE-3 Lane	LinStatic	0.357710186	-8.750128982	-0.210765788	24.68462257	-71.28304856	-342.3051183	7-2		0
7	105.14	CE-3 Lane	LinStatic	0.357710186	-8.750128982	-0.210765788	24.68462257	-67.14360848	-170.4525851	7-2		19.64
7	124.78	CE-3 Lane	LinStatic	0.357710186	-8.750128982	-0.210765788	24.68462257	-63.00416841	1.399948149	7-2		39.28
7	144.42	CE-3 Lane	LinStatic	0.357710186	-8.750128982	-0.210765788	24.68462257	-58.86472833	173.2524814	7-2		58.92
7	164.06	CE-3 Lane	LinStatic	0.357710186	-8.750128982	-0.210765788	24.68462257	-54.72528826	345.1050146	7-2		78.56
7	183.7	CE-3 Lane	LinStatic	0.357710186	-8.750128982	-0.210765788	24.68462257	-50.58584818	516.9575478	7-2		98.2
7	183.7	CE-3 Lane	LinStatic	4.947710186	-4.240128982	-1.660765788	-14.46537743	-50.58584818	393.0275478	7-3		0
7	199.85	CE-3 Lane	LinStatic	4.947710186	-4.240128982	-1.660765788	-14.46537743	-23.7644807	461.5056308	7-3		16.15
7	216	CE-3 Lane	LinStatic	4.947710186	-4.240128982	-1.660765788	-14.46537743	3.056886771	529.9837139	7-3		32.3
7	0	CE-7 Lane	LinStatic	-7.519187942	-21.0501286	2.204982253	113.5816043	61.69131694	-2233.087542	7-1		0
7	21.375	CE-7 Lane	LinStatic	-7.519187942	-21.0501286	2.204982253	113.5816043	14.55982128	-1783.141043	7-1		21.375
7	42.75	CE-7 Lane	LinStatic	-7.519187942	-21.0501286	2.204982253	113.5816043	-32.57167438	-1333.194544	7-1		42.75
7	64.125	CE-7 Lane	LinStatic	-7.519187942	-21.0501286	2.204982253	113.5816043	-79.70317004	-883.2480454	7-1		64.125
7	85.5	CE-7 Lane	LinStatic	-7.519187942	-21.0501286	2.204982253	113.5816043	-126.8346657	-433.3015465	7-1		85.5
7	85.5	CE-7 Lane	LinStatic	0.670812058	-15.0201286	-0.375017747	43.92160429	-126.8346657	-654.4315465	7-2		0
7	105.14	CE-7 Lane	LinStatic	0.670812058	-15.0201286	-0.375017747	43.92160429	-119.4693172	-359.4362208	7-2		19.64
7	124.78	CE-7 Lane	LinStatic	0.670812058	-15.0201286	-0.375017747	43.92160429	-112.1039686	-64.44089506	7-2		39.28
7	144.42	CE-7 Lane	LinStatic	0.670812058	-15.0201286	-0.375017747	43.92160429	-104.7386201	230.5544307	7-2		58.92
7	164.06	CE-7 Lane	LinStatic	0.670812058	-15.0201286	-0.375017747	43.92160429	-97.37327152	525.5497564	7-2		78.56
7	183.7	CE-7 Lane	LinStatic	0.670812058	-15.0201286	-0.375017747	43.92160429	-90.00792297	820.5450822	7-2		98.2
7	183.7	CE-7 Lane	LinStatic	8.860812058	-10.3301286	-2.955017747	-25.73839571	-90.00792297	599.4150822	7-3		0
7	199.85	CE-7 Lane	LinStatic	8.860812058	-10.3301286	-2.955017747	-25.73839571	-42.28438636	766.2466591	7-3		16.15
7	216	CE-7 Lane	LinStatic	8.860812058	-10.3301286	-2.955017747	-25.73839571	5.439150254	933.078236	7-3		32.3
7	0	BR-1 Lane	LinStatic	-0.660304965	-1.524258509	1.974228296	101.6951573	55.23524889	-189.578083	7-1		0
7	21.375	BR-1 Lane	LinStatic	-0.660304965	-1.524258509	1.974228296	101.6951573	13.03611905	-156.9970573	7-1		21.375
7	42.75	BR-1 Lane	LinStatic	-0.660304965	-1.524258509	1.974228296	101.6951573	-29.16301078	-124.4160317	7-1		42.75
7	64.125	BR-1 Lane	LinStatic	-0.660304965	-1.524258509	1.974228296	101.6951573	-71.36214062	-91.83500607	7-1		64.125
7	85.5	BR-1 Lane	LinStatic	-0.660304965	-1.524258509	1.974228296	101.6951573	-113.5612705	-59.25398043	7-1		85.5
7	85.5	BR-1 Lane	LinStatic	0.069695035	-1.524258509	-0.335771704	39.32515733	-113.5612705	-78.96398043	7-2		0
7	105.14	BR-1 Lane	LinStatic	0.069695035	-1.524258509	-0.335771704	39.32515733	-106.9667142	-49.0275433	7-2		19.64
7	124.78	BR-1 Lane	LinStatic	0.069695035	-1.524258509	-0.335771704	39.32515733	-100.3721579	-19.09110618	7-2		39.28
7	144.42	BR-1 Lane	LinStatic	0.069695035	-1.524258509	-0.335771704	39.32515733	-93.77760168	10.84533095	7-2		58.92
7	164.06	BR-1 Lane	LinStatic	0.069695035	-1.524258509	-0.335771704	39.32515733	-87.18304543	40.78176807	7-2		78.56
7	183.7	BR-1 Lane	LinStatic	0.069695035	-1.524258509	-0.335771704	39.32515733	-80.58848917	70.7182052	7-2		98.2

7	183.7	BR-1 Lane	LinStatic	0.799695035	-1.524258509	-2.645771704	-23.04484267	-80.58848917	51.0082052	7-3		0
7	199.85	BR-1 Lane	LinStatic	0.799695035	-1.524258509	-2.645771704	-23.04484267	-37.85927616	75.62498012	7-3		16.15
7	216	BR-1 Lane	LinStatic	0.799695035	-1.524258509	-2.645771704	-23.04484267	4.869936855	100.2417551	7-3		32.3
7	0	BR-2 Lane	LinStatic	-1.094478092	-2.52651068	3.281834051	169.0516901	91.81963452	-314.232165	7-1		0
7	21.375	BR-2 Lane	LinStatic	-1.094478092	-2.52651068	3.281834051	169.0516901	21.67043167	-260.2279992	7-1		21.375
7	42.75	BR-2 Lane	LinStatic	-1.094478092	-2.52651068	3.281834051	169.0516901	-48.47877117	-206.2238334	7-1		42.75
7	64.125	BR-2 Lane	LinStatic	-1.094478092	-2.52651068	3.281834051	169.0516901	-118.627974	-152.2196676	7-1		64.125
7	85.5	BR-2 Lane	LinStatic	-1.094478092	-2.52651068	3.281834051	169.0516901	-188.7771769	-98.21550181	7-1		85.5
7	85.5	BR-2 Lane	LinStatic	0.115521908	-2.52651068	-0.558165949	65.3716901	-188.7771769	-130.8855018	7-2		0
7	105.14	BR-2 Lane	LinStatic	0.115521908	-2.52651068	-0.558165949	65.3716901	-177.8147976	-81.26483205	7-2		19.64
7	124.78	BR-2 Lane	LinStatic	0.115521908	-2.52651068	-0.558165949	65.3716901	-166.8524184	-31.6441623	7-2		39.28
7	144.42	BR-2 Lane	LinStatic	0.115521908	-2.52651068	-0.558165949	65.3716901	-155.8900392	17.97650746	7-2		58.92
7	164.06	BR-2 Lane	LinStatic	0.115521908	-2.52651068	-0.558165949	65.3716901	-144.9276599	67.59717721	7-2		78.56
7	183.7	BR-2 Lane	LinStatic	0.115521908	-2.52651068	-0.558165949	65.3716901	-133.9652807	117.217847	7-2		98.2
7	183.7	BR-2 Lane	LinStatic	1.325521908	-2.52651068	-4.398165949	-38.3083099	-133.9652807	84.54784697	7-3		0
7	199.85	BR-2 Lane	LinStatic	1.325521908	-2.52651068	-4.398165949	-38.3083099	-62.93490062	125.3509945	7-3		16.15
7	216	BR-2 Lane	LinStatic	1.325521908	-2.52651068	-4.398165949	-38.3083099	8.095479448	166.1541419	7-3		32.3
7	0	BR-3 Lane	LinStatic	-1.402017391	-3.236439301	4.187756992	215.7170004	117.1656795	-402.5288063	7-1		0
7	21.375	BR-3 Lane	LinStatic	-1.402017391	-3.236439301	4.187756992	215.7170004	27.65237375	-333.3499163	7-1		21.375
7	42.75	BR-3 Lane	LinStatic	-1.402017391	-3.236439301	4.187756992	215.7170004	-61.86093197	-264.1710262	7-1		42.75
7	64.125	BR-3 Lane	LinStatic	-1.402017391	-3.236439301	4.187756992	215.7170004	-151.3742377	-194.9921362	7-1		64.125
7	85.5	BR-3 Lane	LinStatic	-1.402017391	-3.236439301	4.187756992	215.7170004	-240.8875434	-125.8132461	7-1		85.5
7	85.5	BR-3 Lane	LinStatic	0.147982609	-3.236439301	-0.712243008	83.41700039	-240.8875434	-167.6632461	7-2		0
7	105.14	BR-3 Lane	LinStatic	0.147982609	-3.236439301	-0.712243008	83.41700039	-226.8990907	-104.0995783	7-2		19.64
7	124.78	BR-3 Lane	LinStatic	0.147982609	-3.236439301	-0.712243008	83.41700039	-212.9106381	-40.53591038	7-2		39.28
7	144.42	BR-3 Lane	LinStatic	0.147982609	-3.236439301	-0.712243008	83.41700039	-198.9221854	23.02775749	7-2		58.92
7	164.06	BR-3 Lane	LinStatic	0.147982609	-3.236439301	-0.712243008	83.41700039	-184.9337327	86.59142536	7-2		78.56
7	183.7	BR-3 Lane	LinStatic	0.147982609	-3.236439301	-0.712243008	83.41700039	-170.9452801	150.1550932	7-2		98.2
7	183.7	BR-3 Lane	LinStatic	1.697982609	-3.236439301	-5.612243008	-48.88299961	-170.9452801	108.3050932	7-3		0
7	199.85	BR-3 Lane	LinStatic	1.697982609	-3.236439301	-5.612243008	-48.88299961	-80.30755548	160.5735879	7-3		16.15
7	216	BR-3 Lane	LinStatic	1.697982609	-3.236439301	-5.612243008	-48.88299961	10.33016909	212.8420826	7-3		32.3
7	0	BR-7 Lane	LinStatic	-2.496495483	-5.762949981	7.469591044	384.7686905	208.985314	-716.7609713	7-1		0
7	21.375	BR-7 Lane	LinStatic	-2.496495483	-5.762949981	7.469591044	384.7686905	49.32280542	-593.5779155	7-1		21.375
7	42.75	BR-7 Lane	LinStatic	-2.496495483	-5.762949981	7.469591044	384.7686905	-110.3397031	-470.3948596	7-1		42.75
7	64.125	BR-7 Lane	LinStatic	-2.496495483	-5.762949981	7.469591044	384.7686905	-270.0022117	-347.2118038	7-1		64.125
7	85.5	BR-7 Lane	LinStatic	-2.496495483	-5.762949981	7.469591044	384.7686905	-429.6647203	-224.0287479	7-1		85.5
7	85.5	BR-7 Lane	LinStatic	0.263504517	-5.762949981	-1.270408956	148.7886905	-429.6647203	-298.5487479	7-2		0
7	105.14	BR-7 Lane	LinStatic	0.263504517	-5.762949981	-1.270408956	148.7886905	-404.7138884	-185.3644103	7-2		19.64
7	124.78	BR-7 Lane	LinStatic	0.263504517	-5.762949981	-1.270408956	148.7886905	-379.7630565	-72.18007268	7-2		39.28
7	144.42	BR-7 Lane	LinStatic	0.263504517	-5.762949981	-1.270408956	148.7886905	-354.8122246	41.00426494	7-2		58.92
7	164.06	BR-7 Lane	LinStatic	0.263504517	-5.762949981	-1.270408956	148.7886905	-329.8613927	154.1886026	7-2		78.56
7	183.7	BR-7 Lane	LinStatic	0.263504517	-5.762949981	-1.270408956	148.7886905	-304.9105608	267.3729402	7-2		98.2

7	183.7	BR-7 Lane	LinStatic	3.023504517	-5.762949981	-10.01040896	-87.1913095	-304.9105608	192.8529402	7-3	0
7	199.85	BR-7 Lane	LinStatic	3.023504517	-5.762949981	-10.01040896	-87.1913095	-143.2424561	285.9245824	7-3	16.15
7	216	BR-7 Lane	LinStatic	3.023504517	-5.762949981	-10.01040896	-87.1913095	18.42564853	378.9962246	7-3	32.3
7	0	WSub3: 45deg	LinStatic	-0.115090419	0.819685392	0	0	0	-5.449413941	7-1	0
7	21.375	WSub3: 45deg	LinStatic	-0.115090419	0.605935392	0	0	0	-20.68573606	7-1	21.375
7	42.75	WSub3: 45deg	LinStatic	-0.115090419	0.392185392	0	0	0	-31.35315194	7-1	42.75
7	64.125	WSub3: 45deg	LinStatic	-0.115090419	0.178435392	0	0	0	-37.45166156	7-1	64.125
7	85.5	WSub3: 45deg	LinStatic	-0.115090419	-0.035314608	0	0	0	-38.98126493	7-1	85.5
7	85.5	WSub3: 45deg	LinStatic	-0.115090419	-0.035314608	0	0	0	-38.98126493	7-2	0
7	105.14	WSub3: 45deg	LinStatic	-0.115090419	-0.231714608	0	0	0	-36.35903802	7-2	19.64
7	124.78	WSub3: 45deg	LinStatic	-0.115090419	-0.428114608	0	0	0	-29.87951512	7-2	39.28
7	144.42	WSub3: 45deg	LinStatic	-0.115090419	-0.624514608	0	0	0	-19.54269621	7-2	58.92
7	164.06	WSub3: 45deg	LinStatic	-0.115090419	-0.820914608	0	0	0	-5.348581304	7-2	78.56
7	183.7	WSub3: 45deg	LinStatic	-0.115090419	-1.017314608	0	0	0	12.7028296	7-2	98.2
7	183.7	WSub3: 45deg	LinStatic	-0.115090419	-1.017314608	0	0	0	12.7028296	7-3	0
7	199.85	WSub3: 45deg	LinStatic	-0.115090419	-1.178814608	0	0	0	30.43657303	7-3	16.15
7	216	WSub3: 45deg	LinStatic	-0.115090419	-1.340314608	0	0	0	50.77854145	7-3	32.3
7	0	WSub3: 30deg	LinStatic	-0.146847874	0.328665004	0	0	0	-13.69709442	7-1	0
7	21.375	WSub3: 30deg	LinStatic	-0.146847874	0.221790004	0	0	0	-19.58008233	7-1	21.375
7	42.75	WSub3: 30deg	LinStatic	-0.146847874	0.114915004	0	0	0	-23.17861711	7-1	42.75
7	64.125	WSub3: 30deg	LinStatic	-0.146847874	0.008040004	0	0	0	-24.49269877	7-1	64.125
7	85.5	WSub3: 30deg	LinStatic	-0.146847874	-0.098834996	0	0	0	-23.5223273	7-1	85.5
7	85.5	WSub3: 30deg	LinStatic	-0.146847874	-0.098834996	0	0	0	-23.5223273	7-2	0
7	105.14	WSub3: 30deg	LinStatic	-0.146847874	-0.197034996	0	0	0	-20.61688399	7-2	19.64
7	124.78	WSub3: 30deg	LinStatic	-0.146847874	-0.295234996	0	0	0	-15.78279268	7-2	39.28
7	144.42	WSub3: 30deg	LinStatic	-0.146847874	-0.393434996	0	0	0	-9.020053365	7-2	58.92
7	164.06	WSub3: 30deg	LinStatic	-0.146847874	-0.491634996	0	0	0	-0.328666052	7-2	78.56
7	183.7	WSub3: 30deg	LinStatic	-0.146847874	-0.589834996	0	0	0	10.29136926	7-2	98.2
7	183.7	WSub3: 30deg	LinStatic	-0.146847874	-0.589834996	0	0	0	10.29136926	7-3	0
7	199.85	WSub3: 30deg	LinStatic	-0.146847874	-0.670584996	0	0	0	20.46926069	7-3	16.15
7	216	WSub3: 30deg	LinStatic	-0.146847874	-0.751334996	0	0	0	31.95126462	7-3	32.3
7	0	WSub3: 15deg	LinStatic	-0.163476185	-0.071577341	0	0	0	-19.36160866	7-1	0
7	21.375	WSub3: 15deg	LinStatic	-0.163476185	-0.089389841	0	0	0	-17.64127192	7-1	21.375
7	42.75	WSub3: 15deg	LinStatic	-0.163476185	-0.107202341	0	0	0	-15.54019298	7-1	42.75
7	64.125	WSub3: 15deg	LinStatic	-0.163476185	-0.125014841	0	0	0	-13.05837185	7-1	64.125
7	85.5	WSub3: 15deg	LinStatic	-0.163476185	-0.142827341	0	0	0	-10.19580854	7-1	85.5
7	85.5	WSub3: 15deg	LinStatic	-0.163476185	-0.142827341	0	0	0	-10.19580854	7-2	0
7	105.14	WSub3: 15deg	LinStatic	-0.163476185	-0.159194007	0	0	0	-7.229958904	7-2	19.64
7	124.78	WSub3: 15deg	LinStatic	-0.163476185	-0.175560674	0	0	0	-3.942667935	7-2	39.28
7	144.42	WSub3: 15deg	LinStatic	-0.163476185	-0.191927341	0	0	0	-0.333935631	7-2	58.92
7	164.06	WSub3: 15deg	LinStatic	-0.163476185	-0.208294007	0	0	0	3.596238005	7-2	78.56
7	183.7	WSub3: 15deg	LinStatic	-0.163476185	-0.224660674	0	0	0	7.847852975	7-2	98.2

7	183.7	WSub3: 15deg	LinStatic	-0.163476185	-0.224660674	0	0	0	7.847852975	7-3	0
7	199.85	WSub3: 15deg	LinStatic	-0.163476185	-0.238119007	0	0	0	11.5847989	7-3	16.15
7	216	WSub3: 15deg	LinStatic	-0.163476185	-0.251577341	0	0	0	15.53909691	7-3	32.3
7	0	WSub3: 0deg	LinStatic	-0.136779752	0.491867872	0	0	0	-11.01147564	7-1	0
7	21.375	WSub3: 0deg	LinStatic	-0.136779752	0.349367872	0	0	0	-20.00218264	7-1	21.375
7	42.75	WSub3: 0deg	LinStatic	-0.136779752	0.206867872	0	0	0	-25.94695215	7-1	42.75
7	64.125	WSub3: 0deg	LinStatic	-0.136779752	0.064367872	0	0	0	-28.84578415	7-1	64.125
7	85.5	WSub3: 0deg	LinStatic	-0.136779752	-0.078132128	0	0	0	-28.69867866	7-1	85.5
7	85.5	WSub3: 0deg	LinStatic	-0.136779752	-0.078132128	0	0	0	-28.69867866	7-2	0
7	105.14	WSub3: 0deg	LinStatic	-0.136779752	-0.209065462	0	0	0	-25.87839832	7-2	19.64
7	124.78	WSub3: 0deg	LinStatic	-0.136779752	-0.339998795	0	0	0	-20.48658732	7-2	39.28
7	144.42	WSub3: 0deg	LinStatic	-0.136779752	-0.470932128	0	0	0	-12.52324565	7-2	58.92
7	164.06	WSub3: 0deg	LinStatic	-0.136779752	-0.601865462	0	0	0	-1.988373312	7-2	78.56
7	183.7	WSub3: 0deg	LinStatic	-0.136779752	-0.732798795	0	0	0	11.11802969	7-2	98.2
7	183.7	WSub3: 0deg	LinStatic	-0.136779752	-0.732798795	0	0	0	11.11802969	7-3	0
7	199.85	WSub3: 0deg	LinStatic	-0.136779752	-0.840465462	0	0	0	23.82213856	7-3	16.15
7	216	WSub3: 0deg	LinStatic	-0.136779752	-0.948132128	0	0	0	38.26506411	7-3	32.3
7	0	WSub3: -15deg	LinStatic	-0.101916117	0.985711831	0	0	0	-2.382146899	7-1	0
7	21.375	WSub3: -15deg	LinStatic	-0.101916117	0.736336831	0	0	0	-20.78654197	7-1	21.375
7	42.75	WSub3: -15deg	LinStatic	-0.101916117	0.486961831	0	0	0	-33.86054641	7-1	42.75
7	64.125	WSub3: -15deg	LinStatic	-0.101916117	0.237586831	0	0	0	-41.60416023	7-1	64.125
7	85.5	WSub3: -15deg	LinStatic	-0.101916117	-0.011788169	0	0	0	-44.01738342	7-1	85.5
7	85.5	WSub3: -15deg	LinStatic	-0.101916117	-0.011788169	0	0	0	-44.01738342	7-2	0
7	105.14	WSub3: -15deg	LinStatic	-0.101916117	-0.240921503	0	0	0	-41.53577444	7-2	19.64
7	124.78	WSub3: -15deg	LinStatic	-0.101916117	-0.470054836	0	0	0	-34.5539868	7-2	39.28
7	144.42	WSub3: -15deg	LinStatic	-0.101916117	-0.699188169	0	0	0	-23.07202049	7-2	58.92
7	164.06	WSub3: -15deg	LinStatic	-0.101916117	-0.928321503	0	0	0	-7.089875506	7-2	78.56
7	183.7	WSub3: -15deg	LinStatic	-0.101916117	-1.157454836	0	0	0	13.39244814	7-2	98.2
7	183.7	WSub3: -15deg	LinStatic	-0.101916117	-1.157454836	0	0	0	13.39244814	7-3	0
7	199.85	WSub3: -15deg	LinStatic	-0.101916117	-1.345871503	0	0	0	33.60680832	7-3	16.15
7	216	WSub3: -15deg	LinStatic	-0.101916117	-1.534288169	0	0	0	56.86409768	7-3	32.3
7	0	WSub3: -30deg	LinStatic	-0.057733944	1.488026505	0	0	0	7.392126615	7-1	0
7	21.375	WSub3: -30deg	LinStatic	-0.057733944	1.131776505	0	0	0	-20.60701806	7-1	21.375
7	42.75	WSub3: -30deg	LinStatic	-0.057733944	0.775526505	0	0	0	-40.99131899	7-1	42.75
7	64.125	WSub3: -30deg	LinStatic	-0.057733944	0.419276505	0	0	0	-53.76077617	7-1	64.125
7	85.5	WSub3: -30deg	LinStatic	-0.057733944	0.063026505	0	0	0	-58.9153896	7-1	85.5
7	85.5	WSub3: -30deg	LinStatic	-0.057733944	0.063026505	0	0	0	-58.9153896	7-2	0
7	105.14	WSub3: -30deg	LinStatic	-0.057733944	-0.264306828	0	0	0	-56.93881683	7-2	19.64
7	124.78	WSub3: -30deg	LinStatic	-0.057733944	-0.591640161	0	0	0	-48.5334174	7-2	39.28
7	144.42	WSub3: -30deg	LinStatic	-0.057733944	-0.918973495	0	0	0	-33.69919129	7-2	58.92
7	164.06	WSub3: -30deg	LinStatic	-0.057733944	-1.246306828	0	0	0	-12.43613853	7-2	78.56
7	183.7	WSub3: -30deg	LinStatic	-0.057733944	-1.573640161	0	0	0	15.25574091	7-2	98.2

7	183.7	WSub3: -30deg	LinStatic	-0.057733944	-1.573640161	0	0	0	15.25574091	7-3	0
7	199.85	WSub3: -30deg	LinStatic	-0.057733944	-1.842806828	0	0	0	42.84355034	7-3	16.15
7	216	WSub3: -30deg	LinStatic	-0.057733944	-2.111973495	0	0	0	74.77840145	7-3	32.3
7	0	WSub3: -45deg	LinStatic	-0.012748263	1.837020815	0	0	0	15.81655025	7-1	0
7	21.375	WSub3: -45deg	LinStatic	-0.012748263	1.409520815	0	0	0	-18.88086341	7-1	21.375
7	42.75	WSub3: -45deg	LinStatic	-0.012748263	0.982020815	0	0	0	-44.44046457	7-1	42.75
7	64.125	WSub3: -45deg	LinStatic	-0.012748263	0.554520815	0	0	0	-60.86225323	7-1	64.125
7	85.5	WSub3: -45deg	LinStatic	-0.012748263	0.127020815	0	0	0	-68.14622939	7-1	85.5
7	85.5	WSub3: -45deg	LinStatic	-0.012748263	0.127020815	0	0	0	-68.14622939	7-2	0
7	105.14	WSub3: -45deg	LinStatic	-0.012748263	-0.265779185	0	0	0	-66.78362219	7-2	19.64
7	124.78	WSub3: -45deg	LinStatic	-0.012748263	-0.658579185	0	0	0	-57.70642299	7-2	39.28
7	144.42	WSub3: -45deg	LinStatic	-0.012748263	-1.051379185	0	0	0	-40.91463179	7-2	58.92
7	164.06	WSub3: -45deg	LinStatic	-0.012748263	-1.444179185	0	0	0	-16.40824859	7-2	78.56
7	183.7	WSub3: -45deg	LinStatic	-0.012748263	-1.836979185	0	0	0	15.81272661	7-2	98.2
7	183.7	WSub3: -45deg	LinStatic	-0.012748263	-1.836979185	0	0	0	15.81272661	7-3	0
7	199.85	WSub3: -45deg	LinStatic	-0.012748263	-2.159979185	0	0	0	48.08816546	7-3	16.15
7	216	WSub3: -45deg	LinStatic	-0.012748263	-2.482979185	0	0	0	85.5800543	7-3	32.3
7	0	WA	LinStatic	-2.19208E-16	-1.77636E-15	0	0	0	5.68434E-14	7-1	0
7	21.375	WA	LinStatic	-2.19208E-16	-1.77636E-15	0	0	0	9.4813E-14	7-1	21.375
7	42.75	WA	LinStatic	-2.19208E-16	-1.77636E-15	0	0	0	1.32783E-13	7-1	42.75
7	64.125	WA	LinStatic	-2.19208E-16	-1.77636E-15	0	0	0	1.70752E-13	7-1	64.125
7	85.5	WA	LinStatic	-2.19208E-16	-1.77636E-15	0	0	0	2.08722E-13	7-1	85.5
7	85.5	WA	LinStatic	-2.16489E-16	0	0	0	0	1.42109E-13	7-2	0
7	105.14	WA	LinStatic	-2.16489E-16	0	0	0	0	1.42109E-13	7-2	19.64
7	124.78	WA	LinStatic	-2.16489E-16	0	0	0	0	1.42109E-13	7-2	39.28
7	144.42	WA	LinStatic	-2.16489E-16	0	0	0	0	1.42109E-13	7-2	58.92
7	164.06	WA	LinStatic	-2.16489E-16	0	0	0	0	1.42109E-13	7-2	78.56
7	183.7	WA	LinStatic	-2.16489E-16	0	0	0	0	1.42109E-13	7-2	98.2
7	183.7	WA	LinStatic	-2.16489E-16	3.55271E-15	0	0	0	1.7053E-13	7-3	0
7	199.85	WA	LinStatic	-2.16489E-16	3.55271E-15	0	0	0	1.13154E-13	7-3	16.15
7	216	WA	LinStatic	-2.16489E-16	3.55271E-15	0	0	0	5.57776E-14	7-3	32.3
7	0	WS3: 45deg	Combination	-2.496862864	-6.146438055	1.205048441	62.07366746	33.71502205	-748.6501428	7-1	0
7	21.375	WS3: 45deg	Combination	-2.496862864	-6.360188055	1.205048441	62.07366746	7.957111629	-614.9855763	7-1	21.375
7	42.75	WS3: 45deg	Combination	-2.496862864	-6.573938055	1.205048441	62.07366746	-17.80079879	-476.7521035	7-1	42.75
7	64.125	WS3: 45deg	Combination	-2.496862864	-6.787688055	1.205048441	62.07366746	-43.55870921	-333.9497245	7-1	64.125
7	85.5	WS3: 45deg	Combination	-2.496862864	-7.001438055	1.205048441	62.07366746	-69.31661963	-186.5784392	7-1	85.5
7	85.5	WS3: 45deg	Combination	0.203137136	-5.451438055	-0.204951559	24.00366746	-69.31661963	-259.4784392	7-2	0
7	105.14	WS3: 45deg	Combination	0.203137136	-5.647838055	-0.204951559	24.00366746	-65.29137101	-150.4835478	7-2	19.64
7	124.78	WS3: 45deg	Combination	0.203137136	-5.844238055	-0.204951559	24.00366746	-61.26612238	-37.6313604	7-2	39.28
7	144.42	WS3: 45deg	Combination	0.203137136	-6.040638055	-0.204951559	24.00366746	-57.24087376	79.07812299	7-2	58.92
7	164.06	WS3: 45deg	Combination	0.203137136	-6.237038055	-0.204951559	24.00366746	-53.21562513	199.6449024	7-2	78.56
7	183.7	WS3: 45deg	Combination	0.203137136	-6.433438055	-0.204951559	24.00366746	-49.19037651	324.0689778	7-2	98.2

7	183.7	WS3: 45deg	Combination	2.903137136	-7.913438055	-1.614951559	-14.06633254	-49.19037651	251.1689778	7-3	0
7	199.85	WS3: 45deg	Combination	2.903137136	-8.074938055	-1.614951559	-14.06633254	-23.10890882	380.2751149	7-3	16.15
7	216	WS3: 45deg	Combination	2.903137136	-8.236438055	-1.614951559	-14.06633254	2.97255886	511.9894769	7-3	32.3
7	0	WS3: 30deg	Combination	-2.528620319	-6.637458442	1.205048441	62.07366746	33.71502205	-756.8978233	7-1	0
7	21.375	WS3: 30deg	Combination	-2.528620319	-6.744333442	1.205048441	62.07366746	7.957111629	-613.8799226	7-1	21.375
7	42.75	WS3: 30deg	Combination	-2.528620319	-6.851208442	1.205048441	62.07366746	-17.80079879	-468.5775687	7-1	42.75
7	64.125	WS3: 30deg	Combination	-2.528620319	-6.958083442	1.205048441	62.07366746	-43.55870921	-320.9907617	7-1	64.125
7	85.5	WS3: 30deg	Combination	-2.528620319	-7.064958442	1.205048441	62.07366746	-69.31661963	-171.1195016	7-1	85.5
7	85.5	WS3: 30deg	Combination	0.171379681	-5.514958442	-0.204951559	24.00366746	-69.31661963	-244.0195016	7-2	0
7	105.14	WS3: 30deg	Combination	0.171379681	-5.613158442	-0.204951559	24.00366746	-65.29137101	-134.7413938	7-2	19.64
7	124.78	WS3: 30deg	Combination	0.171379681	-5.711358442	-0.204951559	24.00366746	-61.26612238	-23.53463796	7-2	39.28
7	144.42	WS3: 30deg	Combination	0.171379681	-5.809558442	-0.204951559	24.00366746	-57.24087376	89.60076584	7-2	58.92
7	164.06	WS3: 30deg	Combination	0.171379681	-5.907758442	-0.204951559	24.00366746	-53.21562513	204.6648176	7-2	78.56
7	183.7	WS3: 30deg	Combination	0.171379681	-6.005958442	-0.204951559	24.00366746	-49.19037651	321.6575174	7-2	98.2
7	183.7	WS3: 30deg	Combination	2.871379681	-7.485958442	-1.614951559	-14.06633254	-49.19037651	248.7575174	7-3	0
7	199.85	WS3: 30deg	Combination	2.871379681	-7.566708442	-1.614951559	-14.06633254	-23.10890882	370.3078025	7-3	16.15
7	216	WS3: 30deg	Combination	2.871379681	-7.647458442	-1.614951559	-14.06633254	2.97255886	493.1622001	7-3	32.3
7	0	WS3: 15deg	Combination	-2.54524863	-7.037700787	1.205048441	62.07366746	33.71502205	-762.5623376	7-1	0
7	21.375	WS3: 15deg	Combination	-2.54524863	-7.055513287	1.205048441	62.07366746	7.957111629	-611.9411122	7-1	21.375
7	42.75	WS3: 15deg	Combination	-2.54524863	-7.073325787	1.205048441	62.07366746	-17.80079879	-460.9391446	7-1	42.75
7	64.125	WS3: 15deg	Combination	-2.54524863	-7.091138287	1.205048441	62.07366746	-43.55870921	-309.5564348	7-1	64.125
7	85.5	WS3: 15deg	Combination	-2.54524863	-7.108950787	1.205048441	62.07366746	-69.31661963	-157.7929828	7-1	85.5
7	85.5	WS3: 15deg	Combination	0.15475137	-5.558950787	-0.204951559	24.00366746	-69.31661963	-230.6929828	7-2	0
7	105.14	WS3: 15deg	Combination	0.15475137	-5.575317454	-0.204951559	24.00366746	-65.29137101	-121.3544687	7-2	19.64
7	124.78	WS3: 15deg	Combination	0.15475137	-5.59168412	-0.204951559	24.00366746	-61.26612238	-11.69451321	7-2	39.28
7	144.42	WS3: 15deg	Combination	0.15475137	-5.608050787	-0.204951559	24.00366746	-57.24087376	98.28688357	7-2	58.92
7	164.06	WS3: 15deg	Combination	0.15475137	-5.624417454	-0.204951559	24.00366746	-53.21562513	208.5897217	7-2	78.56
7	183.7	WS3: 15deg	Combination	0.15475137	-5.64078412	-0.204951559	24.00366746	-49.19037651	319.2140012	7-2	98.2
7	183.7	WS3: 15deg	Combination	2.85475137	-7.12078412	-1.614951559	-14.06633254	-49.19037651	246.3140012	7-3	0
7	199.85	WS3: 15deg	Combination	2.85475137	-7.134242454	-1.614951559	-14.06633254	-23.10890882	361.4233407	7-3	16.15
7	216	WS3: 15deg	Combination	2.85475137	-7.147700787	-1.614951559	-14.06633254	2.97255886	476.7500324	7-3	32.3
7	0	WS3: 0deg	Combination	-2.518552197	-6.474255575	1.205048441	62.07366746	33.71502205	-754.2122045	7-1	0
7	21.375	WS3: 0deg	Combination	-2.518552197	-6.616755575	1.205048441	62.07366746	7.957111629	-614.3020229	7-1	21.375
7	42.75	WS3: 0deg	Combination	-2.518552197	-6.759255575	1.205048441	62.07366746	-17.80079879	-471.3459037	7-1	42.75
7	64.125	WS3: 0deg	Combination	-2.518552197	-6.901755575	1.205048441	62.07366746	-43.55870921	-325.3438471	7-1	64.125
7	85.5	WS3: 0deg	Combination	-2.518552197	-7.044255575	1.205048441	62.07366746	-69.31661963	-176.2958529	7-1	85.5
7	85.5	WS3: 0deg	Combination	0.181447803	-5.494255575	-0.204951559	24.00366746	-69.31661963	-249.1958529	7-2	0
7	105.14	WS3: 0deg	Combination	0.181447803	-5.625188908	-0.204951559	24.00366746	-65.29137101	-140.0029081	7-2	19.64
7	124.78	WS3: 0deg	Combination	0.181447803	-5.756122241	-0.204951559	24.00366746	-61.26612238	-28.2384326	7-2	39.28
7	144.42	WS3: 0deg	Combination	0.181447803	-5.887055575	-0.204951559	24.00366746	-57.24087376	86.09757356	7-2	58.92
7	164.06	WS3: 0deg	Combination	0.181447803	-6.017988908	-0.204951559	24.00366746	-53.21562513	203.0051104	7-2	78.56
7	183.7	WS3: 0deg	Combination	0.181447803	-6.148922241	-0.204951559	24.00366746	-49.19037651	322.4841779	7-2	98.2

7	183.7	WS3: 0deg	Combination	2.881447803	-7.628922241	-1.614951559	-14.06633254	-49.19037651	249.5841779	7-3	0
7	199.85	WS3: 0deg	Combination	2.881447803	-7.736588908	-1.614951559	-14.06633254	-23.10890882	373.6606804	7-3	16.15
7	216	WS3: 0deg	Combination	2.881447803	-7.844255575	-1.614951559	-14.06633254	2.97255886	499.4759996	7-3	32.3
7	0	WS3: -15deg	Combination	-2.483688563	-5.980411616	1.205048441	62.07366746	33.71502205	-745.5828758	7-1	0
7	21.375	WS3: -15deg	Combination	-2.483688563	-6.229786616	1.205048441	62.07366746	7.957111629	-615.0863822	7-1	21.375
7	42.75	WS3: -15deg	Combination	-2.483688563	-6.479161616	1.205048441	62.07366746	-17.80079879	-479.259498	7-1	42.75
7	64.125	WS3: -15deg	Combination	-2.483688563	-6.728536616	1.205048441	62.07366746	-43.55870921	-338.1022231	7-1	64.125
7	85.5	WS3: -15deg	Combination	-2.483688563	-6.977911616	1.205048441	62.07366746	-69.31661963	-191.6145577	7-1	85.5
7	85.5	WS3: -15deg	Combination	0.216311437	-5.427911616	-0.204951559	24.00366746	-69.31661963	-264.5145577	7-2	0
7	105.14	WS3: -15deg	Combination	0.216311437	-5.657044949	-0.204951559	24.00366746	-65.29137101	-155.6602842	7-2	19.64
7	124.78	WS3: -15deg	Combination	0.216311437	-5.886178282	-0.204951559	24.00366746	-61.26612238	-42.30583208	7-2	39.28
7	144.42	WS3: -15deg	Combination	0.216311437	-6.115311616	-0.204951559	24.00366746	-57.24087376	75.54879872	7-2	58.92
7	164.06	WS3: -15deg	Combination	0.216311437	-6.344444949	-0.204951559	24.00366746	-53.21562513	197.9036082	7-2	78.56
7	183.7	WS3: -15deg	Combination	0.216311437	-6.573578282	-0.204951559	24.00366746	-49.19037651	324.7585963	7-2	98.2
7	183.7	WS3: -15deg	Combination	2.916311437	-8.053578282	-1.614951559	-14.06633254	-49.19037651	251.8585963	7-3	0
7	199.85	WS3: -15deg	Combination	2.916311437	-8.241994949	-1.614951559	-14.06633254	-23.10890882	383.4453502	7-3	16.15
7	216	WS3: -15deg	Combination	2.916311437	-8.430411616	-1.614951559	-14.06633254	2.97255886	518.0750332	7-3	32.3
7	0	WS3: -30deg	Combination	-2.439506389	-5.47809694	1.205048441	62.07366746	33.71502205	-735.8086023	7-1	0
7	21.375	WS3: -30deg	Combination	-2.439506389	-5.83434694	1.205048441	62.07366746	7.957111629	-614.9068583	7-1	21.375
7	42.75	WS3: -30deg	Combination	-2.439506389	-6.19059694	1.205048441	62.07366746	-17.80079879	-486.3902706	7-1	42.75
7	64.125	WS3: -30deg	Combination	-2.439506389	-6.54684694	1.205048441	62.07366746	-43.55870921	-350.2588391	7-1	64.125
7	85.5	WS3: -30deg	Combination	-2.439506389	-6.90309694	1.205048441	62.07366746	-69.31661963	-206.5125638	7-1	85.5
7	85.5	WS3: -30deg	Combination	0.260493611	-5.353096941	-0.204951559	24.00366746	-69.31661963	-279.4125638	7-2	0
7	105.14	WS3: -30deg	Combination	0.260493611	-5.680430274	-0.204951559	24.00366746	-65.29137101	-171.0633266	7-2	19.64
7	124.78	WS3: -30deg	Combination	0.260493611	-6.007763608	-0.204951559	24.00366746	-61.26612238	-56.28526267	7-2	39.28
7	144.42	WS3: -30deg	Combination	0.260493611	-6.335096941	-0.204951559	24.00366746	-57.24087376	64.92162791	7-2	58.92
7	164.06	WS3: -30deg	Combination	0.260493611	-6.662430274	-0.204951559	24.00366746	-53.21562513	192.5573452	7-2	78.56
7	183.7	WS3: -30deg	Combination	0.260493611	-6.989763608	-0.204951559	24.00366746	-49.19037651	326.6218891	7-2	98.2
7	183.7	WS3: -30deg	Combination	2.960493611	-8.469763608	-1.614951559	-14.06633254	-49.19037651	253.7218891	7-3	0
7	199.85	WS3: -30deg	Combination	2.960493611	-8.738930274	-1.614951559	-14.06633254	-23.10890882	392.6820922	7-3	16.15
7	216	WS3: -30deg	Combination	2.960493611	-9.008096941	-1.614951559	-14.06633254	2.97255886	535.9893369	7-3	32.3
7	0	WServ1: -45deg	Combination	-0.902617364	-2.026895868	0.445867923	22.96725696	12.47455816	-272.2491828	7-1	0
7	21.375	WServ1: -45deg	Combination	-0.902617364	-2.158708368	0.445867923	22.96725696	2.944131303	-227.5155376	7-1	21.375
7	42.75	WServ1: -45deg	Combination	-0.902617364	-2.290520868	0.445867923	22.96725696	-6.586295553	-179.9644001	7-1	42.75
7	64.125	WServ1: -45deg	Combination	-0.902617364	-2.422333368	0.445867923	22.96725696	-16.11672241	-129.5957705	7-1	64.125
7	85.5	WServ1: -45deg	Combination	-0.902617364	-2.554145868	0.445867923	22.96725696	-25.64714926	-76.40964862	7-1	85.5
7	85.5	WServ1: -45deg	Combination	0.096382636	-1.980645868	-0.075832077	8.88135696	-25.64714926	-103.3826486	7-2	0
7	105.14	WServ1: -45deg	Combination	0.096382636	-2.101759201	-0.075832077	8.88135696	-24.15780727	-63.29343084	7-2	19.64
7	124.78	WServ1: -45deg	Combination	0.096382636	-2.222872535	-0.075832077	8.88135696	-22.66846528	-20.82554719	7-2	39.28
7	144.42	WServ1: -45deg	Combination	0.096382636	-2.343985868	-0.075832077	8.88135696	-21.17912329	24.02100233	7-2	58.92
7	164.06	WServ1: -45deg	Combination	0.096382636	-2.465099201	-0.075832077	8.88135696	-19.6897813	71.24621771	7-2	78.56
7	183.7	WServ1: -45deg	Combination	0.096382636	-2.586212535	-0.075832077	8.88135696	-18.20043931	120.850099	7-2	98.2

7	183.7	WServ1: -45deg	Combination	1.095382636	-3.133812535	-0.597532077	-5.20454304	-18.20043931	93.87709896	7-3	0
7	199.85	WServ1: -45deg	Combination	1.095382636	-3.233404201	-0.597532077	-5.20454304	-8.550296265	145.2923741	7-3	16.15
7	216	WServ1: -45deg	Combination	1.095382636	-3.332995868	-0.597532077	-5.20454304	1.099846778	198.3160547	7-3	32.3
7	0	WS5: 45deg	Combination	-1.840887095	-4.710351006	0.95928693	49.41416121	26.83907046	-549.4671101	7-1	0
7	21.375	WS5: 45deg	Combination	-1.840887095	-4.813806006	0.95928693	49.41416121	6.334312324	-447.677682	7-1	21.375
7	42.75	WS5: 45deg	Combination	-1.840887095	-4.917261006	0.95928693	49.41416121	-14.17044581	-343.6769034	7-1	42.75
7	64.125	WS5: 45deg	Combination	-1.840887095	-5.020716006	0.95928693	49.41416121	-34.67520395	-237.464774	7-1	64.125
7	85.5	WS5: 45deg	Combination	-1.840887095	-5.124171006	0.95928693	49.41416121	-55.17996208	-129.0412941	7-1	85.5
7	85.5	WS5: 45deg	Combination	0.155912905	-3.923971006	-0.16315307	19.10828121	-55.17996208	-182.9548941	7-2	0
7	105.14	WS5: 45deg	Combination	0.155912905	-4.019028606	-0.16315307	19.10828121	-51.9756358	-104.9546379	7-2	19.64
7	124.78	WS5: 45deg	Combination	0.155912905	-4.114086206	-0.16315307	19.10828121	-48.77130951	-25.08745047	7-2	39.28
7	144.42	WS5: 45deg	Combination	0.155912905	-4.209143806	-0.16315307	19.10828121	-45.56698322	56.64666825	7-2	58.92
7	164.06	WS5: 45deg	Combination	0.155912905	-4.304201406	-0.16315307	19.10828121	-42.36265693	140.2477182	7-2	78.56
7	183.7	WS5: 45deg	Combination	0.155912905	-4.399259006	-0.16315307	19.10828121	-39.15833064	225.7156995	7-2	98.2
7	183.7	WS5: 45deg	Combination	2.152712905	-4.765579006	-1.28559307	-11.19759879	-39.15833064	171.8020995	7-3	0
7	199.85	WS5: 45deg	Combination	2.152712905	-4.843745006	-1.28559307	-11.19759879	-18.39600257	249.3973909	7-3	16.15
7	216	WS5: 45deg	Combination	2.152712905	-4.921911006	-1.28559307	-11.19759879	2.366325508	328.2550632	7-3	32.3
7	0	WS5: 30deg	Combination	-1.856257703	-4.948004873	0.95928693	49.41416121	26.83907046	-553.4589875	7-1	0
7	21.375	WS5: 30deg	Combination	-1.856257703	-4.999732373	0.95928693	49.41416121	6.334312324	-447.1425456	7-1	21.375
7	42.75	WS5: 30deg	Combination	-1.856257703	-5.051459873	0.95928693	49.41416121	-14.17044581	-339.7204285	7-1	42.75
7	64.125	WS5: 30deg	Combination	-1.856257703	-5.103187373	0.95928693	49.41416121	-34.67520395	-231.1926361	7-1	64.125
7	85.5	WS5: 30deg	Combination	-1.856257703	-5.154914873	0.95928693	49.41416121	-55.17996208	-121.5591683	7-1	85.5
7	85.5	WS5: 30deg	Combination	0.140542297	-3.954714873	-0.16315307	19.10828121	-55.17996208	-175.4727683	7-2	0
7	105.14	WS5: 30deg	Combination	0.140542297	-4.002243673	-0.16315307	19.10828121	-51.9756358	-97.33543537	7-2	19.64
7	124.78	WS5: 30deg	Combination	0.140542297	-4.049772473	-0.16315307	19.10828121	-48.77130951	-18.26463681	7-2	39.28
7	144.42	WS5: 30deg	Combination	0.140542297	-4.097301273	-0.16315307	19.10828121	-45.56698322	61.73962738	7-2	58.92
7	164.06	WS5: 30deg	Combination	0.140542297	-4.144830073	-0.16315307	19.10828121	-42.36265693	142.6773572	7-2	78.56
7	183.7	WS5: 30deg	Combination	0.140542297	-4.192358873	-0.16315307	19.10828121	-39.15833064	224.5485527	7-2	98.2
7	183.7	WS5: 30deg	Combination	2.137342297	-4.558678873	-1.28559307	-11.19759879	-39.15833064	170.6349527	7-3	0
7	199.85	WS5: 30deg	Combination	2.137342297	-4.597761873	-1.28559307	-11.19759879	-18.39600257	244.5732117	7-3	16.15
7	216	WS5: 30deg	Combination	2.137342297	-4.636844873	-1.28559307	-11.19759879	2.366325508	319.1426612	7-3	32.3
7	0	WS5: 15deg	Combination	-1.864305806	-5.141722168	0.95928693	49.41416121	26.83907046	-556.2006124	7-1	0
7	21.375	WS5: 15deg	Combination	-1.864305806	-5.150343418	0.95928693	49.41416121	6.334312324	-446.2041614	7-1	21.375
7	42.75	WS5: 15deg	Combination	-1.864305806	-5.158964668	0.95928693	49.41416121	-14.17044581	-336.0234312	7-1	42.75
7	64.125	WS5: 15deg	Combination	-1.864305806	-5.167585918	0.95928693	49.41416121	-34.67520395	-225.6584218	7-1	64.125
7	85.5	WS5: 15deg	Combination	-1.864305806	-5.176207168	0.95928693	49.41416121	-55.17996208	-115.1091332	7-1	85.5
7	85.5	WS5: 15deg	Combination	0.132494194	-3.976007168	-0.16315307	19.10828121	-55.17996208	-169.0227332	7-2	0
7	105.14	WS5: 15deg	Combination	0.132494194	-3.983928635	-0.16315307	19.10828121	-51.9756358	-90.85616362	7-2	19.64
7	124.78	WS5: 15deg	Combination	0.132494194	-3.991850102	-0.16315307	19.10828121	-48.77130951	-12.53401643	7-2	39.28
7	144.42	WS5: 15deg	Combination	0.132494194	-3.999771568	-0.16315307	19.10828121	-45.56698322	65.94370837	7-2	58.92
7	164.06	WS5: 15deg	Combination	0.132494194	-4.007693035	-0.16315307	19.10828121	-42.36265693	144.5770108	7-2	78.56
7	183.7	WS5: 15deg	Combination	0.132494194	-4.015614502	-0.16315307	19.10828121	-39.15833064	223.3658908	7-2	98.2

7	183.7	WS5: 15deg	Combination	2.129294194	-4.381934502	-1.28559307	-11.19759879	-39.15833064	169.4522908	7-3	0
7	199.85	WS5: 15deg	Combination	2.129294194	-4.388448335	-1.28559307	-11.19759879	-18.39600257	240.2731322	7-3	16.15
7	216	WS5: 15deg	Combination	2.129294194	-4.394962168	-1.28559307	-11.19759879	2.366325508	311.199172	7-3	32.3
7	0	WS5: 0deg	Combination	-1.851384732	-4.869014686	0.95928693	49.41416121	26.83907046	-552.159148	7-1	0
7	21.375	WS5: 0deg	Combination	-1.851384732	-4.937984686	0.95928693	49.41416121	6.334312324	-447.3468422	7-1	21.375
7	42.75	WS5: 0deg	Combination	-1.851384732	-5.006954686	0.95928693	49.41416121	-14.17044581	-341.0603027	7-1	42.75
7	64.125	WS5: 0deg	Combination	-1.851384732	-5.075924686	0.95928693	49.41416121	-34.67520395	-233.2995294	7-1	64.125
7	85.5	WS5: 0deg	Combination	-1.851384732	-5.144894686	0.95928693	49.41416121	-55.17996208	-124.0645223	7-1	85.5
7	85.5	WS5: 0deg	Combination	0.145415268	-3.944694686	-0.16315307	19.10828121	-55.17996208	-177.9781223	7-2	0
7	105.14	WS5: 0deg	Combination	0.145415268	-4.008066419	-0.16315307	19.10828121	-51.9756358	-99.8820083	7-2	19.64
7	124.78	WS5: 0deg	Combination	0.145415268	-4.071438152	-0.16315307	19.10828121	-48.77130951	-20.54127341	7-2	39.28
7	144.42	WS5: 0deg	Combination	0.145415268	-4.134809886	-0.16315307	19.10828121	-45.56698322	60.04408232	7-2	58.92
7	164.06	WS5: 0deg	Combination	0.145415268	-4.198181619	-0.16315307	19.10828121	-42.36265693	141.8740589	7-2	78.56
7	183.7	WS5: 0deg	Combination	0.145415268	-4.261553352	-0.16315307	19.10828121	-39.15833064	224.9486563	7-2	98.2
7	183.7	WS5: 0deg	Combination	2.142215268	-4.627873352	-1.28559307	-11.19759879	-39.15833064	171.0350563	7-3	0
7	199.85	WS5: 0deg	Combination	2.142215268	-4.679984019	-1.28559307	-11.19759879	-18.39600257	246.1960046	7-3	16.15
7	216	WS5: 0deg	Combination	2.142215268	-4.732094686	-1.28559307	-11.19759879	2.366325508	322.1985401	7-3	32.3
7	0	WS5: -15deg	Combination	-1.834510733	-4.629994209	0.95928693	49.41416121	26.83907046	-547.9825529	7-1	0
7	21.375	WS5: -15deg	Combination	-1.834510733	-4.750691709	0.95928693	49.41416121	6.334312324	-447.7264721	7-1	21.375
7	42.75	WS5: -15deg	Combination	-1.834510733	-4.871389209	0.95928693	49.41416121	-14.17044581	-344.8904823	7-1	42.75
7	64.125	WS5: -15deg	Combination	-1.834510733	-4.992086709	0.95928693	49.41416121	-34.67520395	-239.4745834	7-1	64.125
7	85.5	WS5: -15deg	Combination	-1.834510733	-5.112784209	0.95928693	49.41416121	-55.17996208	-131.4787755	7-1	85.5
7	85.5	WS5: -15deg	Combination	0.162289267	-3.912584209	-0.16315307	19.10828121	-55.17996208	-185.3923755	7-2	0
7	105.14	WS5: -15deg	Combination	0.162289267	-4.023484743	-0.16315307	19.10828121	-51.9756358	-107.4601783	7-2	19.64
7	124.78	WS5: -15deg	Combination	0.162289267	-4.134385276	-0.16315307	19.10828121	-48.77130951	-27.34989476	7-2	39.28
7	144.42	WS5: -15deg	Combination	0.162289267	-4.245285809	-0.16315307	19.10828121	-45.56698322	54.9384753	7-2	58.92
7	164.06	WS5: -15deg	Combination	0.162289267	-4.356186343	-0.16315307	19.10828121	-42.36265693	139.4049318	7-2	78.56
7	183.7	WS5: -15deg	Combination	0.162289267	-4.467086876	-0.16315307	19.10828121	-39.15833064	226.0494748	7-2	98.2
7	183.7	WS5: -15deg	Combination	2.159089267	-4.833406876	-1.28559307	-11.19759879	-39.15833064	172.1358748	7-3	0
7	199.85	WS5: -15deg	Combination	2.159089267	-4.924600543	-1.28559307	-11.19759879	-18.39600257	250.9317847	7-3	16.15
7	216	WS5: -15deg	Combination	2.159089267	-5.015794209	-1.28559307	-11.19759879	2.366325508	331.2004724	7-3	32.3
7	0	WS5: -30deg	Combination	-1.813126561	-4.386873907	0.95928693	49.41416121	26.83907046	-543.2518045	7-1	0
7	21.375	WS5: -30deg	Combination	-1.813126561	-4.559298907	0.95928693	49.41416121	6.334312324	-447.6395825	7-1	21.375
7	42.75	WS5: -30deg	Combination	-1.813126561	-4.731723907	0.95928693	49.41416121	-14.17044581	-348.3417762	7-1	42.75
7	64.125	WS5: -30deg	Combination	-1.813126561	-4.904148907	0.95928693	49.41416121	-34.67520395	-245.3583855	7-1	64.125
7	85.5	WS5: -30deg	Combination	-1.813126561	-5.076573907	0.95928693	49.41416121	-55.17996208	-138.6894104	7-1	85.5
7	85.5	WS5: -30deg	Combination	0.183673439	-3.876373907	-0.16315307	19.10828121	-55.17996208	-192.6030104	7-2	0
7	105.14	WS5: -30deg	Combination	0.183673439	-4.03480324	-0.16315307	19.10828121	-51.9756358	-114.9152509	7-2	19.64
7	124.78	WS5: -30deg	Combination	0.183673439	-4.193232573	-0.16315307	19.10828121	-48.77130951	-34.11593917	7-2	39.28
7	144.42	WS5: -30deg	Combination	0.183673439	-4.351661907	-0.16315307	19.10828121	-45.56698322	49.79492463	7-2	58.92
7	164.06	WS5: -30deg	Combination	0.183673439	-4.51009124	-0.16315307	19.10828121	-42.36265693	136.8173405	7-2	78.56
7	183.7	WS5: -30deg	Combination	0.183673439	-4.668520573	-0.16315307	19.10828121	-39.15833064	226.9513085	7-2	98.2

7	183.7	WS5: -30deg	Combination	2.180473439	-5.034840573	-1.28559307	-11.19759879	-39.15833064	173.0377085	7-3	0
7	199.85	WS5: -30deg	Combination	2.180473439	-5.16511724	-1.28559307	-11.19759879	-18.39600257	255.4023679	7-3	16.15
7	216	WS5: -30deg	Combination	2.180473439	-5.295393907	-1.28559307	-11.19759879	2.366325508	339.8709954	7-3	32.3
7	0	WS5: -45deg	Combination	-1.791353491	-4.217960661	0.95928693	49.41416121	26.83907046	-539.1743834	7-1	0
7	21.375	WS5: -45deg	Combination	-1.791353491	-4.424870661	0.95928693	49.41416121	6.334312324	-446.8041237	7-1	21.375
7	42.75	WS5: -45deg	Combination	-1.791353491	-4.631780661	0.95928693	49.41416121	-14.17044581	-350.0111627	7-1	42.75
7	64.125	WS5: -45deg	Combination	-1.791353491	-4.838690661	0.95928693	49.41416121	-34.67520395	-248.7955004	7-1	64.125
7	85.5	WS5: -45deg	Combination	-1.791353491	-5.045600661	0.95928693	49.41416121	-55.17996208	-143.1571369	7-1	85.5
7	85.5	WS5: -45deg	Combination	0.205446509	-3.845400661	-0.16315307	19.10828121	-55.17996208	-197.0707369	7-2	0
7	105.14	WS5: -45deg	Combination	0.205446509	-4.035515861	-0.16315307	19.10828121	-51.9756358	-119.6801367	7-2	19.64
7	124.78	WS5: -45deg	Combination	0.205446509	-4.225631061	-0.16315307	19.10828121	-48.77130951	-38.55567388	7-2	39.28
7	144.42	WS5: -45deg	Combination	0.205446509	-4.415746261	-0.16315307	19.10828121	-45.56698322	46.30265143	7-2	58.92
7	164.06	WS5: -45deg	Combination	0.205446509	-4.605861461	-0.16315307	19.10828121	-42.36265693	134.8948393	7-2	78.56
7	183.7	WS5: -45deg	Combination	0.205446509	-4.795976661	-0.16315307	19.10828121	-39.15833064	227.2208896	7-2	98.2
7	183.7	WS5: -45deg	Combination	2.202246509	-5.162296661	-1.28559307	-11.19759879	-39.15833064	173.3072896	7-3	0
7	199.85	WS5: -45deg	Combination	2.202246509	-5.318628661	-1.28559307	-11.19759879	-18.39600257	257.9407616	7-3	16.15
7	216	WS5: -45deg	Combination	2.202246509	-5.474960661	-1.28559307	-11.19759879	2.366325508	345.0989954	7-3	32.3
7	0	LL - 1 Lane	Combination	-3.743122322	-39.57586641	2.55538641	131.6313941	71.49497583	-1640.981456	7-1	0
7	21.375	LL - 1 Lane	Combination	-3.743122322	-39.57586641	2.55538641	131.6313941	16.87359133	-795.0473117	7-1	21.375
7	42.75	LL - 1 Lane	Combination	-3.743122322	-39.57586641	2.55538641	131.6313941	-37.74779318	50.88683284	7-1	42.75
7	64.125	LL - 1 Lane	Combination	-3.743122322	-39.57586641	2.55538641	131.6313941	-92.36917769	896.8209774	7-1	64.125
7	85.5	LL - 1 Lane	Combination	-3.743122322	-39.57586641	2.55538641	131.6313941	-146.9905622	1742.755122	7-1	85.5
7	85.5	LL - 1 Lane	Combination	-0.853122322	12.54413359	-0.43461359	50.90139412	-146.9905622	1664.725122	7-2	0
7	105.14	LL - 1 Lane	Combination	-0.853122322	12.54413359	-0.43461359	50.90139412	-138.4547513	1418.358338	7-2	19.64
7	124.78	LL - 1 Lane	Combination	-0.853122322	12.54413359	-0.43461359	50.90139412	-129.9189404	1171.991555	7-2	39.28
7	144.42	LL - 1 Lane	Combination	-0.853122322	12.54413359	-0.43461359	50.90139412	-121.3831295	925.624771	7-2	58.92
7	164.06	LL - 1 Lane	Combination	-0.853122322	12.54413359	-0.43461359	50.90139412	-112.8473185	679.2579873	7-2	78.56
7	183.7	LL - 1 Lane	Combination	-0.853122322	12.54413359	-0.43461359	50.90139412	-104.3115076	432.8912036	7-2	98.2
7	183.7	LL - 1 Lane	Combination	2.036877678	58.21413359	-3.42461359	-29.82860588	-104.3115076	354.8612036	7-3	0
7	199.85	LL - 1 Lane	Combination	2.036877678	58.21413359	-3.42461359	-29.82860588	-49.00399814	-585.2970538	7-3	16.15
7	216	LL - 1 Lane	Combination	2.036877678	58.21413359	-3.42461359	-29.82860588	6.303511341	-1525.455311	7-3	32.3
7	0	WS5 + WA	Combination	-1.785183332	-5.107078735	0.95928693	49.41416121	26.83907046	-546.8295938	7-1	0
7	21.375	WS5 + WA	Combination	-1.785183332	-5.107078735	0.95928693	49.41416121	6.334312324	-437.6657858	7-1	21.375
7	42.75	WS5 + WA	Combination	-1.785183332	-5.107078735	0.95928693	49.41416121	-14.17044581	-328.5019778	7-1	42.75
7	64.125	WS5 + WA	Combination	-1.785183332	-5.107078735	0.95928693	49.41416121	-34.67520395	-219.3381698	7-1	64.125
7	85.5	WS5 + WA	Combination	-1.785183332	-5.107078735	0.95928693	49.41416121	-55.17996208	-110.1743619	7-1	85.5
7	85.5	WS5 + WA	Combination	0.211616668	-3.906878735	-0.16315307	19.10828121	-55.17996208	-164.0879619	7-2	0
7	105.14	WS5 + WA	Combination	0.211616668	-3.906878735	-0.16315307	19.10828121	-51.9756358	-87.35686352	7-2	19.64
7	124.78	WS5 + WA	Combination	0.211616668	-3.906878735	-0.16315307	19.10828121	-48.77130951	-10.62576515	7-2	39.28
7	144.42	WS5 + WA	Combination	0.211616668	-3.906878735	-0.16315307	19.10828121	-45.56698322	66.10533321	7-2	58.92
7	164.06	WS5 + WA	Combination	0.211616668	-3.906878735	-0.16315307	19.10828121	-42.36265693	142.8364316	7-2	78.56
7	183.7	WS5 + WA	Combination	0.211616668	-3.906878735	-0.16315307	19.10828121	-39.15833064	219.5675299	7-2	98.2

7	183.7	WS5 + WA	Combination	2.208416668	-4.273198735	-1.28559307	-11.19759879	-39.15833064	165.6539299	7-3	0
7	199.85	WS5 + WA	Combination	2.208416668	-4.273198735	-1.28559307	-11.19759879	-18.39600257	234.6660895	7-3	16.15
7	216	WS5 + WA	Combination	2.208416668	-4.273198735	-1.28559307	-11.19759879	2.366325508	303.6782491	7-3	32.3
7	0	LL - 2 Lane	Combination	-5.96361902	-57.99058549	4.256128535	219.2389106	119.0785885	-2522.281646	7-1	0
7	21.375	LL - 2 Lane	Combination	-5.96361902	-57.99058549	4.256128535	219.2389106	28.10384107	-1282.732881	7-1	21.375
7	42.75	LL - 2 Lane	Combination	-5.96361902	-57.99058549	4.256128535	219.2389106	-62.87090637	-43.18411607	7-1	42.75
7	64.125	LL - 2 Lane	Combination	-5.96361902	-57.99058549	4.256128535	219.2389106	-153.8456538	1196.364649	7-1	64.125
7	85.5	LL - 2 Lane	Combination	-5.96361902	-57.99058549	4.256128535	219.2389106	-244.8204012	2435.913414	7-1	85.5
7	85.5	LL - 2 Lane	Combination	-1.15361902	16.50941451	-0.723871465	84.7789106	-244.8204012	2306.043414	7-2	0
7	105.14	LL - 2 Lane	Combination	-1.15361902	16.50941451	-0.723871465	84.7789106	-230.6035657	1981.798513	7-2	19.64
7	124.78	LL - 2 Lane	Combination	-1.15361902	16.50941451	-0.723871465	84.7789106	-216.3867301	1657.553612	7-2	39.28
7	144.42	LL - 2 Lane	Combination	-1.15361902	16.50941451	-0.723871465	84.7789106	-202.1698945	1333.308711	7-2	58.92
7	164.06	LL - 2 Lane	Combination	-1.15361902	16.50941451	-0.723871465	84.7789106	-187.953059	1009.06381	7-2	78.56
7	183.7	LL - 2 Lane	Combination	-1.15361902	16.50941451	-0.723871465	84.7789106	-173.7362234	684.8189093	7-2	98.2
7	183.7	LL - 2 Lane	Combination	3.65638098	81.76941451	-5.703871465	-49.6810894	-173.7362234	554.9489093	7-3	0
7	199.85	LL - 2 Lane	Combination	3.65638098	81.76941451	-5.703871465	-49.6810894	-81.61869925	-765.627135	7-3	16.15
7	216	LL - 2 Lane	Combination	3.65638098	81.76941451	-5.703871465	-49.6810894	10.49882491	-2086.203179	7-3	32.3
7	0	LL - 3 Lane	Combination	-7.410172159	-67.17905073	5.426991205	279.551623	151.837156	-3031.701477	7-1	0
7	21.375	LL - 3 Lane	Combination	-7.410172159	-67.17905073	5.426991205	279.551623	35.83521904	-1595.749268	7-1	21.375
7	42.75	LL - 3 Lane	Combination	-7.410172159	-67.17905073	5.426991205	279.551623	-80.16671796	-159.7970586	7-1	42.75
7	64.125	LL - 3 Lane	Combination	-7.410172159	-67.17905073	5.426991205	279.551623	-196.168655	1276.155151	7-1	64.125
7	85.5	LL - 3 Lane	Combination	-7.410172159	-67.17905073	5.426991205	279.551623	-312.170592	2712.10736	7-1	85.5
7	85.5	LL - 3 Lane	Combination	-1.270172159	16.87094927	-0.923008795	108.101623	-312.170592	2546.32736	7-2	0
7	105.14	LL - 3 Lane	Combination	-1.270172159	16.87094927	-0.923008795	108.101623	-294.0426992	2214.981917	7-2	19.64
7	124.78	LL - 3 Lane	Combination	-1.270172159	16.87094927	-0.923008795	108.101623	-275.9148065	1883.636473	7-2	39.28
7	144.42	LL - 3 Lane	Combination	-1.270172159	16.87094927	-0.923008795	108.101623	-257.7869137	1552.291029	7-2	58.92
7	164.06	LL - 3 Lane	Combination	-1.270172159	16.87094927	-0.923008795	108.101623	-239.659021	1220.945586	7-2	78.56
7	183.7	LL - 3 Lane	Combination	-1.270172159	16.87094927	-0.923008795	108.101623	-221.5311282	889.600142	7-2	98.2
7	183.7	LL - 3 Lane	Combination	4.869827841	92.93094927	-7.273008795	-63.34837704	-221.5311282	723.820142	7-3	0
7	199.85	LL - 3 Lane	Combination	4.869827841	92.93094927	-7.273008795	-63.34837704	-104.0720362	-777.0146887	7-3	16.15
7	216	LL - 3 Lane	Combination	4.869827841	92.93094927	-7.273008795	-63.34837704	13.38705586	-2277.849519	7-3	32.3
7	0	LL - 7 Lane	Combination	-11.88083072	-74.75161744	9.674573297	498.3502948	270.6766309	-4206.642357	7-1	0
7	21.375	LL - 7 Lane	Combination	-11.88083072	-74.75161744	9.674573297	498.3502948	63.8826267	-2608.826534	7-1	21.375
7	42.75	LL - 7 Lane	Combination	-11.88083072	-74.75161744	9.674573297	498.3502948	-142.9113775	-1011.010711	7-1	42.75
7	64.125	LL - 7 Lane	Combination	-11.88083072	-74.75161744	9.674573297	498.3502948	-349.7053817	586.8051118	7-1	64.125
7	85.5	LL - 7 Lane	Combination	-11.88083072	-74.75161744	9.674573297	498.3502948	-556.499386	2184.620935	7-1	85.5
7	85.5	LL - 7 Lane	Combination	-0.930830724	6.99838256	-1.645426703	192.7102948	-556.499386	1888.970935	7-2	0
7	105.14	LL - 7 Lane	Combination	-0.930830724	6.99838256	-1.645426703	192.7102948	-524.1832055	1751.522701	7-2	19.64
7	124.78	LL - 7 Lane	Combination	-0.930830724	6.99838256	-1.645426703	192.7102948	-491.8670251	1614.074468	7-2	39.28
7	144.42	LL - 7 Lane	Combination	-0.930830724	6.99838256	-1.645426703	192.7102948	-459.5508446	1476.626234	7-2	58.92
7	164.06	LL - 7 Lane	Combination	-0.930830724	6.99838256	-1.645426703	192.7102948	-427.2346642	1339.178001	7-2	78.56
7	183.7	LL - 7 Lane	Combination	-0.930830724	6.99838256	-1.645426703	192.7102948	-394.9184837	1201.729767	7-2	98.2

7	183.7	LL - 7 Lane	Combination	10.01916928	84.84838256	-12.9654267	-112.9297052	-394.9184837	906.0797672	7-3	0
7	199.85	LL - 7 Lane	Combination	10.01916928	84.84838256	-12.9654267	-112.9297052	-185.5268425	-464.2216111	7-3	16.15
7	216	LL - 7 Lane	Combination	10.01916928	84.84838256	-12.9654267	-112.9297052	23.86479879	-1834.522989	7-3	32.3
7	0	LL Envelope	Combination Max	-3.743122322	-39.57586641	9.674573297	498.3502948	270.6766309	-1640.981456	7-1	0
7	21.375	LL Envelope	Combination Max	-3.743122322	-39.57586641	9.674573297	498.3502948	63.8826267	-795.0473117	7-1	21.375
7	42.75	LL Envelope	Combination Max	-3.743122322	-39.57586641	9.674573297	498.3502948	-37.74779318	50.88683284	7-1	42.75
7	64.125	LL Envelope	Combination Max	-3.743122322	-39.57586641	9.674573297	498.3502948	-92.36917769	1276.155151	7-1	64.125
7	85.5	LL Envelope	Combination Max	-3.743122322	-39.57586641	9.674573297	498.3502948	-146.9905622	2712.10736	7-1	85.5
7	85.5	LL Envelope	Combination Max	-0.853122322	16.87094927	-0.43461359	192.7102948	-146.9905622	2546.32736	7-2	0
7	105.14	LL Envelope	Combination Max	-0.853122322	16.87094927	-0.43461359	192.7102948	-138.4547513	2214.981917	7-2	19.64
7	124.78	LL Envelope	Combination Max	-0.853122322	16.87094927	-0.43461359	192.7102948	-129.9189404	1883.636473	7-2	39.28
7	144.42	LL Envelope	Combination Max	-0.853122322	16.87094927	-0.43461359	192.7102948	-121.3831295	1552.291029	7-2	58.92
7	164.06	LL Envelope	Combination Max	-0.853122322	16.87094927	-0.43461359	192.7102948	-112.8473185	1339.178001	7-2	78.56
7	183.7	LL Envelope	Combination Max	-0.853122322	16.87094927	-0.43461359	192.7102948	-104.3115076	1201.729767	7-2	98.2
7	183.7	LL Envelope	Combination Max	10.01916928	92.93094927	-3.42461359	-29.82860588	-104.3115076	906.0797672	7-3	0
7	199.85	LL Envelope	Combination Max	10.01916928	92.93094927	-3.42461359	-29.82860588	-49.00399814	-464.2216111	7-3	16.15
7	216	LL Envelope	Combination Max	10.01916928	92.93094927	-3.42461359	-29.82860588	23.86479879	-1525.455311	7-3	32.3
7	0	LL Envelope	Combination Min	-11.88083072	-74.75161744	2.55538641	131.6313941	71.49497583	-4206.642357	7-1	0
7	21.375	LL Envelope	Combination Min	-11.88083072	-74.75161744	2.55538641	131.6313941	16.87359133	-2608.826534	7-1	21.375
7	42.75	LL Envelope	Combination Min	-11.88083072	-74.75161744	2.55538641	131.6313941	-142.9113775	-1011.010711	7-1	42.75
7	64.125	LL Envelope	Combination Min	-11.88083072	-74.75161744	2.55538641	131.6313941	-349.7053817	586.8051118	7-1	64.125
7	85.5	LL Envelope	Combination Min	-11.88083072	-74.75161744	2.55538641	131.6313941	-556.499386	1742.755122	7-1	85.5
7	85.5	LL Envelope	Combination Min	-1.270172159	6.99838256	-1.645426703	50.90139412	-556.499386	1664.725122	7-2	0
7	105.14	LL Envelope	Combination Min	-1.270172159	6.99838256	-1.645426703	50.90139412	-524.1832055	1418.358338	7-2	19.64
7	124.78	LL Envelope	Combination Min	-1.270172159	6.99838256	-1.645426703	50.90139412	-491.8670251	1171.991555	7-2	39.28
7	144.42	LL Envelope	Combination Min	-1.270172159	6.99838256	-1.645426703	50.90139412	-459.5508446	925.624771	7-2	58.92
7	164.06	LL Envelope	Combination Min	-1.270172159	6.99838256	-1.645426703	50.90139412	-427.2346642	679.2579873	7-2	78.56
7	183.7	LL Envelope	Combination Min	-1.270172159	6.99838256	-1.645426703	50.90139412	-394.9184837	432.8912036	7-2	98.2
7	183.7	LL Envelope	Combination Min	2.036877678	58.21413359	-12.9654267	-112.9297052	-394.9184837	354.8612036	7-3	0
7	199.85	LL Envelope	Combination Min	2.036877678	58.21413359	-12.9654267	-112.9297052	-185.5268425	-777.0146887	7-3	16.15
7	216	LL Envelope	Combination Min	2.036877678	58.21413359	-12.9654267	-112.9297052	6.303511341	-2277.849519	7-3	32.3
7	0	WS3 & WA envelope	Combination Max	-0.902617364	-2.026895868	1.205048441	62.07366746	33.71502205	-272.2491828	7-1	0
7	21.375	WS3 & WA envelope	Combination Max	-0.902617364	-2.158708368	1.205048441	62.07366746	7.957111629	-227.5155376	7-1	21.375
7	42.75	WS3 & WA envelope	Combination Max	-0.902617364	-2.290520868	1.205048441	62.07366746	-6.586295553	-179.9644001	7-1	42.75
7	64.125	WS3 & WA envelope	Combination Max	-0.902617364	-2.422333368	1.205048441	62.07366746	-16.11672241	-129.5957705	7-1	64.125
7	85.5	WS3 & WA envelope	Combination Max	-0.902617364	-2.554145868	1.205048441	62.07366746	-25.64714926	-76.40964862	7-1	85.5
7	85.5	WS3 & WA envelope	Combination Max	0.318227555	-1.980645868	-0.075832077	24.00366746	-25.64714926	-103.3826486	7-2	0
7	105.14	WS3 & WA envelope	Combination Max	0.318227555	-2.101759201	-0.075832077	24.00366746	-24.15780727	-63.29343084	7-2	19.64
7	124.78	WS3 & WA envelope	Combination Max	0.318227555	-2.222872535	-0.075832077	24.00366746	-22.66846528	-7.751845279	7-2	39.28
7	144.42	WS3 & WA envelope	Combination Max	0.318227555	-2.343985868	-0.075832077	24.00366746	-21.17912329	98.62081921	7-2	58.92
7	164.06	WS3 & WA envelope	Combination Max	0.318227555	-2.465099201	-0.075832077	24.00366746	-19.6897813	208.5897217	7-2	78.56
7	183.7	WS3 & WA envelope	Combination Max	0.318227555	-2.586212535	-0.075832077	24.00366746	-18.20043931	326.6218891	7-2	98.2

7	183.7	WS3 & WA envelope	Combination Max	3.018227555	-3.133812535	-0.597532077	-5.20454304	-18.20043931	253.7218891	7-3	0
7	199.85	WS3 & WA envelope	Combination Max	3.018227555	-3.233404201	-0.597532077	-5.20454304	-8.550296265	392.6820922	7-3	16.15
7	216	WS3 & WA envelope	Combination Max	3.018227555	-3.332995868	-0.597532077	-5.20454304	2.97255886	535.9893369	7-3	32.3
7	0	WS3 & WA envelope	Combination Min	-2.54524863	-7.037700787	0.445867923	22.96725696	12.47455816	-762.5623376	7-1	0
7	21.375	WS3 & WA envelope	Combination Min	-2.54524863	-7.055513287	0.445867923	22.96725696	2.944131303	-615.0863822	7-1	21.375
7	42.75	WS3 & WA envelope	Combination Min	-2.54524863	-7.073325787	0.445867923	22.96725696	-17.80079879	-486.3902706	7-1	42.75
7	64.125	WS3 & WA envelope	Combination Min	-2.54524863	-7.091138287	0.445867923	22.96725696	-43.55870921	-350.2588391	7-1	64.125
7	85.5	WS3 & WA envelope	Combination Min	-2.54524863	-7.108950787	0.445867923	22.96725696	-69.31661963	-206.5125638	7-1	85.5
7	85.5	WS3 & WA envelope	Combination Min	0.096382636	-5.558950787	-0.204951559	8.88135696	-69.31661963	-279.4125638	7-2	0
7	105.14	WS3 & WA envelope	Combination Min	0.096382636	-5.680430274	-0.204951559	8.88135696	-65.29137101	-171.0633266	7-2	19.64
7	124.78	WS3 & WA envelope	Combination Min	0.096382636	-6.007763608	-0.204951559	8.88135696	-61.26612238	-56.28526267	7-2	39.28
7	144.42	WS3 & WA envelope	Combination Min	0.096382636	-6.335096941	-0.204951559	8.88135696	-57.24087376	24.02100233	7-2	58.92
7	164.06	WS3 & WA envelope	Combination Min	0.096382636	-6.662430274	-0.204951559	8.88135696	-53.21562513	71.24621771	7-2	78.56
7	183.7	WS3 & WA envelope	Combination Min	0.096382636	-6.989763608	-0.204951559	8.88135696	-49.19037651	120.850099	7-2	98.2
7	183.7	WS3 & WA envelope	Combination Min	1.095382636	-8.469763608	-1.614951559	-14.06633254	-49.19037651	93.87709896	7-3	0
7	199.85	WS3 & WA envelope	Combination Min	1.095382636	-8.738930274	-1.614951559	-14.06633254	-23.10890882	145.2923741	7-3	16.15
7	216	WS3 & WA envelope	Combination Min	1.095382636	-9.008096941	-1.614951559	-14.06633254	1.099846778	198.3160547	7-3	32.3
7	0	WS3 + WA	Combination	-2.381772445	-6.966123446	1.205048441	62.07366746	33.71502205	-743.2007289	7-1	0
7	21.375	WS3 + WA	Combination	-2.381772445	-6.966123446	1.205048441	62.07366746	7.957111629	-594.2998402	7-1	21.375
7	42.75	WS3 + WA	Combination	-2.381772445	-6.966123446	1.205048441	62.07366746	-17.80079879	-445.3989516	7-1	42.75
7	64.125	WS3 + WA	Combination	-2.381772445	-6.966123446	1.205048441	62.07366746	-43.55870921	-296.4980629	7-1	64.125
7	85.5	WS3 + WA	Combination	-2.381772445	-6.966123446	1.205048441	62.07366746	-69.31661963	-147.5971742	7-1	85.5
7	85.5	WS3 + WA	Combination	0.318227555	-5.416123446	-0.204951559	24.00366746	-69.31661963	-220.4971742	7-2	0
7	105.14	WS3 + WA	Combination	0.318227555	-5.416123446	-0.204951559	24.00366746	-65.29137101	-114.1245098	7-2	19.64
7	124.78	WS3 + WA	Combination	0.318227555	-5.416123446	-0.204951559	24.00366746	-61.26612238	-7.751845279	7-2	39.28
7	144.42	WS3 + WA	Combination	0.318227555	-5.416123446	-0.204951559	24.00366746	-57.24087376	98.62081921	7-2	58.92
7	164.06	WS3 + WA	Combination	0.318227555	-5.416123446	-0.204951559	24.00366746	-53.21562513	204.9934837	7-2	78.56
7	183.7	WS3 + WA	Combination	0.318227555	-5.416123446	-0.204951559	24.00366746	-49.19037651	311.3661482	7-2	98.2
7	183.7	WS3 + WA	Combination	3.018227555	-6.896123446	-1.614951559	-14.06633254	-49.19037651	238.4661482	7-3	0
7	199.85	WS3 + WA	Combination	3.018227555	-6.896123446	-1.614951559	-14.06633254	-23.10890882	349.8385418	7-3	16.15
7	216	WS3 + WA	Combination	3.018227555	-6.896123446	-1.614951559	-14.06633254	2.97255886	461.2109355	7-3	32.3
7	0	WS5 & WA envelope	Combination Max	-1.785183332	-4.217960661	0.95928693	49.41416121	26.83907046	-539.1743834	7-1	0
7	21.375	WS5 & WA envelope	Combination Max	-1.785183332	-4.424870661	0.95928693	49.41416121	6.334312324	-437.6657858	7-1	21.375
7	42.75	WS5 & WA envelope	Combination Max	-1.785183332	-4.631780661	0.95928693	49.41416121	-14.17044581	-328.5019778	7-1	42.75
7	64.125	WS5 & WA envelope	Combination Max	-1.785183332	-4.838690661	0.95928693	49.41416121	-34.67520395	-219.3381698	7-1	64.125
7	85.5	WS5 & WA envelope	Combination Max	-1.785183332	-5.045600661	0.95928693	49.41416121	-55.17996208	-110.1743619	7-1	85.5
7	85.5	WS5 & WA envelope	Combination Max	0.211616668	-3.845400661	-0.16315307	19.10828121	-55.17996208	-164.0879619	7-2	0
7	105.14	WS5 & WA envelope	Combination Max	0.211616668	-3.906878735	-0.16315307	19.10828121	-51.9756358	-87.35686352	7-2	19.64
7	124.78	WS5 & WA envelope	Combination Max	0.211616668	-3.906878735	-0.16315307	19.10828121	-48.77130951	-10.62576515	7-2	39.28
7	144.42	WS5 & WA envelope	Combination Max	0.211616668	-3.906878735	-0.16315307	19.10828121	-45.56698322	66.10533321	7-2	58.92
7	164.06	WS5 & WA envelope	Combination Max	0.211616668	-3.906878735	-0.16315307	19.10828121	-42.36265693	144.5770108	7-2	78.56
7	183.7	WS5 & WA envelope	Combination Max	0.211616668	-3.906878735	-0.16315307	19.10828121	-39.15833064	227.2208896	7-2	98.2

7	183.7	WS5 & WA envelope	Combination Max	2.208416668	-4.273198735	-1.28559307	-11.19759879	-39.15833064	173.3072896	7-3	0
7	199.85	WS5 & WA envelope	Combination Max	2.208416668	-4.273198735	-1.28559307	-11.19759879	-18.39600257	257.9407616	7-3	16.15
7	216	WS5 & WA envelope	Combination Max	2.208416668	-4.273198735	-1.28559307	-11.19759879	2.366325508	345.0989954	7-3	32.3
7	0	WS5 & WA envelope	Combination Min	-1.864305806	-5.141722168	0.95928693	49.41416121	26.83907046	-556.2006124	7-1	0
7	21.375	WS5 & WA envelope	Combination Min	-1.864305806	-5.150343418	0.95928693	49.41416121	6.334312324	-447.7264721	7-1	21.375
7	42.75	WS5 & WA envelope	Combination Min	-1.864305806	-5.158964668	0.95928693	49.41416121	-14.17044581	-350.0111627	7-1	42.75
7	64.125	WS5 & WA envelope	Combination Min	-1.864305806	-5.167585918	0.95928693	49.41416121	-34.67520395	-248.7955004	7-1	64.125
7	85.5	WS5 & WA envelope	Combination Min	-1.864305806	-5.176207168	0.95928693	49.41416121	-55.17996208	-143.1571369	7-1	85.5
7	85.5	WS5 & WA envelope	Combination Min	0.132494194	-3.976007168	-0.16315307	19.10828121	-55.17996208	-197.0707369	7-2	0
7	105.14	WS5 & WA envelope	Combination Min	0.132494194	-4.035515861	-0.16315307	19.10828121	-51.9756358	-119.6801367	7-2	19.64
7	124.78	WS5 & WA envelope	Combination Min	0.132494194	-4.225631061	-0.16315307	19.10828121	-48.77130951	-38.55567388	7-2	39.28
7	144.42	WS5 & WA envelope	Combination Min	0.132494194	-4.415746261	-0.16315307	19.10828121	-45.56698322	46.30265143	7-2	58.92
7	164.06	WS5 & WA envelope	Combination Min	0.132494194	-4.605861461	-0.16315307	19.10828121	-42.36265693	134.8948393	7-2	78.56
7	183.7	WS5 & WA envelope	Combination Min	0.132494194	-4.795976661	-0.16315307	19.10828121	-39.15833064	219.5675299	7-2	98.2
7	183.7	WS5 & WA envelope	Combination Min	2.129294194	-5.162296661	-1.28559307	-11.19759879	-39.15833064	165.6539299	7-3	0
7	199.85	WS5 & WA envelope	Combination Min	2.129294194	-5.318628661	-1.28559307	-11.19759879	-18.39600257	234.6660895	7-3	16.15
7	216	WS5 & WA envelope	Combination Min	2.129294194	-5.474960661	-1.28559307	-11.19759879	2.366325508	303.6782491	7-3	32.3
7	0	Strength 1 - Max	Combination Max	-14.52862452	-259.1774325	16.93050327	872.1130159	473.6841041	-7298.496282	7-1	0
7	21.375	Strength 1 - Max	Combination Max	-14.52862452	-253.1657138	16.93050327	872.1130159	111.7945967	-1822.828906	7-1	21.375
7	42.75	Strength 1 - Max	Combination Max	-14.52862452	-247.153995	16.93050327	872.1130159	-66.05863807	3524.337981	7-1	42.75
7	64.125	Strength 1 - Max	Combination Max	-14.52862452	-241.1422763	16.93050327	872.1130159	-161.646061	9406.839183	7-1	64.125
7	85.5	Strength 1 - Max	Combination Max	-14.52862452	-235.1305575	16.93050327	872.1130159	-257.2334838	15529.53671	7-1	85.5
7	85.5	Strength 1 - Max	Combination Max	-9.471124518	123.8663699	-0.760573783	337.2430159	-257.2334838	15239.42171	7-2	0
7	105.14	Strength 1 - Max	Combination Max	-9.471124518	129.3901199	-0.760573783	337.2430159	-242.2958147	12752.44298	7-2	19.64
7	124.78	Strength 1 - Max	Combination Max	-9.471124518	134.9138699	-0.760573783	337.2430159	-227.3581456	10156.9778	7-2	39.28
7	144.42	Strength 1 - Max	Combination Max	-9.471124518	140.4376199	-0.760573783	337.2430159	-212.4204765	7453.026166	7-2	58.92
7	164.06	Strength 1 - Max	Combination Max	-9.471124518	145.9613699	-0.760573783	337.2430159	-197.4828074	4847.494811	7-2	78.56
7	183.7	Strength 1 - Max	Combination Max	-9.471124518	151.4851199	-0.760573783	337.2430159	-182.5451383	2265.890399	7-2	98.2
7	183.7	Strength 1 - Max	Combination Max	9.55538578	544.8051199	-5.993073783	-52.2000603	-182.5451383	1748.502899	7-3	0
7	199.85	Strength 1 - Max	Combination Max	9.55538578	549.3473074	-5.993073783	-52.2000603	-85.75699675	-6858.344411	7-3	16.15
7	216	Strength 1 - Max	Combination Max	9.55538578	553.8894949	-5.993073783	-52.2000603	41.76339788	-14997.67961	7-3	32.3
7	0	Strength 1 - Max	Combination Min	-28.76961422	-320.7349968	4.471926217	230.3549397	125.1162077	-11788.40286	7-1	0
7	21.375	Strength 1 - Max	Combination Min	-28.76961422	-314.7232781	4.471926217	230.3549397	29.52878482	-4996.942545	7-1	21.375
7	42.75	Strength 1 - Max	Combination Min	-28.76961422	-308.7115593	4.471926217	230.3549397	-250.0949107	1666.017279	7-1	42.75
7	64.125	Strength 1 - Max	Combination Min	-28.76961422	-302.6998406	4.471926217	230.3549397	-611.9844181	8200.476615	7-1	64.125
7	85.5	Strength 1 - Max	Combination Min	-28.76961422	-296.6881218	4.471926217	230.3549397	-973.8739254	13833.17029	7-1	85.5
7	85.5	Strength 1 - Max	Combination Min	-10.20096173	106.5893782	-2.87949673	89.0774397	-973.8739254	13696.61779	7-2	0
7	105.14	Strength 1 - Max	Combination Min	-10.20096173	112.1131282	-2.87949673	89.0774397	-917.3206097	11358.35172	7-2	19.64
7	124.78	Strength 1 - Max	Combination Min	-10.20096173	117.6368782	-2.87949673	89.0774397	-860.7672939	8911.599189	7-2	39.28
7	144.42	Strength 1 - Max	Combination Min	-10.20096173	123.1606282	-2.87949673	89.0774397	-804.2139781	6356.360214	7-2	58.92
7	164.06	Strength 1 - Max	Combination Min	-10.20096173	128.6843782	-2.87949673	89.0774397	-747.6606623	3692.634788	7-2	78.56
7	183.7	Strength 1 - Max	Combination Min	-10.20096173	134.2081282	-2.87949673	89.0774397	-691.1073465	920.4229123	7-2	98.2

7	183.7	Strength 1 - Max	Combination Min	-4.413624518	484.0506925	-22.68949673	-197.6269841	-691.1073465	783.8704123	7-3	0
7	199.85	Strength 1 - Max	Combination Min	-4.413624518	488.59288	-22.68949673	-197.6269841	-324.6719743	-7405.732297	7-3	16.15
7	216	Strength 1 - Max	Combination Min	-4.413624518	493.1350675	-22.68949673	-197.6269841	11.03114485	-16314.36948	7-3	32.3
7	0	Strength 1 - Min	Combination Max	-12.01446713	-199.1526663	16.93050327	872.1130159	473.6841041	-5880.373725	7-1	0
7	21.375	Strength 1 - Min	Combination Max	-12.01446713	-194.8242288	16.93050327	872.1130159	111.7945967	-1669.745658	7-1	21.375
7	42.75	Strength 1 - Min	Combination Max	-12.01446713	-190.4957913	16.93050327	872.1130159	-66.05863807	2448.362057	7-1	42.75
7	64.125	Strength 1 - Min	Combination Max	-12.01446713	-186.1673538	16.93050327	872.1130159	-161.646061	7137.784225	7-1	64.125
7	85.5	Strength 1 - Min	Combination Max	-12.01446713	-181.8389163	16.93050327	872.1130159	-257.2334838	12103.38285	7-1	85.5
7	85.5	Strength 1 - Min	Combination Max	-6.956967127	93.4145111	-0.760573783	337.2430159	-257.2334838	11813.26785	7-2	0
7	105.14	Strength 1 - Min	Combination Max	-6.956967127	97.3916111	-0.760573783	337.2430159	-242.2958147	9939.551731	7-2	19.64
7	124.78	Strength 1 - Min	Combination Max	-6.956967127	101.3687111	-0.760573783	337.2430159	-227.3581456	7987.725367	7-2	39.28
7	144.42	Strength 1 - Min	Combination Max	-6.956967127	105.3458111	-0.760573783	337.2430159	-212.4204765	5957.788759	7-2	58.92
7	164.06	Strength 1 - Min	Combination Max	-6.956967127	109.3229111	-0.760573783	337.2430159	-197.4828074	4056.648633	7-2	78.56
7	183.7	Strength 1 - Min	Combination Max	-6.956967127	113.3000111	-0.760573783	337.2430159	-182.5451383	2209.811655	7-2	98.2
7	183.7	Strength 1 - Min	Combination Max	12.06954317	422.8765111	-5.993073783	-52.2000603	-182.5451383	1692.424155	7-3	0
7	199.85	Strength 1 - Min	Combination Max	12.06954317	426.1468861	-5.993073783	-52.2000603	-85.75699675	-4935.006236	7-3	16.15
7	216	Strength 1 - Min	Combination Max	12.06954317	429.4172611	-5.993073783	-52.2000603	41.76339788	-11074.38475	7-3	32.3
7	0	Strength 1 - Min	Combination Min	-26.25545683	-260.7102306	4.471926217	230.3549397	125.1162077	-10370.2803	7-1	0
7	21.375	Strength 1 - Min	Combination Min	-26.25545683	-256.3817931	4.471926217	230.3549397	29.52878482	-4843.859297	7-1	21.375
7	42.75	Strength 1 - Min	Combination Min	-26.25545683	-252.0533556	4.471926217	230.3549397	-250.0949107	590.0413558	7-1	42.75
7	64.125	Strength 1 - Min	Combination Min	-26.25545683	-247.7249181	4.471926217	230.3549397	-611.9844181	5931.421657	7-1	64.125
7	85.5	Strength 1 - Min	Combination Min	-26.25545683	-243.3964806	4.471926217	230.3549397	-973.8739254	10407.01643	7-1	85.5
7	85.5	Strength 1 - Min	Combination Min	-7.68680434	76.13751936	-2.87949673	89.0774397	-973.8739254	10270.46393	7-2	0
7	105.14	Strength 1 - Min	Combination Min	-7.68680434	80.11461936	-2.87949673	89.0774397	-917.3206097	8545.460469	7-2	19.64
7	124.78	Strength 1 - Min	Combination Min	-7.68680434	84.09171936	-2.87949673	89.0774397	-860.7672939	6742.34676	7-2	39.28
7	144.42	Strength 1 - Min	Combination Min	-7.68680434	88.06881936	-2.87949673	89.0774397	-804.2139781	4861.122807	7-2	58.92
7	164.06	Strength 1 - Min	Combination Min	-7.68680434	92.04591936	-2.87949673	89.0774397	-747.6606623	2901.78861	7-2	78.56
7	183.7	Strength 1 - Min	Combination Min	-7.68680434	96.02301936	-2.87949673	89.0774397	-691.1073465	864.3441685	7-2	98.2
7	183.7	Strength 1 - Min	Combination Min	-1.899467127	362.1220837	-22.68949673	-197.6269841	-691.1073465	727.7916685	7-3	0
7	199.85	Strength 1 - Min	Combination Min	-1.899467127	365.3924587	-22.68949673	-197.6269841	-324.6719743	-5482.394122	7-3	16.15
7	216	Strength 1 - Min	Combination Min	-1.899467127	368.6628337	-22.68949673	-197.6269841	11.03114485	-12391.07461	7-3	32.3
7	0	Strength 3 - Max	Combination Max	-8.880777817	-191.9465622	1.205048441	62.07366746	33.71502205	-4699.027916	7-1	0
7	21.375	Strength 3 - Max	Combination Max	-8.880777817	-186.0666559	1.205048441	62.07366746	7.957111629	-659.0116485	7-1	21.375
7	42.75	Strength 3 - Max	Combination Max	-8.880777817	-180.1867496	1.205048441	62.07366746	-6.586295553	3255.321623	7-1	42.75
7	64.125	Strength 3 - Max	Combination Max	-8.880777817	-174.3068434	1.205048441	62.07366746	-16.11672241	7043.971899	7-1	64.125
7	85.5	Strength 3 - Max	Combination Max	-8.880777817	-168.4269371	1.205048441	62.07366746	-25.64714926	10706.93918	7-1	85.5
7	85.5	Strength 3 - Max	Combination Max	-7.659932898	92.36156285	-0.075832077	24.00366746	-25.64714926	10679.96618	7-2	0
7	105.14	Strength 3 - Max	Combination Max	-7.659932898	97.76419952	-0.075832077	24.00366746	-24.15780727	8812.931192	7-2	19.64
7	124.78	Strength 3 - Max	Combination Max	-7.659932898	103.1668362	-0.075832077	24.00366746	-22.66846528	6852.862123	7-2	39.28
7	144.42	Strength 3 - Max	Combination Max	-7.659932898	108.5694729	-0.075832077	24.00366746	-21.17912329	4835.137684	7-2	58.92
7	164.06	Strength 3 - Max	Combination Max	-7.659932898	113.9721095	-0.075832077	24.00366746	-19.6897813	2712.523032	7-2	78.56
7	183.7	Strength 3 - Max	Combination Max	-7.659932898	119.3747462	-0.075832077	24.00366746	-18.20043931	489.485195	7-2	98.2

7	183.7	Strength 3 - Max	Combination Max	-4.959932898	379.0421462	-0.597532077	-5.20454304	-18.20043931	416.585195	7-3		0
7	199.85	Strength 3 - Max	Combination Max	-4.959932898	383.484742	-0.597532077	-5.20454304	-8.550296265	-5653.274499	7-3		16.15
7	216	Strength 3 - Max	Combination Max	-4.959932898	387.9273379	-0.597532077	-5.20454304	2.97255886	-11792.14348	7-3		32.3
7	0	Strength 3 - Max	Combination Min	-10.52340908	-196.9573671	0.445867923	22.96725696	12.47455816	-5189.341071	7-1		0
7	21.375	Strength 3 - Max	Combination Min	-10.52340908	-190.9634608	0.445867923	22.96725696	2.944131303	-1046.582493	7-1		21.375
7	42.75	Strength 3 - Max	Combination Min	-10.52340908	-184.9695546	0.445867923	22.96725696	-17.80079879	2948.895753	7-1		42.75
7	64.125	Strength 3 - Max	Combination Min	-10.52340908	-178.9756483	0.445867923	22.96725696	-43.55870921	6823.30883	7-1		64.125
7	85.5	Strength 3 - Max	Combination Min	-10.52340908	-172.9817421	0.445867923	22.96725696	-69.31661963	10576.83626	7-1		85.5
7	85.5	Strength 3 - Max	Combination Min	-7.881777817	88.78325793	-0.204951559	8.88135696	-69.31661963	10503.93626	7-2		0
7	105.14	Strength 3 - Max	Combination Min	-7.881777817	94.18552845	-0.204951559	8.88135696	-65.29137101	8705.161296	7-2		19.64
7	124.78	Strength 3 - Max	Combination Min	-7.881777817	99.38194511	-0.204951559	8.88135696	-61.26612238	6804.328706	7-2		39.28
7	144.42	Strength 3 - Max	Combination Min	-7.881777817	104.5783618	-0.204951559	8.88135696	-57.24087376	4760.537867	7-2		58.92
7	164.06	Strength 3 - Max	Combination Min	-7.881777817	109.7747784	-0.204951559	8.88135696	-53.21562513	2575.179528	7-2		78.56
7	183.7	Strength 3 - Max	Combination Min	-7.881777817	114.9711951	-0.204951559	8.88135696	-49.19037651	283.7134049	7-2		98.2
7	183.7	Strength 3 - Max	Combination Min	-6.882777817	373.7061951	-1.614951559	-14.06633254	-49.19037651	256.7404049	7-3		0
7	199.85	Strength 3 - Max	Combination Min	-6.882777817	377.9792159	-1.614951559	-14.06633254	-23.10890882	-5900.664217	7-3		16.15
7	216	Strength 3 - Max	Combination Min	-6.882777817	382.2522368	-1.614951559	-14.06633254	1.099846778	-12129.81676	7-3		32.3
7	0	Strength 3 - Min	Combination Max	-6.366620427	-131.921796	1.205048441	62.07366746	33.71502205	-3280.90536	7-1		0
7	21.375	Strength 3 - Min	Combination Max	-6.366620427	-127.725171	1.205048441	62.07366746	7.957111629	-505.9284003	7-1		21.375
7	42.75	Strength 3 - Min	Combination Max	-6.366620427	-123.528546	1.205048441	62.07366746	-6.586295553	2179.3457	7-1		42.75
7	64.125	Strength 3 - Min	Combination Max	-6.366620427	-119.331921	1.205048441	62.07366746	-16.11672241	4774.916941	7-1		64.125
7	85.5	Strength 3 - Min	Combination Max	-6.366620427	-115.135296	1.205048441	62.07366746	-25.64714926	7280.785322	7-1		85.5
7	85.5	Strength 3 - Min	Combination Max	-5.145775508	61.90970401	-0.075832077	24.00366746	-25.64714926	7253.812322	7-2		0
7	105.14	Strength 3 - Min	Combination Max	-5.145775508	65.76569068	-0.075832077	24.00366746	-24.15780727	6000.039946	7-2		19.64
7	124.78	Strength 3 - Min	Combination Max	-5.145775508	69.62167735	-0.075832077	24.00366746	-22.66846528	4683.609694	7-2		39.28
7	144.42	Strength 3 - Min	Combination Max	-5.145775508	73.47766401	-0.075832077	24.00366746	-21.17912329	3339.900277	7-2		58.92
7	164.06	Strength 3 - Min	Combination Max	-5.145775508	77.33365068	-0.075832077	24.00366746	-19.6897813	1921.676854	7-2		78.56
7	183.7	Strength 3 - Min	Combination Max	-5.145775508	81.18963735	-0.075832077	24.00366746	-18.20043931	433.4064512	7-2		98.2
7	183.7	Strength 3 - Min	Combination Max	-2.445775508	257.1135373	-0.597532077	-5.20454304	-18.20043931	360.5064512	7-3		0
7	199.85	Strength 3 - Min	Combination Max	-2.445775508	260.2843207	-0.597532077	-5.20454304	-8.550296265	-3729.936324	7-3		16.15
7	216	Strength 3 - Min	Combination Max	-2.445775508	263.455104	-0.597532077	-5.20454304	2.97255886	-7868.848615	7-3		32.3
7	0	Strength 3 - Min	Combination Min	-8.009251693	-136.9326009	0.445867923	22.96725696	12.47455816	-3771.218515	7-1		0
7	21.375	Strength 3 - Min	Combination Min	-8.009251693	-132.6219759	0.445867923	22.96725696	2.944131303	-893.4992449	7-1		21.375
7	42.75	Strength 3 - Min	Combination Min	-8.009251693	-128.3113509	0.445867923	22.96725696	-17.80079879	1872.919829	7-1		42.75
7	64.125	Strength 3 - Min	Combination Min	-8.009251693	-124.0007259	0.445867923	22.96725696	-43.55870921	4554.253872	7-1		64.125
7	85.5	Strength 3 - Min	Combination Min	-8.009251693	-119.6901009	0.445867923	22.96725696	-69.31661963	7150.682407	7-1		85.5
7	85.5	Strength 3 - Min	Combination Min	-5.367620427	58.3313991	-0.204951559	8.88135696	-69.31661963	7077.782407	7-2		0
7	105.14	Strength 3 - Min	Combination Min	-5.367620427	62.18701961	-0.204951559	8.88135696	-65.29137101	5892.27005	7-2		19.64
7	124.78	Strength 3 - Min	Combination Min	-5.367620427	65.83678628	-0.204951559	8.88135696	-61.26612238	4635.076277	7-2		39.28
7	144.42	Strength 3 - Min	Combination Min	-5.367620427	69.48655294	-0.204951559	8.88135696	-57.24087376	3265.30046	7-2		58.92
7	164.06	Strength 3 - Min	Combination Min	-5.367620427	73.13631961	-0.204951559	8.88135696	-53.21562513	1784.33335	7-2		78.56
7	183.7	Strength 3 - Min	Combination Min	-5.367620427	76.78608628	-0.204951559	8.88135696	-49.19037651	227.6346611	7-2		98.2

7	183.7	Strength 3 - Min	Combination Min	-4.368620427	251.7775863	-1.614951559	-14.06633254	-49.19037651	200.6616611	7-3	0
7	199.85	Strength 3 - Min	Combination Min	-4.368620427	254.7787946	-1.614951559	-14.06633254	-23.10890882	-3977.326042	7-3	16.15
7	216	Strength 3 - Min	Combination Min	-4.368620427	257.7800029	-1.614951559	-14.06633254	1.099846778	-8206.521897	7-3	32.3
7	0	Strength 5 - Max	Combination Max	-14.81655892	-247.5650466	14.01996088	722.1870592	392.2525222	-7181.278083	7-1	0
7	21.375	Strength 5 - Max	Combination Max	-14.81655892	-241.7602378	14.01996088	722.1870592	92.57585836	-1942.475768	7-1	21.375
7	42.75	Strength 5 - Max	Combination Max	-14.81655892	-235.9554291	14.01996088	722.1870592	-65.12996661	3175.48127	7-1	42.75
7	64.125	Strength 5 - Max	Combination Max	-14.81655892	-230.1506203	14.01996088	722.1870592	-159.3735938	8677.038953	7-1	64.125
7	85.5	Strength 5 - Max	Combination Max	-14.81655892	-224.3458116	14.01996088	722.1870592	-253.617221	14334.5194	7-1	85.5
7	85.5	Strength 5 - Max	Combination Max	-8.918258921	113.2725896	-0.749881417	279.2671792	-253.617221	14056.8028	7-2	0
7	105.14	Strength 5 - Max	Combination Max	-8.918258921	118.7348615	-0.749881417	279.2671792	-238.88955	11779.09335	7-2	19.64
7	124.78	Strength 5 - Max	Combination Max	-8.918258921	124.2586115	-0.749881417	279.2671792	-224.161879	9392.897442	7-2	39.28
7	144.42	Strength 5 - Max	Combination Max	-8.918258921	129.7823615	-0.749881417	279.2671792	-209.434208	6898.215087	7-2	58.92
7	164.06	Strength 5 - Max	Combination Max	-8.918258921	135.3061115	-0.749881417	279.2671792	-194.706537	4456.400622	7-2	78.56
7	183.7	Strength 5 - Max	Combination Max	-8.918258921	140.8298615	-0.749881417	279.2671792	-179.9788659	2012.419381	7-2	98.2
7	183.7	Strength 5 - Max	Combination Max	7.756134737	503.3595415	-5.908821417	-51.46621673	-179.9788659	1559.378281	7-3	0
7	199.85	Strength 5 - Max	Combination Max	7.756134737	507.901729	-5.908821417	-51.46621673	-84.55140006	-6414.715005	7-3	16.15
7	216	Strength 5 - Max	Combination Max	7.756134737	512.4439165	-5.908821417	-51.46621673	34.58380387	-14042.39849	7-3	32.3
7	0	Strength 5 - Max	Combination Min	-25.88158774	-295.976072	4.409058583	227.1165433	123.3572878	-10661.94653	7-1	0
7	21.375	Strength 5 - Max	Combination Min	-25.88158774	-289.9729745	4.409058583	227.1165433	29.11366062	-4401.138404	7-1	21.375
7	42.75	Strength 5 - Max	Combination Min	-25.88158774	-283.969877	4.409058583	227.1165433	-207.1008055	1720.410401	7-1	42.75
7	64.125	Strength 5 - Max	Combination Min	-25.88158774	-277.9667795	4.409058583	227.1165433	-506.7774693	7716.95907	7-1	64.125
7	85.5	Strength 5 - Max	Combination Min	-25.88158774	-271.963682	4.409058583	227.1165433	-806.4541331	12992.9111	7-1	85.5
7	85.5	Strength 5 - Max	Combination Min	-9.560398673	99.81401801	-2.384479119	87.82516327	-806.4541331	12833.657	7-2	0
7	105.14	Strength 5 - Max	Combination Min	-9.560398673	105.2782593	-2.384479119	87.82516327	-759.6229632	10671.32824	7-2	19.64
7	124.78	Strength 5 - Max	Combination Min	-9.560398673	110.6118941	-2.384479119	87.82516327	-712.7917934	8404.246894	7-2	39.28
7	144.42	Strength 5 - Max	Combination Min	-9.560398673	115.9455289	-2.384479119	87.82516327	-665.9606235	6032.412957	7-2	58.92
7	164.06	Strength 5 - Max	Combination Min	-9.560398673	121.2791637	-2.384479119	87.82516327	-619.1294536	3555.826432	7-2	78.56
7	183.7	Strength 5 - Max	Combination Min	-9.560398673	126.6127985	-2.384479119	87.82516327	-572.2982837	966.8339608	7-2	98.2
7	183.7	Strength 5 - Max	Combination Min	-3.099081394	455.6027424	-18.78891912	-163.6527008	-572.2982837	807.5798608	7-3	0
7	199.85	Strength 5 - Max	Combination Min	-3.099081394	459.9885979	-18.78891912	-163.6527008	-268.8572399	-6860.260332	7-3	16.15
7	216	Strength 5 - Max	Combination Min	-3.099081394	464.3744534	-18.78891912	-163.6527008	10.87606582	-15099.55142	7-3	32.3
7	0	Strength 5 - Min	Combination Max	-12.30240153	-187.5402804	14.01996088	722.1870592	392.2525222	-5763.155526	7-1	0
7	21.375	Strength 5 - Min	Combination Max	-12.30240153	-183.4187529	14.01996088	722.1870592	92.57585836	-1789.392519	7-1	21.375
7	42.75	Strength 5 - Min	Combination Max	-12.30240153	-179.2972254	14.01996088	722.1870592	-65.12996661	2099.505346	7-1	42.75
7	64.125	Strength 5 - Min	Combination Max	-12.30240153	-175.1756979	14.01996088	722.1870592	-159.3735938	6407.983995	7-1	64.125
7	85.5	Strength 5 - Min	Combination Max	-12.30240153	-171.0541704	14.01996088	722.1870592	-253.617221	10908.36555	7-1	85.5
7	85.5	Strength 5 - Min	Combination Max	-6.40410153	82.82073073	-0.749881417	279.2671792	-253.617221	10630.64895	7-2	0
7	105.14	Strength 5 - Min	Combination Max	-6.40410153	86.73635266	-0.749881417	279.2671792	-238.88955	8966.202101	7-2	19.64
7	124.78	Strength 5 - Min	Combination Max	-6.40410153	90.71345266	-0.749881417	279.2671792	-224.161879	7223.645013	7-2	39.28
7	144.42	Strength 5 - Min	Combination Max	-6.40410153	94.69055266	-0.749881417	279.2671792	-209.434208	5402.97768	7-2	58.92
7	164.06	Strength 5 - Min	Combination Max	-6.40410153	98.66765266	-0.749881417	279.2671792	-194.706537	3665.554444	7-2	78.56
7	183.7	Strength 5 - Min	Combination Max	-6.40410153	102.6447527	-0.749881417	279.2671792	-179.9788659	1956.340638	7-2	98.2

7	183.7	Strength 5 - Min	Combination Max	10.27029213	381.4309327	-5.908821417	-51.46621673	-179.9788659	1503.299538	7-3	0
7	199.85	Strength 5 - Min	Combination Max	10.27029213	384.7013077	-5.908821417	-51.46621673	-84.55140006	-4491.37683	7-3	16.15
7	216	Strength 5 - Min	Combination Max	10.27029213	387.9716827	-5.908821417	-51.46621673	34.58380387	-10119.10363	7-3	32.3
7	0	Strength 5 - Min	Combination Min	-23.36743035	-235.9513058	4.409058583	227.1165433	123.3572878	-9243.823971	7-1	0
7	21.375	Strength 5 - Min	Combination Min	-23.36743035	-231.6314896	4.409058583	227.1165433	29.11366062	-4248.055155	7-1	21.375
7	42.75	Strength 5 - Min	Combination Min	-23.36743035	-227.3116733	4.409058583	227.1165433	-207.1008055	644.4344775	7-1	42.75
7	64.125	Strength 5 - Min	Combination Min	-23.36743035	-222.9918571	4.409058583	227.1165433	-506.7774693	5447.904112	7-1	64.125
7	85.5	Strength 5 - Min	Combination Min	-23.36743035	-218.6720408	4.409058583	227.1165433	-806.4541331	9566.757248	7-1	85.5
7	85.5	Strength 5 - Min	Combination Min	-7.046241283	69.36215917	-2.384479119	87.82516327	-806.4541331	9407.503148	7-2	0
7	105.14	Strength 5 - Min	Combination Min	-7.046241283	73.27975048	-2.384479119	87.82516327	-759.6229632	7858.436997	7-2	19.64
7	124.78	Strength 5 - Min	Combination Min	-7.046241283	77.06673528	-2.384479119	87.82516327	-712.7917934	6234.994464	7-2	39.28
7	144.42	Strength 5 - Min	Combination Min	-7.046241283	80.85372008	-2.384479119	87.82516327	-665.9606235	4537.17555	7-2	58.92
7	164.06	Strength 5 - Min	Combination Min	-7.046241283	84.64070488	-2.384479119	87.82516327	-619.1294536	2764.980254	7-2	78.56
7	183.7	Strength 5 - Min	Combination Min	-7.046241283	88.42768968	-2.384479119	87.82516327	-572.2982837	910.755217	7-2	98.2
7	183.7	Strength 5 - Min	Combination Min	-0.584924004	333.6741336	-18.78891912	-163.6527008	-572.2982837	751.501117	7-3	0
7	199.85	Strength 5 - Min	Combination Min	-0.584924004	336.7881766	-18.78891912	-163.6527008	-268.8572399	-4936.922157	7-3	16.15
7	216	Strength 5 - Min	Combination Min	-0.584924004	339.9022196	-18.78891912	-163.6527008	10.87606582	-11176.25655	7-3	32.3
7	0	Service 1	Combination Max	-10.8765472	-190.3537234	10.12044122	521.3175517	283.1511891	-5371.572458	7-1	0
7	21.375	Service 1	Combination Max	-10.8765472	-185.6761609	10.12044122	521.3175517	66.826758	-1345.128473	7-1	21.375
7	42.75	Service 1	Combination Max	-10.8765472	-180.9985984	10.12044122	521.3175517	-44.33408873	2581.250208	7-1	42.75
7	64.125	Service 1	Combination Max	-10.8765472	-176.3210359	10.12044122	521.3175517	-108.4859001	6784.162672	7-1	64.125
7	85.5	Service 1	Combination Max	-10.8765472	-171.6434734	10.12044122	521.3175517	-172.6377115	11094.95864	7-1	85.5
7	85.5	Service 1	Combination Max	-6.987547204	88.48684228	-0.510445667	201.5916517	-172.6377115	10902.20564	7-2	0
7	105.14	Service 1	Combination Max	-6.987547204	92.88252248	-0.510445667	201.5916517	-162.6125586	9121.387476	7-2	19.64
7	124.78	Service 1	Combination Max	-6.987547204	97.30152248	-0.510445667	201.5916517	-152.5874056	7253.780154	7-2	39.28
7	144.42	Service 1	Combination Max	-6.987547204	101.7205225	-0.510445667	201.5916517	-142.5622527	5299.383673	7-2	58.92
7	164.06	Service 1	Combination Max	-6.987547204	106.1395225	-0.510445667	201.5916517	-132.5370998	3377.761055	7-2	78.56
7	183.7	Service 1	Combination Max	-6.987547204	110.5585225	-0.510445667	201.5916517	-122.5119469	1447.997479	7-2	98.2
7	183.7	Service 1	Combination Max	4.883744394	389.1809225	-4.022145667	-35.03314892	-122.5119469	1125.374479	7-3	0
7	199.85	Service 1	Combination Max	4.883744394	392.8146725	-4.022145667	-35.03314892	-57.55429441	-5048.499008	7-3	16.15
7	216	Service 1	Combination Max	4.883744394	396.4484225	-4.022145667	-35.03314892	24.96464557	-10970.38147	7-3	32.3
7	0	Service 1	Combination Min	-19.07474179	-226.1065278	3.001254333	154.5986511	83.96953399	-7947.13224	7-1	0
7	21.375	Service 1	Combination Min	-19.07474179	-221.3037435	3.001254333	154.5986511	19.81772263	-3166.598715	7-1	21.375
7	42.75	Service 1	Combination Min	-19.07474179	-216.5009591	3.001254333	154.5986511	-149.4976731	1504.185877	7-1	42.75
7	64.125	Service 1	Combination Min	-19.07474179	-211.6981747	3.001254333	154.5986511	-365.8221042	6074.921146	7-1	64.125
7	85.5	Service 1	Combination Min	-19.07474179	-206.8953903	3.001254333	154.5986511	-582.1465352	10103.8077	7-1	85.5
7	85.5	Service 1	Combination Min	-7.465083229	78.53810965	-1.72125878	59.78275108	-582.1465352	9998.804705	7-2	0
7	105.14	Service 1	Combination Min	-7.465083229	82.91216224	-1.72125878	59.78275108	-548.3410128	8303.696535	7-2	19.64
7	124.78	Service 1	Combination Min	-7.465083229	87.21004891	-1.72125878	59.78275108	-514.5354904	6524.177872	7-2	39.28
7	144.42	Service 1	Combination Min	-7.465083229	91.50793558	-1.72125878	59.78275108	-480.7299679	4660.248714	7-2	58.92
7	164.06	Service 1	Combination Min	-7.465083229	95.80582224	-1.72125878	59.78275108	-446.9244455	2711.909062	7-2	78.56
7	183.7	Service 1	Combination Min	-7.465083229	100.1037089	-1.72125878	59.78275108	-413.118923	673.5142915	7-2	98.2

7	183.7	Service 1	Combination Min	-3.159033393	353.8818599	-13.56295878	-118.1342483	-413.118923	568.5112915	7-3		0
7	199.85	Service 1	Combination Min	-3.159033393	357.4160183	-13.56295878	-118.1342483	-194.0771387	-5377.144199	7-3		16.15
7	216	Service 1	Combination Min	-3.159033393	360.9501766	-13.56295878	-118.1342483	7.403358119	-11750.44369	7-3		32.3
7	0	WServ1: 45deg	Combination	-0.92383926	-2.27418208	0.445867923	22.96725696	12.47455816	-277.0005529	7-1		0
7	21.375	WServ1: 45deg	Combination	-0.92383926	-2.35326958	0.445867923	22.96725696	2.944131303	-227.5446632	7-1		21.375
7	42.75	WServ1: 45deg	Combination	-0.92383926	-2.43235708	0.445867923	22.96725696	-6.586295553	-176.3982783	7-1		42.75
7	64.125	WServ1: 45deg	Combination	-0.92383926	-2.51144458	0.445867923	22.96725696	-16.11672241	-123.5613981	7-1		64.125
7	85.5	WServ1: 45deg	Combination	-0.92383926	-2.59053208	0.445867923	22.96725696	-25.64714926	-69.0340225	7-1		85.5
7	85.5	WServ1: 45deg	Combination	0.07516074	-2.01703208	-0.075832077	8.88135696	-25.64714926	-96.0070225	7-2		0
7	105.14	WServ1: 45deg	Combination	0.07516074	-2.08970008	-0.075832077	8.88135696	-24.15780727	-55.67891268	7-2		19.64
7	124.78	WServ1: 45deg	Combination	0.07516074	-2.16236808	-0.075832077	8.88135696	-22.66846528	-13.92360335	7-2		39.28
7	144.42	WServ1: 45deg	Combination	0.07516074	-2.23503608	-0.075832077	8.88135696	-21.17912329	29.25890551	7-2		58.92
7	164.06	WServ1: 45deg	Combination	0.07516074	-2.30770408	-0.075832077	8.88135696	-19.6897813	73.86861388	7-2		78.56
7	183.7	WServ1: 45deg	Combination	0.07516074	-2.38037208	-0.075832077	8.88135696	-18.20043931	119.9055218	7-2		98.2
7	183.7	WServ1: 45deg	Combination	1.07416074	-2.92797208	-0.597532077	-5.20454304	-18.20043931	92.93252178	7-3		0
7	199.85	WServ1: 45deg	Combination	1.07416074	-2.98772708	-0.597532077	-5.20454304	-8.550296265	140.7017925	7-3		16.15
7	216	WServ1: 45deg	Combination	1.07416074	-3.04748208	-0.597532077	-5.20454304	1.099846778	189.4361065	7-3		32.3
7	0	WServ1: 30deg	Combination	-0.935589518	-2.455859623	0.445867923	22.96725696	12.47455816	-280.0521946	7-1		0
7	21.375	WServ1: 30deg	Combination	-0.935589518	-2.495403373	0.445867923	22.96725696	2.944131303	-227.1355714	7-1		21.375
7	42.75	WServ1: 30deg	Combination	-0.935589518	-2.534947123	0.445867923	22.96725696	-6.586295553	-173.3737004	7-1		42.75
7	64.125	WServ1: 30deg	Combination	-0.935589518	-2.574490873	0.445867923	22.96725696	-16.11672241	-118.7665818	7-1		64.125
7	85.5	WServ1: 30deg	Combination	-0.935589518	-2.614034623	0.445867923	22.96725696	-25.64714926	-63.31421557	7-1		85.5
7	85.5	WServ1: 30deg	Combination	0.063410482	-2.040534623	-0.075832077	8.88135696	-25.64714926	-90.28721557	7-2		0
7	105.14	WServ1: 30deg	Combination	0.063410482	-2.076868623	-0.075832077	8.88135696	-24.15780727	-49.85431569	7-2		19.64
7	124.78	WServ1: 30deg	Combination	0.063410482	-2.113202623	-0.075832077	8.88135696	-22.66846528	-8.707816044	7-2		39.28
7	144.42	WServ1: 30deg	Combination	0.063410482	-2.149536623	-0.075832077	8.88135696	-21.17912329	33.15228336	7-2		58.92
7	164.06	WServ1: 30deg	Combination	0.063410482	-2.185870623	-0.075832077	8.88135696	-19.6897813	75.72598253	7-2		78.56
7	183.7	WServ1: 30deg	Combination	0.063410482	-2.222204623	-0.075832077	8.88135696	-18.20043931	119.0132815	7-2		98.2
7	183.7	WServ1: 30deg	Combination	1.062410482	-2.769804623	-0.597532077	-5.20454304	-18.20043931	92.04028145	7-3		0
7	199.85	WServ1: 30deg	Combination	1.062410482	-2.799682123	-0.597532077	-5.20454304	-8.550296265	137.0138869	7-3		16.15
7	216	WServ1: 30deg	Combination	1.062410482	-2.829559623	-0.597532077	-5.20454304	1.099846778	182.470014	7-3		32.3
7	0	WServ1: 15deg	Combination	-0.941741993	-2.603949291	0.445867923	22.96725696	12.47455816	-282.1480649	7-1		0
7	21.375	WServ1: 15deg	Combination	-0.941741993	-2.610539916	0.445867923	22.96725696	2.944131303	-226.4182115	7-1		21.375
7	42.75	WServ1: 15deg	Combination	-0.941741993	-2.617130541	0.445867923	22.96725696	-6.586295553	-170.5474835	7-1		42.75
7	64.125	WServ1: 15deg	Combination	-0.941741993	-2.623721166	0.445867923	22.96725696	-16.11672241	-114.5358809	7-1		64.125
7	85.5	WServ1: 15deg	Combination	-0.941741993	-2.630311791	0.445867923	22.96725696	-25.64714926	-58.38340363	7-1		85.5
7	85.5	WServ1: 15deg	Combination	0.057258007	-2.056811791	-0.075832077	8.88135696	-25.64714926	-85.35640363	7-2		0
7	105.14	WServ1: 15deg	Combination	0.057258007	-2.062867458	-0.075832077	8.88135696	-24.15780727	-44.90115341	7-2		19.64
7	124.78	WServ1: 15deg	Combination	0.057258007	-2.068923124	-0.075832077	8.88135696	-22.66846528	-4.326969889	7-2		39.28
7	144.42	WServ1: 15deg	Combination	0.057258007	-2.074978791	-0.075832077	8.88135696	-21.17912329	36.36614692	7-2		58.92
7	164.06	WServ1: 15deg	Combination	0.057258007	-2.081034458	-0.075832077	8.88135696	-19.6897813	77.17819703	7-2		78.56
7	183.7	WServ1: 15deg	Combination	0.057258007	-2.087090124	-0.075832077	8.88135696	-18.20043931	118.1091804	7-2		98.2

7	183.7	WServ1: 15deg	Combination	1.056258007	-2.634690124	-0.597532077	-5.20454304	-18.20043931	91.13618043	7-3	0
7	199.85	WServ1: 15deg	Combination	1.056258007	-2.639669708	-0.597532077	-5.20454304	-8.550296265	133.7266361	7-3	16.15
7	216	WServ1: 15deg	Combination	1.056258007	-2.644649291	-0.597532077	-5.20454304	1.099846778	176.397512	7-3	32.3
7	0	WServ1: 0deg	Combination	-0.931864313	-2.395474563	0.445867923	22.96725696	12.47455816	-279.0585157	7-1	0
7	21.375	WServ1: 0deg	Combination	-0.931864313	-2.448199563	0.445867923	22.96725696	2.944131303	-227.2917485	7-1	21.375
7	42.75	WServ1: 0deg	Combination	-0.931864313	-2.500924563	0.445867923	22.96725696	-6.586295553	-174.3979844	7-1	42.75
7	64.125	WServ1: 0deg	Combination	-0.931864313	-2.553649563	0.445867923	22.96725696	-16.11672241	-120.3772234	7-1	64.125
7	85.5	WServ1: 0deg	Combination	-0.931864313	-2.606374563	0.445867923	22.96725696	-25.64714926	-65.22946557	7-1	85.5
7	85.5	WServ1: 0deg	Combination	0.067135687	-2.032874563	-0.075832077	8.88135696	-25.64714926	-92.20246557	7-2	0
7	105.14	WServ1: 0deg	Combination	0.067135687	-2.081319896	-0.075832077	8.88135696	-24.15780727	-51.80107599	7-2	19.64
7	124.78	WServ1: 0deg	Combination	0.067135687	-2.129765229	-0.075832077	8.88135696	-22.66846528	-10.44822006	7-2	39.28
7	144.42	WServ1: 0deg	Combination	0.067135687	-2.178210563	-0.075832077	8.88135696	-21.17912329	31.85610222	7-2	58.92
7	164.06	WServ1: 0deg	Combination	0.067135687	-2.226655896	-0.075832077	8.88135696	-19.6897813	75.11189084	7-2	78.56
7	183.7	WServ1: 0deg	Combination	0.067135687	-2.275101229	-0.075832077	8.88135696	-18.20043931	119.3191458	7-2	98.2
7	183.7	WServ1: 0deg	Combination	1.066135687	-2.822701229	-0.597532077	-5.20454304	-18.20043931	92.34614581	7-3	0
7	199.85	WServ1: 0deg	Combination	1.066135687	-2.862537896	-0.597532077	-5.20454304	-8.550296265	138.2544517	7-3	16.15
7	216	WServ1: 0deg	Combination	1.066135687	-2.902374563	-0.597532077	-5.20454304	1.099846778	184.8061199	7-3	32.3
7	0	WServ1: -15deg	Combination	-0.918964768	-2.212752298	0.445867923	22.96725696	12.47455816	-275.865664	7-1	0
7	21.375	WServ1: -15deg	Combination	-0.918964768	-2.305021048	0.445867923	22.96725696	2.944131303	-227.5819614	7-1	21.375
7	42.75	WServ1: -15deg	Combination	-0.918964768	-2.397289798	0.445867923	22.96725696	-6.586295553	-177.3260143	7-1	42.75
7	64.125	WServ1: -15deg	Combination	-0.918964768	-2.489558548	0.445867923	22.96725696	-16.11672241	-125.0978226	7-1	64.125
7	85.5	WServ1: -15deg	Combination	-0.918964768	-2.581827298	0.445867923	22.96725696	-25.64714926	-70.89738634	7-1	85.5
7	85.5	WServ1: -15deg	Combination	0.080035232	-2.008327298	-0.075832077	8.88135696	-25.64714926	-97.87038634	7-2	0
7	105.14	WServ1: -15deg	Combination	0.080035232	-2.093106631	-0.075832077	8.88135696	-24.15780727	-57.59430516	7-2	19.64
7	124.78	WServ1: -15deg	Combination	0.080035232	-2.177885964	-0.075832077	8.88135696	-22.66846528	-15.65315787	7-2	39.28
7	144.42	WServ1: -15deg	Combination	0.080035232	-2.262665298	-0.075832077	8.88135696	-21.17912329	27.95305553	7-2	58.92
7	164.06	WServ1: -15deg	Combination	0.080035232	-2.347444631	-0.075832077	8.88135696	-19.6897813	73.22433503	7-2	78.56
7	183.7	WServ1: -15deg	Combination	0.080035232	-2.432223964	-0.075832077	8.88135696	-18.20043931	120.1606806	7-2	98.2
7	183.7	WServ1: -15deg	Combination	1.079035232	-2.979823964	-0.597532077	-5.20454304	-18.20043931	93.18768064	7-3	0
7	199.85	WServ1: -15deg	Combination	1.079035232	-3.049538131	-0.597532077	-5.20454304	-8.550296265	141.8747796	7-3	16.15
7	216	WServ1: -15deg	Combination	1.079035232	-3.119252298	-0.597532077	-5.20454304	1.099846778	191.6877623	7-3	32.3
7	0	WServ1: -30deg	Combination	-0.902617364	-2.026895868	0.445867923	22.96725696	12.47455816	-272.2491828	7-1	0
7	21.375	WServ1: -30deg	Combination	-0.902617364	-2.158708368	0.445867923	22.96725696	2.944131303	-227.5155376	7-1	21.375
7	42.75	WServ1: -30deg	Combination	-0.902617364	-2.290520868	0.445867923	22.96725696	-6.586295553	-179.9644001	7-1	42.75
7	64.125	WServ1: -30deg	Combination	-0.902617364	-2.422333368	0.445867923	22.96725696	-16.11672241	-129.5957705	7-1	64.125
7	85.5	WServ1: -30deg	Combination	-0.902617364	-2.554145868	0.445867923	22.96725696	-25.64714926	-76.40964862	7-1	85.5
7	85.5	WServ1: -30deg	Combination	0.096382636	-1.980645868	-0.075832077	8.88135696	-25.64714926	-103.3826486	7-2	0
7	105.14	WServ1: -30deg	Combination	0.096382636	-2.101759201	-0.075832077	8.88135696	-24.15780727	-63.29343084	7-2	19.64
7	124.78	WServ1: -30deg	Combination	0.096382636	-2.222872535	-0.075832077	8.88135696	-22.66846528	-20.82554719	7-2	39.28
7	144.42	WServ1: -30deg	Combination	0.096382636	-2.343985868	-0.075832077	8.88135696	-21.17912329	24.02100233	7-2	58.92
7	164.06	WServ1: -30deg	Combination	0.096382636	-2.465099201	-0.075832077	8.88135696	-19.6897813	71.24621771	7-2	78.56
7	183.7	WServ1: -30deg	Combination	0.096382636	-2.586212535	-0.075832077	8.88135696	-18.20043931	120.850099	7-2	98.2

7	183.7	WServ1: -30deg	Combination		1.095382636	-3.133812535	-0.597532077	-5.20454304	-18.20043931	93.87709896	7-3	0
7	199.85	WServ1: -30deg	Combination		1.095382636	-3.233404201	-0.597532077	-5.20454304	-8.550296265	145.2923741	7-3	16.15
7	216	WServ1: -30deg	Combination		1.095382636	-3.332995868	-0.597532077	-5.20454304	1.099846778	198.3160547	7-3	32.3
7	0	WServ1 + WA	Combination		-0.881255805	-2.577465675	0.445867923	22.96725696	12.47455816	-274.9842697	7-1	0
7	21.375	WServ1 + WA	Combination		-0.881255805	-2.577465675	0.445867923	22.96725696	2.944131303	-219.8909409	7-1	21.375
7	42.75	WServ1 + WA	Combination		-0.881255805	-2.577465675	0.445867923	22.96725696	-6.586295553	-164.7976121	7-1	42.75
7	64.125	WServ1 + WA	Combination		-0.881255805	-2.577465675	0.445867923	22.96725696	-16.11672241	-109.7042833	7-1	64.125
7	85.5	WServ1 + WA	Combination		-0.881255805	-2.577465675	0.445867923	22.96725696	-25.64714926	-54.61095447	7-1	85.5
7	85.5	WServ1 + WA	Combination		0.117744195	-2.003965675	-0.075832077	8.88135696	-25.64714926	-81.58395447	7-2	0
7	105.14	WServ1 + WA	Combination		0.117744195	-2.003965675	-0.075832077	8.88135696	-24.15780727	-42.22606861	7-2	19.64
7	124.78	WServ1 + WA	Combination		0.117744195	-2.003965675	-0.075832077	8.88135696	-22.66846528	-2.868182753	7-2	39.28
7	144.42	WServ1 + WA	Combination		0.117744195	-2.003965675	-0.075832077	8.88135696	-21.17912329	36.48970311	7-2	58.92
7	164.06	WServ1 + WA	Combination		0.117744195	-2.003965675	-0.075832077	8.88135696	-19.6897813	75.84758897	7-2	78.56
7	183.7	WServ1 + WA	Combination		0.117744195	-2.003965675	-0.075832077	8.88135696	-18.20043931	115.2054748	7-2	98.2
7	183.7	WServ1 + WA	Combination		1.116744195	-2.551565675	-0.597532077	-5.20454304	-18.20043931	88.23247482	7-3	0
7	199.85	WServ1 + WA	Combination		1.116744195	-2.551565675	-0.597532077	-5.20454304	-8.550296265	129.4402605	7-3	16.15
7	216	WServ1 + WA	Combination		1.116744195	-2.551565675	-0.597532077	-5.20454304	1.099846778	170.6480461	7-3	32.3
7	0	WServ1 & WA envelope	Combination	Max	-0.881255805	-2.026895868	0.445867923	22.96725696	12.47455816	-272.2491828	7-1	0
7	21.375	WServ1 & WA envelope	Combination	Max	-0.881255805	-2.158708368	0.445867923	22.96725696	2.944131303	-219.8909409	7-1	21.375
7	42.75	WServ1 & WA envelope	Combination	Max	-0.881255805	-2.290520868	0.445867923	22.96725696	-6.586295553	-164.7976121	7-1	42.75
7	64.125	WServ1 & WA envelope	Combination	Max	-0.881255805	-2.422333368	0.445867923	22.96725696	-16.11672241	-109.7042833	7-1	64.125
7	85.5	WServ1 & WA envelope	Combination	Max	-0.881255805	-2.554145868	0.445867923	22.96725696	-25.64714926	-54.61095447	7-1	85.5
7	85.5	WServ1 & WA envelope	Combination	Max	0.117744195	-1.980645868	-0.075832077	8.88135696	-25.64714926	-81.58395447	7-2	0
7	105.14	WServ1 & WA envelope	Combination	Max	0.117744195	-2.003965675	-0.075832077	8.88135696	-24.15780727	-42.22606861	7-2	19.64
7	124.78	WServ1 & WA envelope	Combination	Max	0.117744195	-2.003965675	-0.075832077	8.88135696	-22.66846528	-2.868182753	7-2	39.28
7	144.42	WServ1 & WA envelope	Combination	Max	0.117744195	-2.003965675	-0.075832077	8.88135696	-21.17912329	36.48970311	7-2	58.92
7	164.06	WServ1 & WA envelope	Combination	Max	0.117744195	-2.003965675	-0.075832077	8.88135696	-19.6897813	77.17819703	7-2	78.56
7	183.7	WServ1 & WA envelope	Combination	Max	0.117744195	-2.003965675	-0.075832077	8.88135696	-18.20043931	120.850099	7-2	98.2
7	183.7	WServ1 & WA envelope	Combination	Max	1.116744195	-2.551565675	-0.597532077	-5.20454304	-18.20043931	93.87709896	7-3	0
7	199.85	WServ1 & WA envelope	Combination	Max	1.116744195	-2.551565675	-0.597532077	-5.20454304	-8.550296265	145.2923741	7-3	16.15
7	216	WServ1 & WA envelope	Combination	Max	1.116744195	-2.551565675	-0.597532077	-5.20454304	1.099846778	198.3160547	7-3	32.3
7	0	WServ1 & WA envelope	Combination	Min	-0.941741993	-2.603949291	0.445867923	22.96725696	12.47455816	-282.1480649	7-1	0
7	21.375	WServ1 & WA envelope	Combination	Min	-0.941741993	-2.610539916	0.445867923	22.96725696	2.944131303	-227.5819614	7-1	21.375
7	42.75	WServ1 & WA envelope	Combination	Min	-0.941741993	-2.617130541	0.445867923	22.96725696	-6.586295553	-179.9644001	7-1	42.75
7	64.125	WServ1 & WA envelope	Combination	Min	-0.941741993	-2.623721166	0.445867923	22.96725696	-16.11672241	-129.5957705	7-1	64.125
7	85.5	WServ1 & WA envelope	Combination	Min	-0.941741993	-2.630311791	0.445867923	22.96725696	-25.64714926	-76.40964862	7-1	85.5
7	85.5	WServ1 & WA envelope	Combination	Min	0.057258007	-2.056811791	-0.075832077	8.88135696	-25.64714926	-103.3826486	7-2	0
7	105.14	WServ1 & WA envelope	Combination	Min	0.057258007	-2.101759201	-0.075832077	8.88135696	-24.15780727	-63.29343084	7-2	19.64
7	124.78	WServ1 & WA envelope	Combination	Min	0.057258007	-2.222872535	-0.075832077	8.88135696	-22.66846528	-20.82554719	7-2	39.28
7	144.42	WServ1 & WA envelope	Combination	Min	0.057258007	-2.343985868	-0.075832077	8.88135696	-21.17912329	24.02100233	7-2	58.92
7	164.06	WServ1 & WA envelope	Combination	Min	0.057258007	-2.465099201	-0.075832077	8.88135696	-19.6897813	71.24621771	7-2	78.56
7	183.7	WServ1 & WA envelope	Combination	Min	0.057258007	-2.586212535	-0.075832077	8.88135696	-18.20043931	115.2054748	7-2	98.2

7	183.7	WServ1 & WA envelope	Combination	Min	1.056258007	-3.133812535	-0.597532077	-5.20454304	-18.20043931	88.23247482	7-3	0
7	199.85	WServ1 & WA envelope	Combination	Min	1.056258007	-3.233404201	-0.597532077	-5.20454304	-8.550296265	129.4402605	7-3	16.15
7	216	WServ1 & WA envelope	Combination	Min	1.056258007	-3.332995868	-0.597532077	-5.20454304	1.099846778	170.6480461	7-3	32.3
7	0	Strength Envelope	Combination	Max	-6.366620427	-131.921796	16.93050327	872.1130159	473.6841041	-3280.90536	7-1	0
7	21.375	Strength Envelope	Combination	Max	-6.366620427	-127.725171	16.93050327	872.1130159	111.7945967	-505.9284003	7-1	21.375
7	42.75	Strength Envelope	Combination	Max	-6.366620427	-123.528546	16.93050327	872.1130159	-6.586295553	3524.337981	7-1	42.75
7	64.125	Strength Envelope	Combination	Max	-6.366620427	-119.331921	16.93050327	872.1130159	-16.11672241	9406.839183	7-1	64.125
7	85.5	Strength Envelope	Combination	Max	-6.366620427	-115.135296	16.93050327	872.1130159	-25.64714926	15529.53671	7-1	85.5
7	85.5	Strength Envelope	Combination	Max	-5.145775508	123.8663699	-0.075832077	337.2430159	-25.64714926	15239.42171	7-2	0
7	105.14	Strength Envelope	Combination	Max	-5.145775508	129.3901199	-0.075832077	337.2430159	-24.15780727	12752.44298	7-2	19.64
7	124.78	Strength Envelope	Combination	Max	-5.145775508	134.9138699	-0.075832077	337.2430159	-22.66846528	10156.9778	7-2	39.28
7	144.42	Strength Envelope	Combination	Max	-5.145775508	140.4376199	-0.075832077	337.2430159	-21.17912329	7453.026166	7-2	58.92
7	164.06	Strength Envelope	Combination	Max	-5.145775508	145.9613699	-0.075832077	337.2430159	-19.6897813	4847.494811	7-2	78.56
7	183.7	Strength Envelope	Combination	Max	-5.145775508	151.4851199	-0.075832077	337.2430159	-18.20043931	2265.890399	7-2	98.2
7	183.7	Strength Envelope	Combination	Max	12.06954317	544.8051199	-0.597532077	-5.20454304	-18.20043931	1748.502899	7-3	0
7	199.85	Strength Envelope	Combination	Max	12.06954317	549.3473074	-0.597532077	-5.20454304	-8.550296265	-3729.936324	7-3	16.15
7	216	Strength Envelope	Combination	Max	12.06954317	553.8894949	-0.597532077	-5.20454304	41.76339788	-7868.848615	7-3	32.3
7	0	Strength Envelope	Combination	Min	-28.76961422	-320.7349968	0.445867923	22.96725696	12.47455816	-11788.40286	7-1	0
7	21.375	Strength Envelope	Combination	Min	-28.76961422	-314.7232781	0.445867923	22.96725696	2.944131303	-4996.942545	7-1	21.375
7	42.75	Strength Envelope	Combination	Min	-28.76961422	-308.7115593	0.445867923	22.96725696	-250.0949107	590.0413558	7-1	42.75
7	64.125	Strength Envelope	Combination	Min	-28.76961422	-302.6998406	0.445867923	22.96725696	-611.9844181	4554.253872	7-1	64.125
7	85.5	Strength Envelope	Combination	Min	-28.76961422	-296.6881218	0.445867923	22.96725696	-973.8739254	7150.682407	7-1	85.5
7	85.5	Strength Envelope	Combination	Min	-10.20096173	58.3313991	-2.87949673	8.88135696	-973.8739254	7077.782407	7-2	0
7	105.14	Strength Envelope	Combination	Min	-10.20096173	62.18701961	-2.87949673	8.88135696	-917.3206097	5892.27005	7-2	19.64
7	124.78	Strength Envelope	Combination	Min	-10.20096173	65.83678628	-2.87949673	8.88135696	-860.7672939	4635.076277	7-2	39.28
7	144.42	Strength Envelope	Combination	Min	-10.20096173	69.48655294	-2.87949673	8.88135696	-804.2139781	3265.30046	7-2	58.92
7	164.06	Strength Envelope	Combination	Min	-10.20096173	73.13631961	-2.87949673	8.88135696	-747.6606623	1784.33335	7-2	78.56
7	183.7	Strength Envelope	Combination	Min	-10.20096173	76.78608628	-2.87949673	8.88135696	-691.1073465	227.6346611	7-2	98.2
7	183.7	Strength Envelope	Combination	Min	-6.882777817	251.7775863	-22.68949673	-197.6269841	-691.1073465	200.6616611	7-3	0
7	199.85	Strength Envelope	Combination	Min	-6.882777817	254.7787946	-22.68949673	-197.6269841	-324.6719743	-7405.732297	7-3	16.15
7	216	Strength Envelope	Combination	Min	-6.882777817	257.7800029	-22.68949673	-197.6269841	1.099846778	-16314.36948	7-3	32.3
8	0	DEAD	LinStatic		-0.682660482	-24.32922713	0	0	0	-889.8647881	8-1	0
8	21.96666667	DEAD	LinStatic		-0.682660482	-19.38672713	0	0	0	-409.7178904	8-1	21.96666667
8	43.93333333	DEAD	LinStatic		-0.682660482	-14.44422713	0	0	0	-38.14124268	8-1	43.93333333
8	65.9	DEAD	LinStatic		-0.682660482	-9.501727133	0	0	0	224.865155	8-1	65.9
8	65.9	DEAD	LinStatic		-0.682660482	-9.501727133	0	0	0	224.865155	8-2	0
8	85.58	DEAD	LinStatic		-0.682660482	-5.073727133	0	0	0	368.287625	8-2	19.68
8	105.26	DEAD	LinStatic		-0.682660482	-0.645727132	0	0	0	424.567055	8-2	39.36
8	124.94	DEAD	LinStatic		-0.682660482	3.782272868	0	0	0	393.7034449	8-2	59.04
8	144.62	DEAD	LinStatic		-0.682660482	8.210272868	0	0	0	275.6967949	8-2	78.72
8	164.3	DEAD	LinStatic		-0.682660482	12.63827287	0	0	0	70.54710484	8-2	98.4
8	164.3	DEAD	LinStatic		-0.682660482	12.63827287	0	0	0	70.54710484	8-3	0

8	181.5333333	DEAD	LinStatic	-0.682660482	16.51577287	0	0	0	-180.6635893	8-3	17.23333333
8	198.7666667	DEAD	LinStatic	-0.682660482	20.39327287	0	0	0	-498.6965334	8-3	34.46666667
8	216	DEAD	LinStatic	-0.682660482	24.27077287	0	0	0	-883.5517275	8-3	51.7
8	0	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	2.737860073	8-1	0
8	21.96666667	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	2.386631974	8-1	21.96666667
8	43.93333333	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	2.035403874	8-1	43.93333333
8	65.9	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	1.684175775	8-1	65.9
8	65.9	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	1.684175775	8-2	0
8	85.58	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	1.369509508	8-2	19.68
8	105.26	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	1.054843241	8-2	39.36
8	124.94	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	0.740176974	8-2	59.04
8	144.62	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	0.425510707	8-2	78.72
8	164.3	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	0.11084444	8-2	98.4
8	164.3	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	0.11084444	8-3	0
8	181.5333333	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	-0.164701733	8-3	17.23333333
8	198.7666667	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	-0.440247905	8-3	34.46666667
8	216	R01_Z	LinStatic	-0.013375464	0.01598914	0	0	0	-0.715794077	8-3	51.7
8	0	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	12.30778278	8-1	0
8	21.96666667	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	11.06229126	8-1	21.96666667
8	43.93333333	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	9.816799729	8-1	43.93333333
8	65.9	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	8.571308203	8-1	65.9
8	65.9	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	8.571308203	8-2	0
8	85.58	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	7.455468753	8-2	19.68
8	105.26	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	6.339629304	8-2	39.36
8	124.94	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	5.223789854	8-2	59.04
8	144.62	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	4.107950405	8-2	78.72
8	164.3	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	2.992110955	8-2	98.4
8	164.3	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	2.992110955	8-3	0
8	181.5333333	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	2.014995448	8-3	17.23333333
8	198.7666667	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	1.037879941	8-3	34.46666667
8	216	R02_Z	LinStatic	0.006178276	0.056699159	0	0	0	0.060764434	8-3	51.7
8	0	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	2.982608328	8-1	0
8	21.96666667	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.006904509	8-1	21.96666667
8	43.93333333	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.03120069	8-1	43.93333333
8	65.9	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.055496871	8-1	65.9
8	65.9	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.055496871	8-2	0
8	85.58	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.07726389	8-2	19.68
8	105.26	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.099030909	8-2	39.36
8	124.94	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.120797927	8-2	59.04
8	144.62	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.142564946	8-2	78.72
8	164.3	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.164331965	8-2	98.4
8	164.3	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.164331965	8-3	0

8	181.5333333	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.183392853	8-3	17.23333333
8	198.7666667	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.202453742	8-3	34.46666667
8	216	R03_Z	LinStatic	0.00352692	-0.001106048	0	0	0	3.221514631	8-3	51.7
8	0	R04_Z	LinStatic	0.015802682	0.691482335	0	0	0	12.14663454	8-1	0
8	21.96666667	R04_Z	LinStatic	0.015802682	0.691482335	0	0	0	-3.042927434	8-1	21.96666667
8	43.93333333	R04_Z	LinStatic	0.015802682	0.691482335	0	0	0	-18.2324894	8-1	43.93333333
8	65.9	R04_Z	LinStatic	0.015802682	0.691482335	0	0	0	-33.42205137	8-1	65.9
8	65.9	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-33.42205137	8-2	0
8	85.58	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-27.35042374	8-2	19.68
8	105.26	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-21.2787961	8-2	39.36
8	124.94	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-15.20716846	8-2	59.04
8	144.62	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-9.135540823	8-2	78.72
8	164.3	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-3.063913186	8-2	98.4
8	164.3	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	-3.063913186	8-3	0
8	181.5333333	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	2.252874566	8-3	17.23333333
8	198.7666667	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	7.569662318	8-3	34.46666667
8	216	R04_Z	LinStatic	0.015802682	-0.308517665	0	0	0	12.88645007	8-3	51.7
8	0	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	11.41077169	8-1	0
8	21.96666667	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	5.952217389	8-1	21.96666667
8	43.93333333	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	0.493663089	8-1	43.93333333
8	65.9	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-4.96489121	8-1	65.9
8	65.9	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-4.96489121	8-2	0
8	85.58	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-9.855225745	8-2	19.68
8	105.26	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-14.74556028	8-2	39.36
8	124.94	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-19.63589481	8-2	59.04
8	144.62	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-24.52622935	8-2	78.72
8	164.3	R05_Z	LinStatic	0.012078356	0.248492608	0	0	0	-29.41656388	8-2	98.4
8	164.3	R05_Z	LinStatic	0.012078356	-0.751507392	0	0	0	-29.41656388	8-3	0
8	181.5333333	R05_Z	LinStatic	0.012078356	-0.751507392	0	0	0	-16.4655865	8-3	17.23333333
8	198.7666667	R05_Z	LinStatic	0.012078356	-0.751507392	0	0	0	-3.514609122	8-3	34.46666667
8	216	R05_Z	LinStatic	0.012078356	-0.751507392	0	0	0	9.436368259	8-3	51.7
8	0	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	2.300465616	8-1	0
8	21.96666667	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	2.666734826	8-1	21.96666667
8	43.93333333	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	3.033004036	8-1	43.93333333
8	65.9	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	3.399273246	8-1	65.9
8	65.9	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	3.399273246	8-2	0
8	85.58	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	3.727414887	8-2	19.68
8	105.26	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	4.055556528	8-2	39.36
8	124.94	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	4.383698169	8-2	59.04
8	144.62	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	4.71183981	8-2	78.72
8	164.3	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	5.039981451	8-2	98.4
8	164.3	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	5.039981451	8-3	0

8	181.5333333	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	5.327327705	8-3	17.23333333
8	198.7666667	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	5.614673959	8-3	34.46666667
8	216	R06_Z	LinStatic	-0.000307113	-0.016673864	0	0	0	5.902020213	8-3	51.7
8	0	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	-0.246530299	8-1	0
8	21.96666667	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	0.857055516	8-1	21.96666667
8	43.93333333	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	1.960641331	8-1	43.93333333
8	65.9	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	3.064227147	8-1	65.9
8	65.9	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	3.064227147	8-2	0
8	85.58	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	4.05293286	8-2	19.68
8	105.26	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	5.041638574	8-2	39.36
8	124.94	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	6.030344288	8-2	59.04
8	144.62	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	7.019050001	8-2	78.72
8	164.3	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	8.007755715	8-2	98.4
8	164.3	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	8.007755715	8-3	0
8	181.5333333	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	8.873543069	8-3	17.23333333
8	198.7666667	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	9.739330424	8-3	34.46666667
8	216	R07_Z	LinStatic	0.000177455	-0.050239111	0	0	0	10.60511778	8-3	51.7
8	0	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	-0.447641773	8-1	0
8	21.96666667	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	-0.106380895	8-1	21.96666667
8	43.93333333	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	0.234879983	8-1	43.93333333
8	65.9	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	0.57614086	8-1	65.9
8	65.9	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	0.57614086	8-2	0
8	85.58	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	0.881877465	8-2	19.68
8	105.26	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	1.187614069	8-2	39.36
8	124.94	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	1.493350673	8-2	59.04
8	144.62	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	1.799087277	8-2	78.72
8	164.3	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	2.104823881	8-2	98.4
8	164.3	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	2.104823881	8-3	0
8	181.5333333	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	2.372550549	8-3	17.23333333
8	198.7666667	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	2.640277216	8-3	34.46666667
8	216	R08_Z	LinStatic	-0.001845258	-0.015535397	0	0	0	2.908003883	8-3	51.7
8	0	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.207777293	8-1	0
8	21.96666667	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.185945939	8-1	21.96666667
8	43.93333333	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.164114585	8-1	43.93333333
8	65.9	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.142283231	8-1	65.9
8	65.9	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.142283231	8-2	0
8	85.58	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.122724458	8-2	19.68
8	105.26	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.103165685	8-2	39.36
8	124.94	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.083606912	8-2	59.04
8	144.62	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.064048139	8-2	78.72
8	164.3	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.044489367	8-2	98.4
8	164.3	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.044489367	8-3	0

8	181.5333333	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.027362189	8-3	17.23333333
8	198.7666667	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	-0.010235012	8-3	34.46666667
8	216	R09_Z	LinStatic	0.000690019	-0.00099384	0	0	0	0.006892166	8-3	51.7
8	0	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.006840939	8-1	0
8	21.96666667	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.042305925	8-1	21.96666667
8	43.93333333	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.077770911	8-1	43.93333333
8	65.9	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.113235897	8-1	65.9
8	65.9	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.113235897	8-2	0
8	85.58	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.14500908	8-2	19.68
8	105.26	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.176782264	8-2	39.36
8	124.94	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.208555447	8-2	59.04
8	144.62	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.24032863	8-2	78.72
8	164.3	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.272101814	8-2	98.4
8	164.3	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.272101814	8-3	0
8	181.5333333	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.299924876	8-3	17.23333333
8	198.7666667	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.327747938	8-3	34.46666667
8	216	R10_Z	LinStatic	0.000856515	0.001614491	0	0	0	-0.355571	8-3	51.7
8	0	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	0.116880532	8-1	0
8	21.96666667	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	0.069431332	8-1	21.96666667
8	43.93333333	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	0.021982133	8-1	43.93333333
8	65.9	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.025467067	8-1	65.9
8	65.9	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.025467067	8-2	0
8	85.58	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.067976941	8-2	19.68
8	105.26	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.110486816	8-2	39.36
8	124.94	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.152996691	8-2	59.04
8	144.62	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.195506565	8-2	78.72
8	164.3	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.23801644	8-2	98.4
8	164.3	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.23801644	8-3	0
8	181.5333333	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.275241381	8-3	17.23333333
8	198.7666667	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.312466322	8-3	34.46666667
8	216	R11_Z	LinStatic	0.003002648	0.002160055	0	0	0	-0.349691263	8-3	51.7
8	0	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.046431678	8-1	0
8	21.96666667	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.039707698	8-1	21.96666667
8	43.93333333	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.032983718	8-1	43.93333333
8	65.9	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.026259737	8-1	65.9
8	65.9	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.026259737	8-2	0
8	85.58	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.020235704	8-2	19.68
8	105.26	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.014211671	8-2	39.36
8	124.94	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.008187638	8-2	59.04
8	144.62	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	-0.002163605	8-2	78.72
8	164.3	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	0.003860429	8-2	98.4
8	164.3	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	0.003860429	8-3	0

8	181.5333333	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	0.009135539	8-3	17.23333333
8	198.7666667	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	0.01441065	8-3	34.46666667
8	216	R12_Z	LinStatic	-0.001942496	-0.000306099	0	0	0	0.01968576	8-3	51.7
8	0	R_X	LinStatic	0.960524879	1.432841952	0	0	0	124.1466178	8-1	0
8	21.96666667	R_X	LinStatic	0.960524879	1.432841952	0	0	0	92.67185626	8-1	21.96666667
8	43.93333333	R_X	LinStatic	0.960524879	1.432841952	0	0	0	61.19709472	8-1	43.93333333
8	65.9	R_X	LinStatic	0.960524879	1.432841952	0	0	0	29.72233317	8-1	65.9
8	65.9	R_X	LinStatic	-0.039475121	1.432841952	0	0	0	56.72233317	8-2	0
8	85.58	R_X	LinStatic	-0.039475121	1.432841952	0	0	0	28.52400356	8-2	19.68
8	105.26	R_X	LinStatic	-0.039475121	1.432841952	0	0	0	0.325673947	8-2	39.36
8	124.94	R_X	LinStatic	-0.039475121	1.432841952	0	0	0	-27.87265567	8-2	59.04
8	144.62	R_X	LinStatic	-0.039475121	1.432841952	0	0	0	-56.07098528	8-2	78.72
8	164.3	R_X	LinStatic	-0.039475121	1.432841952	0	0	0	-84.26931489	8-2	98.4
8	164.3	R_X	LinStatic	-1.039475121	1.432841952	0	0	0	-57.26931489	8-3	0
8	181.5333333	R_X	LinStatic	-1.039475121	1.432841952	0	0	0	-81.96195787	8-3	17.23333333
8	198.7666667	R_X	LinStatic	-1.039475121	1.432841952	0	0	0	-106.6546008	8-3	34.46666667
8	216	R_X	LinStatic	-1.039475121	1.432841952	0	0	0	-131.3472438	8-3	51.7
8	0	R_Y	LinStatic	0	0	-0.945307244	-37.13587496	-9.669377193	0	8-1	0
8	21.96666667	R_Y	LinStatic	0	0	-0.945307244	-37.13587496	11.09587192	0	8-1	21.96666667
8	43.93333333	R_Y	LinStatic	0	0	-0.945307244	-37.13587496	31.86112104	0	8-1	43.93333333
8	65.9	R_Y	LinStatic	0	0	-0.945307244	-37.13587496	52.62637016	0	8-1	65.9
8	65.9	R_Y	LinStatic	0	0	0.054692756	-10.13587496	52.62637016	0	8-2	0
8	85.58	R_Y	LinStatic	0	0	0.054692756	-10.13587496	51.55001671	0	8-2	19.68
8	105.26	R_Y	LinStatic	0	0	0.054692756	-10.13587496	50.47366326	0	8-2	39.36
8	124.94	R_Y	LinStatic	0	0	0.054692756	-10.13587496	49.39730982	0	8-2	59.04
8	144.62	R_Y	LinStatic	0	0	0.054692756	-10.13587496	48.32095637	0	8-2	78.72
8	164.3	R_Y	LinStatic	0	0	0.054692756	-10.13587496	47.24460292	0	8-2	98.4
8	164.3	R_Y	LinStatic	0	0	1.054692756	16.86412504	47.24460292	0	8-3	0
8	181.5333333	R_Y	LinStatic	0	0	1.054692756	16.86412504	29.06873109	0	8-3	17.23333333
8	198.7666667	R_Y	LinStatic	0	0	1.054692756	16.86412504	10.89285925	0	8-3	34.46666667
8	216	R_Y	LinStatic	0	0	1.054692756	16.86412504	-7.283012583	0	8-3	51.7
8	0	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	9.790331381	8-1	0
8	21.96666667	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	7.711451633	8-1	21.96666667
8	43.93333333	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	5.632571885	8-1	43.93333333
8	65.9	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	3.553692137	8-1	65.9
8	65.9	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	3.553692137	8-2	0
8	85.58	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	1.691217777	8-2	19.68
8	105.26	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-0.171256583	8-2	39.36
8	124.94	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-2.033730942	8-2	59.04
8	144.62	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-3.896205302	8-2	78.72
8	164.3	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-5.758679662	8-2	98.4
8	164.3	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-5.758679662	8-3	0

8	181.5333333	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-7.389606566	8-3	17.23333333
8	198.7666667	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-9.02053347	8-3	34.46666667
8	216	Cap_R_X	LinStatic	0.322023099	0.094637925	0	0	0	-10.65146037	8-3	51.7
8	0	Cap_w_Y	LinStatic	-0.252837215	-9.010824864	0	0	0	-329.5795511	8-1	0
8	21.96666667	Cap_w_Y	LinStatic	-0.252837215	-7.180269308	0	0	0	-151.7473668	8-1	21.96666667
8	43.93333333	Cap_w_Y	LinStatic	-0.252837215	-5.349713753	0	0	0	-14.12638618	8-1	43.93333333
8	65.9	Cap_w_Y	LinStatic	-0.252837215	-3.519158197	0	0	0	83.28339074	8-1	65.9
8	65.9	Cap_w_Y	LinStatic	-0.252837215	-3.519158197	0	0	0	83.28339074	8-2	0
8	85.58	Cap_w_Y	LinStatic	-0.252837215	-1.879158197	0	0	0	136.4028241	8-2	19.68
8	105.26	Cap_w_Y	LinStatic	-0.252837215	-0.239158197	0	0	0	157.2470574	8-2	39.36
8	124.94	Cap_w_Y	LinStatic	-0.252837215	1.400841803	0	0	0	145.8160907	8-2	59.04
8	144.62	Cap_w_Y	LinStatic	-0.252837215	3.040841803	0	0	0	102.109924	8-2	78.72
8	164.3	Cap_w_Y	LinStatic	-0.252837215	4.680841803	0	0	0	26.12855735	8-2	98.4
8	164.3	Cap_w_Y	LinStatic	-0.252837215	4.680841803	0	0	0	26.12855735	8-3	0
8	181.5333333	Cap_w_Y	LinStatic	-0.252837215	6.116952914	0	0	0	-66.91244046	8-3	17.23333333
8	198.7666667	Cap_w_Y	LinStatic	-0.252837215	7.553064025	0	0	0	-184.7024198	8-3	34.46666667
8	216	Cap_w_Y	LinStatic	-0.252837215	8.989175136	0	0	0	-327.2413805	8-3	51.7
8	0	Cap_w_Z	LinStatic	-0.252837215	-9.010824864	0	0	0	-329.5795511	8-1	0
8	21.96666667	Cap_w_Z	LinStatic	-0.252837215	-7.180269308	0	0	0	-151.7473668	8-1	21.96666667
8	43.93333333	Cap_w_Z	LinStatic	-0.252837215	-5.349713753	0	0	0	-14.12638618	8-1	43.93333333
8	65.9	Cap_w_Z	LinStatic	-0.252837215	-3.519158197	0	0	0	83.28339074	8-1	65.9
8	65.9	Cap_w_Z	LinStatic	-0.252837215	-3.519158197	0	0	0	83.28339074	8-2	0
8	85.58	Cap_w_Z	LinStatic	-0.252837215	-1.879158197	0	0	0	136.4028241	8-2	19.68
8	105.26	Cap_w_Z	LinStatic	-0.252837215	-0.239158197	0	0	0	157.2470574	8-2	39.36
8	124.94	Cap_w_Z	LinStatic	-0.252837215	1.400841803	0	0	0	145.8160907	8-2	59.04
8	144.62	Cap_w_Z	LinStatic	-0.252837215	3.040841803	0	0	0	102.109924	8-2	78.72
8	164.3	Cap_w_Z	LinStatic	-0.252837215	4.680841803	0	0	0	26.12855735	8-2	98.4
8	164.3	Cap_w_Z	LinStatic	-0.252837215	4.680841803	0	0	0	26.12855735	8-3	0
8	181.5333333	Cap_w_Z	LinStatic	-0.252837215	6.116952914	0	0	0	-66.91244046	8-3	17.23333333
8	198.7666667	Cap_w_Z	LinStatic	-0.252837215	7.553064025	0	0	0	-184.7024198	8-3	34.46666667
8	216	Cap_w_Z	LinStatic	-0.252837215	8.989175136	0	0	0	-327.2413805	8-3	51.7
8	0	Col_w_X	LinStatic	5.0431E-16	0	0	0	0	0	8-1	0
8	21.96666667	Col_w_X	LinStatic	5.0431E-16	0	0	0	0	0	8-1	21.96666667
8	43.93333333	Col_w_X	LinStatic	5.0431E-16	0	0	0	0	0	8-1	43.93333333
8	65.9	Col_w_X	LinStatic	5.0431E-16	0	0	0	0	0	8-1	65.9
8	65.9	Col_w_X	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	-5.68434E-14	8-2	0
8	85.58	Col_w_X	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	-2.18847E-14	8-2	19.68
8	105.26	Col_w_X	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	1.3074E-14	8-2	39.36
8	124.94	Col_w_X	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	4.80327E-14	8-2	59.04
8	144.62	Col_w_X	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	8.29914E-14	8-2	78.72
8	164.3	Col_w_X	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	1.1795E-13	8-2	98.4
8	164.3	Col_w_X	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	0

8	181.5333333	Col_w_X	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	17.23333333
8	198.7666667	Col_w_X	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	34.46666667
8	216	Col_w_X	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	51.7
8	0	Col_w_Y	LinStatic	5.0431E-16	0	0	0	0	0	8-1	0
8	21.96666667	Col_w_Y	LinStatic	5.0431E-16	0	0	0	0	0	8-1	21.96666667
8	43.93333333	Col_w_Y	LinStatic	5.0431E-16	0	0	0	0	0	8-1	43.93333333
8	65.9	Col_w_Y	LinStatic	5.0431E-16	0	0	0	0	0	8-1	65.9
8	65.9	Col_w_Y	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	-5.68434E-14	8-2	0
8	85.58	Col_w_Y	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	-2.18847E-14	8-2	19.68
8	105.26	Col_w_Y	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	1.3074E-14	8-2	39.36
8	124.94	Col_w_Y	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	4.80327E-14	8-2	59.04
8	144.62	Col_w_Y	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	8.29914E-14	8-2	78.72
8	164.3	Col_w_Y	LinStatic	5.0431E-16	-1.77636E-15	0	0	0	1.1795E-13	8-2	98.4
8	164.3	Col_w_Y	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	0
8	181.5333333	Col_w_Y	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	17.23333333
8	198.7666667	Col_w_Y	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	34.46666667
8	216	Col_w_Y	LinStatic	5.03302E-16	0	0	0	0	2.27374E-13	8-3	51.7
8	0	Cais_w_X	LinStatic	1.45271E-16	8.88178E-16	0	0	0	2.84217E-14	8-1	0
8	21.96666667	Cais_w_X	LinStatic	1.45271E-16	8.88178E-16	0	0	0	8.91139E-15	8-1	21.96666667
8	43.93333333	Cais_w_X	LinStatic	1.45271E-16	8.88178E-16	0	0	0	-1.05989E-14	8-1	43.93333333
8	65.9	Cais_w_X	LinStatic	1.45271E-16	8.88178E-16	0	0	0	-3.01092E-14	8-1	65.9
8	65.9	Cais_w_X	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	0
8	85.58	Cais_w_X	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	19.68
8	105.26	Cais_w_X	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	39.36
8	124.94	Cais_w_X	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	59.04
8	144.62	Cais_w_X	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	78.72
8	164.3	Cais_w_X	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	98.4
8	164.3	Cais_w_X	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	0
8	181.5333333	Cais_w_X	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	17.23333333
8	198.7666667	Cais_w_X	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	34.46666667
8	216	Cais_w_X	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	51.7
8	0	Cais_w_Y	LinStatic	1.45271E-16	8.88178E-16	0	0	0	2.84217E-14	8-1	0
8	21.96666667	Cais_w_Y	LinStatic	1.45271E-16	8.88178E-16	0	0	0	8.91139E-15	8-1	21.96666667
8	43.93333333	Cais_w_Y	LinStatic	1.45271E-16	8.88178E-16	0	0	0	-1.05989E-14	8-1	43.93333333
8	65.9	Cais_w_Y	LinStatic	1.45271E-16	8.88178E-16	0	0	0	-3.01092E-14	8-1	65.9
8	65.9	Cais_w_Y	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	0
8	85.58	Cais_w_Y	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	19.68
8	105.26	Cais_w_Y	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	39.36
8	124.94	Cais_w_Y	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	59.04
8	144.62	Cais_w_Y	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	78.72
8	164.3	Cais_w_Y	LinStatic	1.45271E-16	0	0	0	0	-1.42109E-14	8-2	98.4
8	164.3	Cais_w_Y	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	0

8	181.5333333	Cais_w_Y	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	17.23333333
8	198.7666667	Cais_w_Y	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	34.46666667
8	216	Cais_w_Y	LinStatic	1.42831E-16	0	0	0	0	5.68434E-14	8-3	51.7
8	0	DC	LinStatic	-4.706053741	-165.3395948	0	0	0	-7603.10831	8-1	0
8	21.96666667	DC	LinStatic	-4.706053741	-165.3395948	0	0	0	-3971.148545	8-1	21.96666667
8	43.93333333	DC	LinStatic	-4.706053741	-165.3395948	0	0	0	-339.1887807	8-1	43.93333333
8	65.9	DC	LinStatic	-4.706053741	-165.3395948	0	0	0	3292.770984	8-1	65.9
8	65.9	DC	LinStatic	-4.706053741	12.46040525	0	0	0	3292.770984	8-2	0
8	85.58	DC	LinStatic	-4.706053741	12.46040525	0	0	0	3047.550209	8-2	19.68
8	105.26	DC	LinStatic	-4.706053741	12.46040525	0	0	0	2802.329433	8-2	39.36
8	124.94	DC	LinStatic	-4.706053741	12.46040525	0	0	0	2557.108658	8-2	59.04
8	144.62	DC	LinStatic	-4.706053741	12.46040525	0	0	0	2311.887883	8-2	78.72
8	164.3	DC	LinStatic	-4.706053741	12.46040525	0	0	0	2066.667108	8-2	98.4
8	164.3	DC	LinStatic	-4.706053741	190.2604052	0	0	0	2066.667108	8-3	0
8	181.5333333	DC	LinStatic	-4.706053741	190.2604052	0	0	0	-1212.153876	8-3	17.23333333
8	198.7666667	DC	LinStatic	-4.706053741	190.2604052	0	0	0	-4490.97486	8-3	34.46666667
8	216	DC	LinStatic	-4.706053741	190.2604052	0	0	0	-7769.795844	8-3	51.7
8	0	DW	LinStatic	-0.62876472	-23.57837659	0	0	0	-1089.539352	8-1	0
8	21.96666667	DW	LinStatic	-0.62876472	-23.57837659	0	0	0	-571.6010124	8-1	21.96666667
8	43.93333333	DW	LinStatic	-0.62876472	-23.57837659	0	0	0	-53.66267325	8-1	43.93333333
8	65.9	DW	LinStatic	-0.62876472	-23.57837659	0	0	0	464.2756659	8-1	65.9
8	65.9	DW	LinStatic	-0.62876472	1.731623405	0	0	0	464.2756659	8-2	0
8	85.58	DW	LinStatic	-0.62876472	1.731623405	0	0	0	430.1973173	8-2	19.68
8	105.26	DW	LinStatic	-0.62876472	1.731623405	0	0	0	396.1189687	8-2	39.36
8	124.94	DW	LinStatic	-0.62876472	1.731623405	0	0	0	362.0406201	8-2	59.04
8	144.62	DW	LinStatic	-0.62876472	1.731623405	0	0	0	327.9622715	8-2	78.72
8	164.3	DW	LinStatic	-0.62876472	1.731623405	0	0	0	293.8839228	8-2	98.4
8	164.3	DW	LinStatic	-0.62876472	27.04162341	0	0	0	293.8839228	8-3	0
8	181.5333333	DW	LinStatic	-0.62876472	27.04162341	0	0	0	-172.1333872	8-3	17.23333333
8	198.7666667	DW	LinStatic	-0.62876472	27.04162341	0	0	0	-638.1506972	8-3	34.46666667
8	216	DW	LinStatic	-0.62876472	27.04162341	0	0	0	-1104.168007	8-3	51.7
8	0	WS3	LinStatic	-2.350849229	-0.085519053	1.332883213	52.36158369	13.63382184	-210.3928683	8-1	0
8	21.96666667	WS3	LinStatic	-2.350849229	-0.085519053	1.332883213	52.36158369	-15.64517941	-208.5142998	8-1	21.96666667
8	43.93333333	WS3	LinStatic	-2.350849229	-0.085519053	1.332883213	52.36158369	-44.92418067	-206.6357312	8-1	43.93333333
8	65.9	WS3	LinStatic	-2.350849229	-0.085519053	1.332883213	52.36158369	-74.20318192	-204.7571627	8-1	65.9
8	65.9	WS3	LinStatic	0.349150771	-4.605519053	-0.077116787	14.29158369	-74.20318192	-277.6571627	8-2	0
8	85.58	WS3	LinStatic	0.349150771	-4.605519053	-0.077116787	14.29158369	-72.68552356	-187.0205478	8-2	19.68
8	105.26	WS3	LinStatic	0.349150771	-4.605519053	-0.077116787	14.29158369	-71.1678652	-96.38393279	8-2	39.36
8	124.94	WS3	LinStatic	0.349150771	-4.605519053	-0.077116787	14.29158369	-69.65020684	-5.74731783	8-2	59.04
8	144.62	WS3	LinStatic	0.349150771	-4.605519053	-0.077116787	14.29158369	-68.13254848	84.88929713	8-2	78.72
8	164.3	WS3	LinStatic	0.349150771	-4.605519053	-0.077116787	14.29158369	-66.61489012	175.5259121	8-2	98.4
8	164.3	WS3	LinStatic	3.049150771	-12.15551905	-1.487116787	-23.77841631	-66.61489012	102.6259121	8-3	0

8	181.5333333	WS3	LinStatic	3.049150771	-12.15551905	-1.487116787	-23.77841631	-40.98691083	312.1060238	8-3	17.23333333
8	198.7666667	WS3	LinStatic	3.049150771	-12.15551905	-1.487116787	-23.77841631	-15.35893155	521.5861354	8-3	34.46666667
8	216	WS3	LinStatic	3.049150771	-12.15551905	-1.487116787	-23.77841631	10.26904774	731.0662471	8-3	51.7
8	0	WL5	LinStatic	-0.664680187	-1.235615244	0.415935187	16.33978498	4.254525965	-98.71945478	8-1	0
8	21.96666667	WL5	LinStatic	-0.664680187	-1.235615244	0.415935187	16.33978498	-4.882183646	-71.57710659	8-1	21.96666667
8	43.93333333	WL5	LinStatic	-0.664680187	-1.235615244	0.415935187	16.33978498	-14.01889326	-44.43475841	8-1	43.93333333
8	65.9	WL5	LinStatic	-0.664680187	-1.235615244	0.415935187	16.33978498	-23.15560287	-17.29241022	8-1	65.9
8	65.9	WL5	LinStatic	0.025319813	-0.985615244	-0.024064813	4.459784982	-23.15560287	-35.92241022	8-2	0
8	85.58	WL5	LinStatic	0.025319813	-0.985615244	-0.024064813	4.459784982	-22.68200735	-16.52550223	8-2	19.68
8	105.26	WL5	LinStatic	0.025319813	-0.985615244	-0.024064813	4.459784982	-22.20841184	2.871405769	8-2	39.36
8	124.94	WL5	LinStatic	0.025319813	-0.985615244	-0.024064813	4.459784982	-21.73481632	22.26831376	8-2	59.04
8	144.62	WL5	LinStatic	0.025319813	-0.985615244	-0.024064813	4.459784982	-21.2612208	41.66522176	8-2	78.72
8	164.3	WL5	LinStatic	0.025319813	-0.985615244	-0.024064813	4.459784982	-20.78762529	61.06212975	8-2	98.4
8	164.3	WL5	LinStatic	0.715319813	-0.835615244	-0.464064813	-7.420215018	-20.78762529	42.43212975	8-3	0
8	181.5333333	WL5	LinStatic	0.715319813	-0.835615244	-0.464064813	-7.420215018	-12.79024168	56.83256579	8-3	17.23333333
8	198.7666667	WL5	LinStatic	0.715319813	-0.835615244	-0.464064813	-7.420215018	-4.792858071	71.23300182	8-3	34.46666667
8	216	WL5	LinStatic	0.715319813	-0.835615244	-0.464064813	-7.420215018	3.204525537	85.63343785	8-3	51.7
8	0	PL	LinStatic	-0.207932071	-7.797353303	0	0	0	-360.3099318	8-1	0
8	21.96666667	PL	LinStatic	-0.207932071	-7.797353303	0	0	0	-189.0280709	8-1	21.96666667
8	43.93333333	PL	LinStatic	-0.207932071	-7.797353303	0	0	0	-17.74621	8-1	43.93333333
8	65.9	PL	LinStatic	-0.207932071	-7.797353303	0	0	0	153.5356509	8-1	65.9
8	65.9	PL	LinStatic	-0.207932071	0.572646697	0	0	0	153.5356509	8-2	0
8	85.58	PL	LinStatic	-0.207932071	0.572646697	0	0	0	142.2659639	8-2	19.68
8	105.26	PL	LinStatic	-0.207932071	0.572646697	0	0	0	130.9962769	8-2	39.36
8	124.94	PL	LinStatic	-0.207932071	0.572646697	0	0	0	119.7265899	8-2	59.04
8	144.62	PL	LinStatic	-0.207932071	0.572646697	0	0	0	108.4569029	8-2	78.72
8	164.3	PL	LinStatic	-0.207932071	0.572646697	0	0	0	97.18721589	8-2	98.4
8	164.3	PL	LinStatic	-0.207932071	8.942646697	0	0	0	97.18721589	8-3	0
8	181.5333333	PL	LinStatic	-0.207932071	8.942646697	0	0	0	-56.92439552	8-3	17.23333333
8	198.7666667	PL	LinStatic	-0.207932071	8.942646697	0	0	0	-211.0360069	8-3	34.46666667
8	216	PL	LinStatic	-0.207932071	8.942646697	0	0	0	-365.1476183	8-3	51.7
8	0	LL-1 Lane	LinStatic	-0.482556783	-28.7670084	0	0	0	-1429.752239	8-1	0
8	21.96666667	LL-1 Lane	LinStatic	-0.482556783	-28.7670084	0	0	0	-797.8369541	8-1	21.96666667
8	43.93333333	LL-1 Lane	LinStatic	-0.482556783	-28.7670084	0	0	0	-165.9216696	8-1	43.93333333
8	65.9	LL-1 Lane	LinStatic	-0.482556783	-28.7670084	0	0	0	465.9936149	8-1	65.9
8	65.9	LL-1 Lane	LinStatic	-0.482556783	1.192991601	0	0	0	465.9936149	8-2	0
8	85.58	LL-1 Lane	LinStatic	-0.482556783	1.192991601	0	0	0	442.5155402	8-2	19.68
8	105.26	LL-1 Lane	LinStatic	-0.482556783	1.192991601	0	0	0	419.0374655	8-2	39.36
8	124.94	LL-1 Lane	LinStatic	-0.482556783	1.192991601	0	0	0	395.5593908	8-2	59.04
8	144.62	LL-1 Lane	LinStatic	-0.482556783	1.192991601	0	0	0	372.0813161	8-2	78.72
8	164.3	LL-1 Lane	LinStatic	-0.482556783	1.192991601	0	0	0	348.6032414	8-2	98.4
8	164.3	LL-1 Lane	LinStatic	-0.482556783	25.0529916	0	0	0	348.6032414	8-3	0

8	181.5333333	LL-1 Lane	LinStatic	-0.482556783	25.0529916	0	0	0	-83.14331389	8-3	17.23333333
8	198.7666667	LL-1 Lane	LinStatic	-0.482556783	25.0529916	0	0	0	-514.8898691	8-3	34.46666667
8	216	LL-1 Lane	LinStatic	-0.482556783	25.0529916	0	0	0	-946.6364244	8-3	51.7
8	0	LL-2 Lane	LinStatic	-0.775331694	-44.22732645	0	0	0	-2186.221252	8-1	0
8	21.96666667	LL-2 Lane	LinStatic	-0.775331694	-44.22732645	0	0	0	-1214.694315	8-1	21.96666667
8	43.93333333	LL-2 Lane	LinStatic	-0.775331694	-44.22732645	0	0	0	-243.1673769	8-1	43.93333333
8	65.9	LL-2 Lane	LinStatic	-0.775331694	-44.22732645	0	0	0	728.3595607	8-1	65.9
8	65.9	LL-2 Lane	LinStatic	-0.775331694	1.942673552	0	0	0	728.3595607	8-2	0
8	85.58	LL-2 Lane	LinStatic	-0.775331694	1.942673552	0	0	0	690.1277452	8-2	19.68
8	105.26	LL-2 Lane	LinStatic	-0.775331694	1.942673552	0	0	0	651.8959297	8-2	39.36
8	124.94	LL-2 Lane	LinStatic	-0.775331694	1.942673552	0	0	0	613.6641142	8-2	59.04
8	144.62	LL-2 Lane	LinStatic	-0.775331694	1.942673552	0	0	0	575.4322987	8-2	78.72
8	164.3	LL-2 Lane	LinStatic	-0.775331694	1.942673552	0	0	0	537.2004832	8-2	98.4
8	164.3	LL-2 Lane	LinStatic	-0.775331694	39.45267355	0	0	0	537.2004832	8-3	0
8	181.5333333	LL-2 Lane	LinStatic	-0.775331694	39.45267355	0	0	0	-142.7005911	8-3	17.23333333
8	198.7666667	LL-2 Lane	LinStatic	-0.775331694	39.45267355	0	0	0	-822.6016653	8-3	34.46666667
8	216	LL-2 Lane	LinStatic	-0.775331694	39.45267355	0	0	0	-1502.50274	8-3	51.7
8	0	LL-3 Lane	LinStatic	-0.951797087	-51.65214842	0	0	0	-2536.840462	8-1	0
8	21.96666667	LL-3 Lane	LinStatic	-0.951797087	-51.65214842	0	0	0	-1402.214935	8-1	21.96666667
8	43.93333333	LL-3 Lane	LinStatic	-0.951797087	-51.65214842	0	0	0	-267.5894083	8-1	43.93333333
8	65.9	LL-3 Lane	LinStatic	-0.951797087	-51.65214842	0	0	0	867.0361187	8-1	65.9
8	65.9	LL-3 Lane	LinStatic	-0.951797087	2.41785158	0	0	0	867.0361187	8-2	0
8	85.58	LL-3 Lane	LinStatic	-0.951797087	2.41785158	0	0	0	819.4527996	8-2	19.68
8	105.26	LL-3 Lane	LinStatic	-0.951797087	2.41785158	0	0	0	771.8694805	8-2	39.36
8	124.94	LL-3 Lane	LinStatic	-0.951797087	2.41785158	0	0	0	724.2861614	8-2	59.04
8	144.62	LL-3 Lane	LinStatic	-0.951797087	2.41785158	0	0	0	676.7028423	8-2	78.72
8	164.3	LL-3 Lane	LinStatic	-0.951797087	2.41785158	0	0	0	629.1195232	8-2	98.4
8	164.3	LL-3 Lane	LinStatic	-0.951797087	47.36785158	0	0	0	629.1195232	8-3	0
8	181.5333333	LL-3 Lane	LinStatic	-0.951797087	47.36785158	0	0	0	-187.1864524	8-3	17.23333333
8	198.7666667	LL-3 Lane	LinStatic	-0.951797087	47.36785158	0	0	0	-1003.492428	8-3	34.46666667
8	216	LL-3 Lane	LinStatic	-0.951797087	47.36785158	0	0	0	-1819.798403	8-3	51.7
8	0	LL-7 Lane	LinStatic	-1.435454703	-58.32369598	0	0	0	-2737.298531	8-1	0
8	21.96666667	LL-7 Lane	LinStatic	-1.435454703	-58.32369598	0	0	0	-1456.121342	8-1	21.96666667
8	43.93333333	LL-7 Lane	LinStatic	-1.435454703	-58.32369598	0	0	0	-174.944154	8-1	43.93333333
8	65.9	LL-7 Lane	LinStatic	-1.435454703	-58.32369598	0	0	0	1106.233034	8-1	65.9
8	65.9	LL-7 Lane	LinStatic	-1.435454703	3.896304019	0	0	0	1106.233034	8-2	0
8	85.58	LL-7 Lane	LinStatic	-1.435454703	3.896304019	0	0	0	1029.553771	8-2	19.68
8	105.26	LL-7 Lane	LinStatic	-1.435454703	3.896304019	0	0	0	952.8745082	8-2	39.36
8	124.94	LL-7 Lane	LinStatic	-1.435454703	3.896304019	0	0	0	876.1952451	8-2	59.04
8	144.62	LL-7 Lane	LinStatic	-1.435454703	3.896304019	0	0	0	799.515982	8-2	78.72
8	164.3	LL-7 Lane	LinStatic	-1.435454703	3.896304019	0	0	0	722.8367189	8-2	98.4
8	164.3	LL-7 Lane	LinStatic	-1.435454703	63.54630402	0	0	0	722.8367189	8-3	0

8	181.5333333	LL-7 Lane	LinStatic	-1.435454703	63.54630402	0	0	0	-372.2779203	8-3	17.23333333
8	198.7666667	LL-7 Lane	LinStatic	-1.435454703	63.54630402	0	0	0	-1467.39256	8-3	34.46666667
8	216	LL-7 Lane	LinStatic	-1.435454703	63.54630402	0	0	0	-2562.507199	8-3	51.7
8	0	CE-1 Lane	LinStatic	-2.081505766	-3.965250709	0.642808926	25.25239497	6.575176492	-314.2639729	8-1	0
8	21.96666667	CE-1 Lane	LinStatic	-2.081505766	-3.965250709	0.642808926	25.25239497	-7.545192908	-227.1606324	8-1	21.96666667
8	43.93333333	CE-1 Lane	LinStatic	-2.081505766	-3.965250709	0.642808926	25.25239497	-21.66556231	-140.0572918	8-1	43.93333333
8	65.9	CE-1 Lane	LinStatic	-2.081505766	-3.965250709	0.642808926	25.25239497	-35.78593171	-52.9539512	8-1	65.9
8	65.9	CE-1 Lane	LinStatic	0.078494234	-3.085250709	-0.037191074	6.892394972	-35.78593171	-111.2739512	8-2	0
8	85.58	CE-1 Lane	LinStatic	0.078494234	-3.085250709	-0.037191074	6.892394972	-35.05401136	-50.55621724	8-2	19.68
8	105.26	CE-1 Lane	LinStatic	0.078494234	-3.085250709	-0.037191074	6.892394972	-34.32209102	10.16151672	8-2	39.36
8	124.94	CE-1 Lane	LinStatic	0.078494234	-3.085250709	-0.037191074	6.892394972	-33.59017068	70.87925068	8-2	59.04
8	144.62	CE-1 Lane	LinStatic	0.078494234	-3.085250709	-0.037191074	6.892394972	-32.85825033	131.5969846	8-2	78.72
8	164.3	CE-1 Lane	LinStatic	0.078494234	-3.085250709	-0.037191074	6.892394972	-32.12632999	192.3147186	8-2	98.4
8	164.3	CE-1 Lane	LinStatic	2.238494234	-2.555250709	-0.717191074	-11.46760503	-32.12632999	133.9947186	8-3	0
8	181.5333333	CE-1 Lane	LinStatic	2.238494234	-2.555250709	-0.717191074	-11.46760503	-19.76673714	178.0302058	8-3	17.23333333
8	198.7666667	CE-1 Lane	LinStatic	2.238494234	-2.555250709	-0.717191074	-11.46760503	-7.407144292	222.065693	8-3	34.46666667
8	216	CE-1 Lane	LinStatic	2.238494234	-2.555250709	-0.717191074	-11.46760503	4.952448557	266.1011803	8-3	51.7
8	0	CE-2 Lane	LinStatic	-3.469091064	-6.609970462	1.077650258	42.33489745	11.02309	-523.7481039	8-1	0
8	21.96666667	CE-2 Lane	LinStatic	-3.469091064	-6.609970462	1.077650258	42.33489745	-12.64929399	-378.5490861	8-1	21.96666667
8	43.93333333	CE-2 Lane	LinStatic	-3.469091064	-6.609970462	1.077650258	42.33489745	-36.32167799	-233.3500682	8-1	43.93333333
8	65.9	CE-2 Lane	LinStatic	-3.469091064	-6.609970462	1.077650258	42.33489745	-59.99406198	-88.15105043	8-1	65.9
8	65.9	CE-2 Lane	LinStatic	0.130908936	-5.139970462	-0.062349742	11.55489745	-59.99406198	-185.3510504	8-2	0
8	85.58	CE-2 Lane	LinStatic	0.130908936	-5.139970462	-0.062349742	11.55489745	-58.76701905	-84.19643174	8-2	19.68
8	105.26	CE-2 Lane	LinStatic	0.130908936	-5.139970462	-0.062349742	11.55489745	-57.53997612	16.95818695	8-2	39.36
8	124.94	CE-2 Lane	LinStatic	0.130908936	-5.139970462	-0.062349742	11.55489745	-56.31293319	118.1128056	8-2	59.04
8	144.62	CE-2 Lane	LinStatic	0.130908936	-5.139970462	-0.062349742	11.55489745	-55.08589026	219.2674243	8-2	78.72
8	164.3	CE-2 Lane	LinStatic	0.130908936	-5.139970462	-0.062349742	11.55489745	-53.85884733	320.422043	8-2	98.4
8	164.3	CE-2 Lane	LinStatic	3.730908936	-4.259970462	-1.202349742	-19.22510255	-53.85884733	223.222043	8-3	0
8	181.5333333	CE-2 Lane	LinStatic	3.730908936	-4.259970462	-1.202349742	-19.22510255	-33.13835344	296.635534	8-3	17.23333333
8	198.7666667	CE-2 Lane	LinStatic	3.730908936	-4.259970462	-1.202349742	-19.22510255	-12.41785955	370.0490249	8-3	34.46666667
8	216	CE-2 Lane	LinStatic	3.730908936	-4.259970462	-1.202349742	-19.22510255	8.302634345	443.4625159	8-3	51.7
8	0	CE-3 Lane	LinStatic	-4.384185728	-7.129598161	1.370695503	53.84701869	14.02059693	-650.3818668	8-1	0
8	21.96666667	CE-3 Lane	LinStatic	-4.384185728	-7.129598161	1.370695503	53.84701869	-16.08901429	-493.7683605	8-1	21.96666667
8	43.93333333	CE-3 Lane	LinStatic	-4.384185728	-7.129598161	1.370695503	53.84701869	-46.19862551	-337.1548542	8-1	43.93333333
8	65.9	CE-3 Lane	LinStatic	-4.384185728	-7.129598161	1.370695503	53.84701869	-76.30823673	-180.541348	8-1	65.9
8	65.9	CE-3 Lane	LinStatic	0.205814272	-7.129598161	-0.079304497	14.69701869	-76.30823673	-304.471348	8-2	0
8	85.58	CE-3 Lane	LinStatic	0.205814272	-7.129598161	-0.079304497	14.69701869	-74.74752423	-164.1608561	8-2	19.68
8	105.26	CE-3 Lane	LinStatic	0.205814272	-7.129598161	-0.079304497	14.69701869	-73.18681173	-23.85036433	8-2	39.36
8	124.94	CE-3 Lane	LinStatic	0.205814272	-7.129598161	-0.079304497	14.69701869	-71.62609924	116.4601275	8-2	59.04
8	144.62	CE-3 Lane	LinStatic	0.205814272	-7.129598161	-0.079304497	14.69701869	-70.06538674	256.7706193	8-2	78.72
8	164.3	CE-3 Lane	LinStatic	0.205814272	-7.129598161	-0.079304497	14.69701869	-68.50467424	397.0811111	8-2	98.4
8	164.3	CE-3 Lane	LinStatic	4.795814272	-5.999598161	-1.529304497	-24.45298131	-68.50467424	273.1511111	8-3	0

8	181.5333333	CE-3 Lane	LinStatic	4.795814272	-5.999598161	-1.529304497	-24.45298131	-42.14966008	376.5441861	8-3	17.23333333
8	198.7666667	CE-3 Lane	LinStatic	4.795814272	-5.999598161	-1.529304497	-24.45298131	-15.79464592	479.9372611	8-3	34.46666667
8	216	CE-3 Lane	LinStatic	4.795814272	-5.999598161	-1.529304497	-24.45298131	10.56036825	583.3303361	8-3	51.7
8	0	CE-7 Lane	LinStatic	-7.892514569	-15.04400021	2.438892688	95.81055739	24.94699316	-1191.714023	8-1	0
8	21.96666667	CE-7 Lane	LinStatic	-7.892514569	-15.04400021	2.438892688	95.81055739	-28.62734956	-861.2474847	8-1	21.96666667
8	43.93333333	CE-7 Lane	LinStatic	-7.892514569	-15.04400021	2.438892688	95.81055739	-82.20169228	-530.7809467	8-1	43.93333333
8	65.9	CE-7 Lane	LinStatic	-7.892514569	-15.04400021	2.438892688	95.81055739	-135.776035	-200.3144088	8-1	65.9
8	65.9	CE-7 Lane	LinStatic	0.297485431	-11.69400021	-0.141107312	26.15055739	-135.776035	-421.4444088	8-2	0
8	85.58	CE-7 Lane	LinStatic	0.297485431	-11.69400021	-0.141107312	26.15055739	-132.9990431	-191.3064846	8-2	19.68
8	105.26	CE-7 Lane	LinStatic	0.297485431	-11.69400021	-0.141107312	26.15055739	-130.2220512	38.83143954	8-2	39.36
8	124.94	CE-7 Lane	LinStatic	0.297485431	-11.69400021	-0.141107312	26.15055739	-127.4450593	268.9693637	8-2	59.04
8	144.62	CE-7 Lane	LinStatic	0.297485431	-11.69400021	-0.141107312	26.15055739	-124.6680674	499.1072878	8-2	78.72
8	164.3	CE-7 Lane	LinStatic	0.297485431	-11.69400021	-0.141107312	26.15055739	-121.8910755	729.245212	8-2	98.4
8	164.3	CE-7 Lane	LinStatic	8.487485431	-9.684000211	-2.721107312	-43.50944261	-121.8910755	508.115212	8-3	0
8	181.5333333	CE-7 Lane	LinStatic	8.487485431	-9.684000211	-2.721107312	-43.50944261	-74.99732621	675.0028156	8-3	17.23333333
8	198.7666667	CE-7 Lane	LinStatic	8.487485431	-9.684000211	-2.721107312	-43.50944261	-28.10357687	841.8904193	8-3	34.46666667
8	216	CE-7 Lane	LinStatic	8.487485431	-9.684000211	-2.721107312	-43.50944261	18.79017247	1008.778023	8-3	51.7
8	0	BR-1 Lane	LinStatic	-0.701183162	-1.045974625	2.183659733	85.78387115	22.33626132	-90.627031	8-1	0
8	21.96666667	BR-1 Lane	LinStatic	-0.701183162	-1.045974625	2.183659733	85.78387115	-25.63146414	-67.65045507	8-1	21.96666667
8	43.93333333	BR-1 Lane	LinStatic	-0.701183162	-1.045974625	2.183659733	85.78387115	-73.5991896	-44.67387914	8-1	43.93333333
8	65.9	BR-1 Lane	LinStatic	-0.701183162	-1.045974625	2.183659733	85.78387115	-121.5669151	-21.69730322	8-1	65.9
8	65.9	BR-1 Lane	LinStatic	0.028816838	-1.045974625	-0.126340267	23.41387115	-121.5669151	-41.40730322	8-2	0
8	85.58	BR-1 Lane	LinStatic	0.028816838	-1.045974625	-0.126340267	23.41387115	-119.0805386	-20.8225226	8-2	19.68
8	105.26	BR-1 Lane	LinStatic	0.028816838	-1.045974625	-0.126340267	23.41387115	-116.5941621	-0.237741981	8-2	39.36
8	124.94	BR-1 Lane	LinStatic	0.028816838	-1.045974625	-0.126340267	23.41387115	-114.1077857	20.34703864	8-2	59.04
8	144.62	BR-1 Lane	LinStatic	0.028816838	-1.045974625	-0.126340267	23.41387115	-111.6214092	40.93181925	8-2	78.72
8	164.3	BR-1 Lane	LinStatic	0.028816838	-1.045974625	-0.126340267	23.41387115	-109.1350328	61.51659987	8-2	98.4
8	164.3	BR-1 Lane	LinStatic	0.758816838	-1.045974625	-2.436340267	-38.95612885	-109.1350328	41.80659987	8-3	0
8	181.5333333	BR-1 Lane	LinStatic	0.758816838	-1.045974625	-2.436340267	-38.95612885	-67.14876881	59.83222924	8-3	17.23333333
8	198.7666667	BR-1 Lane	LinStatic	0.758816838	-1.045974625	-2.436340267	-38.95612885	-25.16250487	77.85785861	8-3	34.46666667
8	216	BR-1 Lane	LinStatic	0.758816838	-1.045974625	-2.436340267	-38.95612885	16.82375907	95.88348798	8-3	51.7
8	0	BR-2 Lane	LinStatic	-1.162235103	-1.733738762	3.629979815	142.6017598	37.13040842	-150.2174075	8-1	0
8	21.96666667	BR-2 Lane	LinStatic	-1.162235103	-1.733738762	3.629979815	142.6017598	-42.60814819	-112.1329461	8-1	21.96666667
8	43.93333333	BR-2 Lane	LinStatic	-1.162235103	-1.733738762	3.629979815	142.6017598	-122.3467048	-74.04848461	8-1	43.93333333
8	65.9	BR-2 Lane	LinStatic	-1.162235103	-1.733738762	3.629979815	142.6017598	-202.0852614	-35.96402314	8-1	65.9
8	65.9	BR-2 Lane	LinStatic	0.047764897	-1.733738762	-0.210020185	38.92175984	-202.0852614	-68.63402314	8-2	0
8	85.58	BR-2 Lane	LinStatic	0.047764897	-1.733738762	-0.210020185	38.92175984	-197.9520642	-34.51404431	8-2	19.68
8	105.26	BR-2 Lane	LinStatic	0.047764897	-1.733738762	-0.210020185	38.92175984	-193.8188669	-0.394065475	8-2	39.36
8	124.94	BR-2 Lane	LinStatic	0.047764897	-1.733738762	-0.210020185	38.92175984	-189.6856697	33.72591336	8-2	59.04
8	144.62	BR-2 Lane	LinStatic	0.047764897	-1.733738762	-0.210020185	38.92175984	-185.5524725	67.84589219	8-2	78.72
8	164.3	BR-2 Lane	LinStatic	0.047764897	-1.733738762	-0.210020185	38.92175984	-181.4192752	101.965871	8-2	98.4
8	164.3	BR-2 Lane	LinStatic	1.257764897	-1.733738762	-4.050020185	-64.75824016	-181.4192752	69.29587102	8-3	0

8	181.5333333	BR-2 Lane	LinStatic	1.257764897	-1.733738762	-4.050020185	-64.75824016	-111.6239274	99.17396902	8-3	17.23333333
8	198.7666667	BR-2 Lane	LinStatic	1.257764897	-1.733738762	-4.050020185	-64.75824016	-41.82857953	129.052067	8-3	34.46666667
8	216	BR-2 Lane	LinStatic	1.257764897	-1.733738762	-4.050020185	-64.75824016	27.96676832	158.930165	8-3	51.7
8	0	BR-3 Lane	LinStatic	-1.488813562	-2.220905025	4.632005493	181.9657873	47.37994825	-192.4272576	8-1	0
8	21.96666667	BR-3 Lane	LinStatic	-1.488813562	-2.220905025	4.632005493	181.9657873	-54.36977243	-143.6413772	8-1	21.96666667
8	43.93333333	BR-3 Lane	LinStatic	-1.488813562	-2.220905025	4.632005493	181.9657873	-156.1194931	-94.85549681	8-1	43.93333333
8	65.9	BR-3 Lane	LinStatic	-1.488813562	-2.220905025	4.632005493	181.9657873	-257.8692138	-46.06961642	8-1	65.9
8	65.9	BR-3 Lane	LinStatic	0.061186438	-2.220905025	-0.267994507	49.6657873	-257.8692138	-87.91961642	8-2	0
8	85.58	BR-3 Lane	LinStatic	0.061186438	-2.220905025	-0.267994507	49.6657873	-252.5950819	-44.21220552	8-2	19.68
8	105.26	BR-3 Lane	LinStatic	0.061186438	-2.220905025	-0.267994507	49.6657873	-247.32095	-0.504794617	8-2	39.36
8	124.94	BR-3 Lane	LinStatic	0.061186438	-2.220905025	-0.267994507	49.6657873	-242.0468181	43.20261628	8-2	59.04
8	144.62	BR-3 Lane	LinStatic	0.061186438	-2.220905025	-0.267994507	49.6657873	-236.7726862	86.91002718	8-2	78.72
8	164.3	BR-3 Lane	LinStatic	0.061186438	-2.220905025	-0.267994507	49.6657873	-231.4985543	130.6174381	8-2	98.4
8	164.3	BR-3 Lane	LinStatic	1.611186438	-2.220905025	-5.167994507	-82.6342127	-231.4985543	88.76743809	8-3	0
8	181.5333333	BR-3 Lane	LinStatic	1.611186438	-2.220905025	-5.167994507	-82.6342127	-142.4367823	127.0410347	8-3	17.23333333
8	198.7666667	BR-3 Lane	LinStatic	1.611186438	-2.220905025	-5.167994507	-82.6342127	-53.37501034	165.3146313	8-3	34.46666667
8	216	BR-3 Lane	LinStatic	1.611186438	-2.220905025	-5.167994507	-82.6342127	35.68676166	203.5882279	8-3	51.7
8	0	BR-7 Lane	LinStatic	-2.651048666	-3.954643787	8.261985309	324.5675471	84.51035667	-342.6446651	8-1	0
8	21.96666667	BR-7 Lane	LinStatic	-2.651048666	-3.954643787	8.261985309	324.5675471	-96.97792061	-255.7743233	8-1	21.96666667
8	43.93333333	BR-7 Lane	LinStatic	-2.651048666	-3.954643787	8.261985309	324.5675471	-278.4661979	-168.9039814	8-1	43.93333333
8	65.9	BR-7 Lane	LinStatic	-2.651048666	-3.954643787	8.261985309	324.5675471	-459.9544752	-82.03363956	8-1	65.9
8	65.9	BR-7 Lane	LinStatic	0.108951334	-3.954643787	-0.478014691	88.58754714	-459.9544752	-156.5536396	8-2	0
8	85.58	BR-7 Lane	LinStatic	0.108951334	-3.954643787	-0.478014691	88.58754714	-450.5471461	-78.72624983	8-2	19.68
8	105.26	BR-7 Lane	LinStatic	0.108951334	-3.954643787	-0.478014691	88.58754714	-441.1398169	-0.898860093	8-2	39.36
8	124.94	BR-7 Lane	LinStatic	0.108951334	-3.954643787	-0.478014691	88.58754714	-431.7324878	76.92852964	8-2	59.04
8	144.62	BR-7 Lane	LinStatic	0.108951334	-3.954643787	-0.478014691	88.58754714	-422.3251587	154.7559194	8-2	78.72
8	164.3	BR-7 Lane	LinStatic	0.108951334	-3.954643787	-0.478014691	88.58754714	-412.9178296	232.5833091	8-2	98.4
8	164.3	BR-7 Lane	LinStatic	2.868951334	-3.954643787	-9.218014691	-147.3924529	-412.9178296	158.0633091	8-3	0
8	181.5333333	BR-7 Lane	LinStatic	2.868951334	-3.954643787	-9.218014691	-147.3924529	-254.0607097	226.2150037	8-3	17.23333333
8	198.7666667	BR-7 Lane	LinStatic	2.868951334	-3.954643787	-9.218014691	-147.3924529	-95.20358987	294.3666983	8-3	34.46666667
8	216	BR-7 Lane	LinStatic	2.868951334	-3.954643787	-9.218014691	-147.3924529	63.65352998	362.5183929	8-3	51.7
8	0	WSub3: 45deg	LinStatic	-0.275581478	0.991392955	0	0	0	30.24873132	8-1	0
8	21.96666667	WSub3: 45deg	LinStatic	-0.275581478	0.771726288	0	0	0	10.88380496	8-1	21.96666667
8	43.93333333	WSub3: 45deg	LinStatic	-0.275581478	0.552059622	0	0	0	-3.65577695	8-1	43.93333333
8	65.9	WSub3: 45deg	LinStatic	-0.275581478	0.332392955	0	0	0	-13.37001442	8-1	65.9
8	65.9	WSub3: 45deg	LinStatic	-0.275581478	0.332392955	0	0	0	-13.37001442	8-2	0
8	85.58	WSub3: 45deg	LinStatic	-0.275581478	0.135592955	0	0	0	-17.97499578	8-2	19.68
8	105.26	WSub3: 45deg	LinStatic	-0.275581478	-0.061207045	0	0	0	-18.70695313	8-2	39.36
8	124.94	WSub3: 45deg	LinStatic	-0.275581478	-0.258007045	0	0	0	-15.56588649	8-2	59.04
8	144.62	WSub3: 45deg	LinStatic	-0.275581478	-0.454807045	0	0	0	-8.551795846	8-2	78.72
8	164.3	WSub3: 45deg	LinStatic	-0.275581478	-0.651607045	0	0	0	2.335318798	8-2	98.4
8	164.3	WSub3: 45deg	LinStatic	-0.275581478	-0.651607045	0	0	0	2.335318798	8-3	0

8	181.5333333	WSub3: 45deg	LinStatic	-0.275581478	-0.823940378	0	0	0	15.04961909	8-3	17.23333333
8	198.7666667	WSub3: 45deg	LinStatic	-0.275581478	-0.996273712	0	0	0	30.73379717	8-3	34.46666667
8	216	WSub3: 45deg	LinStatic	-0.275581478	-1.168607045	0	0	0	49.38785302	8-3	51.7
8	0	WSub3: 30deg	LinStatic	-0.322954021	0.441279671	0	0	0	9.494925117	8-1	0
8	21.96666667	WSub3: 30deg	LinStatic	-0.322954021	0.331446337	0	0	0	1.007817793	8-1	21.96666667
8	43.93333333	WSub3: 30deg	LinStatic	-0.322954021	0.221613004	0	0	0	-5.066617309	8-1	43.93333333
8	65.9	WSub3: 30deg	LinStatic	-0.322954021	0.111779671	0	0	0	-8.728380188	8-1	65.9
8	65.9	WSub3: 30deg	LinStatic	-0.322954021	0.111779671	0	0	0	-8.728380188	8-2	0
8	85.58	WSub3: 30deg	LinStatic	-0.322954021	0.013379671	0	0	0	-9.95994811	8-2	19.68
8	105.26	WSub3: 30deg	LinStatic	-0.322954021	-0.085020329	0	0	0	-9.255004031	8-2	39.36
8	124.94	WSub3: 30deg	LinStatic	-0.322954021	-0.183420329	0	0	0	-6.613547953	8-2	59.04
8	144.62	WSub3: 30deg	LinStatic	-0.322954021	-0.281820329	0	0	0	-2.035579874	8-2	78.72
8	164.3	WSub3: 30deg	LinStatic	-0.322954021	-0.380220329	0	0	0	4.478900205	8-2	98.4
8	164.3	WSub3: 30deg	LinStatic	-0.322954021	-0.380220329	0	0	0	4.478900205	8-3	0
8	181.5333333	WSub3: 30deg	LinStatic	-0.322954021	-0.466386996	0	0	0	11.77383332	8-3	17.23333333
8	198.7666667	WSub3: 30deg	LinStatic	-0.322954021	-0.552553663	0	0	0	20.55370533	8-3	34.46666667
8	216	WSub3: 30deg	LinStatic	-0.322954021	-0.638720329	0	0	0	30.81851622	8-3	51.7
8	0	WSub3: 15deg	LinStatic	-0.342036343	-0.011154331	0	0	0	-7.179859066	8-1	0
8	21.96666667	WSub3: 15deg	LinStatic	-0.342036343	-0.029459886	0	0	0	-6.733779579	8-1	21.96666667
8	43.93333333	WSub3: 15deg	LinStatic	-0.342036343	-0.047765442	0	0	0	-5.885588055	8-1	43.93333333
8	65.9	WSub3: 15deg	LinStatic	-0.342036343	-0.066070998	0	0	0	-4.635284494	8-1	65.9
8	65.9	WSub3: 15deg	LinStatic	-0.342036343	-0.066070998	0	0	0	-4.635284494	8-2	0
8	85.58	WSub3: 15deg	LinStatic	-0.342036343	-0.082470998	0	0	0	-3.173631262	8-2	19.68
8	105.26	WSub3: 15deg	LinStatic	-0.342036343	-0.098870998	0	0	0	-1.38922603	8-2	39.36
8	124.94	WSub3: 15deg	LinStatic	-0.342036343	-0.115270998	0	0	0	0.717931201	8-2	59.04
8	144.62	WSub3: 15deg	LinStatic	-0.342036343	-0.131670998	0	0	0	3.147840433	8-2	78.72
8	164.3	WSub3: 15deg	LinStatic	-0.342036343	-0.148070998	0	0	0	5.900501665	8-2	98.4
8	164.3	WSub3: 15deg	LinStatic	-0.342036343	-0.148070998	0	0	0	5.900501665	8-3	0
8	181.5333333	WSub3: 15deg	LinStatic	-0.342036343	-0.162432109	0	0	0	8.57600343	8-3	17.23333333
8	198.7666667	WSub3: 15deg	LinStatic	-0.342036343	-0.17679322	0	0	0	11.49899501	8-3	34.46666667
8	216	WSub3: 15deg	LinStatic	-0.342036343	-0.191154331	0	0	0	14.66947641	8-3	51.7
8	0	WSub3: 0deg	LinStatic	-0.308236583	0.624335306	0	0	0	16.38022608	8-1	0
8	21.96666667	WSub3: 0deg	LinStatic	-0.308236583	0.477890861	0	0	0	4.274108678	8-1	21.96666667
8	43.93333333	WSub3: 0deg	LinStatic	-0.308236583	0.331446417	0	0	0	-4.615112429	8-1	43.93333333
8	65.9	WSub3: 0deg	LinStatic	-0.308236583	0.185001972	0	0	0	-10.28743724	8-1	65.9
8	65.9	WSub3: 0deg	LinStatic	-0.308236583	0.185001972	0	0	0	-10.28743724	8-2	0
8	85.58	WSub3: 0deg	LinStatic	-0.308236583	0.053801972	0	0	0	-12.63726806	8-2	19.68
8	105.26	WSub3: 0deg	LinStatic	-0.308236583	-0.077398028	0	0	0	-12.40508288	8-2	39.36
8	124.94	WSub3: 0deg	LinStatic	-0.308236583	-0.208598028	0	0	0	-9.590881695	8-2	59.04
8	144.62	WSub3: 0deg	LinStatic	-0.308236583	-0.339798028	0	0	0	-4.194664514	8-2	78.72
8	164.3	WSub3: 0deg	LinStatic	-0.308236583	-0.470998028	0	0	0	3.783568668	8-2	98.4
8	164.3	WSub3: 0deg	LinStatic	-0.308236583	-0.470998028	0	0	0	3.783568668	8-3	0

8	181.5333333	WSub3: 0deg	LinStatic	-0.308236583	-0.585886916	0	0	0	12.89039393	8-3	17.23333333
8	198.7666667	WSub3: 0deg	LinStatic	-0.308236583	-0.700775805	0	0	0	23.97713772	8-3	34.46666667
8	216	WSub3: 0deg	LinStatic	-0.308236583	-0.815664694	0	0	0	37.04380002	8-3	51.7
8	0	WSub3: -15deg	LinStatic	-0.254423579	1.176341349	0	0	0	37.32983891	8-1	0
8	21.96666667	WSub3: -15deg	LinStatic	-0.254423579	0.920063571	0	0	0	14.30432488	8-1	21.96666667
8	43.93333333	WSub3: -15deg	LinStatic	-0.254423579	0.663785793	0	0	0	-3.091620632	8-1	43.93333333
8	65.9	WSub3: -15deg	LinStatic	-0.254423579	0.407508015	0	0	0	-14.85799763	8-1	65.9
8	65.9	WSub3: -15deg	LinStatic	-0.254423579	0.407508015	0	0	0	-14.85799763	8-2	0
8	85.58	WSub3: -15deg	LinStatic	-0.254423579	0.177908015	0	0	0	-20.61849137	8-2	19.68
8	105.26	WSub3: -15deg	LinStatic	-0.254423579	-0.051691985	0	0	0	-21.86045711	8-2	39.36
8	124.94	WSub3: -15deg	LinStatic	-0.254423579	-0.281291985	0	0	0	-18.58389485	8-2	59.04
8	144.62	WSub3: -15deg	LinStatic	-0.254423579	-0.510891985	0	0	0	-10.78880459	8-2	78.72
8	164.3	WSub3: -15deg	LinStatic	-0.254423579	-0.740491985	0	0	0	1.524813668	8-2	98.4
8	164.3	WSub3: -15deg	LinStatic	-0.254423579	-0.740491985	0	0	0	1.524813668	8-3	0
8	181.5333333	WSub3: -15deg	LinStatic	-0.254423579	-0.94154754	0	0	0	16.01838757	8-3	17.23333333
8	198.7666667	WSub3: -15deg	LinStatic	-0.254423579	-1.142603096	0	0	0	33.97681889	8-3	34.46666667
8	216	WSub3: -15deg	LinStatic	-0.254423579	-1.343658651	0	0	0	55.40010761	8-3	51.7
8	0	WSub3: -30deg	LinStatic	-0.181289188	1.734025667	0	0	0	58.86687163	8-1	0
8	21.96666667	WSub3: -30deg	LinStatic	-0.181289188	1.367914556	0	0	0	24.79722818	8-1	21.96666667
8	43.93333333	WSub3: -30deg	LinStatic	-0.181289188	1.001803445	0	0	0	-1.230174522	8-1	43.93333333
8	65.9	WSub3: -30deg	LinStatic	-0.181289188	0.635692334	0	0	0	-19.21533649	8-1	65.9
8	65.9	WSub3: -30deg	LinStatic	-0.181289188	0.635692334	0	0	0	-19.21533649	8-2	0
8	85.58	WSub3: -30deg	LinStatic	-0.181289188	0.307692334	0	0	0	-28.49824161	8-2	19.68
8	105.26	WSub3: -30deg	LinStatic	-0.181289188	-0.020307666	0	0	0	-31.32610674	8-2	39.36
8	124.94	WSub3: -30deg	LinStatic	-0.181289188	-0.348307666	0	0	0	-27.69893186	8-2	59.04
8	144.62	WSub3: -30deg	LinStatic	-0.181289188	-0.676307666	0	0	0	-17.61671699	8-2	78.72
8	164.3	WSub3: -30deg	LinStatic	-0.181289188	-1.004307666	0	0	0	-1.079462112	8-2	98.4
8	164.3	WSub3: -30deg	LinStatic	-0.181289188	-1.004307666	0	0	0	-1.079462112	8-3	0
8	181.5333333	WSub3: -30deg	LinStatic	-0.181289188	-1.291529889	0	0	0	18.70300482	8-3	17.23333333
8	198.7666667	WSub3: -30deg	LinStatic	-0.181289188	-1.578752111	0	0	0	43.43526805	8-3	34.46666667
8	216	WSub3: -30deg	LinStatic	-0.181289188	-1.865974333	0	0	0	73.11732757	8-3	51.7
8	0	WSub3: -45deg	LinStatic	-0.100330618	2.115279005	0	0	0	74.20392658	8-1	0
8	21.96666667	WSub3: -45deg	LinStatic	-0.100330618	1.675945672	0	0	0	32.56364221	8-1	21.96666667
8	43.93333333	WSub3: -45deg	LinStatic	-0.100330618	1.236612338	0	0	0	0.57404674	8-1	43.93333333
8	65.9	WSub3: -45deg	LinStatic	-0.100330618	0.797279005	0	0	0	-21.76485985	8-1	65.9
8	65.9	WSub3: -45deg	LinStatic	-0.100330618	0.797279005	0	0	0	-21.76485985	8-2	0
8	85.58	WSub3: -45deg	LinStatic	-0.100330618	0.403679005	0	0	0	-33.58228666	8-2	19.68
8	105.26	WSub3: -45deg	LinStatic	-0.100330618	0.010079005	0	0	0	-37.65366548	8-2	39.36
8	124.94	WSub3: -45deg	LinStatic	-0.100330618	-0.383520995	0	0	0	-33.9789963	8-2	59.04
8	144.62	WSub3: -45deg	LinStatic	-0.100330618	-0.777120995	0	0	0	-22.55827911	8-2	78.72
8	164.3	WSub3: -45deg	LinStatic	-0.100330618	-1.170720995	0	0	0	-3.391513932	8-2	98.4
8	164.3	WSub3: -45deg	LinStatic	-0.100330618	-1.170720995	0	0	0	-3.391513932	8-3	0

8	181.5333333	WSub3: -45deg	LinStatic	-0.100330618	-1.515387662	0	0	0	19.75378899	8-3	17.23333333
8	198.7666667	WSub3: -45deg	LinStatic	-0.100330618	-1.860054328	0	0	0	48.83884748	8-3	34.46666667
8	216	WSub3: -45deg	LinStatic	-0.100330618	-2.204720995	0	0	0	83.86366151	8-3	51.7
8	0	WA	LinStatic	-1.79519E-16	0	0	0	0	-2.84217E-14	8-1	0
8	21.96666667	WA	LinStatic	-1.79519E-16	0	0	0	0	-2.84217E-14	8-1	21.96666667
8	43.93333333	WA	LinStatic	-1.79519E-16	0	0	0	0	-2.84217E-14	8-1	43.93333333
8	65.9	WA	LinStatic	-1.79519E-16	0	0	0	0	-2.84217E-14	8-1	65.9
8	65.9	WA	LinStatic	-1.79519E-16	4.44089E-16	0	0	0	2.84217E-14	8-2	0
8	85.58	WA	LinStatic	-1.79519E-16	4.44089E-16	0	0	0	1.9682E-14	8-2	19.68
8	105.26	WA	LinStatic	-1.79519E-16	4.44089E-16	0	0	0	1.09424E-14	8-2	39.36
8	124.94	WA	LinStatic	-1.79519E-16	4.44089E-16	0	0	0	2.20268E-15	8-2	59.04
8	144.62	WA	LinStatic	-1.79519E-16	4.44089E-16	0	0	0	-6.53699E-15	8-2	78.72
8	164.3	WA	LinStatic	-1.79519E-16	4.44089E-16	0	0	0	-1.52767E-14	8-2	98.4
8	164.3	WA	LinStatic	-1.77254E-16	0	0	0	0	-5.68434E-14	8-3	0
8	181.5333333	WA	LinStatic	-1.77254E-16	0	0	0	0	-5.68434E-14	8-3	17.23333333
8	198.7666667	WA	LinStatic	-1.77254E-16	0	0	0	0	-5.68434E-14	8-3	34.46666667
8	216	WA	LinStatic	-1.77254E-16	0	0	0	0	-5.68434E-14	8-3	51.7
8	0	WS3: 45deg	Combination	-2.626430707	0.905873902	1.332883213	52.36158369	13.63382184	-180.144137	8-1	0
8	21.96666667	WS3: 45deg	Combination	-2.626430707	0.686207236	1.332883213	52.36158369	-15.64517941	-197.6304948	8-1	21.96666667
8	43.93333333	WS3: 45deg	Combination	-2.626430707	0.466540569	1.332883213	52.36158369	-44.92418067	-210.2915082	8-1	43.93333333
8	65.9	WS3: 45deg	Combination	-2.626430707	0.246873902	1.332883213	52.36158369	-74.20318192	-218.1271771	8-1	65.9
8	65.9	WS3: 45deg	Combination	0.073569293	-4.273126098	-0.077116787	14.29158369	-74.20318192	-291.0271771	8-2	0
8	85.58	WS3: 45deg	Combination	0.073569293	-4.469926098	-0.077116787	14.29158369	-72.68552356	-204.9955435	8-2	19.68
8	105.26	WS3: 45deg	Combination	0.073569293	-4.666726098	-0.077116787	14.29158369	-71.1678652	-115.0908859	8-2	39.36
8	124.94	WS3: 45deg	Combination	0.073569293	-4.863526098	-0.077116787	14.29158369	-69.65020684	-21.31320432	8-2	59.04
8	144.62	WS3: 45deg	Combination	0.073569293	-5.060326098	-0.077116787	14.29158369	-68.13254848	76.33750128	8-2	78.72
8	164.3	WS3: 45deg	Combination	0.073569293	-5.257126098	-0.077116787	14.29158369	-66.61489012	177.8612309	8-2	98.4
8	164.3	WS3: 45deg	Combination	2.773569293	-12.8071261	-1.487116787	-23.77841631	-66.61489012	104.9612309	8-3	0
8	181.5333333	WS3: 45deg	Combination	2.773569293	-12.97945943	-1.487116787	-23.77841631	-40.98691083	327.1556429	8-3	17.23333333
8	198.7666667	WS3: 45deg	Combination	2.773569293	-13.15179276	-1.487116787	-23.77841631	-15.35893155	552.3199326	8-3	34.46666667
8	216	WS3: 45deg	Combination	2.773569293	-13.3241261	-1.487116787	-23.77841631	10.26904774	780.4541001	8-3	51.7
8	0	WS3: 30deg	Combination	-2.67380325	0.355760618	1.332883213	52.36158369	13.63382184	-200.8979432	8-1	0
8	21.96666667	WS3: 30deg	Combination	-2.67380325	0.245927285	1.332883213	52.36158369	-15.64517941	-207.506482	8-1	21.96666667
8	43.93333333	WS3: 30deg	Combination	-2.67380325	0.136093951	1.332883213	52.36158369	-44.92418067	-211.7023485	8-1	43.93333333
8	65.9	WS3: 30deg	Combination	-2.67380325	0.026260618	1.332883213	52.36158369	-74.20318192	-213.4855429	8-1	65.9
8	65.9	WS3: 30deg	Combination	0.02619675	-4.493739382	-0.077116787	14.29158369	-74.20318192	-286.3855429	8-2	0
8	85.58	WS3: 30deg	Combination	0.02619675	-4.592139382	-0.077116787	14.29158369	-72.68552356	-196.9804959	8-2	19.68
8	105.26	WS3: 30deg	Combination	0.02619675	-4.690539382	-0.077116787	14.29158369	-71.1678652	-105.6389368	8-2	39.36
8	124.94	WS3: 30deg	Combination	0.02619675	-4.788939382	-0.077116787	14.29158369	-69.65020684	-12.36086578	8-2	59.04
8	144.62	WS3: 30deg	Combination	0.02619675	-4.887339382	-0.077116787	14.29158369	-68.13254848	82.85371726	8-2	78.72
8	164.3	WS3: 30deg	Combination	0.02619675	-4.985739382	-0.077116787	14.29158369	-66.61489012	180.0048123	8-2	98.4
8	164.3	WS3: 30deg	Combination	2.72619675	-12.53573938	-1.487116787	-23.77841631	-66.61489012	107.1048123	8-3	0

8	181.5333333	WS3: 30deg	Combination	2.72619675	-12.62190605	-1.487116787	-23.77841631	-40.98691083	323.8798571	8-3	17.23333333
8	198.7666667	WS3: 30deg	Combination	2.72619675	-12.70807272	-1.487116787	-23.77841631	-15.35893155	542.1398408	8-3	34.46666667
8	216	WS3: 30deg	Combination	2.72619675	-12.79423938	-1.487116787	-23.77841631	10.26904774	761.8847633	8-3	51.7
8	0	WS3: 15deg	Combination	-2.692885573	-0.096673384	1.332883213	52.36158369	13.63382184	-217.5727274	8-1	0
8	21.96666667	WS3: 15deg	Combination	-2.692885573	-0.114978939	1.332883213	52.36158369	-15.64517941	-215.2480793	8-1	21.96666667
8	43.93333333	WS3: 15deg	Combination	-2.692885573	-0.133284495	1.332883213	52.36158369	-44.92418067	-212.5213193	8-1	43.93333333
8	65.9	WS3: 15deg	Combination	-2.692885573	-0.15159005	1.332883213	52.36158369	-74.20318192	-209.3924472	8-1	65.9
8	65.9	WS3: 15deg	Combination	0.007114427	-4.67159005	-0.077116787	14.29158369	-74.20318192	-282.2924472	8-2	0
8	85.58	WS3: 15deg	Combination	0.007114427	-4.68799005	-0.077116787	14.29158369	-72.68552356	-190.194179	8-2	19.68
8	105.26	WS3: 15deg	Combination	0.007114427	-4.70439005	-0.077116787	14.29158369	-71.1678652	-97.77315882	8-2	39.36
8	124.94	WS3: 15deg	Combination	0.007114427	-4.72079005	-0.077116787	14.29158369	-69.65020684	-5.029386628	8-2	59.04
8	144.62	WS3: 15deg	Combination	0.007114427	-4.73719005	-0.077116787	14.29158369	-68.13254848	88.03713756	8-2	78.72
8	164.3	WS3: 15deg	Combination	0.007114427	-4.75359005	-0.077116787	14.29158369	-66.61489012	181.4264138	8-2	98.4
8	164.3	WS3: 15deg	Combination	2.707114427	-12.30359005	-1.487116787	-23.77841631	-66.61489012	108.5264138	8-3	0
8	181.5333333	WS3: 15deg	Combination	2.707114427	-12.31795116	-1.487116787	-23.77841631	-40.98691083	320.6820272	8-3	17.23333333
8	198.7666667	WS3: 15deg	Combination	2.707114427	-12.33231227	-1.487116787	-23.77841631	-15.35893155	533.0851305	8-3	34.46666667
8	216	WS3: 15deg	Combination	2.707114427	-12.34667338	-1.487116787	-23.77841631	10.26904774	745.7357235	8-3	51.7
8	0	WS3: 0deg	Combination	-2.659085813	0.538816253	1.332883213	52.36158369	13.63382184	-194.0126422	8-1	0
8	21.96666667	WS3: 0deg	Combination	-2.659085813	0.392371809	1.332883213	52.36158369	-15.64517941	-204.2401911	8-1	21.96666667
8	43.93333333	WS3: 0deg	Combination	-2.659085813	0.245927364	1.332883213	52.36158369	-44.92418067	-211.2508437	8-1	43.93333333
8	65.9	WS3: 0deg	Combination	-2.659085813	0.09948292	1.332883213	52.36158369	-74.20318192	-215.0445999	8-1	65.9
8	65.9	WS3: 0deg	Combination	0.040914187	-4.42051708	-0.077116787	14.29158369	-74.20318192	-287.9445999	8-2	0
8	85.58	WS3: 0deg	Combination	0.040914187	-4.55171708	-0.077116787	14.29158369	-72.68552356	-199.6578158	8-2	19.68
8	105.26	WS3: 0deg	Combination	0.040914187	-4.68291708	-0.077116787	14.29158369	-71.1678652	-108.7890157	8-2	39.36
8	124.94	WS3: 0deg	Combination	0.040914187	-4.81411708	-0.077116787	14.29158369	-69.65020684	-15.33819952	8-2	59.04
8	144.62	WS3: 0deg	Combination	0.040914187	-4.94531708	-0.077116787	14.29158369	-68.13254848	80.69463262	8-2	78.72
8	164.3	WS3: 0deg	Combination	0.040914187	-5.07651708	-0.077116787	14.29158369	-66.61489012	179.3094808	8-2	98.4
8	164.3	WS3: 0deg	Combination	2.740914187	-12.62651708	-1.487116787	-23.77841631	-66.61489012	106.4094808	8-3	0
8	181.5333333	WS3: 0deg	Combination	2.740914187	-12.74140597	-1.487116787	-23.77841631	-40.98691083	324.9964177	8-3	17.23333333
8	198.7666667	WS3: 0deg	Combination	2.740914187	-12.85629486	-1.487116787	-23.77841631	-15.35893155	545.5632732	8-3	34.46666667
8	216	WS3: 0deg	Combination	2.740914187	-12.97118375	-1.487116787	-23.77841631	10.26904774	768.1100471	8-3	51.7
8	0	WS3: -15deg	Combination	-2.605272808	1.090822296	1.332883213	52.36158369	13.63382184	-173.0630294	8-1	0
8	21.96666667	WS3: -15deg	Combination	-2.605272808	0.834544518	1.332883213	52.36158369	-15.64517941	-194.2099749	8-1	21.96666667
8	43.93333333	WS3: -15deg	Combination	-2.605272808	0.57826674	1.332883213	52.36158369	-44.92418067	-209.7273519	8-1	43.93333333
8	65.9	WS3: -15deg	Combination	-2.605272808	0.321988962	1.332883213	52.36158369	-74.20318192	-219.6151603	8-1	65.9
8	65.9	WS3: -15deg	Combination	0.094727192	-4.198011038	-0.077116787	14.29158369	-74.20318192	-292.5151603	8-2	0
8	85.58	WS3: -15deg	Combination	0.094727192	-4.427611038	-0.077116787	14.29158369	-72.68552356	-207.6390391	8-2	19.68
8	105.26	WS3: -15deg	Combination	0.094727192	-4.657211038	-0.077116787	14.29158369	-71.1678652	-118.2443899	8-2	39.36
8	124.94	WS3: -15deg	Combination	0.094727192	-4.886811038	-0.077116787	14.29158369	-69.65020684	-24.33121268	8-2	59.04
8	144.62	WS3: -15deg	Combination	0.094727192	-5.116411038	-0.077116787	14.29158369	-68.13254848	74.10049254	8-2	78.72
8	164.3	WS3: -15deg	Combination	0.094727192	-5.346011038	-0.077116787	14.29158369	-66.61489012	177.0507258	8-2	98.4
8	164.3	WS3: -15deg	Combination	2.794727192	-12.89601104	-1.487116787	-23.77841631	-66.61489012	104.1507258	8-3	0

8	181.5333333	WS3: -15deg	Combination	2.794727192	-13.09706659	-1.487116787	-23.77841631	-40.98691083	328.1244113	8-3	17.23333333
8	198.7666667	WS3: -15deg	Combination	2.794727192	-13.29812215	-1.487116787	-23.77841631	-15.35893155	555.5629543	8-3	34.46666667
8	216	WS3: -15deg	Combination	2.794727192	-13.4991777	-1.487116787	-23.77841631	10.26904774	786.4663547	8-3	51.7
8	0	WS3: -30deg	Combination	-2.532138417	1.648506614	1.332883213	52.36158369	13.63382184	-151.5259967	8-1	0
8	21.96666667	WS3: -30deg	Combination	-2.532138417	1.282395503	1.332883213	52.36158369	-15.64517941	-183.7170716	8-1	21.96666667
8	43.93333333	WS3: -30deg	Combination	-2.532138417	0.916284392	1.332883213	52.36158369	-44.92418067	-207.8659058	8-1	43.93333333
8	65.9	WS3: -30deg	Combination	-2.532138417	0.550173281	1.332883213	52.36158369	-74.20318192	-223.9724992	8-1	65.9
8	65.9	WS3: -30deg	Combination	0.167861583	-3.969826719	-0.077116787	14.29158369	-74.20318192	-296.8724992	8-2	0
8	85.58	WS3: -30deg	Combination	0.167861583	-4.297826719	-0.077116787	14.29158369	-72.68552356	-215.5187894	8-2	19.68
8	105.26	WS3: -30deg	Combination	0.167861583	-4.625826719	-0.077116787	14.29158369	-71.1678652	-127.7100395	8-2	39.36
8	124.94	WS3: -30deg	Combination	0.167861583	-4.953826719	-0.077116787	14.29158369	-69.65020684	-33.44624969	8-2	59.04
8	144.62	WS3: -30deg	Combination	0.167861583	-5.281826719	-0.077116787	14.29158369	-68.13254848	67.27258014	8-2	78.72
8	164.3	WS3: -30deg	Combination	0.167861583	-5.609826719	-0.077116787	14.29158369	-66.61489012	174.44645	8-2	98.4
8	164.3	WS3: -30deg	Combination	2.867861583	-13.15982672	-1.487116787	-23.77841631	-66.61489012	101.54645	8-3	0
8	181.5333333	WS3: -30deg	Combination	2.867861583	-13.44704894	-1.487116787	-23.77841631	-40.98691083	330.8090286	8-3	17.23333333
8	198.7666667	WS3: -30deg	Combination	2.867861583	-13.73427116	-1.487116787	-23.77841631	-15.35893155	565.0214035	8-3	34.46666667
8	216	WS3: -30deg	Combination	2.867861583	-14.02149339	-1.487116787	-23.77841631	10.26904774	804.1835747	8-3	51.7
8	0	WServ1: -45deg	Combination	-0.936891214	0.609947447	0.493166789	19.37378597	5.044514082	-56.06461877	8-1	0
8	21.96666667	WServ1: -45deg	Combination	-0.936891214	0.474486336	0.493166789	19.37378597	-5.788716383	-67.97531649	8-1	21.96666667
8	43.93333333	WServ1: -45deg	Combination	-0.936891214	0.339025225	0.493166789	19.37378597	-16.62194685	-76.91038513	8-1	43.93333333
8	65.9	WServ1: -45deg	Combination	-0.936891214	0.203564114	0.493166789	19.37378597	-27.45517731	-82.8698247	8-1	65.9
8	65.9	WServ1: -45deg	Combination	0.062108786	-1.468835886	-0.02853321 1	5.287885966	-27.45517731	-109.8428247	8-2	0
8	85.58	WServ1: -45deg	Combination	0.062108786	-1.590195886	-0.02853321 1	5.287885966	-26.89364372	-79.74195206	8-2	19.68
8	105.26	WServ1: -45deg	Combination	0.062108786	-1.711555886	-0.02853321 1	5.287885966	-26.33211012	-47.25271462	8-2	39.36
8	124.94	WServ1: -45deg	Combination	0.062108786	-1.832915886	-0.02853321 1	5.287885966	-25.77057653	-12.37511239	8-2	59.04
8	144.62	WServ1: -45deg	Combination	0.062108786	-1.954275886	-0.02853321 1	5.287885966	-25.20904294	24.89085465	8-2	78.72
8	164.3	WServ1: -45deg	Combination	0.062108786	-2.075635886	-0.02853321 1	5.287885966	-24.64750935	64.54518649	8-2	98.4
8	164.3	WServ1: -45deg	Combination	1.061108786	-4.869135886	-0.55023321 1	-8.798014034	-24.64750935	37.57218649	8-3	0
8	181.5333333	WServ1: -45deg	Combination	1.061108786	-4.975408108	-0.55023321 1	-8.798014034	-15.16515701	122.3993406	8-3	17.23333333
8	198.7666667	WServ1: -45deg	Combination	1.061108786	-5.081680331	-0.55023321 1	-8.798014034	-5.682804672	209.0579193	8-3	34.46666667
8	216	WServ1: -45deg	Combination	1.061108786	-5.187952553	-0.55023321 1	-8.798014034	3.799547665	297.5479226	8-3	51.7
8	0	WS5: 45deg	Combination	-1.93587265	-0.797172275	1.061050662	41.68279149	10.85329574	-185.9092171	8-1	0
8	21.96666667	WS5: 45deg	Combination	-1.93587265	-0.903490942	1.061050662	41.68279149	-12.45445048	-167.2302661	8-1	21.96666667
8	43.93333333	WS5: 45deg	Combination	-1.93587265	-1.009809608	1.061050662	41.68279149	-35.7621967	-146.2158484	8-1	43.93333333
8	65.9	WS5: 45deg	Combination	-1.93587265	-1.116128275	1.061050662	41.68279149	-59.06994292	-122.865964	8-1	65.9
8	65.9	WS5: 45deg	Combination	0.06092735	-3.053808275	-0.061389338	11.37691149	-59.06994292	-176.779564	8-2	0
8	85.58	WS5: 45deg	Combination	0.06092735	-3.149059475	-0.061389338	11.37691149	-57.86180076	-115.7433453	8-2	19.68
8	105.26	WS5: 45deg	Combination	0.06092735	-3.244310675	-0.061389338	11.37691149	-56.65365859	-52.83258302	8-2	39.36
8	124.94	WS5: 45deg	Combination	0.06092735	-3.339561875	-0.061389338	11.37691149	-55.44551643	11.95272287	8-2	59.04
8	144.62	WS5: 45deg	Combination	0.06092735	-3.434813075	-0.061389338	11.37691149	-54.23737427	78.61257238	8-2	78.72
8	164.3	WS5: 45deg	Combination	0.06092735	-3.530064275	-0.061389338	11.37691149	-53.02923211	147.1469655	8-2	98.4
8	164.3	WS5: 45deg	Combination	2.05772735	-7.034264275	-1.183829338	-18.92896851	-53.02923211	93.2333655	8-3	0

8	181.5333333	WS5: 45deg	Combination	2.05772735	-7.117673608	-1.183829338	-18.92896851	-32.62790652	215.1758969	8-3	17.23333333
8	198.7666667	WS5: 45deg	Combination	2.05772735	-7.201082942	-1.183829338	-18.92896851	-12.22658094	338.5558492	8-3	34.46666667
8	216	WS5: 45deg	Combination	2.05772735	-7.284492275	-1.183829338	-18.92896851	8.174744644	463.3732223	8-3	51.7
8	0	WS5: 30deg	Combination	-1.95880096	-1.063427105	1.061050662	41.68279149	10.85329574	-195.9540593	8-1	0
8	21.96666667	WS5: 30deg	Combination	-1.95880096	-1.116586438	1.061050662	41.68279149	-12.45445048	-172.0102439	8-1	21.96666667
8	43.93333333	WS5: 30deg	Combination	-1.95880096	-1.169745771	1.061050662	41.68279149	-35.7621967	-146.8986951	8-1	43.93333333
8	65.9	WS5: 30deg	Combination	-1.95880096	-1.222905105	1.061050662	41.68279149	-59.06994292	-120.619413	8-1	65.9
8	65.9	WS5: 30deg	Combination	0.03799904	-3.160585105	-0.061389338	11.37691149	-59.06994292	-174.533013	8-2	0
8	85.58	WS5: 30deg	Combination	0.03799904	-3.208210705	-0.061389338	11.37691149	-57.86180076	-111.8640622	8-2	19.68
8	105.26	WS5: 30deg	Combination	0.03799904	-3.255836305	-0.061389338	11.37691149	-56.65365859	-48.25783965	8-2	39.36
8	124.94	WS5: 30deg	Combination	0.03799904	-3.303461905	-0.061389338	11.37691149	-55.44551643	16.28565472	8-2	59.04
8	144.62	WS5: 30deg	Combination	0.03799904	-3.351087505	-0.061389338	11.37691149	-54.23737427	81.76642091	8-2	78.72
8	164.3	WS5: 30deg	Combination	0.03799904	-3.398713105	-0.061389338	11.37691149	-53.02923211	148.1844589	8-2	98.4
8	164.3	WS5: 30deg	Combination	2.03479904	-6.902913105	-1.183829338	-18.92896851	-53.02923211	94.2708589	8-3	0
8	181.5333333	WS5: 30deg	Combination	2.03479904	-6.944617771	-1.183829338	-18.92896851	-32.62790652	213.5904166	8-3	17.23333333
8	198.7666667	WS5: 30deg	Combination	2.03479904	-6.986322438	-1.183829338	-18.92896851	-12.22658094	333.6286848	8-3	34.46666667
8	216	WS5: 30deg	Combination	2.03479904	-7.028027105	-1.183829338	-18.92896851	8.174744644	454.3856633	8-3	51.7
8	0	WS5: 15deg	Combination	-1.968036805	-1.282405161	1.061050662	41.68279149	10.85329574	-204.0246548	8-1	0
8	21.96666667	WS5: 15deg	Combination	-1.968036805	-1.29126505	1.061050662	41.68279149	-12.45445048	-175.757177	8-1	21.96666667
8	43.93333333	WS5: 15deg	Combination	-1.968036805	-1.300124939	1.061050662	41.68279149	-35.7621967	-147.2950769	8-1	43.93333333
8	65.9	WS5: 15deg	Combination	-1.968036805	-1.308984828	1.061050662	41.68279149	-59.06994292	-118.6383547	8-1	65.9
8	65.9	WS5: 15deg	Combination	0.028763195	-3.246664828	-0.061389338	11.37691149	-59.06994292	-172.5519547	8-2	0
8	85.58	WS5: 15deg	Combination	0.028763195	-3.254602428	-0.061389338	11.37691149	-57.86180076	-108.5794849	8-2	19.68
8	105.26	WS5: 15deg	Combination	0.028763195	-3.262540028	-0.061389338	11.37691149	-56.65365859	-44.4508031	8-2	39.36
8	124.94	WS5: 15deg	Combination	0.028763195	-3.270477628	-0.061389338	11.37691149	-55.44551643	19.83409064	8-2	59.04
8	144.62	WS5: 15deg	Combination	0.028763195	-3.278415228	-0.061389338	11.37691149	-54.23737427	84.27519634	8-2	78.72
8	164.3	WS5: 15deg	Combination	0.028763195	-3.286352828	-0.061389338	11.37691149	-53.02923211	148.872514	8-2	98.4
8	164.3	WS5: 15deg	Combination	2.025563195	-6.790552828	-1.183829338	-18.92896851	-53.02923211	94.95891401	8-3	0
8	181.5333333	WS5: 15deg	Combination	2.025563195	-6.797503606	-1.183829338	-18.92896851	-32.62790652	212.0426669	8-3	17.23333333
8	198.7666667	WS5: 15deg	Combination	2.025563195	-6.804454384	-1.183829338	-18.92896851	-12.22658094	329.246205	8-3	34.46666667
8	216	WS5: 15deg	Combination	2.025563195	-6.811405161	-1.183829338	-18.92896851	8.174744644	446.569528	8-3	51.7
8	0	WS5: 0deg	Combination	-1.951677721	-0.974828177	1.061050662	41.68279149	10.85329574	-192.6215736	8-1	0
8	21.96666667	WS5: 0deg	Combination	-1.951677721	-1.045707288	1.061050662	41.68279149	-12.45445048	-170.4293591	8-1	21.96666667
8	43.93333333	WS5: 0deg	Combination	-1.951677721	-1.116586399	1.061050662	41.68279149	-35.7621967	-146.6801667	8-1	43.93333333
8	65.9	WS5: 0deg	Combination	-1.951677721	-1.187465511	1.061050662	41.68279149	-59.06994292	-121.3739966	8-1	65.9
8	65.9	WS5: 0deg	Combination	0.045122279	-3.125145511	-0.061389338	11.37691149	-59.06994292	-175.2875966	8-2	0
8	85.58	WS5: 0deg	Combination	0.045122279	-3.188646311	-0.061389338	11.37691149	-57.86180076	-113.1598851	8-2	19.68
8	105.26	WS5: 0deg	Combination	0.045122279	-3.252147111	-0.061389338	11.37691149	-56.65365859	-49.78247781	8-2	39.36
8	124.94	WS5: 0deg	Combination	0.045122279	-3.31564791	-0.061389338	11.37691149	-55.44551643	14.84462519	8-2	59.04
8	144.62	WS5: 0deg	Combination	0.045122279	-3.37914871	-0.061389338	11.37691149	-54.23737427	80.72142395	8-2	78.72
8	164.3	WS5: 0deg	Combination	0.045122279	-3.442649511	-0.061389338	11.37691149	-53.02923211	147.8479184	8-2	98.4
8	164.3	WS5: 0deg	Combination	2.041922279	-6.946849511	-1.183829338	-18.92896851	-53.02923211	93.93431844	8-3	0

8	181.5333333	WS5: 0deg	Combination	2.041922279	-7.002455733	-1.183829338	-18.92896851	-32.62790652	214.130832	8-3	17.23333333
8	198.7666667	WS5: 0deg	Combination	2.041922279	-7.058061955	-1.183829338	-18.92896851	-12.22658094	335.285626	8-3	34.46666667
8	216	WS5: 0deg	Combination	2.041922279	-7.113668177	-1.183829338	-18.92896851	8.174744644	457.3987007	8-3	51.7
8	0	WS5: -15deg	Combination	-1.925632226	-0.707657252	1.061050662	41.68279149	10.85329574	-182.481961	8-1	0
8	21.96666667	WS5: -15deg	Combination	-1.925632226	-0.831695697	1.061050662	41.68279149	-12.45445048	-165.5747344	8-1	21.96666667
8	43.93333333	WS5: -15deg	Combination	-1.925632226	-0.955734141	1.061050662	41.68279149	-35.7621967	-145.9427967	8-1	43.93333333
8	65.9	WS5: -15deg	Combination	-1.925632226	-1.079772586	1.061050662	41.68279149	-59.06994292	-123.5861478	8-1	65.9
8	65.9	WS5: -15deg	Combination	0.071167774	-3.017452586	-0.061389338	11.37691149	-59.06994292	-177.4997478	8-2	0
8	85.58	WS5: -15deg	Combination	0.071167774	-3.128578986	-0.061389338	11.37691149	-57.86180076	-117.0227972	8-2	19.68
8	105.26	WS5: -15deg	Combination	0.071167774	-3.239705386	-0.061389338	11.37691149	-56.65365859	-54.35887894	8-2	39.36
8	124.94	WS5: -15deg	Combination	0.071167774	-3.350831786	-0.061389338	11.37691149	-55.44551643	10.49200683	8-2	59.04
8	144.62	WS5: -15deg	Combination	0.071167774	-3.461958186	-0.061389338	11.37691149	-54.23737427	77.52986015	8-2	78.72
8	164.3	WS5: -15deg	Combination	0.071167774	-3.573084586	-0.061389338	11.37691149	-53.02923211	146.754681	8-2	98.4
8	164.3	WS5: -15deg	Combination	2.067967774	-7.077284586	-1.183829338	-18.92896851	-53.02923211	92.84108102	8-3	0
8	181.5333333	WS5: -15deg	Combination	2.067967774	-7.174595475	-1.183829338	-18.92896851	-32.62790652	215.6447809	8-3	17.23333333
8	198.7666667	WS5: -15deg	Combination	2.067967774	-7.271906364	-1.183829338	-18.92896851	-12.22658094	340.1254717	8-3	34.46666667
8	216	WS5: -15deg	Combination	2.067967774	-7.369217252	-1.183829338	-18.92896851	8.174744644	466.2831535	8-3	51.7
8	0	WS5: -30deg	Combination	-1.890235181	-0.437738042	1.061050662	41.68279149	10.85329574	-172.0580372	8-1	0
8	21.96666667	WS5: -30deg	Combination	-1.890235181	-0.61493582	1.061050662	41.68279149	-12.45445048	-160.4961692	8-1	21.96666667
8	43.93333333	WS5: -30deg	Combination	-1.890235181	-0.792133598	1.061050662	41.68279149	-35.7621967	-145.0418568	8-1	43.93333333
8	65.9	WS5: -30deg	Combination	-1.890235181	-0.969331376	1.061050662	41.68279149	-59.06994292	-125.6950998	8-1	65.9
8	65.9	WS5: -30deg	Combination	0.106564819	-2.907011376	-0.061389338	11.37691149	-59.06994292	-179.6086998	8-2	0
8	85.58	WS5: -30deg	Combination	0.106564819	-3.065763376	-0.061389338	11.37691149	-57.86180076	-120.8365963	8-2	19.68
8	105.26	WS5: -30deg	Combination	0.106564819	-3.224515376	-0.061389338	11.37691149	-56.65365859	-58.94025336	8-2	39.36
8	124.94	WS5: -30deg	Combination	0.106564819	-3.383267376	-0.061389338	11.37691149	-55.44551643	6.080328913	8-2	59.04
8	144.62	WS5: -30deg	Combination	0.106564819	-3.542019376	-0.061389338	11.37691149	-54.23737427	74.22515055	8-2	78.72
8	164.3	WS5: -30deg	Combination	0.106564819	-3.700771376	-0.061389338	11.37691149	-53.02923211	145.4942115	8-2	98.4
8	164.3	WS5: -30deg	Combination	2.103364819	-7.204971376	-1.183829338	-18.92896851	-53.02923211	91.58061154	8-3	0
8	181.5333333	WS5: -30deg	Combination	2.103364819	-7.343986931	-1.183829338	-18.92896851	-32.62790652	216.9441356	8-3	17.23333333
8	198.7666667	WS5: -30deg	Combination	2.103364819	-7.483002487	-1.183829338	-18.92896851	-12.22658094	344.7033611	8-3	34.46666667
8	216	WS5: -30deg	Combination	2.103364819	-7.622018042	-1.183829338	-18.92896851	8.174744644	474.858288	8-3	51.7
8	0	WS5: -45deg	Combination	-1.851051233	-0.253211427	1.061050662	41.68279149	10.85329574	-164.6349026	8-1	0
8	21.96666667	WS5: -45deg	Combination	-1.851051233	-0.46584876	1.061050662	41.68279149	-12.45445048	-156.7372248	8-1	21.96666667
8	43.93333333	WS5: -45deg	Combination	-1.851051233	-0.678486093	1.061050662	41.68279149	-35.7621967	-144.1686137	8-1	43.93333333
8	65.9	WS5: -45deg	Combination	-1.851051233	-0.891123427	1.061050662	41.68279149	-59.06994292	-126.9290691	8-1	65.9
8	65.9	WS5: -45deg	Combination	0.145748767	-2.828803427	-0.061389338	11.37691149	-59.06994292	-180.8426691	8-2	0
8	85.58	WS5: -45deg	Combination	0.145748767	-3.019305827	-0.061389338	11.37691149	-57.86180076	-123.2972741	8-2	19.68
8	105.26	WS5: -45deg	Combination	0.145748767	-3.209808227	-0.061389338	11.37691149	-56.65365859	-62.00279179	8-2	39.36
8	124.94	WS5: -45deg	Combination	0.145748767	-3.400310627	-0.061389338	11.37691149	-55.44551643	3.040777726	8-2	59.04
8	144.62	WS5: -45deg	Combination	0.145748767	-3.590813027	-0.061389338	11.37691149	-54.23737427	71.83343448	8-2	78.72
8	164.3	WS5: -45deg	Combination	0.145748767	-3.781315427	-0.061389338	11.37691149	-53.02923211	144.3751785	8-2	98.4
8	164.3	WS5: -45deg	Combination	2.142548767	-7.285515427	-1.183829338	-18.92896851	-53.02923211	90.46157846	8-3	0

8	181.5333333	WS5: -45deg	Combination	2.142548767	-7.452334093	-1.183829338	-18.92896851	-32.62790652	217.4527152	8-3	17.23333333
8	198.7666667	WS5: -45deg	Combination	2.142548767	-7.61915276	-1.183829338	-18.92896851	-12.22658094	347.3186936	8-3	34.46666667
8	216	WS5: -45deg	Combination	2.142548767	-7.785971427	-1.183829338	-18.92896851	8.174744644	480.0595136	8-3	51.7
8	0	LL - 1 Lane	Combination	-3.473177781	-41.57558704	2.826468658	111.0362661	28.91143781	-2194.953174	8-1	0
8	21.96666667	LL - 1 Lane	Combination	-3.473177781	-41.57558704	2.826468658	111.0362661	-33.17665705	-1281.676112	8-1	21.96666667
8	43.93333333	LL - 1 Lane	Combination	-3.473177781	-41.57558704	2.826468658	111.0362661	-95.26475191	-368.3990505	8-1	43.93333333
8	65.9	LL - 1 Lane	Combination	-3.473177781	-41.57558704	2.826468658	111.0362661	-157.3528468	544.8780114	8-1	65.9
8	65.9	LL - 1 Lane	Combination	-0.583177781	-2.365587036	-0.163531342	30.30626613	-157.3528468	466.8480114	8-2	0
8	85.58	LL - 1 Lane	Combination	-0.583177781	-2.365587036	-0.163531342	30.30626613	-154.13455	513.4027642	8-2	19.68
8	105.26	LL - 1 Lane	Combination	-0.583177781	-2.365587036	-0.163531342	30.30626613	-150.9162532	559.9575171	8-2	39.36
8	124.94	LL - 1 Lane	Combination	-0.583177781	-2.365587036	-0.163531342	30.30626613	-147.6979564	606.51227	8-2	59.04
8	144.62	LL - 1 Lane	Combination	-0.583177781	-2.365587036	-0.163531342	30.30626613	-144.4796595	653.0670229	8-2	78.72
8	164.3	LL - 1 Lane	Combination	-0.583177781	-2.365587036	-0.163531342	30.30626613	-141.2613627	699.6217757	8-2	98.4
8	164.3	LL - 1 Lane	Combination	2.306822219	30.39441296	-3.153531342	-50.42373387	-141.2613627	621.5917757	8-3	0
8	181.5333333	LL - 1 Lane	Combination	2.306822219	30.39441296	-3.153531342	-50.42373387	-86.91550595	97.79472564	8-3	17.23333333
8	198.7666667	LL - 1 Lane	Combination	2.306822219	30.39441296	-3.153531342	-50.42373387	-32.56964917	-426.0023244	8-3	34.46666667
8	216	LL - 1 Lane	Combination	2.306822219	30.39441296	-3.153531342	-50.42373387	21.77620762	-949.7993745	8-3	51.7
8	0	WS5 + WA	Combination	-1.802491214	-1.277006465	1.061050662	41.68279149	10.85329574	-200.549603	8-1	0
8	21.96666667	WS5 + WA	Combination	-1.802491214	-1.277006465	1.061050662	41.68279149	-12.45445048	-172.4980277	8-1	21.96666667
8	43.93333333	WS5 + WA	Combination	-1.802491214	-1.277006465	1.061050662	41.68279149	-35.7621967	-144.4464523	8-1	43.93333333
8	65.9	WS5 + WA	Combination	-1.802491214	-1.277006465	1.061050662	41.68279149	-59.06994292	-116.394877	8-1	65.9
8	65.9	WS5 + WA	Combination	0.194308786	-3.214686465	-0.061389338	11.37691149	-59.06994292	-170.308477	8-2	0
8	85.58	WS5 + WA	Combination	0.194308786	-3.214686465	-0.061389338	11.37691149	-57.86180076	-107.0434473	8-2	19.68
8	105.26	WS5 + WA	Combination	0.194308786	-3.214686465	-0.061389338	11.37691149	-56.65365859	-43.7784177	8-2	39.36
8	124.94	WS5 + WA	Combination	0.194308786	-3.214686465	-0.061389338	11.37691149	-55.44551643	19.48661193	8-2	59.04
8	144.62	WS5 + WA	Combination	0.194308786	-3.214686465	-0.061389338	11.37691149	-54.23737427	82.75164157	8-2	78.72
8	164.3	WS5 + WA	Combination	0.194308786	-3.214686465	-0.061389338	11.37691149	-53.02923211	146.0166712	8-2	98.4
8	164.3	WS5 + WA	Combination	2.191108786	-6.718886465	-1.183829338	-18.92896851	-53.02923211	92.10307121	8-3	0
8	181.5333333	WS5 + WA	Combination	2.191108786	-6.718886465	-1.183829338	-18.92896851	-32.62790652	207.8918813	8-3	17.23333333
8	198.7666667	WS5 + WA	Combination	2.191108786	-6.718886465	-1.183829338	-18.92896851	-12.22658094	323.6806914	8-3	34.46666667
8	216	WS5 + WA	Combination	2.191108786	-6.718886465	-1.183829338	-18.92896851	8.174744644	439.4695015	8-3	51.7
8	0	LL - 2 Lane	Combination	-5.614589932	-60.36838897	4.707630073	184.9366573	48.15349842	-3220.496695	8-1	0
8	21.96666667	LL - 2 Lane	Combination	-5.614589932	-60.36838897	4.707630073	184.9366573	-55.25744218	-1894.404418	8-1	21.96666667
8	43.93333333	LL - 2 Lane	Combination	-5.614589932	-60.36838897	4.707630073	184.9366573	-158.6683828	-568.3121398	8-1	43.93333333
8	65.9	LL - 2 Lane	Combination	-5.614589932	-60.36838897	4.707630073	184.9366573	-262.0793234	757.780138	8-1	65.9
8	65.9	LL - 2 Lane	Combination	-0.804589932	-4.358388974	-0.272369927	50.47665729	-262.0793234	627.910138	8-2	0
8	85.58	LL - 2 Lane	Combination	-0.804589932	-4.358388974	-0.272369927	50.47665729	-256.7190832	713.683233	8-2	19.68
8	105.26	LL - 2 Lane	Combination	-0.804589932	-4.358388974	-0.272369927	50.47665729	-251.3588431	799.4563281	8-2	39.36
8	124.94	LL - 2 Lane	Combination	-0.804589932	-4.358388974	-0.272369927	50.47665729	-245.9986029	885.2294231	8-2	59.04
8	144.62	LL - 2 Lane	Combination	-0.804589932	-4.358388974	-0.272369927	50.47665729	-240.6383627	971.0025181	8-2	78.72
8	164.3	LL - 2 Lane	Combination	-0.804589932	-4.358388974	-0.272369927	50.47665729	-235.2781226	1056.775613	8-2	98.4
8	164.3	LL - 2 Lane	Combination	4.005410068	42.40161103	-5.252369927	-83.98334271	-235.2781226	926.9056131	8-3	0

8	181.5333333	LL - 2 Lane	Combination	4.005410068	42.40161103	-5.252369927	-83.98334271	-144.7622808	196.1845164	8-3	17.23333333
8	198.7666667	LL - 2 Lane	Combination	4.005410068	42.40161103	-5.252369927	-83.98334271	-54.24643908	-534.5365803	8-3	34.46666667
8	216	LL - 2 Lane	Combination	4.005410068	42.40161103	-5.252369927	-83.98334271	36.26940267	-1265.257677	8-3	51.7
8	0	LL - 3 Lane	Combination	-7.032728447	-68.80000491	6.002700997	235.812806	61.40054518	-3739.959518	8-1	0
8	21.96666667	LL - 3 Lane	Combination	-7.032728447	-68.80000491	6.002700997	235.812806	-70.45878671	-2228.652744	8-1	21.96666667
8	43.93333333	LL - 3 Lane	Combination	-7.032728447	-68.80000491	6.002700997	235.812806	-202.3181186	-717.3459693	8-1	43.93333333
8	65.9	LL - 3 Lane	Combination	-7.032728447	-68.80000491	6.002700997	235.812806	-334.1774505	793.9608052	8-1	65.9
8	65.9	LL - 3 Lane	Combination	-0.892728447	-6.36000491	-0.347299003	64.36280599	-334.1774505	628.1808052	8-2	0
8	85.58	LL - 3 Lane	Combination	-0.892728447	-6.36000491	-0.347299003	64.36280599	-327.3426061	753.3457018	8-2	19.68
8	105.26	LL - 3 Lane	Combination	-0.892728447	-6.36000491	-0.347299003	64.36280599	-320.5077617	878.5105984	8-2	39.36
8	124.94	LL - 3 Lane	Combination	-0.892728447	-6.36000491	-0.347299003	64.36280599	-313.6729173	1003.675495	8-2	59.04
8	144.62	LL - 3 Lane	Combination	-0.892728447	-6.36000491	-0.347299003	64.36280599	-306.838073	1128.840392	8-2	78.72
8	164.3	LL - 3 Lane	Combination	-0.892728447	-6.36000491	-0.347299003	64.36280599	-300.0032286	1254.005288	8-2	98.4
8	164.3	LL - 3 Lane	Combination	5.247271553	48.08999509	-6.697299003	-107.087194	-300.0032286	1088.225288	8-3	0
8	181.5333333	LL - 3 Lane	Combination	5.247271553	48.08999509	-6.697299003	-107.087194	-184.5864424	259.4743729	8-3	17.23333333
8	198.7666667	LL - 3 Lane	Combination	5.247271553	48.08999509	-6.697299003	-107.087194	-69.16965625	-569.2765425	8-3	34.46666667
8	216	LL - 3 Lane	Combination	5.247271553	48.08999509	-6.697299003	-107.087194	46.2471299	-1398.027458	8-3	51.7
8	0	LL - 7 Lane	Combination	-12.18695001	-85.11969328	10.700878	420.3781045	109.4573498	-4631.96715	8-1	0
8	21.96666667	LL - 7 Lane	Combination	-12.18695001	-85.11969328	10.700878	420.3781045	-125.6052702	-2762.171221	8-1	21.96666667
8	43.93333333	LL - 7 Lane	Combination	-12.18695001	-85.11969328	10.700878	420.3781045	-360.6678902	-892.3752921	8-1	43.93333333
8	65.9	LL - 7 Lane	Combination	-12.18695001	-85.11969328	10.700878	420.3781045	-595.7305102	977.420637	8-1	65.9
8	65.9	LL - 7 Lane	Combination	-1.236950008	-11.17969328	-0.619122003	114.7381045	-595.7305102	681.770637	8-2	0
8	85.58	LL - 7 Lane	Combination	-1.236950008	-11.17969328	-0.619122003	114.7381045	-583.5461892	901.7870008	8-2	19.68
8	105.26	LL - 7 Lane	Combination	-1.236950008	-11.17969328	-0.619122003	114.7381045	-571.3618682	1121.803365	8-2	39.36
8	124.94	LL - 7 Lane	Combination	-1.236950008	-11.17969328	-0.619122003	114.7381045	-559.1775471	1341.819728	8-2	59.04
8	144.62	LL - 7 Lane	Combination	-1.236950008	-11.17969328	-0.619122003	114.7381045	-546.9932261	1561.836092	8-2	78.72
8	164.3	LL - 7 Lane	Combination	-1.236950008	-11.17969328	-0.619122003	114.7381045	-534.8089051	1781.852456	8-2	98.4
8	164.3	LL - 7 Lane	Combination	9.713049992	58.85030672	-11.939122	-190.9018955	-534.8089051	1486.202456	8-3	0
8	181.5333333	LL - 7 Lane	Combination	9.713049992	58.85030672	-11.939122	-190.9018955	-329.0580359	472.0155035	8-3	17.23333333
8	198.7666667	LL - 7 Lane	Combination	9.713049992	58.85030672	-11.939122	-190.9018955	-123.3071667	-542.171449	8-3	34.46666667
8	216	LL - 7 Lane	Combination	9.713049992	58.85030672	-11.939122	-190.9018955	82.44370244	-1556.358401	8-3	51.7
8	0	LL Envelope	Combination Max	-3.473177781	-41.57558704	10.700878	420.3781045	109.4573498	-2194.953174	8-1	0
8	21.96666667	LL Envelope	Combination Max	-3.473177781	-41.57558704	10.700878	420.3781045	-33.17665705	-1281.676112	8-1	21.96666667
8	43.93333333	LL Envelope	Combination Max	-3.473177781	-41.57558704	10.700878	420.3781045	-95.26475191	-368.3990505	8-1	43.93333333
8	65.9	LL Envelope	Combination Max	-3.473177781	-41.57558704	10.700878	420.3781045	-157.3528468	977.420637	8-1	65.9
8	65.9	LL Envelope	Combination Max	-0.583177781	-2.365587036	-0.163531342	114.7381045	-157.3528468	681.770637	8-2	0
8	85.58	LL Envelope	Combination Max	-0.583177781	-2.365587036	-0.163531342	114.7381045	-154.13455	901.7870008	8-2	19.68
8	105.26	LL Envelope	Combination Max	-0.583177781	-2.365587036	-0.163531342	114.7381045	-150.9162532	1121.803365	8-2	39.36
8	124.94	LL Envelope	Combination Max	-0.583177781	-2.365587036	-0.163531342	114.7381045	-147.6979564	1341.819728	8-2	59.04
8	144.62	LL Envelope	Combination Max	-0.583177781	-2.365587036	-0.163531342	114.7381045	-144.4796595	1561.836092	8-2	78.72
8	164.3	LL Envelope	Combination Max	-0.583177781	-2.365587036	-0.163531342	114.7381045	-141.2613627	1781.852456	8-2	98.4
8	164.3	LL Envelope	Combination Max	9.713049992	58.85030672	-3.153531342	-50.42373387	-141.2613627	1486.202456	8-3	0

8	181.5333333	LL Envelope	Combination Max	9.713049992	58.85030672	-3.153531342	-50.42373387	-86.91550595	472.0155035	8-3	17.23333333
8	198.7666667	LL Envelope	Combination Max	9.713049992	58.85030672	-3.153531342	-50.42373387	-32.56964917	-426.0023244	8-3	34.46666667
8	216	LL Envelope	Combination Max	9.713049992	58.85030672	-3.153531342	-50.42373387	82.44370244	-949.7993745	8-3	51.7
8	0	LL Envelope	Combination Min	-12.18695001	-85.11969328	2.826468658	111.0362661	28.91143781	-4631.96715	8-1	0
8	21.96666667	LL Envelope	Combination Min	-12.18695001	-85.11969328	2.826468658	111.0362661	-125.6052702	-2762.171221	8-1	21.96666667
8	43.93333333	LL Envelope	Combination Min	-12.18695001	-85.11969328	2.826468658	111.0362661	-360.6678902	-892.3752921	8-1	43.93333333
8	65.9	LL Envelope	Combination Min	-12.18695001	-85.11969328	2.826468658	111.0362661	-595.7305102	544.8780114	8-1	65.9
8	65.9	LL Envelope	Combination Min	-1.236950008	-11.17969328	-0.619122003	30.30626613	-595.7305102	466.8480114	8-2	0
8	85.58	LL Envelope	Combination Min	-1.236950008	-11.17969328	-0.619122003	30.30626613	-583.5461892	513.4027642	8-2	19.68
8	105.26	LL Envelope	Combination Min	-1.236950008	-11.17969328	-0.619122003	30.30626613	-571.3618682	559.9575171	8-2	39.36
8	124.94	LL Envelope	Combination Min	-1.236950008	-11.17969328	-0.619122003	30.30626613	-559.1775471	606.51227	8-2	59.04
8	144.62	LL Envelope	Combination Min	-1.236950008	-11.17969328	-0.619122003	30.30626613	-546.9932261	653.0670229	8-2	78.72
8	164.3	LL Envelope	Combination Min	-1.236950008	-11.17969328	-0.619122003	30.30626613	-534.8089051	699.6217757	8-2	98.4
8	164.3	LL Envelope	Combination Min	2.306822219	30.39441296	-11.939122	-190.9018955	-534.8089051	621.5917757	8-3	0
8	181.5333333	LL Envelope	Combination Min	2.306822219	30.39441296	-11.939122	-190.9018955	-329.0580359	97.79472564	8-3	17.23333333
8	198.7666667	LL Envelope	Combination Min	2.306822219	30.39441296	-11.939122	-190.9018955	-123.3071667	-569.2765425	8-3	34.46666667
8	216	LL Envelope	Combination Min	2.306822219	30.39441296	-11.939122	-190.9018955	21.77620762	-1556.358401	8-3	51.7
8	0	WS3 & WA envelope	Combination Max	-0.936891214	1.648506614	1.332883213	52.36158369	13.63382184	-56.06461877	8-1	0
8	21.96666667	WS3 & WA envelope	Combination Max	-0.936891214	1.282395503	1.332883213	52.36158369	-5.788716383	-67.97531649	8-1	21.96666667
8	43.93333333	WS3 & WA envelope	Combination Max	-0.936891214	0.916284392	1.332883213	52.36158369	-16.62194685	-76.91038513	8-1	43.93333333
8	65.9	WS3 & WA envelope	Combination Max	-0.936891214	0.550173281	1.332883213	52.36158369	-27.45517731	-82.8698247	8-1	65.9
8	65.9	WS3 & WA envelope	Combination Max	0.349150771	-1.468835886	-0.028533211	14.29158369	-27.45517731	-109.8428247	8-2	0
8	85.58	WS3 & WA envelope	Combination Max	0.349150771	-1.590195886	-0.028533211	14.29158369	-26.89364372	-79.74195206	8-2	19.68
8	105.26	WS3 & WA envelope	Combination Max	0.349150771	-1.711555886	-0.028533211	14.29158369	-26.33211012	-47.25271462	8-2	39.36
8	124.94	WS3 & WA envelope	Combination Max	0.349150771	-1.832915886	-0.028533211	14.29158369	-25.77057653	-5.029386628	8-2	59.04
8	144.62	WS3 & WA envelope	Combination Max	0.349150771	-1.954275886	-0.028533211	14.29158369	-25.20904294	88.03713756	8-2	78.72
8	164.3	WS3 & WA envelope	Combination Max	0.349150771	-2.075635886	-0.028533211	14.29158369	-24.64750935	181.4264138	8-2	98.4
8	164.3	WS3 & WA envelope	Combination Max	3.049150771	-4.869135886	-0.550233211	-8.798014034	-24.64750935	108.5264138	8-3	0
8	181.5333333	WS3 & WA envelope	Combination Max	3.049150771	-4.975408108	-0.550233211	-8.798014034	-15.16515701	330.8090286	8-3	17.23333333
8	198.7666667	WS3 & WA envelope	Combination Max	3.049150771	-5.081680331	-0.550233211	-8.798014034	-5.682804672	565.0214035	8-3	34.46666667
8	216	WS3 & WA envelope	Combination Max	3.049150771	-5.187952553	-0.550233211	-8.798014034	10.26904774	804.1835747	8-3	51.7
8	0	WS3 & WA envelope	Combination Min	-2.692885573	-0.096673384	0.493166789	19.37378597	5.044514082	-217.5727274	8-1	0
8	21.96666667	WS3 & WA envelope	Combination Min	-2.692885573	-0.114978939	0.493166789	19.37378597	-15.64517941	-215.2480793	8-1	21.96666667
8	43.93333333	WS3 & WA envelope	Combination Min	-2.692885573	-0.133284495	0.493166789	19.37378597	-44.92418067	-212.5213193	8-1	43.93333333
8	65.9	WS3 & WA envelope	Combination Min	-2.692885573	-0.15159005	0.493166789	19.37378597	-74.20318192	-223.9724992	8-1	65.9
8	65.9	WS3 & WA envelope	Combination Min	0.007114427	-4.67159005	-0.077116787	5.287885966	-74.20318192	-296.8724992	8-2	0
8	85.58	WS3 & WA envelope	Combination Min	0.007114427	-4.68799005	-0.077116787	5.287885966	-72.68552356	-215.5187894	8-2	19.68
8	105.26	WS3 & WA envelope	Combination Min	0.007114427	-4.70439005	-0.077116787	5.287885966	-71.1678652	-127.7100395	8-2	39.36
8	124.94	WS3 & WA envelope	Combination Min	0.007114427	-4.953826719	-0.077116787	5.287885966	-69.65020684	-33.44624969	8-2	59.04
8	144.62	WS3 & WA envelope	Combination Min	0.007114427	-5.281826719	-0.077116787	5.287885966	-68.13254848	24.89085465	8-2	78.72
8	164.3	WS3 & WA envelope	Combination Min	0.007114427	-5.609826719	-0.077116787	5.287885966	-66.61489012	64.54518649	8-2	98.4
8	164.3	WS3 & WA envelope	Combination Min	1.061108786	-13.15982672	-1.487116787	-23.77841631	-66.61489012	37.57218649	8-3	0

8	181.5333333	WS3 & WA envelope	Combination Min	1.061108786	-13.44704894	-1.487116787	-23.77841631	-40.98691083	122.3993406	8-3	17.23333333
8	198.7666667	WS3 & WA envelope	Combination Min	1.061108786	-13.73427116	-1.487116787	-23.77841631	-15.35893155	209.0579193	8-3	34.46666667
8	216	WS3 & WA envelope	Combination Min	1.061108786	-14.02149339	-1.487116787	-23.77841631	3.799547665	297.5479226	8-3	51.7
8	0	WS3 + WA	Combination	-2.350849229	-0.085519053	1.332883213	52.36158369	13.63382184	-210.3928683	8-1	0
8	21.96666667	WS3 + WA	Combination	-2.350849229	-0.085519053	1.332883213	52.36158369	-15.64517941	-208.5142998	8-1	21.96666667
8	43.93333333	WS3 + WA	Combination	-2.350849229	-0.085519053	1.332883213	52.36158369	-44.92418067	-206.6357312	8-1	43.93333333
8	65.9	WS3 + WA	Combination	-2.350849229	-0.085519053	1.332883213	52.36158369	-74.20318192	-204.7571627	8-1	65.9
8	65.9	WS3 + WA	Combination	0.349150771	-4.605519053	-0.077116787	14.29158369	-74.20318192	-277.6571627	8-2	0
8	85.58	WS3 + WA	Combination	0.349150771	-4.605519053	-0.077116787	14.29158369	-72.68552356	-187.0205478	8-2	19.68
8	105.26	WS3 + WA	Combination	0.349150771	-4.605519053	-0.077116787	14.29158369	-71.1678652	-96.38393279	8-2	39.36
8	124.94	WS3 + WA	Combination	0.349150771	-4.605519053	-0.077116787	14.29158369	-69.65020684	-5.74731783	8-2	59.04
8	144.62	WS3 + WA	Combination	0.349150771	-4.605519053	-0.077116787	14.29158369	-68.13254848	84.88929713	8-2	78.72
8	164.3	WS3 + WA	Combination	0.349150771	-4.605519053	-0.077116787	14.29158369	-66.61489012	175.5259121	8-2	98.4
8	164.3	WS3 + WA	Combination	3.049150771	-12.15551905	-1.487116787	-23.77841631	-66.61489012	102.6259121	8-3	0
8	181.5333333	WS3 + WA	Combination	3.049150771	-12.15551905	-1.487116787	-23.77841631	-40.98691083	312.1060238	8-3	17.23333333
8	198.7666667	WS3 + WA	Combination	3.049150771	-12.15551905	-1.487116787	-23.77841631	-15.35893155	521.5861354	8-3	34.46666667
8	216	WS3 + WA	Combination	3.049150771	-12.15551905	-1.487116787	-23.77841631	10.26904774	731.0662471	8-3	51.7
8	0	WS5 & WA envelope	Combination Max	-1.802491214	-0.253211427	1.061050662	41.68279149	10.85329574	-164.6349026	8-1	0
8	21.96666667	WS5 & WA envelope	Combination Max	-1.802491214	-0.46584876	1.061050662	41.68279149	-12.45445048	-156.7372248	8-1	21.96666667
8	43.93333333	WS5 & WA envelope	Combination Max	-1.802491214	-0.678486093	1.061050662	41.68279149	-35.7621967	-144.1686137	8-1	43.93333333
8	65.9	WS5 & WA envelope	Combination Max	-1.802491214	-0.891123427	1.061050662	41.68279149	-59.06994292	-116.394877	8-1	65.9
8	65.9	WS5 & WA envelope	Combination Max	0.194308786	-2.828803427	-0.061389338	11.37691149	-59.06994292	-170.308477	8-2	0
8	85.58	WS5 & WA envelope	Combination Max	0.194308786	-3.019305827	-0.061389338	11.37691149	-57.86180076	-107.0434473	8-2	19.68
8	105.26	WS5 & WA envelope	Combination Max	0.194308786	-3.209808227	-0.061389338	11.37691149	-56.65365859	-43.7784177	8-2	39.36
8	124.94	WS5 & WA envelope	Combination Max	0.194308786	-3.214686465	-0.061389338	11.37691149	-55.44551643	19.83409064	8-2	59.04
8	144.62	WS5 & WA envelope	Combination Max	0.194308786	-3.214686465	-0.061389338	11.37691149	-54.23737427	84.27519634	8-2	78.72
8	164.3	WS5 & WA envelope	Combination Max	0.194308786	-3.214686465	-0.061389338	11.37691149	-53.02923211	148.872514	8-2	98.4
8	164.3	WS5 & WA envelope	Combination Max	2.191108786	-6.718886465	-1.183829338	-18.92896851	-53.02923211	94.95891401	8-3	0
8	181.5333333	WS5 & WA envelope	Combination Max	2.191108786	-6.718886465	-1.183829338	-18.92896851	-32.62790652	217.4527152	8-3	17.23333333
8	198.7666667	WS5 & WA envelope	Combination Max	2.191108786	-6.718886465	-1.183829338	-18.92896851	-12.22658094	347.3186936	8-3	34.46666667
8	216	WS5 & WA envelope	Combination Max	2.191108786	-6.718886465	-1.183829338	-18.92896851	8.174744644	480.0595136	8-3	51.7
8	0	WS5 & WA envelope	Combination Min	-1.968036805	-1.282405161	1.061050662	41.68279149	10.85329574	-204.0246548	8-1	0
8	21.96666667	WS5 & WA envelope	Combination Min	-1.968036805	-1.29126505	1.061050662	41.68279149	-12.45445048	-175.757177	8-1	21.96666667
8	43.93333333	WS5 & WA envelope	Combination Min	-1.968036805	-1.300124939	1.061050662	41.68279149	-35.7621967	-147.2950769	8-1	43.93333333
8	65.9	WS5 & WA envelope	Combination Min	-1.968036805	-1.308984828	1.061050662	41.68279149	-59.06994292	-126.9290691	8-1	65.9
8	65.9	WS5 & WA envelope	Combination Min	0.028763195	-3.246664828	-0.061389338	11.37691149	-59.06994292	-180.8426691	8-2	0
8	85.58	WS5 & WA envelope	Combination Min	0.028763195	-3.254602428	-0.061389338	11.37691149	-57.86180076	-123.2972741	8-2	19.68
8	105.26	WS5 & WA envelope	Combination Min	0.028763195	-3.262540028	-0.061389338	11.37691149	-56.65365859	-62.00279179	8-2	39.36
8	124.94	WS5 & WA envelope	Combination Min	0.028763195	-3.400310627	-0.061389338	11.37691149	-55.44551643	3.040777726	8-2	59.04
8	144.62	WS5 & WA envelope	Combination Min	0.028763195	-3.590813027	-0.061389338	11.37691149	-54.23737427	71.83343448	8-2	78.72
8	164.3	WS5 & WA envelope	Combination Min	0.028763195	-3.781315427	-0.061389338	11.37691149	-53.02923211	144.3751785	8-2	98.4
8	164.3	WS5 & WA envelope	Combination Min	2.025563195	-7.285515427	-1.183829338	-18.92896851	-53.02923211	90.46157846	8-3	0

8	181.5333333	WS5 & WA envelope	Combination Min	2.025563195	-7.452334093	-1.183829338	-18.92896851	-32.62790652	207.8918813	8-3	17.23333333
8	198.7666667	WS5 & WA envelope	Combination Min	2.025563195	-7.61915276	-1.183829338	-18.92896851	-12.22658094	323.6806914	8-3	34.46666667
8	216	WS5 & WA envelope	Combination Min	2.025563195	-7.785971427	-1.183829338	-18.92896851	8.174744644	439.4695015	8-3	51.7
8	0	Strength 1 - Max	Combination Max	-13.75710097	-345.2108696	18.7265365	735.6616829	191.5503622	-16091.69346	8-1	0
8	21.96666667	Strength 1 - Max	Combination Max	-13.75710097	-339.0327446	18.7265365	735.6616829	-58.05914984	-8576.41776	8-1	21.96666667
8	43.93333333	Strength 1 - Max	Combination Max	-13.75710097	-332.8546196	18.7265365	735.6616829	-166.7133158	-1196.854877	8-1	43.93333333
8	65.9	Strength 1 - Max	Combination Max	-13.75710097	-326.6764946	18.7265365	735.6616829	-275.3674818	6803.944787	8-1	65.9
8	65.9	Strength 1 - Max	Combination Max	-8.699600975	2.15600544	-0.286179848	200.7916829	-275.3674818	6286.557287	8-2	0
8	85.58	Strength 1 - Max	Combination Max	-8.699600975	7.691005441	-0.286179848	200.7916829	-269.7354624	6493.220519	8-2	19.68
8	105.26	Strength 1 - Max	Combination Max	-8.699600975	13.22600544	-0.286179848	200.7916829	-264.103443	6590.954952	8-2	39.36
8	124.94	Strength 1 - Max	Combination Max	-8.699600975	18.76100544	-0.286179848	200.7916829	-258.4714236	6579.760584	8-2	59.04
8	144.62	Strength 1 - Max	Combination Max	-8.699600975	24.29600544	-0.286179848	200.7916829	-252.8394042	6459.637416	8-2	78.72
8	164.3	Strength 1 - Max	Combination Max	-8.699600975	29.83100544	-0.286179848	200.7916829	-247.2073848	6230.585448	8-2	98.4
8	164.3	Strength 1 - Max	Combination Max	9.318797628	397.1738195	-5.518679848	-88.24153428	-247.2073848	5713.197948	8-3	0
8	181.5333333	Strength 1 - Max	Combination Max	9.318797628	402.0206945	-5.518679848	-88.24153428	-152.1021354	-1173.194782	8-3	17.23333333
8	198.7666667	Strength 1 - Max	Combination Max	9.318797628	406.8675695	-5.518679848	-88.24153428	-56.99688604	-7939.819355	8-3	34.46666667
8	216	Strength 1 - Max	Combination Max	9.318797628	411.7144445	-5.518679848	-88.24153428	144.2764793	-14135.08538	8-3	51.7
8	0	Strength 1 - Max	Combination Min	-29.00620237	-421.4130555	4.946320152	194.3134657	50.59501616	-20356.46791	8-1	0
8	21.96666667	Strength 1 - Max	Combination Min	-29.00620237	-415.2349305	4.946320152	194.3134657	-219.8092228	-11167.2842	8-1	21.96666667
8	43.93333333	Strength 1 - Max	Combination Min	-29.00620237	-409.0568055	4.946320152	194.3134657	-631.1688078	-2113.8133	8-1	43.93333333
8	65.9	Strength 1 - Max	Combination Min	-29.00620237	-402.8786805	4.946320152	194.3134657	-1042.528393	6046.995193	8-1	65.9
8	65.9	Strength 1 - Max	Combination Min	-9.843702372	-13.26868049	-1.083463505	53.03596572	-1042.528393	5910.442693	8-2	0
8	85.58	Strength 1 - Max	Combination Min	-9.843702372	-7.73368049	-1.083463505	53.03596572	-1021.205831	5813.548106	8-2	19.68
8	105.26	Strength 1 - Max	Combination Min	-9.843702372	-2.19868049	-1.083463505	53.03596572	-999.8832693	5607.724719	8-2	39.36
8	124.94	Strength 1 - Max	Combination Min	-9.843702372	3.336319511	-1.083463505	53.03596572	-978.5607075	5292.972531	8-2	59.04
8	144.62	Strength 1 - Max	Combination Min	-9.843702372	8.871319511	-1.083463505	53.03596572	-957.2381457	4869.291544	8-2	78.72
8	164.3	Strength 1 - Max	Combination Min	-9.843702372	14.40631951	-1.083463505	53.03596572	-935.9155839	4336.681757	8-2	98.4
8	164.3	Strength 1 - Max	Combination Min	-3.642100975	347.3760054	-20.8934635	-334.0783171	-935.9155839	4200.129257	8-3	0
8	181.5333333	Strength 1 - Max	Combination Min	-3.642100975	352.2228804	-20.8934635	-334.0783171	-575.8515629	-1828.081143	8-3	17.23333333
8	198.7666667	Strength 1 - Max	Combination Min	-3.642100975	357.0697554	-20.8934635	-334.0783171	-215.7875418	-8190.549237	8-3	34.46666667
8	216	Strength 1 - Max	Combination Min	-3.642100975	361.9166304	-20.8934635	-334.0783171	38.10836334	-15196.56368	8-3	51.7
8	0	Strength 1 - Min	Combination Max	-11.33660099	-258.7851618	18.7265365	735.6616829	191.5503622	-12193.04442	8-1	0
8	21.96666667	Strength 1 - Min	Combination Max	-11.33660099	-254.3369118	18.7265365	735.6616829	-58.05914984	-6557.253647	8-1	21.96666667
8	43.93333333	Strength 1 - Min	Combination Max	-11.33660099	-249.8886618	18.7265365	735.6616829	-166.7133158	-1019.176097	8-1	43.93333333
8	65.9	Strength 1 - Min	Combination Max	-11.33660099	-245.4404118	18.7265365	735.6616829	-275.3674818	5178.137823	8-1	65.9
8	65.9	Strength 1 - Min	Combination Max	-6.279100985	-0.351411795	-0.286179848	200.7916829	-275.3674818	4660.750323	8-2	0
8	85.58	Strength 1 - Min	Combination Max	-6.279100985	3.633788205	-0.286179848	200.7916829	-269.7354624	4932.009558	8-2	19.68
8	105.26	Strength 1 - Min	Combination Max	-6.279100985	7.618988205	-0.286179848	200.7916829	-264.103443	5124.840057	8-2	39.36
8	124.94	Strength 1 - Min	Combination Max	-6.279100985	11.60418821	-0.286179848	200.7916829	-258.4714236	5239.24182	8-2	59.04
8	144.62	Strength 1 - Min	Combination Max	-6.279100985	15.58938821	-0.286179848	200.7916829	-252.8394042	5275.214848	8-2	78.72
8	164.3	Strength 1 - Min	Combination Max	-6.279100985	19.57458821	-0.286179848	200.7916829	-247.2073848	5232.759139	8-2	98.4
8	164.3	Strength 1 - Min	Combination Max	11.73929762	303.1739023	-5.518679848	-88.24153428	-247.2073848	4715.371639	8-3	0

8	181.5333333	Strength 1 - Min	Combination Max	11.73929762	306.6636523	-5.518679848	-88.24153428	-152.1021354	-539.3952895	8-3	17.23333333
8	198.7666667	Strength 1 - Min	Combination Max	11.73929762	310.1534023	-5.518679848	-88.24153428	-56.99688604	-5651.006275	8-3	34.46666667
8	216	Strength 1 - Min	Combination Max	11.73929762	313.6431523	-5.518679848	-88.24153428	144.2764793	-10167.87092	8-3	51.7
8	0	Strength 1 - Min	Combination Min	-26.58570238	-334.9873477	4.946320152	194.3134657	50.59501616	-16457.81888	8-1	0
8	21.96666667	Strength 1 - Min	Combination Min	-26.58570238	-330.5390977	4.946320152	194.3134657	-219.8092228	-9148.120087	8-1	21.96666667
8	43.93333333	Strength 1 - Min	Combination Min	-26.58570238	-326.0908477	4.946320152	194.3134657	-631.1688078	-1936.13452	8-1	43.93333333
8	65.9	Strength 1 - Min	Combination Min	-26.58570238	-321.6425977	4.946320152	194.3134657	-1042.528393	4421.188228	8-1	65.9
8	65.9	Strength 1 - Min	Combination Min	-7.423202382	-15.77609773	-1.083463505	53.03596572	-1042.528393	4284.635728	8-2	0
8	85.58	Strength 1 - Min	Combination Min	-7.423202382	-11.79089773	-1.083463505	53.03596572	-1021.205831	4252.337144	8-2	19.68
8	105.26	Strength 1 - Min	Combination Min	-7.423202382	-7.805697725	-1.083463505	53.03596572	-999.8832693	4141.609824	8-2	39.36
8	124.94	Strength 1 - Min	Combination Min	-7.423202382	-3.820497725	-1.083463505	53.03596572	-978.5607075	3952.453768	8-2	59.04
8	144.62	Strength 1 - Min	Combination Min	-7.423202382	0.164702275	-1.083463505	53.03596572	-957.2381457	3684.868976	8-2	78.72
8	164.3	Strength 1 - Min	Combination Min	-7.423202382	4.149902275	-1.083463505	53.03596572	-935.9155839	3338.855449	8-2	98.4
8	164.3	Strength 1 - Min	Combination Min	-1.221600985	253.3760882	-20.8934635	-334.0783171	-935.9155839	3202.302949	8-3	0
8	181.5333333	Strength 1 - Min	Combination Min	-1.221600985	256.8658382	-20.8934635	-334.0783171	-575.8515629	-1194.281651	8-3	17.23333333
8	198.7666667	Strength 1 - Min	Combination Min	-1.221600985	260.3555882	-20.8934635	-334.0783171	-215.7875418	-5901.736157	8-3	34.46666667
8	216	Strength 1 - Min	Combination Min	-1.221600985	263.8453382	-20.8934635	-334.0783171	38.10836334	-11229.34922	8-3	51.7
8	0	Strength 3 - Max	Combination Max	-8.615931072	-270.8050856	1.332883213	52.36158369	13.63382184	-12306.59002	8-1	0
8	21.96666667	Strength 3 - Max	Combination Max	-8.615931072	-264.9930717	1.332883213	52.36158369	-5.788716383	-6401.45988	8-1	21.96666667
8	43.93333333	Strength 3 - Max	Combination Max	-8.615931072	-259.1810579	1.332883213	52.36158369	-16.62194685	-629.0669242	8-1	43.93333333
8	65.9	Strength 3 - Max	Combination Max	-8.615931072	-253.369044	1.332883213	52.36158369	-27.45517731	5010.588848	8-1	65.9
8	65.9	Strength 3 - Max	Combination Max	-7.329889087	4.826946867	-0.028533211	14.29158369	-27.45517731	4983.615848	8-2	0
8	85.58	Strength 3 - Max	Combination Max	-7.329889087	10.24058687	-0.028533211	14.29158369	-26.89364372	4835.351316	8-2	19.68
8	105.26	Strength 3 - Max	Combination Max	-7.329889087	15.65422687	-0.028533211	14.29158369	-26.33211012	4580.546349	8-2	39.36
8	124.94	Strength 3 - Max	Combination Max	-7.329889087	21.06786687	-0.028533211	14.29158369	-25.77057653	4226.546672	8-2	59.04
8	144.62	Strength 3 - Max	Combination Max	-7.329889087	26.48150687	-0.028533211	14.29158369	-25.20904294	3814.461392	8-2	78.72
8	164.3	Strength 3 - Max	Combination Max	-7.329889087	31.89514687	-0.028533211	14.29158369	-24.64750935	3293.770063	8-2	98.4
8	164.3	Strength 3 - Max	Combination Max	-4.629889087	289.3166469	-0.550233211	-8.798014034	-24.64750935	3220.870063	8-3	0
8	181.5333333	Strength 3 - Max	Combination Max	-4.629889087	294.0572496	-0.550233211	-8.798014034	-15.16515701	-1668.412884	8-3	17.23333333
8	198.7666667	Strength 3 - Max	Combination Max	-4.629889087	298.7978524	-0.550233211	-8.798014034	-5.682804672	-6629.293884	8-3	34.46666667
8	216	Strength 3 - Max	Combination Max	-4.629889087	303.5384552	-0.550233211	-8.798014034	10.26904774	-11668.7529	8-3	51.7
8	0	Strength 3 - Max	Combination Min	-10.37192543	-272.5502656	0.493166789	19.37378597	5.044514082	-12468.09813	8-1	0
8	21.96666667	Strength 3 - Max	Combination Min	-10.37192543	-266.3904462	0.493166789	19.37378597	-15.64517941	-6548.732643	8-1	21.96666667
8	43.93333333	Strength 3 - Max	Combination Min	-10.37192543	-260.2306267	0.493166789	19.37378597	-44.92418067	-764.6778583	8-1	43.93333333
8	65.9	Strength 3 - Max	Combination Min	-10.37192543	-254.0708073	0.493166789	19.37378597	-74.20318192	4869.486174	8-1	65.9
8	65.9	Strength 3 - Max	Combination Min	-7.671925431	1.624192703	-0.077116787	5.287885966	-74.20318192	4796.586174	8-2	0
8	85.58	Strength 3 - Max	Combination Min	-7.671925431	7.142792703	-0.077116787	5.287885966	-72.68552356	4699.574479	8-2	19.68
8	105.26	Strength 3 - Max	Combination Min	-7.671925431	12.6613927	-0.077116787	5.287885966	-71.1678652	4500.089024	8-2	39.36
8	124.94	Strength 3 - Max	Combination Min	-7.671925431	17.94695603	-0.077116787	5.287885966	-69.65020684	4198.129809	8-2	59.04
8	144.62	Strength 3 - Max	Combination Min	-7.671925431	23.15395604	-0.077116787	5.287885966	-68.13254848	3751.315109	8-2	78.72
8	164.3	Strength 3 - Max	Combination Min	-7.671925431	28.36095604	-0.077116787	5.287885966	-66.61489012	3176.888836	8-2	98.4
8	164.3	Strength 3 - Max	Combination Min	-6.617931072	281.025956	-1.487116787	-23.77841631	-66.61489012	3149.915836	8-3	0

8	181.5333333	Strength 3 - Max	Combination Min	-6.617931072	285.5856088	-1.487116787	-23.77841631	-40.98691083	-1876.822572	8-3	17.23333333
8	198.7666667	Strength 3 - Max	Combination Min	-6.617931072	290.1452616	-1.487116787	-23.77841631	-15.35893155	-6985.257368	8-3	34.46666667
8	216	Strength 3 - Max	Combination Min	-6.617931072	294.7049144	-1.487116787	-23.77841631	3.799547665	-12175.38855	8-3	51.7
8	0	Strength 3 - Min	Combination Max	-6.195431083	-184.3793779	1.332883213	52.36158369	13.63382184	-8407.940986	8-1	0
8	21.96666667	Strength 3 - Min	Combination Max	-6.195431083	-180.297239	1.332883213	52.36158369	-5.788716383	-4382.295767	8-1	21.96666667
8	43.93333333	Strength 3 - Min	Combination Max	-6.195431083	-176.2151001	1.332883213	52.36158369	-16.62194685	-451.3881437	8-1	43.93333333
8	65.9	Strength 3 - Min	Combination Max	-6.195431083	-172.1329612	1.332883213	52.36158369	-27.45517731	3384.781883	8-1	65.9
8	65.9	Strength 3 - Min	Combination Max	-4.909389098	2.319529632	-0.028533211	14.29158369	-27.45517731	3357.808883	8-2	0
8	85.58	Strength 3 - Min	Combination Max	-4.909389098	6.183369632	-0.028533211	14.29158369	-26.89364372	3274.140355	8-2	19.68
8	105.26	Strength 3 - Min	Combination Max	-4.909389098	10.04720963	-0.028533211	14.29158369	-26.33211012	3114.431455	8-2	39.36
8	124.94	Strength 3 - Min	Combination Max	-4.909389098	13.91104963	-0.028533211	14.29158369	-25.77057653	2886.027909	8-2	59.04
8	144.62	Strength 3 - Min	Combination Max	-4.909389098	17.77488963	-0.028533211	14.29158369	-25.20904294	2630.038824	8-2	78.72
8	164.3	Strength 3 - Min	Combination Max	-4.909389098	21.63872963	-0.028533211	14.29158369	-24.64750935	2295.943755	8-2	98.4
8	164.3	Strength 3 - Min	Combination Max	-2.209389098	195.3167296	-0.550233211	-8.798014034	-24.64750935	2223.043755	8-3	0
8	181.5333333	Strength 3 - Min	Combination Max	-2.209389098	198.7002074	-0.550233211	-8.798014034	-15.16515701	-1034.613392	8-3	17.23333333
8	198.7666667	Strength 3 - Min	Combination Max	-2.209389098	202.0836852	-0.550233211	-8.798014034	-5.682804672	-4340.480804	8-3	34.46666667
8	216	Strength 3 - Min	Combination Max	-2.209389098	205.467163	-0.550233211	-8.798014034	10.26904774	-7701.538444	8-3	51.7
8	0	Strength 3 - Min	Combination Min	-7.951425441	-186.1245579	0.493166789	19.37378597	5.044514082	-8569.449094	8-1	0
8	21.96666667	Strength 3 - Min	Combination Min	-7.951425441	-181.6946134	0.493166789	19.37378597	-15.64517941	-4529.56853	8-1	21.96666667
8	43.93333333	Strength 3 - Min	Combination Min	-7.951425441	-177.264669	0.493166789	19.37378597	-44.92418067	-586.9990779	8-1	43.93333333
8	65.9	Strength 3 - Min	Combination Min	-7.951425441	-172.8347245	0.493166789	19.37378597	-74.20318192	3243.679209	8-1	65.9
8	65.9	Strength 3 - Min	Combination Min	-5.251425441	-0.883224532	-0.077116787	5.287885966	-74.20318192	3170.779209	8-2	0
8	85.58	Strength 3 - Min	Combination Min	-5.251425441	3.085575468	-0.077116787	5.287885966	-72.68552356	3138.363517	8-2	19.68
8	105.26	Strength 3 - Min	Combination Min	-5.251425441	7.054375468	-0.077116787	5.287885966	-71.1678652	3033.97413	8-2	39.36
8	124.94	Strength 3 - Min	Combination Min	-5.251425441	10.7901388	-0.077116787	5.287885966	-69.65020684	2857.611046	8-2	59.04
8	144.62	Strength 3 - Min	Combination Min	-5.251425441	14.4473388	-0.077116787	5.287885966	-68.13254848	2566.892541	8-2	78.72
8	164.3	Strength 3 - Min	Combination Min	-5.251425441	18.1045388	-0.077116787	5.287885966	-66.61489012	2179.062527	8-2	98.4
8	164.3	Strength 3 - Min	Combination Min	-4.197431083	187.0260388	-1.487116787	-23.77841631	-66.61489012	2152.089527	8-3	0
8	181.5333333	Strength 3 - Min	Combination Min	-4.197431083	190.2285666	-1.487116787	-23.77841631	-40.98691083	-1243.02308	8-3	17.23333333
8	198.7666667	Strength 3 - Min	Combination Min	-4.197431083	193.4310944	-1.487116787	-23.77841631	-15.35893155	-4696.444288	8-3	34.46666667
8	216	Strength 3 - Min	Combination Min	-4.197431083	196.6336221	-1.487116787	-23.77841631	3.799547665	-8208.174096	8-3	51.7
8	0	Strength 5 - Max	Combination Max	-14.17032108	-328.8338462	15.50723596	609.1932326	158.620718	-15378.34709	8-1	0
8	21.96666667	Strength 5 - Max	Combination Max	-14.17032108	-322.8683585	15.50723596	609.1932326	-57.2429375	-8220.48454	8-1	21.96666667
8	43.93333333	Strength 5 - Max	Combination Max	-14.17032108	-316.9028708	15.50723596	609.1932326	-164.3696118	-1193.663871	8-1	43.93333333
8	65.9	Strength 5 - Max	Combination Max	-14.17032108	-310.9373832	15.50723596	609.1932326	-271.4962861	6296.581656	8-1	65.9
8	65.9	Strength 5 - Max	Combination Max	-8.272021077	0.273436828	-0.282156649	166.2733526	-271.4962861	5843.540556	8-2	0
8	85.58	Strength 5 - Max	Combination Max	-8.272021077	5.617934428	-0.282156649	166.2733526	-265.9434432	6025.462272	8-2	19.68
8	105.26	Strength 5 - Max	Combination Max	-8.272021077	10.96243203	-0.282156649	166.2733526	-260.3906004	6098.455188	8-2	39.36
8	124.94	Strength 5 - Max	Combination Max	-8.272021077	16.49255379	-0.282156649	166.2733526	-254.8377575	6062.866783	8-2	59.04
8	144.62	Strength 5 - Max	Combination Max	-8.272021077	22.02755379	-0.282156649	166.2733526	-249.2849147	5919.178175	8-2	78.72
8	164.3	Strength 5 - Max	Combination Max	-8.272021077	27.56255379	-0.282156649	166.2733526	-243.7320718	5666.716979	8-2	98.4
8	164.3	Strength 5 - Max	Combination Max	7.624686417	366.9148104	-5.441096649	-87.00100924	-243.7320718	5213.675879	8-3	0

8	181.5333333	Strength 5 - Max	Combination Max	7.624686417	371.7616854	-5.441096649	-87.00100924	-149.9638396	-1144.548268	8-3	17.23333333
8	198.7666667	Strength 5 - Max	Combination Max	7.624686417	376.6085604	-5.441096649	-87.00100924	-56.19560731	-7422.099732	8-3	34.46666667
8	216	Strength 5 - Max	Combination Max	7.624686417	381.4554354	-5.441096649	-87.00100924	119.4737429	-13275.10612	8-3	51.7
8	0	Strength 5 - Max	Combination Min	-26.09945917	-388.6475833	4.876783351	191.5817508	49.88373678	-18707.70571	8-1	0
8	21.96666667	Strength 5 - Max	Combination Min	-26.09945917	-382.4783182	4.876783351	191.5817508	-182.0215652	-10238.17289	8-1	21.96666667
8	43.93333333	Strength 5 - Max	Combination Min	-26.09945917	-376.3090531	4.876783351	191.5817508	-522.6638484	-1904.15826	8-1	43.93333333
8	65.9	Strength 5 - Max	Combination Min	-26.09945917	-370.139788	4.876783351	191.5817508	-863.3061317	5702.114919	8-1	65.9
8	65.9	Strength 5 - Max	Combination Min	-9.320159173	-12.04346801	-0.897204041	52.29037076	-863.3061317	5542.860819	8-2	0
8	85.58	Strength 5 - Max	Combination Min	-9.320159173	-6.516405605	-0.897204041	52.29037076	-845.6491561	5484.889726	8-2	19.68
8	105.26	Strength 5 - Max	Combination Min	-9.320159173	-0.989343205	-0.897204041	52.29037076	-827.9921806	5321.73892	8-2	39.36
8	124.94	Strength 5 - Max	Combination Min	-9.320159173	4.407886197	-0.897204041	52.29037076	-810.3352051	5053.408401	8-2	59.04
8	144.62	Strength 5 - Max	Combination Min	-9.320159173	9.752383797	-0.897204041	52.29037076	-792.6782295	4679.89817	8-2	78.72
8	164.3	Strength 5 - Max	Combination Min	-9.320159173	15.0968814	-0.897204041	52.29037076	-775.021254	4201.208225	8-2	98.4
8	164.3	Strength 5 - Max	Combination Min	-2.539266667	327.9327248	-17.30164404	-276.6465274	-775.021254	4041.954125	8-3	0
8	181.5333333	Strength 5 - Max	Combination Min	-2.539266667	332.6127812	-17.30164404	-276.6465274	-476.856255	-1659.307152	8-3	17.23333333
8	198.7666667	Strength 5 - Max	Combination Min	-2.539266667	337.2928375	-17.30164404	-276.6465274	-178.691256	-7639.157929	8-3	34.46666667
8	216	Strength 5 - Max	Combination Min	-2.539266667	341.9728938	-17.30164404	-276.6465274	37.57262494	-14134.55082	8-3	51.7
8	0	Strength 5 - Min	Combination Max	-11.74982109	-242.4081384	15.50723596	609.1932326	158.620718	-11479.69805	8-1	0
8	21.96666667	Strength 5 - Min	Combination Max	-11.74982109	-238.1725257	15.50723596	609.1932326	-57.2429375	-6201.320427	8-1	21.96666667
8	43.93333333	Strength 5 - Min	Combination Max	-11.74982109	-233.9369131	15.50723596	609.1932326	-164.3696118	-1015.985091	8-1	43.93333333
8	65.9	Strength 5 - Min	Combination Max	-11.74982109	-229.7013004	15.50723596	609.1932326	-271.4962861	4670.774691	8-1	65.9
8	65.9	Strength 5 - Min	Combination Max	-5.851521087	-2.233980407	-0.282156649	166.2733526	-271.4962861	4217.733591	8-2	0
8	85.58	Strength 5 - Min	Combination Max	-5.851521087	1.560717193	-0.282156649	166.2733526	-265.9434432	4464.25131	8-2	19.68
8	105.26	Strength 5 - Min	Combination Max	-5.851521087	5.355414793	-0.282156649	166.2733526	-260.3906004	4632.340294	8-2	39.36
8	124.94	Strength 5 - Min	Combination Max	-5.851521087	9.335736555	-0.282156649	166.2733526	-254.8377575	4722.34802	8-2	59.04
8	144.62	Strength 5 - Min	Combination Max	-5.851521087	13.32093656	-0.282156649	166.2733526	-249.2849147	4734.755607	8-2	78.72
8	164.3	Strength 5 - Min	Combination Max	-5.851521087	17.30613656	-0.282156649	166.2733526	-243.7320718	4668.89067	8-2	98.4
8	164.3	Strength 5 - Min	Combination Max	10.04518641	272.9148931	-5.441096649	-87.00100924	-243.7320718	4215.84957	8-3	0
8	181.5333333	Strength 5 - Min	Combination Max	10.04518641	276.4046431	-5.441096649	-87.00100924	-149.9638396	-510.7487758	8-3	17.23333333
8	198.7666667	Strength 5 - Min	Combination Max	10.04518641	279.8943931	-5.441096649	-87.00100924	-56.19560731	-5133.286652	8-3	34.46666667
8	216	Strength 5 - Min	Combination Max	10.04518641	283.3841431	-5.441096649	-87.00100924	119.4737429	-9307.891661	8-3	51.7
8	0	Strength 5 - Min	Combination Min	-23.67895918	-302.2218756	4.876783351	191.5817508	49.88373678	-14809.05667	8-1	0
8	21.96666667	Strength 5 - Min	Combination Min	-23.67895918	-297.7824855	4.876783351	191.5817508	-182.0215652	-8219.008776	8-1	21.96666667
8	43.93333333	Strength 5 - Min	Combination Min	-23.67895918	-293.3430954	4.876783351	191.5817508	-522.6638484	-1726.47948	8-1	43.93333333
8	65.9	Strength 5 - Min	Combination Min	-23.67895918	-288.9037052	4.876783351	191.5817508	-863.3061317	4076.307954	8-1	65.9
8	65.9	Strength 5 - Min	Combination Min	-6.899659183	-14.55088524	-0.897204041	52.29037076	-863.3061317	3917.053854	8-2	0
8	85.58	Strength 5 - Min	Combination Min	-6.899659183	-10.57362284	-0.897204041	52.29037076	-845.6491561	3923.678764	8-2	19.68
8	105.26	Strength 5 - Min	Combination Min	-6.899659183	-6.59636044	-0.897204041	52.29037076	-827.9921806	3855.624026	8-2	39.36
8	124.94	Strength 5 - Min	Combination Min	-6.899659183	-2.748931039	-0.897204041	52.29037076	-810.3352051	3712.889638	8-2	59.04
8	144.62	Strength 5 - Min	Combination Min	-6.899659183	1.045766561	-0.897204041	52.29037076	-792.6782295	3495.475602	8-2	78.72
8	164.3	Strength 5 - Min	Combination Min	-6.899659183	4.840464161	-0.897204041	52.29037076	-775.021254	3203.381917	8-2	98.4
8	164.3	Strength 5 - Min	Combination Min	-0.118766677	233.9328076	-17.30164404	-276.6465274	-775.021254	3044.127817	8-3	0

8	181.5333333	Strength 5 - Min	Combination Min	-0.118766677	237.2557389	-17.30164404	-276.6465274	-476.856255	-1025.50766	8-3	17.23333333
8	198.7666667	Strength 5 - Min	Combination Min	-0.118766677	240.5786703	-17.30164404	-276.6465274	-178.691256	-5350.344848	8-3	34.46666667
8	216	Strength 5 - Min	Combination Min	-0.118766677	243.9016016	-17.30164404	-276.6465274	37.57262494	-10167.33636	8-3	51.7
8	0	Service 1	Combination Max	-10.36047094	-254.2128381	11.19404479	439.7518905	114.5018639	-11833.53024	8-1	0
8	21.96666667	Service 1	Combination Max	-10.36047094	-249.4057992	11.19404479	439.7518905	-38.96537343	-6302.118877	8-1	21.96666667
8	43.93333333	Service 1	Combination Max	-10.36047094	-244.5987603	11.19404479	439.7518905	-111.8866988	-875.8469676	8-1	43.93333333
8	65.9	Service 1	Combination Max	-10.36047094	-239.7917214	11.19404479	439.7518905	-184.8080241	4883.572292	8-1	65.9
8	65.9	Service 1	Combination Max	-6.471470938	0.855878599	-0.192064553	120.0259905	-184.8080241	4560.949292	8-2	0
8	85.58	Service 1	Combination Max	-6.471470938	5.1625186	-0.192064553	120.0259905	-181.0281937	4678.624549	8-2	19.68
8	105.26	Service 1	Combination Max	-6.471470938	9.476672436	-0.192064553	120.0259905	-177.2483633	4709.156767	8-2	39.36
8	124.94	Service 1	Combination Max	-6.471470938	13.90467244	-0.192064553	120.0259905	-173.4685329	4652.811578	8-2	59.04
8	144.62	Service 1	Combination Max	-6.471470938	18.33267244	-0.192064553	120.0259905	-169.6887025	4509.956782	8-2	78.72
8	164.3	Service 1	Combination Max	-6.471470938	22.76067244	-0.192064553	120.0259905	-165.9088721	4280.078364	8-2	98.4
8	164.3	Service 1	Combination Max	4.823756835	284.2930662	-3.703764553	-59.22174791	-165.9088721	3957.455364	8-3	0
8	181.5333333	Service 1	Combination Max	4.823756835	288.1705662	-3.703764553	-59.22174791	-102.080663	-970.5360086	8-3	17.23333333
8	198.7666667	Service 1	Combination Max	4.823756835	292.0480662	-3.703764553	-59.22174791	-38.25245384	-5844.766496	8-3	34.46666667
8	216	Service 1	Combination Max	4.823756835	295.9255662	-3.703764553	-59.22174791	86.24325011	-10409.76703	8-3	51.7
8	0	Service 1	Combination Min	-19.20079661	-298.4026609	3.319635447	130.4100521	33.95595189	-14294.98151	8-1	0
8	21.96666667	Service 1	Combination Min	-19.20079661	-293.466934	3.319635447	130.4100521	-131.3939866	-7794.280459	8-1	21.96666667
8	43.93333333	Service 1	Combination Min	-19.20079661	-288.531207	3.319635447	130.4100521	-377.289837	-1402.000877	8-1	43.93333333
8	65.9	Service 1	Combination Min	-19.20079661	-283.5954801	3.319635447	130.4100521	-623.1856875	4443.919992	8-1	65.9
8	65.9	Service 1	Combination Min	-7.251796612	-8.217880079	-0.647655214	35.59415209	-623.1856875	4338.916992	8-2	0
8	85.58	Service 1	Combination Min	-7.251796612	-3.795948079	-0.647655214	35.59415209	-610.4398329	4279.695963	8-2	19.68
8	105.26	Service 1	Combination Min	-7.251796612	0.625983921	-0.647655214	35.59415209	-597.6939783	4135.72026	8-2	39.36
8	124.94	Service 1	Combination Min	-7.251796612	4.961692354	-0.647655214	35.59415209	-584.9481237	3906.989881	8-2	59.04
8	144.62	Service 1	Combination Min	-7.251796612	9.268332354	-0.647655214	35.59415209	-572.2022691	3593.504827	8-2	78.72
8	164.3	Service 1	Combination Min	-7.251796612	13.57497235	-0.647655214	35.59415209	-559.4564144	3195.265097	8-2	98.4
8	164.3	Service 1	Combination Min	-2.709024385	255.4655786	-12.48935521	-199.6999095	-559.4564144	3090.262097	8-3	0
8	181.5333333	Service 1	Combination Min	-2.709024385	259.2368064	-12.48935521	-199.6999095	-344.2231929	-1351.676898	8-3	17.23333333
8	198.7666667	Service 1	Combination Min	-2.709024385	263.0080342	-12.48935521	-199.6999095	-128.9899714	-6004.111763	8-3	34.46666667
8	216	Service 1	Combination Min	-2.709024385	266.7792619	-12.48935521	-199.6999095	25.57575529	-11043.37947	8-3	51.7
8	0	WServ1: 45deg	Combination	-0.971779362	0.335173344	0.493166789	19.37378597	5.044514082	-66.65333068	8-1	0
8	21.96666667	WServ1: 45deg	Combination	-0.971779362	0.253896677	0.493166789	19.37378597	-5.788716383	-73.12328308	8-1	21.96666667
8	43.93333333	WServ1: 45deg	Combination	-0.971779362	0.172620011	0.493166789	19.37378597	-16.62194685	-77.80785803	8-1	43.93333333
8	65.9	WServ1: 45deg	Combination	-0.971779362	0.091343344	0.493166789	19.37378597	-27.45517731	-80.70705554	8-1	65.9
8	65.9	WServ1: 45deg	Combination	0.027220638	-1.581056656	-0.02853321 1	5.287885966	-27.45517731	-107.6800555	8-2	0
8	85.58	WServ1: 45deg	Combination	0.027220638	-1.653872656	-0.02853321 1	5.287885966	-26.89364372	-75.8483511	8-2	19.68
8	105.26	WServ1: 45deg	Combination	0.027220638	-1.726688656	-0.02853321 1	5.287885966	-26.33211012	-42.58362779	8-2	39.36
8	124.94	WServ1: 45deg	Combination	0.027220638	-1.799504656	-0.02853321 1	5.287885966	-25.77057653	-7.885885598	8-2	59.04
8	144.62	WServ1: 45deg	Combination	0.027220638	-1.872320656	-0.02853321 1	5.287885966	-25.20904294	28.24487548	8-2	78.72
8	164.3	WServ1: 45deg	Combination	0.027220638	-1.945136656	-0.02853321 1	5.287885966	-24.64750935	65.80865543	8-2	98.4
8	164.3	WServ1: 45deg	Combination	1.026220638	-4.738636656	-0.55023321 1	-8.798014034	-24.64750935	38.83565543	8-3	0

8	181.5333333	WServ1: 45deg	Combination	1.026220638	-4.802399989	-0.55023321	-8.798014034	-15.16515701	121.0475879	8-3	17.23333333
8	198.7666667	WServ1: 45deg	Combination	1.026220638	-4.866163323	-0.55023321	-8.798014034	-5.682804672	204.3583751	8-3	34.46666667
8	216	WServ1: 45deg	Combination	1.026220638	-4.929926656	-0.55023321	-8.798014034	3.799547665	288.7680171	8-3	51.7
8	0	WServ1: 30deg	Combination	-0.989307202	0.131631429	0.493166789	19.37378597	5.044514082	-74.33223898	8-1	0
8	21.96666667	WServ1: 30deg	Combination	-0.989307202	0.090993095	0.493166789	19.37378597	-5.788716383	-76.77739833	8-1	21.96666667
8	43.93333333	WServ1: 30deg	Combination	-0.989307202	0.050354762	0.493166789	19.37378597	-16.62194685	-78.32986896	8-1	43.93333333
8	65.9	WServ1: 30deg	Combination	-0.989307202	0.009716429	0.493166789	19.37378597	-27.45517731	-78.98965087	8-1	65.9
8	65.9	WServ1: 30deg	Combination	0.009692798	-1.662683571	-0.02853321	5.287885966	-27.45517731	-105.9626509	8-2	0
8	85.58	WServ1: 30deg	Combination	0.009692798	-1.699091571	-0.02853321	5.287885966	-26.89364372	-72.88278347	8-2	19.68
8	105.26	WServ1: 30deg	Combination	0.009692798	-1.735499571	-0.02853321	5.287885966	-26.33211012	-39.08640662	8-2	39.36
8	124.94	WServ1: 30deg	Combination	0.009692798	-1.771907571	-0.02853321	5.287885966	-25.77057653	-4.573520339	8-2	59.04
8	144.62	WServ1: 30deg	Combination	0.009692798	-1.808315571	-0.02853321	5.287885966	-25.20904294	30.65587538	8-2	78.72
8	164.3	WServ1: 30deg	Combination	0.009692798	-1.844723571	-0.02853321	5.287885966	-24.64750935	66.60178055	8-2	98.4
8	164.3	WServ1: 30deg	Combination	1.008692798	-4.638223571	-0.55023321	-8.798014034	-24.64750935	39.62878055	8-3	0
8	181.5333333	WServ1: 30deg	Combination	1.008692798	-4.670105238	-0.55023321	-8.798014034	-15.16515701	119.8355471	8-3	17.23333333
8	198.7666667	WServ1: 30deg	Combination	1.008692798	-4.701986905	-0.55023321	-8.798014034	-5.682804672	200.5917411	8-3	34.46666667
8	216	WServ1: 30deg	Combination	1.008692798	-4.733868571	-0.55023321	-8.798014034	3.799547665	281.8973624	8-3	51.7
8	0	WServ1: 15deg	Combination	-0.996367662	-0.035769152	0.493166789	19.37378597	5.044514082	-80.50190912	8-1	0
8	21.96666667	WServ1: 15deg	Combination	-0.996367662	-0.042542208	0.493166789	19.37378597	-5.788716383	-79.64178936	8-1	21.96666667
8	43.93333333	WServ1: 15deg	Combination	-0.996367662	-0.049315263	0.493166789	19.37378597	-16.62194685	-78.63288814	8-1	43.93333333
8	65.9	WServ1: 15deg	Combination	-0.996367662	-0.056088319	0.493166789	19.37378597	-27.45517731	-77.47520547	8-1	65.9
8	65.9	WServ1: 15deg	Combination	0.002632338	-1.728488319	-0.02853321	5.287885966	-27.45517731	-104.4482055	8-2	0
8	85.58	WServ1: 15deg	Combination	0.002632338	-1.734556319	-0.02853321	5.287885966	-26.89364372	-70.37184623	8-2	19.68
8	105.26	WServ1: 15deg	Combination	0.002632338	-1.740624319	-0.02853321	5.287885966	-26.33211012	-36.17606876	8-2	39.36
8	124.94	WServ1: 15deg	Combination	0.002632338	-1.746692319	-0.02853321	5.287885966	-25.77057653	-1.860873052	8-2	59.04
8	144.62	WServ1: 15deg	Combination	0.002632338	-1.752760319	-0.02853321	5.287885966	-25.20904294	32.5737409	8-2	78.72
8	164.3	WServ1: 15deg	Combination	0.002632338	-1.758828319	-0.02853321	5.287885966	-24.64750935	67.12777309	8-2	98.4
8	164.3	WServ1: 15deg	Combination	1.001632338	-4.552328319	-0.55023321	-8.798014034	-24.64750935	40.15477309	8-3	0
8	181.5333333	WServ1: 15deg	Combination	1.001632338	-4.55764193	-0.55023321	-8.798014034	-15.16515701	118.6523501	8-3	17.23333333
8	198.7666667	WServ1: 15deg	Combination	1.001632338	-4.562955541	-0.55023321	-8.798014034	-5.682804672	197.2414983	8-3	34.46666667
8	216	WServ1: 15deg	Combination	1.001632338	-4.568269152	-0.55023321	-8.798014034	3.799547665	275.9222177	8-3	51.7
8	0	WServ1: 0deg	Combination	-0.983861751	0.199362014	0.493166789	19.37378597	5.044514082	-71.78467762	8-1	0
8	21.96666667	WServ1: 0deg	Combination	-0.983861751	0.145177569	0.493166789	19.37378597	-5.788716383	-75.5688707	8-1	21.96666667
8	43.93333333	WServ1: 0deg	Combination	-0.983861751	0.090993125	0.493166789	19.37378597	-16.62194685	-78.16281216	8-1	43.93333333
8	65.9	WServ1: 0deg	Combination	-0.983861751	0.03680868	0.493166789	19.37378597	-27.45517731	-79.56650198	8-1	65.9
8	65.9	WServ1: 0deg	Combination	0.015138249	-1.63559132	-0.02853321	5.287885966	-27.45517731	-106.539502	8-2	0
8	85.58	WServ1: 0deg	Combination	0.015138249	-1.68413532	-0.02853321	5.287885966	-26.89364372	-73.87339185	8-2	19.68
8	105.26	WServ1: 0deg	Combination	0.015138249	-1.73267932	-0.02853321	5.287885966	-26.33211012	-40.2519358	8-2	39.36
8	124.94	WServ1: 0deg	Combination	0.015138249	-1.78122332	-0.02853321	5.287885966	-25.77057653	-5.675133824	8-2	59.04
8	144.62	WServ1: 0deg	Combination	0.015138249	-1.82976732	-0.02853321	5.287885966	-25.20904294	29.85701407	8-2	78.72
8	164.3	WServ1: 0deg	Combination	0.015138249	-1.87831132	-0.02853321	5.287885966	-24.64750935	66.34450788	8-2	98.4
8	164.3	WServ1: 0deg	Combination	1.014138249	-4.67181132	-0.55023321	-8.798014034	-24.64750935	39.37150788	8-3	0

8	181.5333333	WServ1: 0deg	Combination	1.014138249	-4.714320209	-0.55023321	-8.798014034	-15.16515701	120.2486746	8-3	17.23333333
8	198.7666667	WServ1: 0deg	Combination	1.014138249	-4.756829098	-0.55023321	-8.798014034	-5.682804672	201.8584111	8-3	34.46666667
8	216	WServ1: 0deg	Combination	1.014138249	-4.799337986	-0.55023321	-8.798014034	3.799547665	284.2007174	8-3	51.7
8	0	WServ1: -15deg	Combination	-0.963950939	0.403604249	0.493166789	19.37378597	5.044514082	-64.03332087	8-1	0
8	21.96666667	WServ1: -15deg	Combination	-0.963950939	0.308781472	0.493166789	19.37378597	-5.788716383	-71.85769071	8-1	21.96666667
8	43.93333333	WServ1: -15deg	Combination	-0.963950939	0.213958694	0.493166789	19.37378597	-16.62194685	-77.59912019	8-1	43.93333333
8	65.9	WServ1: -15deg	Combination	-0.963950939	0.119135916	0.493166789	19.37378597	-27.45517731	-81.25760932	8-1	65.9
8	65.9	WServ1: -15deg	Combination	0.035049061	-1.553264084	-0.02853321	5.287885966	-27.45517731	-108.2306093	8-2	0
8	85.58	WServ1: -15deg	Combination	0.035049061	-1.638216084	-0.02853321	5.287885966	-26.89364372	-76.82644447	8-2	19.68
8	105.26	WServ1: -15deg	Combination	0.035049061	-1.723168084	-0.02853321	5.287885966	-26.33211012	-43.75042426	8-2	39.36
8	124.94	WServ1: -15deg	Combination	0.035049061	-1.808120084	-0.02853321	5.287885966	-25.77057653	-9.002548692	8-2	59.04
8	144.62	WServ1: -15deg	Combination	0.035049061	-1.893072084	-0.02853321	5.287885966	-25.20904294	27.41718224	8-2	78.72
8	164.3	WServ1: -15deg	Combination	0.035049061	-1.978024084	-0.02853321	5.287885966	-24.64750935	65.50876853	8-2	98.4
8	164.3	WServ1: -15deg	Combination	1.034049061	-4.771524084	-0.55023321	-8.798014034	-24.64750935	38.53576853	8-3	0
8	181.5333333	WServ1: -15deg	Combination	1.034049061	-4.845914639	-0.55023321	-8.798014034	-15.16515701	121.4060322	8-3	17.23333333
8	198.7666667	WServ1: -15deg	Combination	1.034049061	-4.920305195	-0.55023321	-8.798014034	-5.682804672	205.5582931	8-3	34.46666667
8	216	WServ1: -15deg	Combination	1.034049061	-4.994695751	-0.55023321	-8.798014034	3.799547665	290.9925513	8-3	51.7
8	0	WServ1: -30deg	Combination	-0.936891214	0.609947447	0.493166789	19.37378597	5.044514082	-56.06461877	8-1	0
8	21.96666667	WServ1: -30deg	Combination	-0.936891214	0.474486336	0.493166789	19.37378597	-5.788716383	-67.97531649	8-1	21.96666667
8	43.93333333	WServ1: -30deg	Combination	-0.936891214	0.339025225	0.493166789	19.37378597	-16.62194685	-76.91038513	8-1	43.93333333
8	65.9	WServ1: -30deg	Combination	-0.936891214	0.203564114	0.493166789	19.37378597	-27.45517731	-82.8698247	8-1	65.9
8	65.9	WServ1: -30deg	Combination	0.062108786	-1.468835886	-0.02853321	5.287885966	-27.45517731	-109.8428247	8-2	0
8	85.58	WServ1: -30deg	Combination	0.062108786	-1.590195886	-0.02853321	5.287885966	-26.89364372	-79.74195206	8-2	19.68
8	105.26	WServ1: -30deg	Combination	0.062108786	-1.711555886	-0.02853321	5.287885966	-26.33211012	-47.25271462	8-2	39.36
8	124.94	WServ1: -30deg	Combination	0.062108786	-1.832915886	-0.02853321	5.287885966	-25.77057653	-12.37511239	8-2	59.04
8	144.62	WServ1: -30deg	Combination	0.062108786	-1.954275886	-0.02853321	5.287885966	-25.20904294	24.89085465	8-2	78.72
8	164.3	WServ1: -30deg	Combination	0.062108786	-2.075635886	-0.02853321	5.287885966	-24.64750935	64.54518649	8-2	98.4
8	164.3	WServ1: -30deg	Combination	1.061108786	-4.869135886	-0.55023321	-8.798014034	-24.64750935	37.57218649	8-3	0
8	181.5333333	WServ1: -30deg	Combination	1.061108786	-4.975408108	-0.55023321	-8.798014034	-15.16515701	122.3993406	8-3	17.23333333
8	198.7666667	WServ1: -30deg	Combination	1.061108786	-5.081680331	-0.55023321	-8.798014034	-5.682804672	209.0579193	8-3	34.46666667
8	216	WServ1: -30deg	Combination	1.061108786	-5.187952553	-0.55023321	-8.798014034	3.799547665	297.5479226	8-3	51.7
8	0	WServ1 + WA	Combination	-0.869814215	-0.03164205	0.493166789	19.37378597	5.044514082	-77.84536127	8-1	0
8	21.96666667	WServ1 + WA	Combination	-0.869814215	-0.03164205	0.493166789	19.37378597	-5.788716383	-77.15029091	8-1	21.96666667
8	43.93333333	WServ1 + WA	Combination	-0.869814215	-0.03164205	0.493166789	19.37378597	-16.62194685	-76.45522056	8-1	43.93333333
8	65.9	WServ1 + WA	Combination	-0.869814215	-0.03164205	0.493166789	19.37378597	-27.45517731	-75.7601502	8-1	65.9
8	65.9	WServ1 + WA	Combination	0.129185785	-1.70404205	-0.02853321	5.287885966	-27.45517731	-102.7331502	8-2	0
8	85.58	WServ1 + WA	Combination	0.129185785	-1.70404205	-0.02853321	5.287885966	-26.89364372	-69.19760267	8-2	19.68
8	105.26	WServ1 + WA	Combination	0.129185785	-1.70404205	-0.02853321	5.287885966	-26.33211012	-35.66205513	8-2	39.36
8	124.94	WServ1 + WA	Combination	0.129185785	-1.70404205	-0.02853321	5.287885966	-25.77057653	-2.126507597	8-2	59.04
8	144.62	WServ1 + WA	Combination	0.129185785	-1.70404205	-0.02853321	5.287885966	-25.20904294	31.40903994	8-2	78.72
8	164.3	WServ1 + WA	Combination	0.129185785	-1.70404205	-0.02853321	5.287885966	-24.64750935	64.94458747	8-2	98.4
8	164.3	WServ1 + WA	Combination	1.128185785	-4.49754205	-0.55023321	-8.798014034	-24.64750935	37.97158747	8-3	0

8	181.5333333	WServ1 + WA	Combination		1.128185785	-4.49754205	-0.55023321	-8.798014034	-15.16515701	115.4792288	8-3	17.23333333
8	198.7666667	WServ1 + WA	Combination		1.128185785	-4.49754205	-0.55023321	-8.798014034	-5.682804672	192.9868701	8-3	34.46666667
8	216	WServ1 + WA	Combination		1.128185785	-4.49754205	-0.55023321	-8.798014034	3.799547665	270.4945114	8-3	51.7
8	0	WServ1 & WA envelope	Combination	Max	-0.869814215	0.609947447	0.493166789	19.37378597	5.044514082	-56.06461877	8-1	0
8	21.96666667	WServ1 & WA envelope	Combination	Max	-0.869814215	0.474486336	0.493166789	19.37378597	-5.788716383	-67.97531649	8-1	21.96666667
8	43.93333333	WServ1 & WA envelope	Combination	Max	-0.869814215	0.339025225	0.493166789	19.37378597	-16.62194685	-76.45522056	8-1	43.93333333
8	65.9	WServ1 & WA envelope	Combination	Max	-0.869814215	0.203564114	0.493166789	19.37378597	-27.45517731	-75.7601502	8-1	65.9
8	65.9	WServ1 & WA envelope	Combination	Max	0.129185785	-1.468835886	-0.02853321	5.287885966	-27.45517731	-102.7331502	8-2	0
8	85.58	WServ1 & WA envelope	Combination	Max	0.129185785	-1.590195886	-0.02853321	5.287885966	-26.89364372	-69.19760267	8-2	19.68
8	105.26	WServ1 & WA envelope	Combination	Max	0.129185785	-1.70404205	-0.02853321	5.287885966	-26.33211012	-35.66205513	8-2	39.36
8	124.94	WServ1 & WA envelope	Combination	Max	0.129185785	-1.70404205	-0.02853321	5.287885966	-25.77057653	-1.860873052	8-2	59.04
8	144.62	WServ1 & WA envelope	Combination	Max	0.129185785	-1.70404205	-0.02853321	5.287885966	-25.20904294	32.5737409	8-2	78.72
8	164.3	WServ1 & WA envelope	Combination	Max	0.129185785	-1.70404205	-0.02853321	5.287885966	-24.64750935	67.12777309	8-2	98.4
8	164.3	WServ1 & WA envelope	Combination	Max	1.128185785	-4.49754205	-0.55023321	-8.798014034	-24.64750935	40.15477309	8-3	0
8	181.5333333	WServ1 & WA envelope	Combination	Max	1.128185785	-4.49754205	-0.55023321	-8.798014034	-15.16515701	122.3993406	8-3	17.23333333
8	198.7666667	WServ1 & WA envelope	Combination	Max	1.128185785	-4.49754205	-0.55023321	-8.798014034	-5.682804672	209.0579193	8-3	34.46666667
8	216	WServ1 & WA envelope	Combination	Max	1.128185785	-4.49754205	-0.55023321	-8.798014034	3.799547665	297.5479226	8-3	51.7
8	0	WServ1 & WA envelope	Combination	Min	-0.996367662	-0.035769152	0.493166789	19.37378597	5.044514082	-80.50190912	8-1	0
8	21.96666667	WServ1 & WA envelope	Combination	Min	-0.996367662	-0.042542208	0.493166789	19.37378597	-5.788716383	-79.64178936	8-1	21.96666667
8	43.93333333	WServ1 & WA envelope	Combination	Min	-0.996367662	-0.049315263	0.493166789	19.37378597	-16.62194685	-78.63288814	8-1	43.93333333
8	65.9	WServ1 & WA envelope	Combination	Min	-0.996367662	-0.056088319	0.493166789	19.37378597	-27.45517731	-82.8698247	8-1	65.9
8	65.9	WServ1 & WA envelope	Combination	Min	0.002632338	-1.728488319	-0.02853321	5.287885966	-27.45517731	-109.8428247	8-2	0
8	85.58	WServ1 & WA envelope	Combination	Min	0.002632338	-1.734556319	-0.02853321	5.287885966	-26.89364372	-79.74195206	8-2	19.68
8	105.26	WServ1 & WA envelope	Combination	Min	0.002632338	-1.740624319	-0.02853321	5.287885966	-26.33211012	-47.25271462	8-2	39.36
8	124.94	WServ1 & WA envelope	Combination	Min	0.002632338	-1.832915886	-0.02853321	5.287885966	-25.77057653	-12.37511239	8-2	59.04
8	144.62	WServ1 & WA envelope	Combination	Min	0.002632338	-1.954275886	-0.02853321	5.287885966	-25.20904294	24.89085465	8-2	78.72
8	164.3	WServ1 & WA envelope	Combination	Min	0.002632338	-2.075635886	-0.02853321	5.287885966	-24.64750935	64.54518649	8-2	98.4
8	164.3	WServ1 & WA envelope	Combination	Min	1.001632338	-4.869135886	-0.55023321	-8.798014034	-24.64750935	37.57218649	8-3	0
8	181.5333333	WServ1 & WA envelope	Combination	Min	1.001632338	-4.975408108	-0.55023321	-8.798014034	-15.16515701	115.4792288	8-3	17.23333333
8	198.7666667	WServ1 & WA envelope	Combination	Min	1.001632338	-5.081680331	-0.55023321	-8.798014034	-5.682804672	192.9868701	8-3	34.46666667
8	216	WServ1 & WA envelope	Combination	Min	1.001632338	-5.187952553	-0.55023321	-8.798014034	3.799547665	270.4945114	8-3	51.7
8	0	Strength Envelope	Combination	Max	-6.195431083	-184.3793779	18.7265365	735.6616829	191.5503622	-8407.940986	8-1	0
8	21.96666667	Strength Envelope	Combination	Max	-6.195431083	-180.297239	18.7265365	735.6616829	-5.788716383	-4382.295767	8-1	21.96666667
8	43.93333333	Strength Envelope	Combination	Max	-6.195431083	-176.2151001	18.7265365	735.6616829	-16.62194685	-451.3881437	8-1	43.93333333
8	65.9	Strength Envelope	Combination	Max	-6.195431083	-172.1329612	18.7265365	735.6616829	-27.45517731	6803.944787	8-1	65.9
8	65.9	Strength Envelope	Combination	Max	-4.909389098	4.826946867	-0.02853321	200.7916829	-27.45517731	6286.557287	8-2	0
8	85.58	Strength Envelope	Combination	Max	-4.909389098	10.24058687	-0.02853321	200.7916829	-26.89364372	6493.220519	8-2	19.68
8	105.26	Strength Envelope	Combination	Max	-4.909389098	15.65422687	-0.02853321	200.7916829	-26.33211012	6590.954952	8-2	39.36
8	124.94	Strength Envelope	Combination	Max	-4.909389098	21.06786687	-0.02853321	200.7916829	-25.77057653	6579.760584	8-2	59.04
8	144.62	Strength Envelope	Combination	Max	-4.909389098	26.48150687	-0.02853321	200.7916829	-25.20904294	6459.637416	8-2	78.72
8	164.3	Strength Envelope	Combination	Max	-4.909389098	31.89514687	-0.02853321	200.7916829	-24.64750935	6230.585448	8-2	98.4
8	164.3	Strength Envelope	Combination	Max	11.73929762	397.1738195	-0.55023321	-8.798014034	-24.64750935	5713.197948	8-3	0

8	181.5333333	Strength Envelope	Combination Max	11.73929762	402.0206945	-0.55023321	-8.798014034	-15.16515701	-510.7487758	8-3	17.23333333
8	198.7666667	Strength Envelope	Combination Max	11.73929762	406.8675695	-0.55023321	-8.798014034	-5.682804672	-4340.480804	8-3	34.46666667
8	216	Strength Envelope	Combination Max	11.73929762	411.7144445	-0.55023321	-8.798014034	144.2764793	-7701.538444	8-3	51.7
8	0	Strength Envelope	Combination Min	-29.00620237	-421.4130555	0.493166789	19.37378597	5.044514082	-20356.46791	8-1	0
8	21.96666667	Strength Envelope	Combination Min	-29.00620237	-415.2349305	0.493166789	19.37378597	-219.8092228	-11167.2842	8-1	21.96666667
8	43.93333333	Strength Envelope	Combination Min	-29.00620237	-409.0568055	0.493166789	19.37378597	-631.1688078	-2113.8133	8-1	43.93333333
8	65.9	Strength Envelope	Combination Min	-29.00620237	-402.8786805	0.493166789	19.37378597	-1042.528393	3243.679209	8-1	65.9
8	65.9	Strength Envelope	Combination Min	-9.843702372	-15.77609773	-1.083463505	5.287885966	-1042.528393	3170.779209	8-2	0
8	85.58	Strength Envelope	Combination Min	-9.843702372	-11.79089773	-1.083463505	5.287885966	-1021.205831	3138.363517	8-2	19.68
8	105.26	Strength Envelope	Combination Min	-9.843702372	-7.805697725	-1.083463505	5.287885966	-999.8832693	3033.97413	8-2	39.36
8	124.94	Strength Envelope	Combination Min	-9.843702372	-3.820497725	-1.083463505	5.287885966	-978.5607075	2857.611046	8-2	59.04
8	144.62	Strength Envelope	Combination Min	-9.843702372	0.164702275	-1.083463505	5.287885966	-957.2381457	2566.892541	8-2	78.72
8	164.3	Strength Envelope	Combination Min	-9.843702372	4.149902275	-1.083463505	5.287885966	-935.9155839	2179.062527	8-2	98.4
8	164.3	Strength Envelope	Combination Min	-6.617931072	187.0260388	-20.8934635	-334.0783171	-935.9155839	2152.089527	8-3	0
8	181.5333333	Strength Envelope	Combination Min	-6.617931072	190.2285666	-20.8934635	-334.0783171	-575.8515629	-1876.822572	8-3	17.23333333
8	198.7666667	Strength Envelope	Combination Min	-6.617931072	193.4310944	-20.8934635	-334.0783171	-215.7875418	-8190.549237	8-3	34.46666667
8	216	Strength Envelope	Combination Min	-6.617931072	196.6336221	-20.8934635	-334.0783171	3.799547665	-15196.56368	8-3	51.7
9	0	DEAD	LinStatic	-0.671583676	-24.3	0	0	0	-881.5518404	9-1	0
9	23.4	DEAD	LinStatic	-0.671583676	-19.035	0	0	0	-374.5323404	9-1	23.4
9	46.8	DEAD	LinStatic	-0.671583676	-13.77	0	0	0	9.286159648	9-1	46.8
9	46.8	DEAD	LinStatic	-0.671583676	-13.77	0	0	0	9.286159648	9-2	0
9	66.5	DEAD	LinStatic	-0.671583676	-9.3375	0	0	0	236.8950347	9-2	19.7
9	86.2	DEAD	LinStatic	-0.671583676	-4.905	0	0	0	377.1836597	9-2	39.4
9	105.9	DEAD	LinStatic	-0.671583676	-0.4725	0	0	0	430.1520347	9-2	59.1
9	125.6	DEAD	LinStatic	-0.671583676	3.96	0	0	0	395.8001597	9-2	78.8
9	145.3	DEAD	LinStatic	-0.671583676	8.3925	0	0	0	274.1280347	9-2	98.5
9	145.3	DEAD	LinStatic	-0.671583676	8.3925	0	0	0	274.1280347	9-3	0
9	168.8666667	DEAD	LinStatic	-0.671583676	13.695	0	0	0	13.86365965	9-3	23.56666667
9	192.4333333	DEAD	LinStatic	-0.671583676	18.9975	0	0	0	-371.3629654	9-3	47.13333333
9	216	DEAD	LinStatic	-0.671583676	24.3	0	0	0	-881.5518404	9-3	70.7
9	0	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.194507016	9-1	0
9	23.4	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.19541233	9-1	23.4
9	46.8	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.196317644	9-1	46.8
9	46.8	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.196317644	9-2	0
9	66.5	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.19707981	9-2	19.7
9	86.2	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.197841976	9-2	39.4
9	105.9	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.198604142	9-2	59.1
9	125.6	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.199366308	9-2	78.8
9	145.3	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.200128473	9-2	98.5
9	145.3	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.200128473	9-3	0
9	168.8666667	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.201040235	9-3	23.56666667
9	192.4333333	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.201951997	9-3	47.13333333

9	216	R01_Z	LinStatic	-0.009529655	3.86886E-05	0	0	0	-0.202863759	9-3	70.7
9	0	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.066472597	9-1	0
9	23.4	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.074775229	9-1	23.4
9	46.8	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.083077861	9-1	46.8
9	46.8	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.083077861	9-2	0
9	66.5	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.090067684	9-2	19.7
9	86.2	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.097057507	9-2	39.4
9	105.9	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.10404733	9-2	59.1
9	125.6	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.111037153	9-2	78.8
9	145.3	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.118026976	9-2	98.5
9	145.3	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.118026976	9-3	0
9	168.8666667	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.126388744	9-3	23.56666667
9	192.4333333	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.134750511	9-3	47.13333333
9	216	R02_Z	LinStatic	0.004918528	0.000354813	0	0	0	-0.143112279	9-3	70.7
9	0	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	2.670541665	9-1	0
9	23.4	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	2.338107394	9-1	23.4
9	46.8	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	2.005673123	9-1	46.8
9	46.8	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	2.005673123	9-2	0
9	66.5	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	1.725803246	9-2	19.7
9	86.2	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	1.445933368	9-2	39.4
9	105.9	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	1.166063491	9-2	59.1
9	125.6	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	0.886193613	9-2	78.8
9	145.3	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	0.606323736	9-2	98.5
9	145.3	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	0.606323736	9-3	0
9	168.8666667	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	0.2715217	9-3	23.56666667
9	192.4333333	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	-0.063280337	9-3	47.13333333
9	216	R03_Z	LinStatic	0.000519393	0.014206593	0	0	0	-0.398082373	9-3	70.7
9	0	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	10.26869078	9-1	0
9	23.4	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	9.128783721	9-1	23.4
9	46.8	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	7.988876665	9-1	46.8
9	46.8	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	7.988876665	9-2	0
9	66.5	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	7.029211324	9-2	19.7
9	86.2	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	6.069545983	9-2	39.4
9	105.9	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	5.109880641	9-2	59.1
9	125.6	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	4.1502153	9-2	78.8
9	145.3	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	3.190549959	9-2	98.5
9	145.3	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	3.190549959	9-3	0
9	168.8666667	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	2.042523908	9-3	23.56666667
9	192.4333333	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	0.894497856	9-3	47.13333333
9	216	R04_Z	LinStatic	0.001752682	0.048713977	0	0	0	-0.253528195	9-3	70.7
9	0	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	6.877375511	9-1	0
9	23.4	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	6.358243034	9-1	23.4

9	46.8	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	5.839110557	9-1	46.8
9	46.8	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	5.839110557	9-2	0
9	66.5	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	5.40206313	9-2	19.7
9	86.2	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	4.965015703	9-2	39.4
9	105.9	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	4.527968276	9-2	59.1
9	125.6	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	4.090920849	9-2	78.8
9	145.3	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	3.653873422	9-2	98.5
9	145.3	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	3.653873422	9-3	0
9	168.8666667	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	3.131043421	9-3	23.56666667
9	192.4333333	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	2.608213419	9-3	47.13333333
9	216	R05_Z	LinStatic	-0.001105237	0.022185149	0	0	0	2.085383418	9-3	70.7
9	0	R06_Z	LinStatic	0.012124015	0.771389161	0	0	0	8.316589812	9-1	0
9	23.4	R06_Z	LinStatic	0.012124015	0.771389161	0	0	0	-9.733916563	9-1	23.4
9	46.8	R06_Z	LinStatic	0.012124015	0.771389161	0	0	0	-27.78442294	9-1	46.8
9	46.8	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-27.78442294	9-2	0
9	66.5	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-23.28078942	9-2	19.7
9	86.2	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-18.7771559	9-2	39.4
9	105.9	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-14.27352238	9-2	59.1
9	125.6	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-9.769888854	9-2	78.8
9	145.3	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-5.266255333	9-2	98.5
9	145.3	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	-5.266255333	9-3	0
9	168.8666667	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	0.121340097	9-3	23.56666667
9	192.4333333	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	5.508935528	9-3	47.13333333
9	216	R06_Z	LinStatic	0.012124015	-0.228610839	0	0	0	10.89653096	9-3	70.7
9	0	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	13.28331888	9-1	0
9	23.4	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	5.563948547	9-1	23.4
9	46.8	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-2.155421786	9-1	46.8
9	46.8	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-2.155421786	9-2	0
9	66.5	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-8.654207921	9-2	19.7
9	86.2	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-15.15299406	9-2	39.4
9	105.9	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-21.65178019	9-2	59.1
9	125.6	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-28.15056633	9-2	78.8
9	145.3	R07_Z	LinStatic	0.014442423	0.329887621	0	0	0	-34.64935246	9-2	98.5
9	145.3	R07_Z	LinStatic	0.014442423	-0.670112379	0	0	0	-34.64935246	9-3	0
9	168.8666667	R07_Z	LinStatic	0.014442423	-0.670112379	0	0	0	-18.8570374	9-3	23.56666667
9	192.4333333	R07_Z	LinStatic	0.014442423	-0.670112379	0	0	0	-3.064722335	9-3	47.13333333
9	216	R07_Z	LinStatic	0.014442423	-0.670112379	0	0	0	12.72759273	9-3	70.7
9	0	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	3.375825849	9-1	0
9	23.4	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	3.138726923	9-1	23.4
9	46.8	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	2.901627997	9-1	46.8
9	46.8	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	2.901627997	9-2	0
9	66.5	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	2.702019072	9-2	19.7

9	86.2	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	2.502410147	9-2	39.4
9	105.9	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	2.302801222	9-2	59.1
9	125.6	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	2.103192297	9-2	78.8
9	145.3	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	1.903583372	9-2	98.5
9	145.3	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	1.903583372	9-3	0
9	168.8666667	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	1.664795707	9-3	23.56666667
9	192.4333333	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	1.426008042	9-3	47.13333333
9	216	R08_Z	LinStatic	0.000374957	0.010132433	0	0	0	1.187220378	9-3	70.7
9	0	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	-0.029056807	9-1	0
9	23.4	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	1.226053357	9-1	23.4
9	46.8	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	2.481163521	9-1	46.8
9	46.8	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	2.481163521	9-2	0
9	66.5	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	3.537816095	9-2	19.7
9	86.2	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	4.594468668	9-2	39.4
9	105.9	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	5.651121242	9-2	59.1
9	125.6	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	6.707773816	9-2	78.8
9	145.3	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	7.76442639	9-2	98.5
9	145.3	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	7.76442639	9-3	0
9	168.8666667	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	9.028476085	9-3	23.56666667
9	192.4333333	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	10.29252578	9-3	47.13333333
9	216	R09_Z	LinStatic	0.000648492	-0.053637186	0	0	0	11.55657547	9-3	70.7
9	0	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	-0.397272136	9-1	0
9	23.4	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	0.06311547	9-1	23.4
9	46.8	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	0.523503075	9-1	46.8
9	46.8	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	0.523503075	9-2	0
9	66.5	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	0.911094349	9-2	19.7
9	86.2	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	1.298685624	9-2	39.4
9	105.9	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	1.686276898	9-2	59.1
9	125.6	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	2.073868173	9-2	78.8
9	145.3	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	2.461459447	9-2	98.5
9	145.3	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	2.461459447	9-3	0
9	168.8666667	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	2.925126167	9-3	23.56666667
9	192.4333333	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	3.388792886	9-3	47.13333333
9	216	R10_Z	LinStatic	0.000785812	-0.019674684	0	0	0	3.852459605	9-3	70.7
9	0	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	-0.207352102	9-1	0
9	23.4	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	-0.157012058	9-1	23.4
9	46.8	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	-0.106672015	9-1	46.8
9	46.8	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	-0.106672015	9-2	0
9	66.5	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	-0.064291722	9-2	19.7
9	86.2	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	-0.021911428	9-2	39.4
9	105.9	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.020468865	9-2	59.1
9	125.6	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.062849158	9-2	78.8

9	145.3	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.105229451	9-2	98.5
9	145.3	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.105229451	9-3	0
9	168.8666667	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.155928042	9-3	23.56666667
9	192.4333333	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.206626633	9-3	47.13333333
9	216	R11_Z	LinStatic	0.004265145	-0.002151284	0	0	0	0.257325224	9-3	70.7
9	0	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.11484392	9-1	0
9	23.4	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.133620821	9-1	23.4
9	46.8	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.152397721	9-1	46.8
9	46.8	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.152397721	9-2	0
9	66.5	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.168205625	9-2	19.7
9	86.2	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.184013528	9-2	39.4
9	105.9	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.199821432	9-2	59.1
9	125.6	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.215629335	9-2	78.8
9	145.3	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.231437239	9-2	98.5
9	145.3	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.231437239	9-3	0
9	168.8666667	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.250347878	9-3	23.56666667
9	192.4333333	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.269258517	9-3	47.13333333
9	216	R12_Z	LinStatic	-0.002988321	0.000802432	0	0	0	-0.288169157	9-3	70.7
9	0	R_X	LinStatic	1.001808029	1.458673612	0	0	0	127.3091187	9-1	0
9	23.4	R_X	LinStatic	1.001808029	1.458673612	0	0	0	93.17615622	9-1	23.4
9	46.8	R_X	LinStatic	1.001808029	1.458673612	0	0	0	59.0431937	9-1	46.8
9	46.8	R_X	LinStatic	0.001808029	1.458673612	0	0	0	86.0431937	9-2	0
9	66.5	R_X	LinStatic	0.001808029	1.458673612	0	0	0	57.30732354	9-2	19.7
9	86.2	R_X	LinStatic	0.001808029	1.458673612	0	0	0	28.57145338	9-2	39.4
9	105.9	R_X	LinStatic	0.001808029	1.458673612	0	0	0	-0.164416782	9-2	59.1
9	125.6	R_X	LinStatic	0.001808029	1.458673612	0	0	0	-28.90028694	9-2	78.8
9	145.3	R_X	LinStatic	0.001808029	1.458673612	0	0	0	-57.6361571	9-2	98.5
9	145.3	R_X	LinStatic	-0.998191971	1.458673612	0	0	0	-30.6361571	9-3	0
9	168.8666667	R_X	LinStatic	-0.998191971	1.458673612	0	0	0	-65.01223189	9-3	23.56666667
9	192.4333333	R_X	LinStatic	-0.998191971	1.458673612	0	0	0	-99.38830669	9-3	47.13333333
9	216	R_X	LinStatic	-0.998191971	1.458673612	0	0	0	-133.7643815	9-3	70.7
9	0	R_Y	LinStatic	0	0	-1.133188479	-20.99121499	-8.746871282	0	9-1	0
9	23.4	R_Y	LinStatic	0	0	-1.133188479	-20.99121499	17.76973912	0	9-1	23.4
9	46.8	R_Y	LinStatic	0	0	-1.133188479	-20.99121499	44.28634952	0	9-1	46.8
9	46.8	R_Y	LinStatic	0	0	-0.133188479	6.008785007	44.28634952	0	9-2	0
9	66.5	R_Y	LinStatic	0	0	-0.133188479	6.008785007	46.91016256	0	9-2	19.7
9	86.2	R_Y	LinStatic	0	0	-0.133188479	6.008785007	49.53397559	0	9-2	39.4
9	105.9	R_Y	LinStatic	0	0	-0.133188479	6.008785007	52.15778862	0	9-2	59.1
9	125.6	R_Y	LinStatic	0	0	-0.133188479	6.008785007	54.78160165	0	9-2	78.8
9	145.3	R_Y	LinStatic	0	0	-0.133188479	6.008785007	57.40541468	0	9-2	98.5
9	145.3	R_Y	LinStatic	0	0	0.866811521	33.00878501	57.40541468	0	9-3	0
9	168.8666667	R_Y	LinStatic	0	0	0.866811521	33.00878501	36.9775565	0	9-3	23.56666667

9	192.4333333	R_Y	LinStatic	0	0	0.866811521	33.00878501	16.54969832	0	9-3	47.13333333
9	216	R_Y	LinStatic	0	0	0.866811521	33.00878501	-3.878159868	0	9-3	70.7
9	0	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	10.54092	9-1	0
9	23.4	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	8.250839012	9-1	23.4
9	46.8	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	5.960758026	9-1	46.8
9	46.8	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	5.960758026	9-2	0
9	66.5	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	4.032783862	9-2	19.7
9	86.2	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	2.104809699	9-2	39.4
9	105.9	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	0.176835536	9-2	59.1
9	125.6	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	-1.751138628	9-2	78.8
9	145.3	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	-3.679112791	9-2	98.5
9	145.3	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	-3.679112791	9-3	0
9	168.8666667	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	-5.985504895	9-3	23.56666667
9	192.4333333	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	-8.291896999	9-3	47.13333333
9	216	Cap_R_X	LinStatic	0.489225497	0.097866709	0	0	0	-10.5982891	9-3	70.7
9	0	Cap_w_Y	LinStatic	-0.248734695	-9	0	0	0	-326.5006816	9-1	0
9	23.4	Cap_w_Y	LinStatic	-0.248734695	-7.05	0	0	0	-138.7156816	9-1	23.4
9	46.8	Cap_w_Y	LinStatic	-0.248734695	-5.1	0	0	0	3.439318388	9-1	46.8
9	46.8	Cap_w_Y	LinStatic	-0.248734695	-5.1	0	0	0	3.439318388	9-2	0
9	66.5	Cap_w_Y	LinStatic	-0.248734695	-3.458333333	0	0	0	87.73890172	9-2	19.7
9	86.2	Cap_w_Y	LinStatic	-0.248734695	-1.816666667	0	0	0	139.6976517	9-2	39.4
9	105.9	Cap_w_Y	LinStatic	-0.248734695	-0.175	0	0	0	159.3155684	9-2	59.1
9	125.6	Cap_w_Y	LinStatic	-0.248734695	1.466666667	0	0	0	146.5926517	9-2	78.8
9	145.3	Cap_w_Y	LinStatic	-0.248734695	3.108333333	0	0	0	101.5289017	9-2	98.5
9	145.3	Cap_w_Y	LinStatic	-0.248734695	3.108333333	0	0	0	101.5289017	9-3	0
9	168.8666667	Cap_w_Y	LinStatic	-0.248734695	5.072222222	0	0	0	5.134688758	9-3	23.56666667
9	192.4333333	Cap_w_Y	LinStatic	-0.248734695	7.036111111	0	0	0	-137.541839	9-3	47.13333333
9	216	Cap_w_Y	LinStatic	-0.248734695	9	0	0	0	-326.5006816	9-3	70.7
9	0	Cap_w_Z	LinStatic	-0.248734695	-9	0	0	0	-326.5006816	9-1	0
9	23.4	Cap_w_Z	LinStatic	-0.248734695	-7.05	0	0	0	-138.7156816	9-1	23.4
9	46.8	Cap_w_Z	LinStatic	-0.248734695	-5.1	0	0	0	3.439318388	9-1	46.8
9	46.8	Cap_w_Z	LinStatic	-0.248734695	-5.1	0	0	0	3.439318388	9-2	0
9	66.5	Cap_w_Z	LinStatic	-0.248734695	-3.458333333	0	0	0	87.73890172	9-2	19.7
9	86.2	Cap_w_Z	LinStatic	-0.248734695	-1.816666667	0	0	0	139.6976517	9-2	39.4
9	105.9	Cap_w_Z	LinStatic	-0.248734695	-0.175	0	0	0	159.3155684	9-2	59.1
9	125.6	Cap_w_Z	LinStatic	-0.248734695	1.466666667	0	0	0	146.5926517	9-2	78.8
9	145.3	Cap_w_Z	LinStatic	-0.248734695	3.108333333	0	0	0	101.5289017	9-2	98.5
9	145.3	Cap_w_Z	LinStatic	-0.248734695	3.108333333	0	0	0	101.5289017	9-3	0
9	168.8666667	Cap_w_Z	LinStatic	-0.248734695	5.072222222	0	0	0	5.134688758	9-3	23.56666667
9	192.4333333	Cap_w_Z	LinStatic	-0.248734695	7.036111111	0	0	0	-137.541839	9-3	47.13333333
9	216	Cap_w_Z	LinStatic	-0.248734695	9	0	0	0	-326.5006816	9-3	70.7
9	0	Col_w_X	LinStatic	4.91531E-16	-3.55271E-15	0	0	0	1.13687E-13	9-1	0

9	23.4	Col_w_X	LinStatic	4.91531E-16	-3.55271E-15	0	0	0	1.9682E-13	9-1	23.4
9	46.8	Col_w_X	LinStatic	4.91531E-16	-3.55271E-15	0	0	0	2.79954E-13	9-1	46.8
9	46.8	Col_w_X	LinStatic	5.04268E-16	1.77636E-15	0	0	0	1.13687E-13	9-2	0
9	66.5	Col_w_X	LinStatic	5.04268E-16	1.77636E-15	0	0	0	7.86926E-14	9-2	19.7
9	86.2	Col_w_X	LinStatic	5.04268E-16	1.77636E-15	0	0	0	4.36984E-14	9-2	39.4
9	105.9	Col_w_X	LinStatic	5.04268E-16	1.77636E-15	0	0	0	8.70415E-15	9-2	59.1
9	125.6	Col_w_X	LinStatic	5.04268E-16	1.77636E-15	0	0	0	-2.62901E-14	9-2	78.8
9	145.3	Col_w_X	LinStatic	5.04268E-16	1.77636E-15	0	0	0	-6.12843E-14	9-2	98.5
9	145.3	Col_w_X	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	0
9	168.8666667	Col_w_X	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	23.56666667
9	192.4333333	Col_w_X	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	47.13333333
9	216	Col_w_X	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	70.7
9	0	Col_w_Y	LinStatic	4.91531E-16	-3.55271E-15	0	0	0	1.13687E-13	9-1	0
9	23.4	Col_w_Y	LinStatic	4.91531E-16	-3.55271E-15	0	0	0	1.9682E-13	9-1	23.4
9	46.8	Col_w_Y	LinStatic	4.91531E-16	-3.55271E-15	0	0	0	2.79954E-13	9-1	46.8
9	46.8	Col_w_Y	LinStatic	5.04268E-16	1.77636E-15	0	0	0	1.13687E-13	9-2	0
9	66.5	Col_w_Y	LinStatic	5.04268E-16	1.77636E-15	0	0	0	7.86926E-14	9-2	19.7
9	86.2	Col_w_Y	LinStatic	5.04268E-16	1.77636E-15	0	0	0	4.36984E-14	9-2	39.4
9	105.9	Col_w_Y	LinStatic	5.04268E-16	1.77636E-15	0	0	0	8.70415E-15	9-2	59.1
9	125.6	Col_w_Y	LinStatic	5.04268E-16	1.77636E-15	0	0	0	-2.62901E-14	9-2	78.8
9	145.3	Col_w_Y	LinStatic	5.04268E-16	1.77636E-15	0	0	0	-6.12843E-14	9-2	98.5
9	145.3	Col_w_Y	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	0
9	168.8666667	Col_w_Y	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	23.56666667
9	192.4333333	Col_w_Y	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	47.13333333
9	216	Col_w_Y	LinStatic	5.04268E-16	0	0	0	0	1.13687E-13	9-3	70.7
9	0	Cais_w_X	LinStatic	1.32002E-16	-1.77636E-15	0	0	0	2.84217E-14	9-1	0
9	23.4	Cais_w_X	LinStatic	1.32002E-16	-1.77636E-15	0	0	0	6.99885E-14	9-1	23.4
9	46.8	Cais_w_X	LinStatic	1.32002E-16	-1.77636E-15	0	0	0	1.11555E-13	9-1	46.8
9	46.8	Cais_w_X	LinStatic	1.313E-16	4.44089E-16	0	0	0	8.52651E-14	9-2	0
9	66.5	Cais_w_X	LinStatic	1.313E-16	4.44089E-16	0	0	0	7.65166E-14	9-2	19.7
9	86.2	Cais_w_X	LinStatic	1.313E-16	4.44089E-16	0	0	0	6.7768E-14	9-2	39.4
9	105.9	Cais_w_X	LinStatic	1.313E-16	4.44089E-16	0	0	0	5.90195E-14	9-2	59.1
9	125.6	Cais_w_X	LinStatic	1.313E-16	4.44089E-16	0	0	0	5.02709E-14	9-2	78.8
9	145.3	Cais_w_X	LinStatic	1.313E-16	4.44089E-16	0	0	0	4.15223E-14	9-2	98.5
9	145.3	Cais_w_X	LinStatic	1.313E-16	-8.88178E-16	0	0	0	2.84217E-14	9-3	0
9	168.8666667	Cais_w_X	LinStatic	1.313E-16	-8.88178E-16	0	0	0	4.93531E-14	9-3	23.56666667
9	192.4333333	Cais_w_X	LinStatic	1.313E-16	-8.88178E-16	0	0	0	7.02845E-14	9-3	47.13333333
9	216	Cais_w_X	LinStatic	1.313E-16	-8.88178E-16	0	0	0	9.12159E-14	9-3	70.7
9	0	Cais_w_Y	LinStatic	1.32002E-16	-1.77636E-15	0	0	0	2.84217E-14	9-1	0
9	23.4	Cais_w_Y	LinStatic	1.32002E-16	-1.77636E-15	0	0	0	6.99885E-14	9-1	23.4
9	46.8	Cais_w_Y	LinStatic	1.32002E-16	-1.77636E-15	0	0	0	1.11555E-13	9-1	46.8
9	46.8	Cais_w_Y	LinStatic	1.313E-16	4.44089E-16	0	0	0	8.52651E-14	9-2	0

9	66.5	Cais_w_Y	LinStatic	1.313E-16	4.44089E-16	0	0	0	7.65166E-14	9-2	19.7
9	86.2	Cais_w_Y	LinStatic	1.313E-16	4.44089E-16	0	0	0	6.7768E-14	9-2	39.4
9	105.9	Cais_w_Y	LinStatic	1.313E-16	4.44089E-16	0	0	0	5.90195E-14	9-2	59.1
9	125.6	Cais_w_Y	LinStatic	1.313E-16	4.44089E-16	0	0	0	5.02709E-14	9-2	78.8
9	145.3	Cais_w_Y	LinStatic	1.313E-16	4.44089E-16	0	0	0	4.15223E-14	9-2	98.5
9	145.3	Cais_w_Y	LinStatic	1.313E-16	-8.88178E-16	0	0	0	2.84217E-14	9-3	0
9	168.8666667	Cais_w_Y	LinStatic	1.313E-16	-8.88178E-16	0	0	0	4.93531E-14	9-3	23.56666667
9	192.4333333	Cais_w_Y	LinStatic	1.313E-16	-8.88178E-16	0	0	0	7.02845E-14	9-3	47.13333333
9	216	Cais_w_Y	LinStatic	1.313E-16	-8.88178E-16	0	0	0	9.12159E-14	9-3	70.7
9	0	DC	LinStatic	-4.896038248	-199.5197713	0	0	0	-7790.426034	9-1	0
9	23.4	DC	LinStatic	-4.896038248	-199.5197713	0	0	0	-3121.663384	9-1	23.4
9	46.8	DC	LinStatic	-4.896038248	-199.5197713	0	0	0	1547.099265	9-1	46.8
9	46.8	DC	LinStatic	-4.896038248	-21.71977134	0	0	0	1547.099265	9-2	0
9	66.5	DC	LinStatic	-4.896038248	-21.71977134	0	0	0	1974.97876	9-2	19.7
9	86.2	DC	LinStatic	-4.896038248	-21.71977134	0	0	0	2402.858256	9-2	39.4
9	105.9	DC	LinStatic	-4.896038248	-21.71977134	0	0	0	2830.737751	9-2	59.1
9	125.6	DC	LinStatic	-4.896038248	-21.71977134	0	0	0	3258.617246	9-2	78.8
9	145.3	DC	LinStatic	-4.896038248	-21.71977134	0	0	0	3686.496742	9-2	98.5
9	145.3	DC	LinStatic	-4.896038248	156.0802287	0	0	0	3686.496742	9-3	0
9	168.8666667	DC	LinStatic	-4.896038248	156.0802287	0	0	0	8.206019516	9-3	23.56666667
9	192.4333333	DC	LinStatic	-4.896038248	156.0802287	0	0	0	-3670.084703	9-3	47.13333333
9	216	DC	LinStatic	-4.896038248	156.0802287	0	0	0	-7348.375425	9-3	70.7
9	0	DW	LinStatic	-0.663330408	-28.4040896	0	0	0	-1108.143628	9-1	0
9	23.4	DW	LinStatic	-0.663330408	-28.4040896	0	0	0	-443.4879309	9-1	23.4
9	46.8	DW	LinStatic	-0.663330408	-28.4040896	0	0	0	221.1677658	9-1	46.8
9	46.8	DW	LinStatic	-0.663330408	-3.094089603	0	0	0	221.1677658	9-2	0
9	66.5	DW	LinStatic	-0.663330408	-3.094089603	0	0	0	282.1213309	9-2	19.7
9	86.2	DW	LinStatic	-0.663330408	-3.094089603	0	0	0	343.0748961	9-2	39.4
9	105.9	DW	LinStatic	-0.663330408	-3.094089603	0	0	0	404.0284613	9-2	59.1
9	125.6	DW	LinStatic	-0.663330408	-3.094089603	0	0	0	464.9820264	9-2	78.8
9	145.3	DW	LinStatic	-0.663330408	-3.094089603	0	0	0	525.9355916	9-2	98.5
9	145.3	DW	LinStatic	-0.663330408	22.2159104	0	0	0	525.9355916	9-3	0
9	168.8666667	DW	LinStatic	-0.663330408	22.2159104	0	0	0	2.380636567	9-3	23.56666667
9	192.4333333	DW	LinStatic	-0.663330408	22.2159104	0	0	0	-521.1743185	9-3	47.13333333
9	216	DW	LinStatic	-0.663330408	22.2159104	0	0	0	-1044.729274	9-3	70.7
9	0	WS3	LinStatic	-2.282617011	7.764910044	1.597795755	29.59761314	12.33308851	66.50535979	9-1	0
9	23.4	WS3	LinStatic	-2.282617011	7.764910044	1.597795755	29.59761314	-25.05533216	-115.1935352	9-1	23.4
9	46.8	WS3	LinStatic	-2.282617011	7.764910044	1.597795755	29.59761314	-62.44375283	-296.8924303	9-1	46.8
9	46.8	WS3	LinStatic	0.417382989	-2.825089956	0.187795755	-8.472386859	-62.44375283	-369.7924303	9-2	0
9	66.5	WS3	LinStatic	0.417382989	-2.825089956	0.187795755	-8.472386859	-66.1433292	-314.1381581	9-2	19.7
9	86.2	WS3	LinStatic	0.417382989	-2.825089956	0.187795755	-8.472386859	-69.84290558	-258.483886	9-2	39.4
9	105.9	WS3	LinStatic	0.417382989	-2.825089956	0.187795755	-8.472386859	-73.54248195	-202.8296139	9-2	59.1

9	125.6	WS3	LinStatic	0.417382989	-2.825089956	0.187795755	-8.472386859	-77.24205833	-147.1753417	9-2		78.8
9	145.3	WS3	LinStatic	0.417382989	-2.825089956	0.187795755	-8.472386859	-80.9416347	-91.52106959	9-2		98.5
9	145.3	WS3	LinStatic	3.117382989	-16.44508996	-1.222204245	-46.54238686	-80.9416347	-164.4210696	9-3		0
9	168.8666667	WS3	LinStatic	3.117382989	-16.44508996	-1.222204245	-46.54238686	-52.13835466	223.1348837	9-3		23.56666667
9	192.4333333	WS3	LinStatic	3.117382989	-16.44508996	-1.222204245	-46.54238686	-23.33507462	610.690837	9-3		47.13333333
9	216	WS3	LinStatic	3.117382989	-16.44508996	-1.222204245	-46.54238686	5.468205414	998.2467903	9-3		70.7
9	0	WL5	LinStatic	-0.68778868	-1.0685217	0.498602931	9.236134597	3.848623364	-91.78794073	9-1		0
9	23.4	WL5	LinStatic	-0.68778868	-1.0685217	0.498602931	9.236134597	-7.818685213	-66.78453296	9-1		23.4
9	46.8	WL5	LinStatic	-0.68778868	-1.0685217	0.498602931	9.236134597	-19.48599379	-41.78112519	9-1		46.8
9	46.8	WL5	LinStatic	0.00221132	-1.0185217	0.058602931	-2.643865403	-19.48599379	-60.41112519	9-2		0
9	66.5	WL5	LinStatic	0.00221132	-1.0185217	0.058602931	-2.643865403	-20.64047152	-40.34624771	9-2		19.7
9	86.2	WL5	LinStatic	0.00221132	-1.0185217	0.058602931	-2.643865403	-21.79494926	-20.28137023	9-2		39.4
9	105.9	WL5	LinStatic	0.00221132	-1.0185217	0.058602931	-2.643865403	-22.94942699	-0.216492749	9-2		59.1
9	125.6	WL5	LinStatic	0.00221132	-1.0185217	0.058602931	-2.643865403	-24.10390473	19.84838473	9-2		78.8
9	145.3	WL5	LinStatic	0.00221132	-1.0185217	0.058602931	-2.643865403	-25.25838246	39.91326221	9-2		98.5
9	145.3	WL5	LinStatic	0.69221132	-1.0685217	-0.381397069	-14.5238654	-25.25838246	21.28326221	9-3		0
9	168.8666667	WL5	LinStatic	0.69221132	-1.0685217	-0.381397069	-14.5238654	-16.27012486	46.46475693	9-3		23.56666667
9	192.4333333	WL5	LinStatic	0.69221132	-1.0685217	-0.381397069	-14.5238654	-7.281867259	71.64625165	9-3		47.13333333
9	216	WL5	LinStatic	0.69221132	-1.0685217	-0.381397069	-14.5238654	1.706390342	96.82774637	9-3		70.7
9	0	PL	LinStatic	-0.21936292	-9.393213353	0	0	0	-366.4623534	9-1		0
9	23.4	PL	LinStatic	-0.21936292	-9.393213353	0	0	0	-146.6611609	9-1		23.4
9	46.8	PL	LinStatic	-0.21936292	-9.393213353	0	0	0	73.14003158	9-1		46.8
9	46.8	PL	LinStatic	-0.21936292	-1.023213353	0	0	0	73.14003158	9-2		0
9	66.5	PL	LinStatic	-0.21936292	-1.023213353	0	0	0	93.29733464	9-2		19.7
9	86.2	PL	LinStatic	-0.21936292	-1.023213353	0	0	0	113.4546377	9-2		39.4
9	105.9	PL	LinStatic	-0.21936292	-1.023213353	0	0	0	133.6119408	9-2		59.1
9	125.6	PL	LinStatic	-0.21936292	-1.023213353	0	0	0	153.7692438	9-2		78.8
9	145.3	PL	LinStatic	-0.21936292	-1.023213353	0	0	0	173.9265469	9-2		98.5
9	145.3	PL	LinStatic	-0.21936292	7.346786647	0	0	0	173.9265469	9-3		0
9	168.8666667	PL	LinStatic	-0.21936292	7.346786647	0	0	0	0.787274914	9-3		23.56666667
9	192.4333333	PL	LinStatic	-0.21936292	7.346786647	0	0	0	-172.3519971	9-3		47.13333333
9	216	PL	LinStatic	-0.21936292	7.346786647	0	0	0	-345.491269	9-3		70.7
9	0	LL-1 Lane	LinStatic	-0.174773369	-20.29517642	0	0	0	-884.8290251	9-1		0
9	23.4	LL-1 Lane	LinStatic	-0.174773369	-20.29517642	0	0	0	-409.921897	9-1		23.4
9	46.8	LL-1 Lane	LinStatic	-0.174773369	-20.29517642	0	0	0	64.98523122	9-1		46.8
9	46.8	LL-1 Lane	LinStatic	-0.174773369	-2.535176418	0	0	0	64.98523122	9-2		0
9	66.5	LL-1 Lane	LinStatic	-0.174773369	-2.535176418	0	0	0	114.9282066	9-2		19.7
9	86.2	LL-1 Lane	LinStatic	-0.174773369	-2.535176418	0	0	0	164.8711821	9-2		39.4
9	105.9	LL-1 Lane	LinStatic	-0.174773369	-2.535176418	0	0	0	214.8141575	9-2		59.1
9	125.6	LL-1 Lane	LinStatic	-0.174773369	-2.535176418	0	0	0	264.7571329	9-2		78.8
9	145.3	LL-1 Lane	LinStatic	-0.174773369	-2.535176418	0	0	0	314.7001084	9-2		98.5
9	145.3	LL-1 Lane	LinStatic	-0.174773369	9.134823582	0	0	0	314.7001084	9-3		0

9	168.8666667	LL-1 Lane	LinStatic	-0.174773369	9.134823582	0	0	0	99.42276594	9-3	23.56666667
9	192.4333333	LL-1 Lane	LinStatic	-0.174773369	9.134823582	0	0	0	-115.8545765	9-3	47.13333333
9	216	LL-1 Lane	LinStatic	-0.174773369	9.134823582	0	0	0	-331.1319189	9-3	70.7
9	0	LL-2 Lane	LinStatic	-0.343322799	-32.89254624	0	0	0	-1415.320265	9-1	0
9	23.4	LL-2 Lane	LinStatic	-0.343322799	-32.89254624	0	0	0	-645.6346835	9-1	23.4
9	46.8	LL-2 Lane	LinStatic	-0.343322799	-32.89254624	0	0	0	124.0508985	9-1	46.8
9	46.8	LL-2 Lane	LinStatic	-0.343322799	-4.042546239	0	0	0	124.0508985	9-2	0
9	66.5	LL-2 Lane	LinStatic	-0.343322799	-4.042546239	0	0	0	203.6890594	9-2	19.7
9	86.2	LL-2 Lane	LinStatic	-0.343322799	-4.042546239	0	0	0	283.3272204	9-2	39.4
9	105.9	LL-2 Lane	LinStatic	-0.343322799	-4.042546239	0	0	0	362.9653813	9-2	59.1
9	125.6	LL-2 Lane	LinStatic	-0.343322799	-4.042546239	0	0	0	442.6035422	9-2	78.8
9	145.3	LL-2 Lane	LinStatic	-0.343322799	-4.042546239	0	0	0	522.2417031	9-2	98.5
9	145.3	LL-2 Lane	LinStatic	-0.343322799	16.15745376	0	0	0	522.2417031	9-3	0
9	168.8666667	LL-2 Lane	LinStatic	-0.343322799	16.15745376	0	0	0	141.4643761	9-3	23.56666667
9	192.4333333	LL-2 Lane	LinStatic	-0.343322799	16.15745376	0	0	0	-239.3129508	9-3	47.13333333
9	216	LL-2 Lane	LinStatic	-0.343322799	16.15745376	0	0	0	-620.0902778	9-3	70.7
9	0	LL-3 Lane	LinStatic	-0.504137145	-40.75029241	0	0	0	-1728.813994	9-1	0
9	23.4	LL-3 Lane	LinStatic	-0.504137145	-40.75029241	0	0	0	-775.2571518	9-1	23.4
9	46.8	LL-3 Lane	LinStatic	-0.504137145	-40.75029241	0	0	0	178.2996906	9-1	46.8
9	46.8	LL-3 Lane	LinStatic	-0.504137145	-4.920292412	0	0	0	178.2996906	9-2	0
9	66.5	LL-3 Lane	LinStatic	-0.504137145	-4.920292412	0	0	0	275.2294512	9-2	19.7
9	86.2	LL-3 Lane	LinStatic	-0.504137145	-4.920292412	0	0	0	372.1592117	9-2	39.4
9	105.9	LL-3 Lane	LinStatic	-0.504137145	-4.920292412	0	0	0	469.0889722	9-2	59.1
9	125.6	LL-3 Lane	LinStatic	-0.504137145	-4.920292412	0	0	0	566.0187327	9-2	78.8
9	145.3	LL-3 Lane	LinStatic	-0.504137145	-4.920292412	0	0	0	662.9484932	9-2	98.5
9	145.3	LL-3 Lane	LinStatic	-0.504137145	21.78970759	0	0	0	662.9484932	9-3	0
9	168.8666667	LL-3 Lane	LinStatic	-0.504137145	21.78970759	0	0	0	149.4377177	9-3	23.56666667
9	192.4333333	LL-3 Lane	LinStatic	-0.504137145	21.78970759	0	0	0	-364.0730577	9-3	47.13333333
9	216	LL-3 Lane	LinStatic	-0.504137145	21.78970759	0	0	0	-877.5838332	9-3	70.7
9	0	LL-7 Lane	LinStatic	-1.373441839	-64.2101557	0	0	0	-2544.243525	9-1	0
9	23.4	LL-7 Lane	LinStatic	-1.373441839	-64.2101557	0	0	0	-1041.725882	9-1	23.4
9	46.8	LL-7 Lane	LinStatic	-1.373441839	-64.2101557	0	0	0	460.7917612	9-1	46.8
9	46.8	LL-7 Lane	LinStatic	-1.373441839	-7.130155696	0	0	0	460.7917612	9-2	0
9	66.5	LL-7 Lane	LinStatic	-1.373441839	-7.130155696	0	0	0	601.2558284	9-2	19.7
9	86.2	LL-7 Lane	LinStatic	-1.373441839	-7.130155696	0	0	0	741.7198956	9-2	39.4
9	105.9	LL-7 Lane	LinStatic	-1.373441839	-7.130155696	0	0	0	882.1839628	9-2	59.1
9	125.6	LL-7 Lane	LinStatic	-1.373441839	-7.130155696	0	0	0	1022.64803	9-2	78.8
9	145.3	LL-7 Lane	LinStatic	-1.373441839	-7.130155696	0	0	0	1163.112097	9-2	98.5
9	145.3	LL-7 Lane	LinStatic	-1.373441839	47.3798443	0	0	0	1163.112097	9-3	0
9	168.8666667	LL-7 Lane	LinStatic	-1.373441839	47.3798443	0	0	0	46.52709983	9-3	23.56666667
9	192.4333333	LL-7 Lane	LinStatic	-1.373441839	47.3798443	0	0	0	-1070.057898	9-3	47.13333333
9	216	LL-7 Lane	LinStatic	-1.373441839	47.3798443	0	0	0	-2186.642895	9-3	70.7

9	0	CE-1	Lane	LinStatic	-2.151693545	-3.371178059	0.770568166	14.2740262	5.947872472	-288.8850656	9-1	0
9	23.4	CE-1	Lane	LinStatic	-2.151693545	-3.371178059	0.770568166	14.2740262	-12.0834226	-209.999499	9-1	23.4
9	46.8	CE-1	Lane	LinStatic	-2.151693545	-3.371178059	0.770568166	14.2740262	-30.11471768	-131.1139324	9-1	46.8
9	46.8	CE-1	Lane	LinStatic	0.008306455	-3.191178059	0.090568166	-4.085973805	-30.11471768	-189.4339324	9-2	0
9	66.5	CE-1	Lane	LinStatic	0.008306455	-3.191178059	0.090568166	-4.085973805	-31.89891054	-126.5677247	9-2	19.7
9	86.2	CE-1	Lane	LinStatic	0.008306455	-3.191178059	0.090568166	-4.085973805	-33.6831034	-63.7015169	9-2	39.4
9	105.9	CE-1	Lane	LinStatic	0.008306455	-3.191178059	0.090568166	-4.085973805	-35.46729626	-0.835309137	9-2	59.1
9	125.6	CE-1	Lane	LinStatic	0.008306455	-3.191178059	0.090568166	-4.085973805	-37.25148912	62.03089862	9-2	78.8
9	145.3	CE-1	Lane	LinStatic	0.008306455	-3.191178059	0.090568166	-4.085973805	-39.03568198	124.8971064	9-2	98.5
9	145.3	CE-1	Lane	LinStatic	2.168306455	-3.371178059	-0.589431834	-22.4459738	-39.03568198	66.57710638	9-3	0
9	168.8666667	CE-1	Lane	LinStatic	2.168306455	-3.371178059	-0.589431834	-22.4459738	-25.14473842	146.024536	9-3	23.56666667
9	192.4333333	CE-1	Lane	LinStatic	2.168306455	-3.371178059	-0.589431834	-22.4459738	-11.25379485	225.4719656	9-3	47.13333333
9	216	CE-1	Lane	LinStatic	2.168306455	-3.371178059	-0.589431834	-22.4459738	2.637148711	304.9193951	9-3	70.7
9	0	CE-2	Lane	LinStatic	-3.586145874	-5.614285111	1.291834866	23.92998509	9.971433261	-481.5264474	9-1	0
9	23.4	CE-2	Lane	LinStatic	-3.586145874	-5.614285111	1.291834866	23.92998509	-20.2575026	-350.1521758	9-1	23.4
9	46.8	CE-2	Lane	LinStatic	-3.586145874	-5.614285111	1.291834866	23.92998509	-50.48643846	-218.7779042	9-1	46.8
9	46.8	CE-2	Lane	LinStatic	0.013854126	-5.324285111	0.151834866	-6.850014908	-50.48643846	-315.9779042	9-2	0
9	66.5	CE-2	Lane	LinStatic	0.013854126	-5.324285111	0.151834866	-6.850014908	-53.47758531	-211.0894875	9-2	19.7
9	86.2	CE-2	Lane	LinStatic	0.013854126	-5.324285111	0.151834866	-6.850014908	-56.46873217	-106.2010708	9-2	39.4
9	105.9	CE-2	Lane	LinStatic	0.013854126	-5.324285111	0.151834866	-6.850014908	-59.45987903	-1.312654163	9-2	59.1
9	125.6	CE-2	Lane	LinStatic	0.013854126	-5.324285111	0.151834866	-6.850014908	-62.45102588	103.5757625	9-2	78.8
9	145.3	CE-2	Lane	LinStatic	0.013854126	-5.324285111	0.151834866	-6.850014908	-65.44217274	208.4641792	9-2	98.5
9	145.3	CE-2	Lane	LinStatic	3.613854126	-5.614285111	-0.988165134	-37.63001491	-65.44217274	111.2641792	9-3	0
9	168.8666667	CE-2	Lane	LinStatic	3.613854126	-5.614285111	-0.988165134	-37.63001491	-42.15441441	243.574165	9-3	23.56666667
9	192.4333333	CE-2	Lane	LinStatic	3.613854126	-5.614285111	-0.988165134	-37.63001491	-18.86665608	375.8841508	9-3	47.13333333
9	216	CE-2	Lane	LinStatic	3.613854126	-5.614285111	-0.988165134	-37.63001491	4.42110225	508.1941365	9-3	70.7
9	0	CE-3	Lane	LinStatic	-4.545311044	-7.105300532	1.643123294	30.43726174	12.68296336	-598.7603979	9-1	0
9	23.4	CE-3	Lane	LinStatic	-4.545311044	-7.105300532	1.643123294	30.43726174	-25.76612173	-432.4963654	9-1	23.4
9	46.8	CE-3	Lane	LinStatic	-4.545311044	-7.105300532	1.643123294	30.43726174	-64.21520681	-266.232333	9-1	46.8
9	46.8	CE-3	Lane	LinStatic	0.044688956	-6.725300532	0.193123294	-8.71273826	-64.21520681	-390.162333	9-2	0
9	66.5	CE-3	Lane	LinStatic	0.044688956	-6.725300532	0.193123294	-8.71273826	-68.01973571	-257.6739125	9-2	19.7
9	86.2	CE-3	Lane	LinStatic	0.044688956	-6.725300532	0.193123294	-8.71273826	-71.8242646	-125.185492	9-2	39.4
9	105.9	CE-3	Lane	LinStatic	0.044688956	-6.725300532	0.193123294	-8.71273826	-75.6287935	7.302928477	9-2	59.1
9	125.6	CE-3	Lane	LinStatic	0.044688956	-6.725300532	0.193123294	-8.71273826	-79.43332239	139.791349	9-2	78.8
9	145.3	CE-3	Lane	LinStatic	0.044688956	-6.725300532	0.193123294	-8.71273826	-83.23785129	272.2797694	9-2	98.5
9	145.3	CE-3	Lane	LinStatic	4.634688956	-7.105300532	-1.256876706	-47.86273826	-83.23785129	148.3497694	9-3	0
9	168.8666667	CE-3	Lane	LinStatic	4.634688956	-7.105300532	-1.256876706	-47.86273826	-53.61745692	315.7980187	9-3	23.56666667
9	192.4333333	CE-3	Lane	LinStatic	4.634688956	-7.105300532	-1.256876706	-47.86273826	-23.99706256	483.2462679	9-3	47.13333333
9	216	CE-3	Lane	LinStatic	4.634688956	-7.105300532	-1.256876706	-47.86273826	5.623331809	650.6945171	9-3	70.7
9	0	CE-7	Lane	LinStatic	-8.158524446	-12.77783908	2.923626275	54.15733468	22.56692791	-1095.520773	9-1	0
9	23.4	CE-7	Lane	LinStatic	-8.158524446	-12.77783908	2.923626275	54.15733468	-45.84592693	-796.5193386	9-1	23.4
9	46.8	CE-7	Lane	LinStatic	-8.158524446	-12.77783908	2.923626275	54.15733468	-114.2587818	-497.5179042	9-1	46.8

9	46.8	CE-7 Lane	LinStatic	0.031475554	-12.10783908	0.343626275	-15.50266532	-114.2587818	-718.6479042	9-2		0
9	66.5	CE-7 Lane	LinStatic	0.031475554	-12.10783908	0.343626275	-15.50266532	-121.0282194	-480.1234744	9-2		19.7
9	86.2	CE-7 Lane	LinStatic	0.031475554	-12.10783908	0.343626275	-15.50266532	-127.797657	-241.5990446	9-2		39.4
9	105.9	CE-7 Lane	LinStatic	0.031475554	-12.10783908	0.343626275	-15.50266532	-134.5670946	-3.074614783	9-2		59.1
9	125.6	CE-7 Lane	LinStatic	0.031475554	-12.10783908	0.343626275	-15.50266532	-141.3365323	235.449815	9-2		78.8
9	145.3	CE-7 Lane	LinStatic	0.031475554	-12.10783908	0.343626275	-15.50266532	-148.1059699	473.9742448	9-2		98.5
9	145.3	CE-7 Lane	LinStatic	8.221475554	-12.77783908	-2.236373725	-85.16266532	-148.1059699	252.8442448	9-3		0
9	168.8666667	CE-7 Lane	LinStatic	8.221475554	-12.77783908	-2.236373725	-85.16266532	-95.40209577	553.9753191	9-3		23.56666667
9	192.4333333	CE-7 Lane	LinStatic	8.221475554	-12.77783908	-2.236373725	-85.16266532	-42.69822165	855.1063933	9-3		47.13333333
9	216	CE-7 Lane	LinStatic	8.221475554	-12.77783908	-2.236373725	-85.16266532	10.00565246	1156.237468	9-3		70.7
9	0	BR-1 Lane	LinStatic	-0.731319861	-1.064831737	2.617665386	48.48970663	20.20527266	-92.93565668	9-1		0
9	23.4	BR-1 Lane	LinStatic	-0.731319861	-1.064831737	2.617665386	48.48970663	-41.04809737	-68.01859404	9-1		23.4
9	46.8	BR-1 Lane	LinStatic	-0.731319861	-1.064831737	2.617665386	48.48970663	-102.3014674	-43.1015314	9-1		46.8
9	46.8	BR-1 Lane	LinStatic	-0.001319861	-1.064831737	0.307665386	-13.88029337	-102.3014674	-62.8115314	9-2		0
9	66.5	BR-1 Lane	LinStatic	-0.001319861	-1.064831737	0.307665386	-13.88029337	-108.3624755	-41.83434618	9-2		19.7
9	86.2	BR-1 Lane	LinStatic	-0.001319861	-1.064831737	0.307665386	-13.88029337	-114.4234836	-20.85716097	9-2		39.4
9	105.9	BR-1 Lane	LinStatic	-0.001319861	-1.064831737	0.307665386	-13.88029337	-120.4844917	0.120024251	9-2		59.1
9	125.6	BR-1 Lane	LinStatic	-0.001319861	-1.064831737	0.307665386	-13.88029337	-126.5454998	21.09720947	9-2		78.8
9	145.3	BR-1 Lane	LinStatic	-0.001319861	-1.064831737	0.307665386	-13.88029337	-132.6065079	42.07439468	9-2		98.5
9	145.3	BR-1 Lane	LinStatic	0.728680139	-1.064831737	-2.002334614	-76.25029337	-132.6065079	22.36439468	9-3		0
9	168.8666667	BR-1 Lane	LinStatic	0.728680139	-1.064831737	-2.002334614	-76.25029337	-85.41815551	47.45892928	9-3		23.56666667
9	192.4333333	BR-1 Lane	LinStatic	0.728680139	-1.064831737	-2.002334614	-76.25029337	-38.22980311	72.55346388	9-3		47.13333333
9	216	BR-1 Lane	LinStatic	0.728680139	-1.064831737	-2.002334614	-76.25029337	8.958549296	97.64799848	9-3		70.7
9	0	BR-2 Lane	LinStatic	-1.212187715	-1.764995071	4.351443758	80.60626557	33.58798572	-154.0440337	9-1		0
9	23.4	BR-2 Lane	LinStatic	-1.212187715	-1.764995071	4.351443758	80.60626557	-68.23579823	-112.743149	9-1		23.4
9	46.8	BR-2 Lane	LinStatic	-1.212187715	-1.764995071	4.351443758	80.60626557	-170.0595822	-71.44226437	9-1		46.8
9	46.8	BR-2 Lane	LinStatic	-0.002187715	-1.764995071	0.511443758	-23.07373443	-170.0595822	-104.1122644	9-2		0
9	66.5	BR-2 Lane	LinStatic	-0.002187715	-1.764995071	0.511443758	-23.07373443	-180.1350242	-69.34186148	9-2		19.7
9	86.2	BR-2 Lane	LinStatic	-0.002187715	-1.764995071	0.511443758	-23.07373443	-190.2104663	-34.57145859	9-2		39.4
9	105.9	BR-2 Lane	LinStatic	-0.002187715	-1.764995071	0.511443758	-23.07373443	-200.2859083	0.198944306	9-2		59.1
9	125.6	BR-2 Lane	LinStatic	-0.002187715	-1.764995071	0.511443758	-23.07373443	-210.3613503	34.9693472	9-2		78.8
9	145.3	BR-2 Lane	LinStatic	-0.002187715	-1.764995071	0.511443758	-23.07373443	-220.4367924	69.73975009	9-2		98.5
9	145.3	BR-2 Lane	LinStatic	1.207812285	-1.764995071	-3.328556242	-126.7537344	-220.4367924	37.06975009	9-3		0
9	168.8666667	BR-2 Lane	LinStatic	1.207812285	-1.764995071	-3.328556242	-126.7537344	-141.993817	78.66480059	9-3		23.56666667
9	192.4333333	BR-2 Lane	LinStatic	1.207812285	-1.764995071	-3.328556242	-126.7537344	-63.55084153	120.2598511	9-3		47.13333333
9	216	BR-2 Lane	LinStatic	1.207812285	-1.764995071	-3.328556242	-126.7537344	14.89213389	161.8549016	9-3		70.7
9	0	BR-3 Lane	LinStatic	-1.552802445	-2.260944099	5.552623546	102.8569535	42.85966928	-197.3291341	9-1		0
9	23.4	BR-3 Lane	LinStatic	-1.552802445	-2.260944099	5.552623546	102.8569535	-87.07172169	-144.4230421	9-1		23.4
9	46.8	BR-3 Lane	LinStatic	-1.552802445	-2.260944099	5.552623546	102.8569535	-217.0031127	-91.51695023	9-1		46.8
9	46.8	BR-3 Lane	LinStatic	-0.002802445	-2.260944099	0.652623546	-29.44304653	-217.0031127	-133.3669502	9-2		0
9	66.5	BR-3 Lane	LinStatic	-0.002802445	-2.260944099	0.652623546	-29.44304653	-229.8597965	-88.82635148	9-2		19.7
9	86.2	BR-3 Lane	LinStatic	-0.002802445	-2.260944099	0.652623546	-29.44304653	-242.7164804	-44.28575274	9-2		39.4

9	105.9	BR-3 Lane	LinStatic	-0.002802445	-2.260944099	0.652623546	-29.44304653	-255.5731642	0.254846011	9-2		59.1
9	125.6	BR-3 Lane	LinStatic	-0.002802445	-2.260944099	0.652623546	-29.44304653	-268.4298481	44.79544476	9-2		78.8
9	145.3	BR-3 Lane	LinStatic	-0.002802445	-2.260944099	0.652623546	-29.44304653	-281.2865319	89.33604351	9-2		98.5
9	145.3	BR-3 Lane	LinStatic	1.547197555	-2.260944099	-4.247376454	-161.7430465	-281.2865319	47.48604351	9-3		0
9	168.8666667	BR-3 Lane	LinStatic	1.547197555	-2.260944099	-4.247376454	-161.7430465	-181.1900268	100.7689594	9-3		23.56666667
9	192.4333333	BR-3 Lane	LinStatic	1.547197555	-2.260944099	-4.247376454	-161.7430465	-81.09352175	154.0518754	9-3		47.13333333
9	216	BR-3 Lane	LinStatic	1.547197555	-2.260944099	-4.247376454	-161.7430465	19.00298336	207.3347913	9-3		70.7
9	0	BR-7 Lane	LinStatic	-2.764990159	-4.02593917	9.904067304	183.463219	76.447655	-351.3731677	9-1		0
9	23.4	BR-7 Lane	LinStatic	-2.764990159	-4.02593917	9.904067304	183.463219	-155.3075199	-257.1661912	9-1		23.4
9	46.8	BR-7 Lane	LinStatic	-2.764990159	-4.02593917	9.904067304	183.463219	-387.0626948	-162.9592146	9-1		46.8
9	46.8	BR-7 Lane	LinStatic	-0.004990159	-4.02593917	1.164067304	-52.51678096	-387.0626948	-237.4792146	9-2		0
9	66.5	BR-7 Lane	LinStatic	-0.004990159	-4.02593917	1.164067304	-52.51678096	-409.9948207	-158.168213	9-2		19.7
9	86.2	BR-7 Lane	LinStatic	-0.004990159	-4.02593917	1.164067304	-52.51678096	-432.9269466	-78.85721132	9-2		39.4
9	105.9	BR-7 Lane	LinStatic	-0.004990159	-4.02593917	1.164067304	-52.51678096	-455.8590725	0.453790317	9-2		59.1
9	125.6	BR-7 Lane	LinStatic	-0.004990159	-4.02593917	1.164067304	-52.51678096	-478.7911984	79.76479196	9-2		78.8
9	145.3	BR-7 Lane	LinStatic	-0.004990159	-4.02593917	1.164067304	-52.51678096	-501.7233243	159.0757936	9-2		98.5
9	145.3	BR-7 Lane	LinStatic	2.755009841	-4.02593917	-7.575932696	-288.496781	-501.7233243	84.5557936	9-3		0
9	168.8666667	BR-7 Lane	LinStatic	2.755009841	-4.02593917	-7.575932696	-288.496781	-323.1838438	179.43376	9-3		23.56666667
9	192.4333333	BR-7 Lane	LinStatic	2.755009841	-4.02593917	-7.575932696	-288.496781	-144.6443633	274.3117265	9-3		47.13333333
9	216	BR-7 Lane	LinStatic	2.755009841	-4.02593917	-7.575932696	-288.496781	33.89511725	369.1896929	9-3		70.7
9	0	WSub3: 45deg	LinStatic	-0.434916059	0.987026627	0	0	0	29.1662078	9-1		0
9	23.4	WSub3: 45deg	LinStatic	-0.434916059	0.753026627	0	0	0	8.807584732	9-1		23.4
9	46.8	WSub3: 45deg	LinStatic	-0.434916059	0.519026627	0	0	0	-6.075438331	9-1		46.8
9	46.8	WSub3: 45deg	LinStatic	-0.434916059	0.519026627	0	0	0	-6.075438331	9-2		0
9	66.5	WSub3: 45deg	LinStatic	-0.434916059	0.322026627	0	0	0	-14.35981288	9-2		19.7
9	86.2	WSub3: 45deg	LinStatic	-0.434916059	0.125026627	0	0	0	-18.76328742	9-2		39.4
9	105.9	WSub3: 45deg	LinStatic	-0.434916059	-0.071973373	0	0	0	-19.28586197	9-2		59.1
9	125.6	WSub3: 45deg	LinStatic	-0.434916059	-0.268973373	0	0	0	-15.92753651	9-2		78.8
9	145.3	WSub3: 45deg	LinStatic	-0.434916059	-0.465973373	0	0	0	-8.688311055	9-2		98.5
9	145.3	WSub3: 45deg	LinStatic	-0.434916059	-0.465973373	0	0	0	-8.688311055	9-3		0
9	168.8666667	WSub3: 45deg	LinStatic	-0.434916059	-0.70164004	0	0	0	5.070066999	9-3		23.56666667
9	192.4333333	WSub3: 45deg	LinStatic	-0.434916059	-0.937306707	0	0	0	24.38232283	9-3		47.13333333
9	216	WSub3: 45deg	LinStatic	-0.434916059	-1.172973373	0	0	0	49.24845644	9-3		70.7
9	0	WSub3: 30deg	LinStatic	-0.498762691	0.437239956	0	0	0	8.522074899	9-1		0
9	23.4	WSub3: 30deg	LinStatic	-0.498762691	0.320239956	0	0	0	-0.340440066	9-1		23.4
9	46.8	WSub3: 30deg	LinStatic	-0.498762691	0.203239956	0	0	0	-6.46515503	9-1		46.8
9	46.8	WSub3: 30deg	LinStatic	-0.498762691	0.203239956	0	0	0	-6.46515503	9-2		0
9	66.5	WSub3: 30deg	LinStatic	-0.498762691	0.104739956	0	0	0	-9.498757159	9-2		19.7
9	86.2	WSub3: 30deg	LinStatic	-0.498762691	0.006239956	0	0	0	-10.59190929	9-2		39.4
9	105.9	WSub3: 30deg	LinStatic	-0.498762691	-0.092260044	0	0	0	-9.744611416	9-2		59.1
9	125.6	WSub3: 30deg	LinStatic	-0.498762691	-0.190760044	0	0	0	-6.956863544	9-2		78.8
9	145.3	WSub3: 30deg	LinStatic	-0.498762691	-0.289260044	0	0	0	-2.228665673	9-2		98.5

9	145.3	WSub3: 30deg	LinStatic	-0.498762691	-0.289260044	0	0	0	-2.228665673	9-3	0
9	168.8666667	WSub3: 30deg	LinStatic	-0.498762691	-0.407093378	0	0	0	5.976698814	9-3	23.56666667
9	192.4333333	WSub3: 30deg	LinStatic	-0.498762691	-0.524926711	0	0	0	16.95900219	9-3	47.13333333
9	216	WSub3: 30deg	LinStatic	-0.498762691	-0.642760044	0	0	0	30.71824445	9-3	70.7
9	0	WSub3: 15deg	LinStatic	-0.520983935	-0.014717378	0	0	0	-8.013777581	9-1	0
9	23.4	WSub3: 15deg	LinStatic	-0.520983935	-0.034217378	0	0	0	-7.441240926	9-1	23.4
9	46.8	WSub3: 15deg	LinStatic	-0.520983935	-0.053717378	0	0	0	-6.412404272	9-1	46.8
9	46.8	WSub3: 15deg	LinStatic	-0.520983935	-0.053717378	0	0	0	-6.412404272	9-2	0
9	66.5	WSub3: 15deg	LinStatic	-0.520983935	-0.070134045	0	0	0	-5.19246775	9-2	19.7
9	86.2	WSub3: 15deg	LinStatic	-0.520983935	-0.086550712	0	0	0	-3.649122895	9-2	39.4
9	105.9	WSub3: 15deg	LinStatic	-0.520983935	-0.102967378	0	0	0	-1.782369707	9-2	59.1
9	125.6	WSub3: 15deg	LinStatic	-0.520983935	-0.119384045	0	0	0	0.407791814	9-2	78.8
9	145.3	WSub3: 15deg	LinStatic	-0.520983935	-0.135800712	0	0	0	2.921361669	9-2	98.5
9	145.3	WSub3: 15deg	LinStatic	-0.520983935	-0.135800712	0	0	0	2.921361669	9-3	0
9	168.8666667	WSub3: 15deg	LinStatic	-0.520983935	-0.155439601	0	0	0	6.35314335	9-3	23.56666667
9	192.4333333	WSub3: 15deg	LinStatic	-0.520983935	-0.17507849	0	0	0	10.24774818	9-3	47.13333333
9	216	WSub3: 15deg	LinStatic	-0.520983935	-0.194717378	0	0	0	14.60517616	9-3	70.7
9	0	WSub3: 0deg	LinStatic	-0.479111232	0.620175957	0	0	0	15.36831613	9-1	0
9	23.4	WSub3: 0deg	LinStatic	-0.479111232	0.464175957	0	0	0	2.681398737	9-1	23.4
9	46.8	WSub3: 0deg	LinStatic	-0.479111232	0.308175957	0	0	0	-6.355118657	9-1	46.8
9	46.8	WSub3: 0deg	LinStatic	-0.479111232	0.308175957	0	0	0	-6.355118657	9-2	0
9	66.5	WSub3: 0deg	LinStatic	-0.479111232	0.176842624	0	0	0	-11.13255168	9-2	19.7
9	86.2	WSub3: 0deg	LinStatic	-0.479111232	0.04550929	0	0	0	-13.32271803	9-2	39.4
9	105.9	WSub3: 0deg	LinStatic	-0.479111232	-0.085824043	0	0	0	-12.92561772	9-2	59.1
9	125.6	WSub3: 0deg	LinStatic	-0.479111232	-0.217157376	0	0	0	-9.941250738	9-2	78.8
9	145.3	WSub3: 0deg	LinStatic	-0.479111232	-0.34849071	0	0	0	-4.369617091	9-2	98.5
9	145.3	WSub3: 0deg	LinStatic	-0.479111232	-0.34849071	0	0	0	-4.369617091	9-3	0
9	168.8666667	WSub3: 0deg	LinStatic	-0.479111232	-0.505601821	0	0	0	5.694439892	9-3	23.56666667
9	192.4333333	WSub3: 0deg	LinStatic	-0.479111232	-0.662712932	0	0	0	19.46108206	9-3	47.13333333
9	216	WSub3: 0deg	LinStatic	-0.479111232	-0.819824043	0	0	0	36.93030941	9-3	70.7
9	0	WSub3: -15deg	LinStatic	-0.40548009	1.171919962	0	0	0	36.22326743	9-1	0
9	23.4	WSub3: -15deg	LinStatic	-0.40548009	0.898919962	0	0	0	11.99444032	9-1	23.4
9	46.8	WSub3: -15deg	LinStatic	-0.40548009	0.625919962	0	0	0	-5.846186798	9-1	46.8
9	46.8	WSub3: -15deg	LinStatic	-0.40548009	0.625919962	0	0	0	-5.846186798	9-2	0
9	66.5	WSub3: -15deg	LinStatic	-0.40548009	0.396086629	0	0	0	-15.91295172	9-2	19.7
9	86.2	WSub3: -15deg	LinStatic	-0.40548009	0.166253295	0	0	0	-21.45199997	9-2	39.4
9	105.9	WSub3: -15deg	LinStatic	-0.40548009	-0.063580038	0	0	0	-22.46333156	9-2	59.1
9	125.6	WSub3: -15deg	LinStatic	-0.40548009	-0.293413371	0	0	0	-18.94694648	9-2	78.8
9	145.3	WSub3: -15deg	LinStatic	-0.40548009	-0.523246705	0	0	0	-10.90284473	9-2	98.5
9	145.3	WSub3: -15deg	LinStatic	-0.40548009	-0.523246705	0	0	0	-10.90284473	9-3	0
9	168.8666667	WSub3: -15deg	LinStatic	-0.40548009	-0.798191149	0	0	0	4.668097979	9-3	23.56666667
9	192.4333333	WSub3: -15deg	LinStatic	-0.40548009	-1.073135593	0	0	0	26.71856476	9-3	47.13333333

9	216	WSub3: -15deg	LinStatic	-0.40548009	-1.348080038	0	0	0	55.24855562	9-3	70.7
9	0	WSub3: -30deg	LinStatic	-0.302495419	1.72953597	0	0	0	57.71067392	9-1	0
9	23.4	WSub3: -30deg	LinStatic	-0.302495419	1.33953597	0	0	0	21.80253223	9-1	23.4
9	46.8	WSub3: -30deg	LinStatic	-0.302495419	0.94953597	0	0	0	-4.979609456	9-1	46.8
9	46.8	WSub3: -30deg	LinStatic	-0.302495419	0.94953597	0	0	0	-4.979609456	9-2	0
9	66.5	WSub3: -30deg	LinStatic	-0.302495419	0.621202636	0	0	0	-20.45138473	9-2	19.7
9	86.2	WSub3: -30deg	LinStatic	-0.302495419	0.292869303	0	0	0	-29.45499333	9-2	39.4
9	105.9	WSub3: -30deg	LinStatic	-0.302495419	-0.03546403	0	0	0	-31.99043526	9-2	59.1
9	125.6	WSub3: -30deg	LinStatic	-0.302495419	-0.363797364	0	0	0	-28.05771053	9-2	78.8
9	145.3	WSub3: -30deg	LinStatic	-0.302495419	-0.692130697	0	0	0	-17.65681913	9-2	98.5
9	145.3	WSub3: -30deg	LinStatic	-0.302495419	-0.692130697	0	0	0	-17.65681913	9-3	0
9	168.8666667	WSub3: -30deg	LinStatic	-0.302495419	-1.084908475	0	0	0	3.282625773	9-3	23.56666667
9	192.4333333	WSub3: -30deg	LinStatic	-0.302495419	-1.477686253	0	0	0	33.47853364	9-3	47.13333333
9	216	WSub3: -30deg	LinStatic	-0.302495419	-1.87046403	0	0	0	72.93090448	9-3	70.7
9	0	WSub3: -45deg	LinStatic	-0.184916422	2.111066646	0	0	0	73.08970359	9-1	0
9	23.4	WSub3: -45deg	LinStatic	-0.184916422	1.643066646	0	0	0	29.16634408	9-1	23.4
9	46.8	WSub3: -45deg	LinStatic	-0.184916422	1.175066646	0	0	0	-3.805815426	9-1	46.8
9	46.8	WSub3: -45deg	LinStatic	-0.184916422	1.175066646	0	0	0	-3.805815426	9-2	0
9	66.5	WSub3: -45deg	LinStatic	-0.184916422	0.781066646	0	0	0	-23.07372834	9-2	19.7
9	86.2	WSub3: -45deg	LinStatic	-0.184916422	0.387066646	0	0	0	-34.57984126	9-2	39.4
9	105.9	WSub3: -45deg	LinStatic	-0.184916422	-0.006933354	0	0	0	-38.32415418	9-2	59.1
9	125.6	WSub3: -45deg	LinStatic	-0.184916422	-0.400933354	0	0	0	-34.3066671	9-2	78.8
9	145.3	WSub3: -45deg	LinStatic	-0.184916422	-0.794933354	0	0	0	-22.52738002	9-2	98.5
9	145.3	WSub3: -45deg	LinStatic	-0.184916422	-0.794933354	0	0	0	-22.52738002	9-3	0
9	168.8666667	WSub3: -45deg	LinStatic	-0.184916422	-1.266266688	0	0	0	1.760427145	9-3	23.56666667
9	192.4333333	WSub3: -45deg	LinStatic	-0.184916422	-1.737600021	0	0	0	37.15598986	9-3	47.13333333
9	216	WSub3: -45deg	LinStatic	-0.184916422	-2.208933354	0	0	0	83.65930814	9-3	70.7
9	0	WA	LinStatic	-1.78309E-16	0	0	0	0	-5.68434E-14	9-1	0
9	23.4	WA	LinStatic	-1.78309E-16	0	0	0	0	-5.68434E-14	9-1	23.4
9	46.8	WA	LinStatic	-1.78309E-16	0	0	0	0	-5.68434E-14	9-1	46.8
9	46.8	WA	LinStatic	-1.72028E-16	-4.44089E-16	0	0	0	-5.68434E-14	9-2	0
9	66.5	WA	LinStatic	-1.72028E-16	-4.44089E-16	0	0	0	-4.80949E-14	9-2	19.7
9	86.2	WA	LinStatic	-1.72028E-16	-4.44089E-16	0	0	0	-3.93463E-14	9-2	39.4
9	105.9	WA	LinStatic	-1.72028E-16	-4.44089E-16	0	0	0	-3.05977E-14	9-2	59.1
9	125.6	WA	LinStatic	-1.72028E-16	-4.44089E-16	0	0	0	-2.18492E-14	9-2	78.8
9	145.3	WA	LinStatic	-1.72028E-16	-4.44089E-16	0	0	0	-1.31006E-14	9-2	98.5
9	145.3	WA	LinStatic	-1.72028E-16	8.88178E-16	0	0	0	0	9-3	0
9	168.8666667	WA	LinStatic	-1.72028E-16	8.88178E-16	0	0	0	-2.09314E-14	9-3	23.56666667
9	192.4333333	WA	LinStatic	-1.72028E-16	8.88178E-16	0	0	0	-4.18628E-14	9-3	47.13333333
9	216	WA	LinStatic	-1.72028E-16	8.88178E-16	0	0	0	-6.27942E-14	9-3	70.7
9	0	WS3: 45deg	Combination	-2.71753307	8.751936671	1.597795755	29.59761314	12.33308851	95.67156759	9-1	0
9	23.4	WS3: 45deg	Combination	-2.71753307	8.517936671	1.597795755	29.59761314	-25.05533216	-106.3859505	9-1	23.4

9	46.8	WS3: 45deg	Combination	-2.71753307	8.283936671	1.597795755	29.59761314	-62.44375283	-302.9678686	9-1	46.8
9	46.8	WS3: 45deg	Combination	-0.01753307	-2.306063329	0.187795755	-8.472386859	-62.44375283	-375.8678686	9-2	0
9	66.5	WS3: 45deg	Combination	-0.01753307	-2.503063329	0.187795755	-8.472386859	-66.1433292	-328.497971	9-2	19.7
9	86.2	WS3: 45deg	Combination	-0.01753307	-2.700063329	0.187795755	-8.472386859	-69.84290558	-277.2471734	9-2	39.4
9	105.9	WS3: 45deg	Combination	-0.01753307	-2.897063329	0.187795755	-8.472386859	-73.54248195	-222.1154758	9-2	59.1
9	125.6	WS3: 45deg	Combination	-0.01753307	-3.094063329	0.187795755	-8.472386859	-77.24205833	-163.1028782	9-2	78.8
9	145.3	WS3: 45deg	Combination	-0.01753307	-3.291063329	0.187795755	-8.472386859	-80.9416347	-100.2093806	9-2	98.5
9	145.3	WS3: 45deg	Combination	2.68246693	-16.91106333	-1.222204245	-46.54238686	-80.9416347	-173.1093806	9-3	0
9	168.8666667	WS3: 45deg	Combination	2.68246693	-17.14673	-1.222204245	-46.54238686	-52.13835466	228.2049507	9-3	23.56666667
9	192.4333333	WS3: 45deg	Combination	2.68246693	-17.38239666	-1.222204245	-46.54238686	-23.33507462	635.0731598	9-3	47.13333333
9	216	WS3: 45deg	Combination	2.68246693	-17.61806333	-1.222204245	-46.54238686	5.468205414	1047.495247	9-3	70.7
9	0	WS3: 30deg	Combination	-2.781379701	8.20215	1.597795755	29.59761314	12.33308851	75.02743469	9-1	0
9	23.4	WS3: 30deg	Combination	-2.781379701	8.08515	1.597795755	29.59761314	-25.05533216	-115.5339753	9-1	23.4
9	46.8	WS3: 30deg	Combination	-2.781379701	7.96815	1.597795755	29.59761314	-62.44375283	-303.3575853	9-1	46.8
9	46.8	WS3: 30deg	Combination	-0.081379701	-2.62185	0.187795755	-8.472386859	-62.44375283	-376.2575853	9-2	0
9	66.5	WS3: 30deg	Combination	-0.081379701	-2.72035	0.187795755	-8.472386859	-66.1433292	-323.6369153	9-2	19.7
9	86.2	WS3: 30deg	Combination	-0.081379701	-2.81885	0.187795755	-8.472386859	-69.84290558	-269.0757953	9-2	39.4
9	105.9	WS3: 30deg	Combination	-0.081379701	-2.91735	0.187795755	-8.472386859	-73.54248195	-212.5742253	9-2	59.1
9	125.6	WS3: 30deg	Combination	-0.081379701	-3.01585	0.187795755	-8.472386859	-77.24205833	-154.1322053	9-2	78.8
9	145.3	WS3: 30deg	Combination	-0.081379701	-3.11435	0.187795755	-8.472386859	-80.9416347	-93.74973527	9-2	98.5
9	145.3	WS3: 30deg	Combination	2.618620299	-16.73435	-1.222204245	-46.54238686	-80.9416347	-166.6497353	9-3	0
9	168.8666667	WS3: 30deg	Combination	2.618620299	-16.85218333	-1.222204245	-46.54238686	-52.13835466	229.1115825	9-3	23.56666667
9	192.4333333	WS3: 30deg	Combination	2.618620299	-16.97001667	-1.222204245	-46.54238686	-23.33507462	627.6498392	9-3	47.13333333
9	216	WS3: 30deg	Combination	2.618620299	-17.08785	-1.222204245	-46.54238686	5.468205414	1028.965035	9-3	70.7
9	0	WS3: 15deg	Combination	-2.803600946	7.750192666	1.597795755	29.59761314	12.33308851	58.49158221	9-1	0
9	23.4	WS3: 15deg	Combination	-2.803600946	7.730692666	1.597795755	29.59761314	-25.05533216	-122.6347762	9-1	23.4
9	46.8	WS3: 15deg	Combination	-2.803600946	7.711192666	1.597795755	29.59761314	-62.44375283	-303.3048345	9-1	46.8
9	46.8	WS3: 15deg	Combination	-0.103600946	-2.878807334	0.187795755	-8.472386859	-62.44375283	-376.2048345	9-2	0
9	66.5	WS3: 15deg	Combination	-0.103600946	-2.895224001	0.187795755	-8.472386859	-66.1433292	-319.3306259	9-2	19.7
9	86.2	WS3: 15deg	Combination	-0.103600946	-2.911640668	0.187795755	-8.472386859	-69.84290558	-262.1330089	9-2	39.4
9	105.9	WS3: 15deg	Combination	-0.103600946	-2.928057334	0.187795755	-8.472386859	-73.54248195	-204.6119836	9-2	59.1
9	125.6	WS3: 15deg	Combination	-0.103600946	-2.944474001	0.187795755	-8.472386859	-77.24205833	-146.7675499	9-2	78.8
9	145.3	WS3: 15deg	Combination	-0.103600946	-2.960890668	0.187795755	-8.472386859	-80.9416347	-88.59970793	9-2	98.5
9	145.3	WS3: 15deg	Combination	2.596399054	-16.58089067	-1.222204245	-46.54238686	-80.9416347	-161.4997079	9-3	0
9	168.8666667	WS3: 15deg	Combination	2.596399054	-16.60052956	-1.222204245	-46.54238686	-52.13835466	229.4880271	9-3	23.56666667
9	192.4333333	WS3: 15deg	Combination	2.596399054	-16.62016845	-1.222204245	-46.54238686	-23.33507462	620.9385852	9-3	47.13333333
9	216	WS3: 15deg	Combination	2.596399054	-16.63980733	-1.222204245	-46.54238686	5.468205414	1012.851966	9-3	70.7
9	0	WS3: 0deg	Combination	-2.761728242	8.385086001	1.597795755	29.59761314	12.33308851	81.87367592	9-1	0
9	23.4	WS3: 0deg	Combination	-2.761728242	8.229086001	1.597795755	29.59761314	-25.05533216	-112.5121365	9-1	23.4
9	46.8	WS3: 0deg	Combination	-2.761728242	8.073086001	1.597795755	29.59761314	-62.44375283	-303.2475489	9-1	46.8
9	46.8	WS3: 0deg	Combination	-0.061728242	-2.516913999	0.187795755	-8.472386859	-62.44375283	-376.1475489	9-2	0
9	66.5	WS3: 0deg	Combination	-0.061728242	-2.648247332	0.187795755	-8.472386859	-66.1433292	-325.2707098	9-2	19.7

9	86.2	WS3: 0deg	Combination	-0.061728242	-2.779580666	0.187795755	-8.472386859	-69.84290558	-271.806604	9-2	39.4
9	105.9	WS3: 0deg	Combination	-0.061728242	-2.910913999	0.187795755	-8.472386859	-73.54248195	-215.7552316	9-2	59.1
9	125.6	WS3: 0deg	Combination	-0.061728242	-3.042247332	0.187795755	-8.472386859	-77.24205833	-157.1165925	9-2	78.8
9	145.3	WS3: 0deg	Combination	-0.061728242	-3.173580666	0.187795755	-8.472386859	-80.9416347	-95.89068669	9-2	98.5
9	145.3	WS3: 0deg	Combination	2.638271757	-16.79358067	-1.222204245	-46.54238686	-80.9416347	-168.7906867	9-3	0
9	168.8666667	WS3: 0deg	Combination	2.638271757	-16.95069178	-1.222204245	-46.54238686	-52.13835466	228.8293236	9-3	23.56666667
9	192.4333333	WS3: 0deg	Combination	2.638271757	-17.10780289	-1.222204245	-46.54238686	-23.33507462	630.1519191	9-3	47.13333333
9	216	WS3: 0deg	Combination	2.638271757	-17.264914	-1.222204245	-46.54238686	5.468205414	1035.1771	9-3	70.7
9	0	WS3: -15deg	Combination	-2.688097101	8.936830006	1.597795755	29.59761314	12.33308851	102.7286272	9-1	0
9	23.4	WS3: -15deg	Combination	-2.688097101	8.663830006	1.597795755	29.59761314	-25.05533216	-103.1990949	9-1	23.4
9	46.8	WS3: -15deg	Combination	-2.688097101	8.390830006	1.597795755	29.59761314	-62.44375283	-302.7386171	9-1	46.8
9	46.8	WS3: -15deg	Combination	0.011902899	-2.199169994	0.187795755	-8.472386859	-62.44375283	-375.6386171	9-2	0
9	66.5	WS3: -15deg	Combination	0.011902899	-2.429003327	0.187795755	-8.472386859	-66.1433292	-330.0511098	9-2	19.7
9	86.2	WS3: -15deg	Combination	0.011902899	-2.658836661	0.187795755	-8.472386859	-69.84290558	-279.935886	9-2	39.4
9	105.9	WS3: -15deg	Combination	0.011902899	-2.888669994	0.187795755	-8.472386859	-73.54248195	-225.2929454	9-2	59.1
9	125.6	WS3: -15deg	Combination	0.011902899	-3.118503327	0.187795755	-8.472386859	-77.24205833	-166.1222882	9-2	78.8
9	145.3	WS3: -15deg	Combination	0.011902899	-3.348336661	0.187795755	-8.472386859	-80.9416347	-102.4239143	9-2	98.5
9	145.3	WS3: -15deg	Combination	2.711902899	-16.96833666	-1.222204245	-46.54238686	-80.9416347	-175.3239143	9-3	0
9	168.8666667	WS3: -15deg	Combination	2.711902899	-17.24328111	-1.222204245	-46.54238686	-52.13835466	227.8029817	9-3	23.56666667
9	192.4333333	WS3: -15deg	Combination	2.711902899	-17.51822555	-1.222204245	-46.54238686	-23.33507462	637.4094018	9-3	47.13333333
9	216	WS3: -15deg	Combination	2.711902899	-17.79316999	-1.222204245	-46.54238686	5.468205414	1053.495346	9-3	70.7
9	0	WS3: -30deg	Combination	-2.58511243	9.494446014	1.597795755	29.59761314	12.33308851	124.2160337	9-1	0
9	23.4	WS3: -30deg	Combination	-2.58511243	9.104446014	1.597795755	29.59761314	-25.05533216	-93.391003	9-1	23.4
9	46.8	WS3: -30deg	Combination	-2.58511243	8.714446014	1.597795755	29.59761314	-62.44375283	-301.8720397	9-1	46.8
9	46.8	WS3: -30deg	Combination	0.11488757	-1.875553986	0.187795755	-8.472386859	-62.44375283	-374.7720397	9-2	0
9	66.5	WS3: -30deg	Combination	0.11488757	-2.20388732	0.187795755	-8.472386859	-66.1433292	-334.5895429	9-2	19.7
9	86.2	WS3: -30deg	Combination	0.11488757	-2.532220653	0.187795755	-8.472386859	-69.84290558	-287.9388793	9-2	39.4
9	105.9	WS3: -30deg	Combination	0.11488757	-2.860553986	0.187795755	-8.472386859	-73.54248195	-234.8200491	9-2	59.1
9	125.6	WS3: -30deg	Combination	0.11488757	-3.18888732	0.187795755	-8.472386859	-77.24205833	-175.2330523	9-2	78.8
9	145.3	WS3: -30deg	Combination	0.11488757	-3.517220653	0.187795755	-8.472386859	-80.9416347	-109.1778887	9-2	98.5
9	145.3	WS3: -30deg	Combination	2.81488757	-17.13722065	-1.222204245	-46.54238686	-80.9416347	-182.0778887	9-3	0
9	168.8666667	WS3: -30deg	Combination	2.81488757	-17.52999843	-1.222204245	-46.54238686	-52.13835466	226.4175095	9-3	23.56666667
9	192.4333333	WS3: -30deg	Combination	2.81488757	-17.92277621	-1.222204245	-46.54238686	-23.33507462	644.1693706	9-3	47.13333333
9	216	WS3: -30deg	Combination	2.81488757	-18.31555399	-1.222204245	-46.54238686	5.468205414	1071.177695	9-3	70.7
9	0	WServ1: -45deg	Combination	-0.956491599	3.512945025	0.591184429	10.95111686	4.563242748	45.95993248	9-1	0
9	23.4	WServ1: -45deg	Combination	-0.956491599	3.368645025	0.591184429	10.95111686	-9.2704729	-34.55467111	9-1	23.4
9	46.8	WServ1: -45deg	Combination	-0.956491599	3.224345025	0.591184429	10.95111686	-23.10418855	-111.6926547	9-1	46.8
9	46.8	WServ1: -45deg	Combination	0.042508401	-0.693954975	0.069484429	-3.134783138	-23.10418855	-138.6656547	9-2	0
9	66.5	WServ1: -45deg	Combination	0.042508401	-0.815438308	0.069484429	-3.134783138	-24.47303181	-123.7981309	9-2	19.7
9	86.2	WServ1: -45deg	Combination	0.042508401	-0.936921642	0.069484429	-3.134783138	-25.84187506	-106.5373853	9-2	39.4
9	105.9	WServ1: -45deg	Combination	0.042508401	-1.058404975	0.069484429	-3.134783138	-27.21071832	-86.88341818	9-2	59.1
9	125.6	WServ1: -45deg	Combination	0.042508401	-1.179888308	0.069484429	-3.134783138	-28.57956158	-64.83622934	9-2	78.8

9	145.3	WServ1: -45deg	Combination	0.042508401	-1.301371642	0.069484429	-3.134783138	-29.94840484	-40.39581883	9-2	98.5
9	145.3	WServ1: -45deg	Combination	1.041508401	-6.340771642	-0.452215571	-17.22068314	-29.94840484	-67.36881883	9-3	0
9	168.8666667	WServ1: -45deg	Combination	1.041508401	-6.486099419	-0.452215571	-17.22068314	-19.29119123	83.77447851	9-3	23.56666667
9	192.4333333	WServ1: -45deg	Combination	1.041508401	-6.631427197	-0.452215571	-17.22068314	-8.633977611	238.3426671	9-3	47.13333333
9	216	WServ1: -45deg	Combination	1.041508401	-6.776754975	-0.452215571	-17.22068314	2.023236003	396.3357471	9-3	70.7
9	0	WS5: 45deg	Combination	-2.003074686	3.167415649	1.271936076	23.56137936	9.817838202	-45.48290202	9-1	0
9	23.4	WS5: 45deg	Combination	-2.003074686	3.054159649	1.271936076	23.56137936	-19.94546598	-118.275333	9-1	23.4
9	46.8	WS5: 45deg	Combination	-2.003074686	2.940903649	1.271936076	23.56137936	-49.70877016	-188.4175736	9-1	46.8
9	46.8	WS5: 45deg	Combination	-0.006274686	-2.134656351	0.149496076	-6.744500643	-49.70877016	-242.3311736	9-2	0
9	66.5	WS5: 45deg	Combination	-0.006274686	-2.230004351	0.149496076	-6.744500643	-52.65384286	-199.3392657	9-2	19.7
9	86.2	WS5: 45deg	Combination	-0.006274686	-2.325352351	0.149496076	-6.744500643	-55.59891556	-154.4690022	9-2	39.4
9	105.9	WS5: 45deg	Combination	-0.006274686	-2.420700351	0.149496076	-6.744500643	-58.54398826	-107.720383	9-2	59.1
9	125.6	WS5: 45deg	Combination	-0.006274686	-2.516048351	0.149496076	-6.744500643	-61.48906096	-59.09340834	9-2	78.8
9	145.3	WS5: 45deg	Combination	-0.006274686	-2.611396351	0.149496076	-6.744500643	-64.43413366	-8.588078021	9-2	98.5
9	145.3	WS5: 45deg	Combination	1.990525314	-9.253476351	-0.972943924	-37.05038064	-64.43413366	-62.50167802	9-3	0
9	168.8666667	WS5: 45deg	Combination	1.990525314	-9.367539018	-0.972943924	-37.05038064	-41.50508852	156.9159531	9-3	23.56666667
9	192.4333333	WS5: 45deg	Combination	1.990525314	-9.481601684	-0.972943924	-37.05038064	-18.57604338	379.021661	9-3	47.13333333
9	216	WS5: 45deg	Combination	1.990525314	-9.595664351	-0.972943924	-37.05038064	4.353001763	603.8154458	9-3	70.7
9	0	WS5: 30deg	Combination	-2.033976455	2.9013189	1.271936076	23.56137936	9.817838202	-55.47466234	9-1	0
9	23.4	WS5: 30deg	Combination	-2.033976455	2.8446909	1.271936076	23.56137936	-19.94546598	-122.702977	9-1	23.4
9	46.8	WS5: 30deg	Combination	-2.033976455	2.7880629	1.271936076	23.56137936	-49.70877016	-188.6061965	9-1	46.8
9	46.8	WS5: 30deg	Combination	-0.037176455	-2.2874971	0.149496076	-6.744500643	-49.70877016	-242.5197965	9-2	0
9	66.5	WS5: 30deg	Combination	-0.037176455	-2.3351711	0.149496076	-6.744500643	-52.65384286	-196.9865147	9-2	19.7
9	86.2	WS5: 30deg	Combination	-0.037176455	-2.3828451	0.149496076	-6.744500643	-55.59891556	-150.5140551	9-2	39.4
9	105.9	WS5: 30deg	Combination	-0.037176455	-2.4305191	0.149496076	-6.744500643	-58.54398826	-103.1024178	9-2	59.1
9	125.6	WS5: 30deg	Combination	-0.037176455	-2.4781931	0.149496076	-6.744500643	-61.48906096	-54.75160262	9-2	78.8
9	145.3	WS5: 30deg	Combination	-0.037176455	-2.5258671	0.149496076	-6.744500643	-64.43413366	-5.461609656	9-2	98.5
9	145.3	WS5: 30deg	Combination	1.959623545	-9.1679471	-0.972943924	-37.05038064	-64.43413366	-59.37520966	9-3	0
9	168.8666667	WS5: 30deg	Combination	1.959623545	-9.224978433	-0.972943924	-37.05038064	-41.50508852	157.3547629	9-3	23.56666667
9	192.4333333	WS5: 30deg	Combination	1.959623545	-9.282009766	-0.972943924	-37.05038064	-18.57604338	375.4287738	9-3	47.13333333
9	216	WS5: 30deg	Combination	1.959623545	-9.3390411	-0.972943924	-37.05038064	4.353001763	594.8468232	9-3	70.7
9	0	WS5: 15deg	Combination	-2.044731538	2.682571551	1.271936076	23.56137936	9.817838202	-63.47801494	9-1	0
9	23.4	WS5: 15deg	Combination	-2.044731538	2.673133551	1.271936076	23.56137936	-19.94546598	-126.1397646	9-1	23.4
9	46.8	WS5: 15deg	Combination	-2.044731538	2.663695551	1.271936076	23.56137936	-49.70877016	-188.5806651	9-1	46.8
9	46.8	WS5: 15deg	Combination	-0.047931538	-2.411864449	0.149496076	-6.744500643	-49.70877016	-242.4942651	9-2	0
9	66.5	WS5: 15deg	Combination	-0.047931538	-2.419810116	0.149496076	-6.744500643	-52.65384286	-194.9022706	9-2	19.7
9	86.2	WS5: 15deg	Combination	-0.047931538	-2.427755783	0.149496076	-6.744500643	-55.59891556	-147.1537465	9-2	39.4
9	105.9	WS5: 15deg	Combination	-0.047931538	-2.435701449	0.149496076	-6.744500643	-58.54398826	-99.2486928	9-2	59.1
9	125.6	WS5: 15deg	Combination	-0.047931538	-2.443647116	0.149496076	-6.744500643	-61.48906096	-51.18710943	9-2	78.8
9	145.3	WS5: 15deg	Combination	-0.047931538	-2.451592783	0.149496076	-6.744500643	-64.43413366	-2.968996423	9-2	98.5
9	145.3	WS5: 15deg	Combination	1.948868462	-9.093672783	-0.972943924	-37.05038064	-64.43413366	-56.88259642	9-3	0
9	168.8666667	WS5: 15deg	Combination	1.948868462	-9.103178005	-0.972943924	-37.05038064	-41.50508852	157.536962	9-3	23.56666667

9	192.4333333	WS5: 15deg	Combination	1.948868462	-9.112683227	-0.972943924	-37.05038064	-18.57604338	372.1805269	9-3	47.13333333
9	216	WS5: 15deg	Combination	1.948868462	-9.122188449	-0.972943924	-37.05038064	4.353001763	587.0480981	9-3	70.7
9	0	WS5: 0deg	Combination	-2.024465149	2.989859925	1.271936076	23.56137936	9.817838202	-52.16108158	9-1	0
9	23.4	WS5: 0deg	Combination	-2.024465149	2.914355925	1.271936076	23.56137936	-19.94546598	-121.240407	9-1	23.4
9	46.8	WS5: 0deg	Combination	-2.024465149	2.838851925	1.271936076	23.56137936	-49.70877016	-188.5529389	9-1	46.8
9	46.8	WS5: 0deg	Combination	-0.027665149	-2.236708075	0.149496076	-6.744500643	-49.70877016	-242.4665389	9-2	0
9	66.5	WS5: 0deg	Combination	-0.027665149	-2.300273408	0.149496076	-6.744500643	-52.65384286	-197.7772713	9-2	19.7
9	86.2	WS5: 0deg	Combination	-0.027665149	-2.363838742	0.149496076	-6.744500643	-55.59891556	-151.8357666	9-2	39.4
9	105.9	WS5: 0deg	Combination	-0.027665149	-2.427404075	0.149496076	-6.744500643	-58.54398826	-104.6420248	9-2	59.1
9	125.6	WS5: 0deg	Combination	-0.027665149	-2.490969408	0.149496076	-6.744500643	-61.48906096	-56.19604602	9-2	78.8
9	145.3	WS5: 0deg	Combination	-0.027665149	-2.554534742	0.149496076	-6.744500643	-64.43413366	-6.497830143	9-2	98.5
9	145.3	WS5: 0deg	Combination	1.969134851	-9.196614742	-0.972943924	-37.05038064	-64.43413366	-60.41143014	9-3	0
9	168.8666667	WS5: 0deg	Combination	1.969134851	-9.27265652	-0.972943924	-37.05038064	-41.50508852	157.2181496	9-3	23.56666667
9	192.4333333	WS5: 0deg	Combination	1.969134851	-9.348698297	-0.972943924	-37.05038064	-18.57604338	376.6397805	9-3	47.13333333
9	216	WS5: 0deg	Combination	1.969134851	-9.424740075	-0.972943924	-37.05038064	4.353001763	597.8534626	9-3	70.7
9	0	WS5: -15deg	Combination	-1.988827677	3.256904023	1.271936076	23.56137936	9.817838202	-42.06728516	9-1	0
9	23.4	WS5: -15deg	Combination	-1.988827677	3.124772023	1.271936076	23.56137936	-19.94546598	-116.7328949	9-1	23.4
9	46.8	WS5: -15deg	Combination	-1.988827677	2.992640023	1.271936076	23.56137936	-49.70877016	-188.3066158	9-1	46.8
9	46.8	WS5: -15deg	Combination	0.007972323	-2.082919977	0.149496076	-6.744500643	-49.70877016	-242.2202158	9-2	0
9	66.5	WS5: -15deg	Combination	0.007972323	-2.19415931	0.149496076	-6.744500643	-52.65384286	-200.0909849	9-2	19.7
9	86.2	WS5: -15deg	Combination	0.007972323	-2.305398643	0.149496076	-6.744500643	-55.59891556	-155.770339	9-2	39.4
9	105.9	WS5: -15deg	Combination	0.007972323	-2.416637977	0.149496076	-6.744500643	-58.54398826	-109.2582783	9-2	59.1
9	125.6	WS5: -15deg	Combination	0.007972323	-2.52787731	0.149496076	-6.744500643	-61.48906096	-60.55480276	9-2	78.8
9	145.3	WS5: -15deg	Combination	0.007972323	-2.639116643	0.149496076	-6.744500643	-64.43413366	-9.65991232	9-2	98.5
9	145.3	WS5: -15deg	Combination	2.004772323	-9.281196643	-0.972943924	-37.05038064	-64.43413366	-63.57351232	9-3	0
9	168.8666667	WS5: -15deg	Combination	2.004772323	-9.414269754	-0.972943924	-37.05038064	-41.50508852	156.7214001	9-3	23.56666667
9	192.4333333	WS5: -15deg	Combination	2.004772323	-9.547342866	-0.972943924	-37.05038064	-18.57604338	380.1524021	9-3	47.13333333
9	216	WS5: -15deg	Combination	2.004772323	-9.680415977	-0.972943924	-37.05038064	4.353001763	606.7194938	9-3	70.7
9	0	WS5: -30deg	Combination	-1.938983096	3.526790171	1.271936076	23.56137936	9.817838202	-31.66738041	9-1	0
9	23.4	WS5: -30deg	Combination	-1.938983096	3.338030171	1.271936076	23.56137936	-19.94546598	-111.9857784	9-1	23.4
9	46.8	WS5: -30deg	Combination	-1.938983096	3.149270171	1.271936076	23.56137936	-49.70877016	-187.8871924	9-1	46.8
9	46.8	WS5: -30deg	Combination	0.057816904	-1.926289829	0.149496076	-6.744500643	-49.70877016	-241.8007924	9-2	0
9	66.5	WS5: -30deg	Combination	0.057816904	-2.085203162	0.149496076	-6.744500643	-52.65384286	-202.2875865	9-2	19.7
9	86.2	WS5: -30deg	Combination	0.057816904	-2.244116496	0.149496076	-6.744500643	-55.59891556	-159.6437878	9-2	39.4
9	105.9	WS5: -30deg	Combination	0.057816904	-2.403029829	0.149496076	-6.744500643	-58.54398826	-113.8693965	9-2	59.1
9	125.6	WS5: -30deg	Combination	0.057816904	-2.561943162	0.149496076	-6.744500643	-61.48906096	-64.96441256	9-2	78.8
9	145.3	WS5: -30deg	Combination	0.057816904	-2.720856496	0.149496076	-6.744500643	-64.43413366	-12.92883593	9-2	98.5
9	145.3	WS5: -30deg	Combination	2.054616904	-9.362936496	-0.972943924	-37.05038064	-64.43413366	-66.84243593	9-3	0
9	168.8666667	WS5: -30deg	Combination	2.054616904	-9.55304094	-0.972943924	-37.05038064	-41.50508852	156.0508315	9-3	23.56666667
9	192.4333333	WS5: -30deg	Combination	2.054616904	-9.743145385	-0.972943924	-37.05038064	-18.57604338	383.424227	9-3	47.13333333
9	216	WS5: -30deg	Combination	2.054616904	-9.933249829	-0.972943924	-37.05038064	4.353001763	615.2777506	9-3	70.7
9	0	WS5: -45deg	Combination	-1.882074861	3.711451018	1.271936076	23.56137936	9.817838202	-24.22393005	9-1	0

9	23.4	WS5: -45deg	Combination	-1.882074861	3.484939018	1.271936076	23.56137936	-19.94546598	-108.4216935	9-1	23.4
9	46.8	WS5: -45deg	Combination	-1.882074861	3.258427018	1.271936076	23.56137936	-49.70877016	-187.3190761	9-1	46.8
9	46.8	WS5: -45deg	Combination	0.114725139	-1.817132982	0.149496076	-6.744500643	-49.70877016	-241.2326761	9-2	0
9	66.5	WS5: -45deg	Combination	0.114725139	-2.007828982	0.149496076	-6.744500643	-52.65384286	-203.5568008	9-2	19.7
9	86.2	WS5: -45deg	Combination	0.114725139	-2.198524982	0.149496076	-6.744500643	-55.59891556	-162.1242142	9-2	39.4
9	105.9	WS5: -45deg	Combination	0.114725139	-2.389220982	0.149496076	-6.744500643	-58.54398826	-116.9349165	9-2	59.1
9	125.6	WS5: -45deg	Combination	0.114725139	-2.579916982	0.149496076	-6.744500643	-61.48906096	-67.98890754	9-2	78.8
9	145.3	WS5: -45deg	Combination	0.114725139	-2.770612982	0.149496076	-6.744500643	-64.43413366	-15.2861874	9-2	98.5
9	145.3	WS5: -45deg	Combination	2.111525139	-9.412692982	-0.972943924	-37.05038064	-64.43413366	-69.1997874	9-3	0
9	168.8666667	WS5: -45deg	Combination	2.111525139	-9.640818315	-0.972943924	-37.05038064	-41.50508852	155.3140874	9-3	23.56666667
9	192.4333333	WS5: -45deg	Combination	2.111525139	-9.868943648	-0.972943924	-37.05038064	-18.57604338	385.2041159	9-3	47.13333333
9	216	WS5: -45deg	Combination	2.111525139	-10.09706898	-0.972943924	-37.05038064	4.353001763	620.470298	9-3	70.7
9	0	LL - 1 Lane	Combination	-3.277149695	-34.12439957	3.388233552	62.76373283	26.15314513	-1633.112101	9-1	0
9	23.4	LL - 1 Lane	Combination	-3.277149695	-34.12439957	3.388233552	62.76373283	-53.13151997	-834.6011509	9-1	23.4
9	46.8	LL - 1 Lane	Combination	-3.277149695	-34.12439957	3.388233552	62.76373283	-132.4161851	-36.09020101	9-1	46.8
9	46.8	LL - 1 Lane	Combination	-0.387149695	-7.814399567	0.398233552	-17.96626717	-132.4161851	-114.120201	9-2	0
9	66.5	LL - 1 Lane	Combination	-0.387149695	-7.814399567	0.398233552	-17.96626717	-140.261386	39.82347045	9-2	19.7
9	86.2	LL - 1 Lane	Combination	-0.387149695	-7.814399567	0.398233552	-17.96626717	-148.106587	193.7671419	9-2	39.4
9	105.9	LL - 1 Lane	Combination	-0.387149695	-7.814399567	0.398233552	-17.96626717	-155.951788	347.7108134	9-2	59.1
9	125.6	LL - 1 Lane	Combination	-0.387149695	-7.814399567	0.398233552	-17.96626717	-163.7969889	501.6544848	9-2	78.8
9	145.3	LL - 1 Lane	Combination	-0.387149695	-7.814399567	0.398233552	-17.96626717	-171.6421899	655.5981563	9-2	98.5
9	145.3	LL - 1 Lane	Combination	2.502850305	12.04560043	-2.591766448	-98.69626717	-171.6421899	577.5681563	9-3	0
9	168.8666667	LL - 1 Lane	Combination	2.502850305	12.04560043	-2.591766448	-98.69626717	-110.5628939	293.6935061	9-3	23.56666667
9	192.4333333	LL - 1 Lane	Combination	2.502850305	12.04560043	-2.591766448	-98.69626717	-49.48359796	9.818855895	9-3	47.13333333
9	216	LL - 1 Lane	Combination	2.502850305	12.04560043	-2.591766448	-98.69626717	11.59569801	-274.0557943	9-3	70.7
9	0	WS5 + WA	Combination	-1.792575313	2.689694762	1.271936076	23.56137936	9.817838202	-59.59934659	9-1	0
9	23.4	WS5 + WA	Combination	-1.792575313	2.689694762	1.271936076	23.56137936	-19.94546598	-122.538204	9-1	23.4
9	46.8	WS5 + WA	Combination	-1.792575313	2.689694762	1.271936076	23.56137936	-49.70877016	-185.4770614	9-1	46.8
9	46.8	WS5 + WA	Combination	0.204224687	-2.385865238	0.149496076	-6.744500643	-49.70877016	-239.3906614	9-2	0
9	66.5	WS5 + WA	Combination	0.204224687	-2.385865238	0.149496076	-6.744500643	-52.65384286	-192.3891162	9-2	19.7
9	86.2	WS5 + WA	Combination	0.204224687	-2.385865238	0.149496076	-6.744500643	-55.59891556	-145.3875711	9-2	39.4
9	105.9	WS5 + WA	Combination	0.204224687	-2.385865238	0.149496076	-6.744500643	-58.54398826	-98.38602586	9-2	59.1
9	125.6	WS5 + WA	Combination	0.204224687	-2.385865238	0.149496076	-6.744500643	-61.48906096	-51.38448066	9-2	78.8
9	145.3	WS5 + WA	Combination	0.204224687	-2.385865238	0.149496076	-6.744500643	-64.43413366	-4.382935471	9-2	98.5
9	145.3	WS5 + WA	Combination	2.201024687	-9.027945238	-0.972943924	-37.05038064	-64.43413366	-58.29653547	9-3	0
9	168.8666667	WS5 + WA	Combination	2.201024687	-9.027945238	-0.972943924	-37.05038064	-41.50508852	154.4620406	9-3	23.56666667
9	192.4333333	WS5 + WA	Combination	2.201024687	-9.027945238	-0.972943924	-37.05038064	-18.57604338	367.2206168	9-3	47.13333333
9	216	WS5 + WA	Combination	2.201024687	-9.027945238	-0.972943924	-37.05038064	4.353001763	579.9791929	9-3	70.7
9	0	LL - 2 Lane	Combination	-5.361019308	-49.66503977	5.643278624	104.5362507	43.55941898	-2417.3531	9-1	0
9	23.4	LL - 2 Lane	Combination	-5.361019308	-49.66503977	5.643278624	104.5362507	-88.49330082	-1255.191169	9-1	23.4
9	46.8	LL - 2 Lane	Combination	-5.361019308	-49.66503977	5.643278624	104.5362507	-220.5460206	-93.02923847	9-1	46.8
9	46.8	LL - 2 Lane	Combination	-0.551019308	-12.15503977	0.663278624	-29.92374933	-220.5460206	-222.8992385	9-2	0

9	66.5	LL - 2 Lane	Combination	-0.551019308	-12.15503977	0.663278624	-29.92374933	-233.6126095	16.55504508	9-2	19.7
9	86.2	LL - 2 Lane	Combination	-0.551019308	-12.15503977	0.663278624	-29.92374933	-246.6791984	256.0093286	9-2	39.4
9	105.9	LL - 2 Lane	Combination	-0.551019308	-12.15503977	0.663278624	-29.92374933	-259.7457873	495.4636122	9-2	59.1
9	125.6	LL - 2 Lane	Combination	-0.551019308	-12.15503977	0.663278624	-29.92374933	-272.8123762	734.9178957	9-2	78.8
9	145.3	LL - 2 Lane	Combination	-0.551019308	-12.15503977	0.663278624	-29.92374933	-285.8789651	974.3721793	9-2	98.5
9	145.3	LL - 2 Lane	Combination	4.258980692	16.12496023	-4.316721376	-164.3837493	-285.8789651	844.5021793	9-3	0
9	168.8666667	LL - 2 Lane	Combination	4.258980692	16.12496023	-4.316721376	-164.3837493	-184.1482314	464.4906166	9-3	23.56666667
9	192.4333333	LL - 2 Lane	Combination	4.258980692	16.12496023	-4.316721376	-164.3837493	-82.41749761	84.47905395	9-3	47.13333333
9	216	LL - 2 Lane	Combination	4.258980692	16.12496023	-4.316721376	-164.3837493	19.31323614	-295.5325087	9-3	70.7
9	0	LL - 3 Lane	Combination	-6.821613554	-59.5097504	7.19574684	133.2942152	55.54263264	-2891.36588	9-1	0
9	23.4	LL - 3 Lane	Combination	-6.821613554	-59.5097504	7.19574684	133.2942152	-112.8378434	-1498.83772	9-1	23.4
9	46.8	LL - 3 Lane	Combination	-6.821613554	-59.5097504	7.19574684	133.2942152	-281.2183195	-106.309561	9-1	46.8
9	46.8	LL - 3 Lane	Combination	-0.681613554	-14.9297504	0.84574684	-38.15578479	-281.2183195	-272.089561	9-2	0
9	66.5	LL - 3 Lane	Combination	-0.681613554	-14.9297504	0.84574684	-38.15578479	-297.8795322	22.02652182	9-2	19.7
9	86.2	LL - 3 Lane	Combination	-0.681613554	-14.9297504	0.84574684	-38.15578479	-314.540745	316.1426046	9-2	39.4
9	105.9	LL - 3 Lane	Combination	-0.681613554	-14.9297504	0.84574684	-38.15578479	-331.2019577	610.2586874	9-2	59.1
9	125.6	LL - 3 Lane	Combination	-0.681613554	-14.9297504	0.84574684	-38.15578479	-347.8631705	904.3747703	9-2	78.8
9	145.3	LL - 3 Lane	Combination	-0.681613554	-14.9297504	0.84574684	-38.15578479	-364.5243832	1198.490853	9-2	98.5
9	145.3	LL - 3 Lane	Combination	5.458386446	19.7702496	-5.50425316	-209.6057848	-364.5243832	1032.710853	9-3	0
9	168.8666667	LL - 3 Lane	Combination	5.458386446	19.7702496	-5.50425316	-209.6057848	-234.8074838	566.7919707	9-3	23.56666667
9	192.4333333	LL - 3 Lane	Combination	5.458386446	19.7702496	-5.50425316	-209.6057848	-105.0905843	100.8730884	9-3	47.13333333
9	216	LL - 3 Lane	Combination	5.458386446	19.7702496	-5.50425316	-209.6057848	24.62631516	-365.0457939	9-3	70.7
9	0	LL - 7 Lane	Combination	-12.51631936	-90.4071473	12.82769358	237.6205537	99.01458291	-4357.599819	9-1	0
9	23.4	LL - 7 Lane	Combination	-12.51631936	-90.4071473	12.82769358	237.6205537	-201.1534469	-2242.072573	9-1	23.4
9	46.8	LL - 7 Lane	Combination	-12.51631936	-90.4071473	12.82769358	237.6205537	-501.3214766	-126.545326	9-1	46.8
9	46.8	LL - 7 Lane	Combination	-1.566319365	-24.2871473	1.50769358	-68.01944628	-501.3214766	-422.195326	9-2	0
9	66.5	LL - 7 Lane	Combination	-1.566319365	-24.2871473	1.50769358	-68.01944628	-531.0230401	56.26147569	9-2	19.7
9	86.2	LL - 7 Lane	Combination	-1.566319365	-24.2871473	1.50769358	-68.01944628	-560.7246037	534.7182774	9-2	39.4
9	105.9	LL - 7 Lane	Combination	-1.566319365	-24.2871473	1.50769358	-68.01944628	-590.4261672	1013.175079	9-2	59.1
9	125.6	LL - 7 Lane	Combination	-1.566319365	-24.2871473	1.50769358	-68.01944628	-620.1277307	1491.631881	9-2	78.8
9	145.3	LL - 7 Lane	Combination	-1.566319365	-24.2871473	1.50769358	-68.01944628	-649.8292942	1970.088683	9-2	98.5
9	145.3	LL - 7 Lane	Combination	9.383680635	37.9228527	-9.81230642	-373.6594463	-649.8292942	1674.438683	9-3	0
9	168.8666667	LL - 7 Lane	Combination	9.383680635	37.9228527	-9.81230642	-373.6594463	-418.5859396	780.7234539	9-3	23.56666667
9	192.4333333	LL - 7 Lane	Combination	9.383680635	37.9228527	-9.81230642	-373.6594463	-187.3425849	-112.9917749	9-3	47.13333333
9	216	LL - 7 Lane	Combination	9.383680635	37.9228527	-9.81230642	-373.6594463	43.90076971	-1006.707004	9-3	70.7
9	0	LL Envelope	Combination Max	-3.277149695	-34.12439957	12.82769358	237.6205537	99.01458291	-1633.112101	9-1	0
9	23.4	LL Envelope	Combination Max	-3.277149695	-34.12439957	12.82769358	237.6205537	-53.13151997	-834.6011509	9-1	23.4
9	46.8	LL Envelope	Combination Max	-3.277149695	-34.12439957	12.82769358	237.6205537	-132.4161851	-36.09020101	9-1	46.8
9	46.8	LL Envelope	Combination Max	-0.387149695	-7.814399567	1.50769358	-17.96626717	-132.4161851	-114.120201	9-2	0
9	66.5	LL Envelope	Combination Max	-0.387149695	-7.814399567	1.50769358	-17.96626717	-140.261386	56.26147569	9-2	19.7
9	86.2	LL Envelope	Combination Max	-0.387149695	-7.814399567	1.50769358	-17.96626717	-148.106587	534.7182774	9-2	39.4
9	105.9	LL Envelope	Combination Max	-0.387149695	-7.814399567	1.50769358	-17.96626717	-155.951788	1013.175079	9-2	59.1

9	125.6	LL Envelope	Combination Max	-0.387149695	-7.814399567	1.50769358	-17.96626717	-163.7969889	1491.631881	9-2	78.8
9	145.3	LL Envelope	Combination Max	-0.387149695	-7.814399567	1.50769358	-17.96626717	-171.6421899	1970.088683	9-2	98.5
9	145.3	LL Envelope	Combination Max	9.383680635	37.9228527	-2.591766448	-98.69626717	-171.6421899	1674.438683	9-3	0
9	168.8666667	LL Envelope	Combination Max	9.383680635	37.9228527	-2.591766448	-98.69626717	-110.5628939	780.7234539	9-3	23.56666667
9	192.4333333	LL Envelope	Combination Max	9.383680635	37.9228527	-2.591766448	-98.69626717	-49.48359796	100.8730884	9-3	47.13333333
9	216	LL Envelope	Combination Max	9.383680635	37.9228527	-2.591766448	-98.69626717	43.90076971	-274.0557943	9-3	70.7
9	0	LL Envelope	Combination Min	-12.51631936	-90.4071473	3.388233552	62.76373283	26.15314513	-4357.599819	9-1	0
9	23.4	LL Envelope	Combination Min	-12.51631936	-90.4071473	3.388233552	62.76373283	-201.1534469	-2242.072573	9-1	23.4
9	46.8	LL Envelope	Combination Min	-12.51631936	-90.4071473	3.388233552	62.76373283	-501.3214766	-126.545326	9-1	46.8
9	46.8	LL Envelope	Combination Min	-1.566319365	-24.2871473	0.398233552	-68.01944628	-501.3214766	-422.195326	9-2	0
9	66.5	LL Envelope	Combination Min	-1.566319365	-24.2871473	0.398233552	-68.01944628	-531.0230401	16.55504508	9-2	19.7
9	86.2	LL Envelope	Combination Min	-1.566319365	-24.2871473	0.398233552	-68.01944628	-560.7246037	193.7671419	9-2	39.4
9	105.9	LL Envelope	Combination Min	-1.566319365	-24.2871473	0.398233552	-68.01944628	-590.4261672	347.7108134	9-2	59.1
9	125.6	LL Envelope	Combination Min	-1.566319365	-24.2871473	0.398233552	-68.01944628	-620.1277307	501.6544848	9-2	78.8
9	145.3	LL Envelope	Combination Min	-1.566319365	-24.2871473	0.398233552	-68.01944628	-649.8292942	655.5981563	9-2	98.5
9	145.3	LL Envelope	Combination Min	2.502850305	12.04560043	-9.81230642	-373.6594463	-649.8292942	577.5681563	9-3	0
9	168.8666667	LL Envelope	Combination Min	2.502850305	12.04560043	-9.81230642	-373.6594463	-418.5859396	293.6935061	9-3	23.56666667
9	192.4333333	LL Envelope	Combination Min	2.502850305	12.04560043	-9.81230642	-373.6594463	-187.3425849	-112.9917749	9-3	47.13333333
9	216	LL Envelope	Combination Min	2.502850305	12.04560043	-9.81230642	-373.6594463	11.59569801	-1006.707004	9-3	70.7
9	0	WS3 & WA envelope	Combination Max	-0.956491599	9.494446014	1.597795755	29.59761314	12.33308851	124.2160337	9-1	0
9	23.4	WS3 & WA envelope	Combination Max	-0.956491599	9.104446014	1.597795755	29.59761314	-9.2704729	-34.55467111	9-1	23.4
9	46.8	WS3 & WA envelope	Combination Max	-0.956491599	8.714446014	1.597795755	29.59761314	-23.10418855	-111.6926547	9-1	46.8
9	46.8	WS3 & WA envelope	Combination Max	0.417382989	-0.693954975	0.187795755	-3.134783138	-23.10418855	-138.6656547	9-2	0
9	66.5	WS3 & WA envelope	Combination Max	0.417382989	-0.815438308	0.187795755	-3.134783138	-24.47303181	-123.7981309	9-2	19.7
9	86.2	WS3 & WA envelope	Combination Max	0.417382989	-0.936921642	0.187795755	-3.134783138	-25.84187506	-106.5373853	9-2	39.4
9	105.9	WS3 & WA envelope	Combination Max	0.417382989	-1.058404975	0.187795755	-3.134783138	-27.21071832	-86.88341818	9-2	59.1
9	125.6	WS3 & WA envelope	Combination Max	0.417382989	-1.179888308	0.187795755	-3.134783138	-28.57956158	-64.83622934	9-2	78.8
9	145.3	WS3 & WA envelope	Combination Max	0.417382989	-1.301371642	0.187795755	-3.134783138	-29.94840484	-40.39581883	9-2	98.5
9	145.3	WS3 & WA envelope	Combination Max	3.117382989	-6.340771642	-0.452215571	-17.22068314	-29.94840484	-67.36881883	9-3	0
9	168.8666667	WS3 & WA envelope	Combination Max	3.117382989	-6.486099419	-0.452215571	-17.22068314	-19.29119123	229.4880271	9-3	23.56666667
9	192.4333333	WS3 & WA envelope	Combination Max	3.117382989	-6.631427197	-0.452215571	-17.22068314	-8.633977611	644.1693706	9-3	47.13333333
9	216	WS3 & WA envelope	Combination Max	3.117382989	-6.776754975	-0.452215571	-17.22068314	5.468205414	1071.177695	9-3	70.7
9	0	WS3 & WA envelope	Combination Min	-2.803600946	3.512945025	0.591184429	10.95111686	4.563242748	45.95993248	9-1	0
9	23.4	WS3 & WA envelope	Combination Min	-2.803600946	3.368645025	0.591184429	10.95111686	-25.05533216	-122.6347762	9-1	23.4
9	46.8	WS3 & WA envelope	Combination Min	-2.803600946	3.224345025	0.591184429	10.95111686	-62.44375283	-303.3575853	9-1	46.8
9	46.8	WS3 & WA envelope	Combination Min	-0.103600946	-2.878807334	0.069484429	-8.472386859	-62.44375283	-376.2575853	9-2	0
9	66.5	WS3 & WA envelope	Combination Min	-0.103600946	-2.895224001	0.069484429	-8.472386859	-66.1433292	-334.5895429	9-2	19.7
9	86.2	WS3 & WA envelope	Combination Min	-0.103600946	-2.911640668	0.069484429	-8.472386859	-69.84290558	-287.9388793	9-2	39.4
9	105.9	WS3 & WA envelope	Combination Min	-0.103600946	-2.928057334	0.069484429	-8.472386859	-73.54248195	-234.8200491	9-2	59.1
9	125.6	WS3 & WA envelope	Combination Min	-0.103600946	-3.18888732	0.069484429	-8.472386859	-77.24205833	-175.2330523	9-2	78.8
9	145.3	WS3 & WA envelope	Combination Min	-0.103600946	-3.517220653	0.069484429	-8.472386859	-80.9416347	-109.1778887	9-2	98.5
9	145.3	WS3 & WA envelope	Combination Min	1.041508401	-17.13722065	-1.222204245	-46.54238686	-80.9416347	-182.0778887	9-3	0

9	168.8666667	WS3 & WA envelope	Combination Min	1.041508401	-17.52999843	-1.222204245	-46.54238686	-52.13835466	83.77447851	9-3	23.56666667
9	192.4333333	WS3 & WA envelope	Combination Min	1.041508401	-17.92277621	-1.222204245	-46.54238686	-23.33507462	238.3426671	9-3	47.13333333
9	216	WS3 & WA envelope	Combination Min	1.041508401	-18.31555399	-1.222204245	-46.54238686	2.023236003	396.3357471	9-3	70.7
9	0	WS3 + WA	Combination	-2.282617011	7.764910044	1.597795755	29.59761314	12.33308851	66.50535979	9-1	0
9	23.4	WS3 + WA	Combination	-2.282617011	7.764910044	1.597795755	29.59761314	-25.05533216	-115.1935352	9-1	23.4
9	46.8	WS3 + WA	Combination	-2.282617011	7.764910044	1.597795755	29.59761314	-62.44375283	-296.8924303	9-1	46.8
9	46.8	WS3 + WA	Combination	0.417382989	-2.825089956	0.187795755	-8.472386859	-62.44375283	-369.7924303	9-2	0
9	66.5	WS3 + WA	Combination	0.417382989	-2.825089956	0.187795755	-8.472386859	-66.1433292	-314.1381581	9-2	19.7
9	86.2	WS3 + WA	Combination	0.417382989	-2.825089956	0.187795755	-8.472386859	-69.84290558	-258.483886	9-2	39.4
9	105.9	WS3 + WA	Combination	0.417382989	-2.825089956	0.187795755	-8.472386859	-73.54248195	-202.8296139	9-2	59.1
9	125.6	WS3 + WA	Combination	0.417382989	-2.825089956	0.187795755	-8.472386859	-77.24205833	-147.1753417	9-2	78.8
9	145.3	WS3 + WA	Combination	0.417382989	-2.825089956	0.187795755	-8.472386859	-80.9416347	-91.52106959	9-2	98.5
9	145.3	WS3 + WA	Combination	3.117382989	-16.44508996	-1.222204245	-46.54238686	-80.9416347	-164.4210696	9-3	0
9	168.8666667	WS3 + WA	Combination	3.117382989	-16.44508996	-1.222204245	-46.54238686	-52.13835466	223.1348837	9-3	23.56666667
9	192.4333333	WS3 + WA	Combination	3.117382989	-16.44508996	-1.222204245	-46.54238686	-23.33507462	610.690837	9-3	47.13333333
9	216	WS3 + WA	Combination	3.117382989	-16.44508996	-1.222204245	-46.54238686	5.468205414	998.2467903	9-3	70.7
9	0	WS5 & WA envelope	Combination Max	-1.792575313	3.711451018	1.271936076	23.56137936	9.817838202	-24.22393005	9-1	0
9	23.4	WS5 & WA envelope	Combination Max	-1.792575313	3.484939018	1.271936076	23.56137936	-19.94546598	-108.4216935	9-1	23.4
9	46.8	WS5 & WA envelope	Combination Max	-1.792575313	3.258427018	1.271936076	23.56137936	-49.70877016	-185.4770614	9-1	46.8
9	46.8	WS5 & WA envelope	Combination Max	0.204224687	-1.817132982	0.149496076	-6.744500643	-49.70877016	-239.3906614	9-2	0
9	66.5	WS5 & WA envelope	Combination Max	0.204224687	-2.007828982	0.149496076	-6.744500643	-52.65384286	-192.3891162	9-2	19.7
9	86.2	WS5 & WA envelope	Combination Max	0.204224687	-2.198524982	0.149496076	-6.744500643	-55.59891556	-145.3875711	9-2	39.4
9	105.9	WS5 & WA envelope	Combination Max	0.204224687	-2.385865238	0.149496076	-6.744500643	-58.54398826	-98.38602586	9-2	59.1
9	125.6	WS5 & WA envelope	Combination Max	0.204224687	-2.385865238	0.149496076	-6.744500643	-61.48906096	-51.18710943	9-2	78.8
9	145.3	WS5 & WA envelope	Combination Max	0.204224687	-2.385865238	0.149496076	-6.744500643	-64.43413366	-2.968996423	9-2	98.5
9	145.3	WS5 & WA envelope	Combination Max	2.201024687	-9.027945238	-0.972943924	-37.05038064	-64.43413366	-56.88259642	9-3	0
9	168.8666667	WS5 & WA envelope	Combination Max	2.201024687	-9.027945238	-0.972943924	-37.05038064	-41.50508852	157.536962	9-3	23.56666667
9	192.4333333	WS5 & WA envelope	Combination Max	2.201024687	-9.027945238	-0.972943924	-37.05038064	-18.57604338	385.2041159	9-3	47.13333333
9	216	WS5 & WA envelope	Combination Max	2.201024687	-9.027945238	-0.972943924	-37.05038064	4.353001763	620.470298	9-3	70.7
9	0	WS5 & WA envelope	Combination Min	-2.044731538	2.682571551	1.271936076	23.56137936	9.817838202	-63.47801494	9-1	0
9	23.4	WS5 & WA envelope	Combination Min	-2.044731538	2.67313551	1.271936076	23.56137936	-19.94546598	-126.1397646	9-1	23.4
9	46.8	WS5 & WA envelope	Combination Min	-2.044731538	2.663695551	1.271936076	23.56137936	-49.70877016	-188.6061965	9-1	46.8
9	46.8	WS5 & WA envelope	Combination Min	-0.047931538	-2.411864449	0.149496076	-6.744500643	-49.70877016	-242.5197965	9-2	0
9	66.5	WS5 & WA envelope	Combination Min	-0.047931538	-2.419810116	0.149496076	-6.744500643	-52.65384286	-203.5568008	9-2	19.7
9	86.2	WS5 & WA envelope	Combination Min	-0.047931538	-2.427755783	0.149496076	-6.744500643	-55.59891556	-162.1242142	9-2	39.4
9	105.9	WS5 & WA envelope	Combination Min	-0.047931538	-2.435701449	0.149496076	-6.744500643	-58.54398826	-116.9349165	9-2	59.1
9	125.6	WS5 & WA envelope	Combination Min	-0.047931538	-2.579916982	0.149496076	-6.744500643	-61.48906096	-67.98890754	9-2	78.8
9	145.3	WS5 & WA envelope	Combination Min	-0.047931538	-2.770612982	0.149496076	-6.744500643	-64.43413366	-15.2861874	9-2	98.5
9	145.3	WS5 & WA envelope	Combination Min	1.948868462	-9.412692982	-0.972943924	-37.05038064	-64.43413366	-69.1997874	9-3	0
9	168.8666667	WS5 & WA envelope	Combination Min	1.948868462	-9.640818315	-0.972943924	-37.05038064	-41.50508852	154.4620406	9-3	23.56666667
9	192.4333333	WS5 & WA envelope	Combination Min	1.948868462	-9.868943648	-0.972943924	-37.05038064	-18.57604338	367.2206168	9-3	47.13333333
9	216	WS5 & WA envelope	Combination Min	1.948868462	-10.09706898	-0.972943924	-37.05038064	4.353001763	579.9791929	9-3	70.7

9	0	Strength 1 - Max	Combination Max	-13.68953498	-382.0985478	22.44846376	415.835969	173.2755201	-15360.13396	9-1	0
9	23.4	Strength 1 - Max	Combination Max	-13.68953498	-375.5172978	22.44846376	415.835969	-92.98015995	-6496.028566	9-1	23.4
9	46.8	Strength 1 - Max	Combination Max	-13.68953498	-368.9360478	22.44846376	415.835969	-231.7283239	2214.075578	9-1	46.8
9	46.8	Strength 1 - Max	Combination Max	-8.632034983	-62.67854782	2.638463764	-31.44096755	-231.7283239	2077.523078	9-2	0
9	66.5	Strength 1 - Max	Combination Max	-8.632034983	-57.13792282	2.638463764	-31.44096755	-245.4574256	3286.481823	9-2	19.7
9	86.2	Strength 1 - Max	Combination Max	-8.632034983	-51.59729782	2.638463764	-31.44096755	-259.1865273	4925.421724	9-2	39.4
9	105.9	Strength 1 - Max	Combination Max	-8.632034983	-46.05667282	2.638463764	-31.44096755	-272.915629	6455.211312	9-2	59.1
9	125.6	Strength 1 - Max	Combination Max	-8.632034983	-40.51604782	2.638463764	-31.44096755	-286.6447306	7875.850589	9-2	78.8
9	145.3	Strength 1 - Max	Combination Max	-8.632034983	-34.97542282	2.638463764	-31.44096755	-300.3738323	9187.339552	9-2	98.5
9	145.3	Strength 1 - Max	Combination Max	8.466918095	305.2797687	-4.535591285	-172.7184675	-300.3738323	8669.952052	9-3	0
9	168.8666667	Strength 1 - Max	Combination Max	8.466918095	311.9078937	-4.535591285	-172.7184675	-193.4850644	1397.424098	9-3	23.56666667
9	192.4333333	Strength 1 - Max	Combination Max	8.466918095	318.5360187	-4.535591285	-172.7184675	-86.59629643	-5657.043158	9-3	47.13333333
9	216	Strength 1 - Max	Combination Max	8.466918095	325.1641437	-4.535591285	-172.7184675	76.82634699	-12334.10063	9-3	70.7
9	0	Strength 1 - Max	Combination Min	-29.8580819	-480.5933563	5.929408715	109.8365325	45.76800398	-20127.98747	9-1	0
9	23.4	Strength 1 - Max	Combination Min	-29.8580819	-474.0121063	5.929408715	109.8365325	-352.018532	-8959.103555	9-1	23.4
9	46.8	Strength 1 - Max	Combination Min	-29.8580819	-467.4308563	5.929408715	109.8365325	-877.3125841	2055.779109	9-1	46.8
9	46.8	Strength 1 - Max	Combination Min	-10.6955819	-91.50585634	0.696908715	-119.034031	-877.3125841	1538.391609	9-2	0
9	66.5	Strength 1 - Max	Combination Min	-10.6955819	-85.96523134	0.696908715	-119.034031	-929.2903202	3216.995569	9-2	19.7
9	86.2	Strength 1 - Max	Combination Min	-10.6955819	-80.42460634	0.696908715	-119.034031	-981.2680564	4328.757237	9-2	39.4
9	105.9	Strength 1 - Max	Combination Min	-10.6955819	-74.88398134	0.696908715	-119.034031	-1033.245793	5290.648847	9-2	59.1
9	125.6	Strength 1 - Max	Combination Min	-10.6955819	-69.34335634	0.696908715	-119.034031	-1085.223529	6143.390146	9-2	78.8
9	145.3	Strength 1 - Max	Combination Min	-10.6955819	-63.80273134	0.696908715	-119.034031	-1137.201265	6886.981131	9-2	98.5
9	145.3	Strength 1 - Max	Combination Min	-3.574534983	259.9945772	-17.17153624	-653.904031	-1137.201265	6750.428631	9-3	0
9	168.8666667	Strength 1 - Max	Combination Min	-3.574534983	266.6227022	-17.17153624	-653.904031	-732.5253942	545.1216895	9-3	23.56666667
9	192.4333333	Strength 1 - Max	Combination Min	-3.574534983	273.2508272	-17.17153624	-653.904031	-327.8495236	-6031.306669	9-3	47.13333333
9	216	Strength 1 - Max	Combination Min	-3.574534983	279.8789522	-17.17153624	-653.904031	20.29247151	-13616.24025	9-3	70.7
9	0	Strength 1 - Min	Combination Max	-11.17703646	-279.6181517	22.44846376	415.835969	173.2755201	-11383.01962	9-1	0
9	23.4	Strength 1 - Min	Combination Max	-11.17703646	-274.8796517	22.44846376	415.835969	-92.98015995	-4895.395321	9-1	23.4
9	46.8	Strength 1 - Min	Combination Max	-11.17703646	-270.1411517	22.44846376	415.835969	-231.7283239	1481.348078	9-1	46.8
9	46.8	Strength 1 - Min	Combination Max	-6.119536463	-47.62715169	2.638463764	-31.44096755	-231.7283239	1344.795578	9-2	0
9	66.5	Strength 1 - Min	Combination Max	-6.119536463	-43.63790169	2.638463764	-31.44096755	-245.4574256	2272.522863	9-2	19.7
9	86.2	Strength 1 - Min	Combination Max	-6.119536463	-39.64865169	2.638463764	-31.44096755	-259.1865273	3660.793392	9-2	39.4
9	105.9	Strength 1 - Min	Combination Max	-6.119536463	-35.65940169	2.638463764	-31.44096755	-272.915629	4970.475695	9-2	59.1
9	125.6	Strength 1 - Min	Combination Max	-6.119536463	-31.67015169	2.638463764	-31.44096755	-286.6447306	6201.569774	9-2	78.8
9	145.3	Strength 1 - Min	Combination Max	-6.119536463	-27.68090169	2.638463764	-31.44096755	-300.3738323	7354.075628	9-2	98.5
9	145.3	Strength 1 - Min	Combination Max	10.97941662	228.8307898	-4.535591285	-172.7184675	-300.3738323	6836.688128	9-3	0
9	168.8666667	Strength 1 - Min	Combination Max	10.97941662	233.6030398	-4.535591285	-172.7184675	-193.4850644	1387.676169	9-3	23.56666667
9	192.4333333	Strength 1 - Min	Combination Max	10.97941662	238.3752898	-4.535591285	-172.7184675	-86.59629643	-3799.538303	9-3	47.13333333
9	216	Strength 1 - Min	Combination Max	10.97941662	243.1475398	-4.535591285	-172.7184675	76.82634699	-8565.606207	9-3	70.7
9	0	Strength 1 - Min	Combination Min	-27.34558338	-378.1129602	5.929408715	109.8365325	45.76800398	-16150.87313	9-1	0
9	23.4	Strength 1 - Min	Combination Min	-27.34558338	-373.3744602	5.929408715	109.8365325	-352.018532	-7358.47031	9-1	23.4
9	46.8	Strength 1 - Min	Combination Min	-27.34558338	-368.6359602	5.929408715	109.8365325	-877.3125841	1323.051609	9-1	46.8

9	46.8	Strength 1 - Min	Combination Min	-8.183083385	-76.45446021	0.696908715	-119.034031	-877.3125841	805.6641093	9-2		0
9	66.5	Strength 1 - Min	Combination Min	-8.183083385	-72.46521021	0.696908715	-119.034031	-929.2903202	2203.036609	9-2		19.7
9	86.2	Strength 1 - Min	Combination Min	-8.183083385	-68.47596021	0.696908715	-119.034031	-981.2680564	3064.128905	9-2		39.4
9	105.9	Strength 1 - Min	Combination Min	-8.183083385	-64.48671021	0.696908715	-119.034031	-1033.245793	3805.91323	9-2		59.1
9	125.6	Strength 1 - Min	Combination Min	-8.183083385	-60.49746021	0.696908715	-119.034031	-1085.223529	4469.109331	9-2		78.8
9	145.3	Strength 1 - Min	Combination Min	-8.183083385	-56.50821021	0.696908715	-119.034031	-1137.201265	5053.717207	9-2		98.5
9	145.3	Strength 1 - Min	Combination Min	-1.062036463	183.5455983	-17.17153624	-653.904031	-1137.201265	4917.164707	9-3		0
9	168.8666667	Strength 1 - Min	Combination Min	-1.062036463	188.3178483	-17.17153624	-653.904031	-732.5253942	535.3737607	9-3		23.56666667
9	192.4333333	Strength 1 - Min	Combination Min	-1.062036463	193.0900983	-17.17153624	-653.904031	-327.8495236	-4173.801814	9-3		47.13333333
9	216	Strength 1 - Min	Combination Min	-1.062036463	197.8623483	-17.17153624	-653.904031	20.29247151	-9847.745823	9-3		70.7
9	0	Strength 3 - Max	Combination Max	-8.911014616	-312.8864026	1.597795755	29.59761314	12.33308851	-12377.97175	9-1		0
9	23.4	Strength 3 - Max	Combination Max	-8.911014616	-306.6951526	1.597795755	29.59761314	-9.2704729	-5070.031223	9-1		23.4
9	46.8	Strength 3 - Max	Combination Max	-8.911014616	-300.5039026	1.597795755	29.59761314	-23.10418855	2165.540775	9-1		46.8
9	46.8	Strength 3 - Max	Combination Max	-7.537140027	-49.69730355	0.187795755	-3.134783138	-23.10418855	2138.567775	9-2		0
9	66.5	Strength 3 - Max	Combination Max	-7.537140027	-44.27816188	0.187795755	-3.134783138	-24.47303181	3064.226109	9-2		19.7
9	86.2	Strength 3 - Max	Combination Max	-7.537140027	-38.85902022	0.187795755	-3.134783138	-25.84187506	3883.127353	9-2		39.4
9	105.9	Strength 3 - Max	Combination Max	-7.537140027	-33.43987855	0.187795755	-3.134783138	-27.21071832	4595.271506	9-2		59.1
9	125.6	Strength 3 - Max	Combination Max	-7.537140027	-28.02073688	0.187795755	-3.134783138	-28.57956158	5200.658568	9-2		78.8
9	145.3	Strength 3 - Max	Combination Max	-7.537140027	-22.60159522	0.187795755	-3.134783138	-29.94840484	5699.288539	9-2		98.5
9	145.3	Strength 3 - Max	Combination Max	-4.837140027	232.5740048	-0.452215571	-17.22068314	-29.94840484	5672.315539	9-3		0
9	168.8666667	Strength 3 - Max	Combination Max	-4.837140027	239.056802	-0.452215571	-17.22068314	-19.29119123	260.6460809	9-3		23.56666667
9	192.4333333	Strength 3 - Max	Combination Max	-4.837140027	245.5395992	-0.452215571	-17.22068314	-8.633977611	-5189.401692	9-3		47.13333333
9	216	Strength 3 - Max	Combination Max	-4.837140027	252.0223965	-0.452215571	-17.22068314	5.468205414	-10783.3253	9-3		70.7
9	0	Strength 3 - Max	Combination Min	-10.75812396	-318.8679036	0.591184429	10.95111686	4.563242748	-12456.22785	9-1		0
9	23.4	Strength 3 - Max	Combination Min	-10.75812396	-312.4309536	0.591184429	10.95111686	-25.05533216	-5158.111328	9-1		23.4
9	46.8	Strength 3 - Max	Combination Min	-10.75812396	-305.9940036	0.591184429	10.95111686	-62.44375283	1973.875844	9-1		46.8
9	46.8	Strength 3 - Max	Combination Min	-8.058123963	-51.88215591	0.069484429	-8.472386859	-62.44375283	1900.975844	9-2		0
9	66.5	Strength 3 - Max	Combination Min	-8.058123963	-46.35794758	0.069484429	-8.472386859	-66.1433292	2853.434697	9-2		19.7
9	86.2	Strength 3 - Max	Combination Min	-8.058123963	-40.83373924	0.069484429	-8.472386859	-69.84290558	3701.725859	9-2		39.4
9	105.9	Strength 3 - Max	Combination Min	-8.058123963	-35.30953091	0.069484429	-8.472386859	-73.54248195	4447.334875	9-2		59.1
9	125.6	Strength 3 - Max	Combination Min	-8.058123963	-30.02973589	0.069484429	-8.472386859	-77.24205833	5090.261745	9-2		78.8
9	145.3	Strength 3 - Max	Combination Min	-8.058123963	-24.81744423	0.069484429	-8.472386859	-80.9416347	5630.506469	9-2		98.5
9	145.3	Strength 3 - Max	Combination Min	-6.913014616	221.7775558	-1.222204245	-46.54238686	-80.9416347	5557.606469	9-3		0
9	168.8666667	Strength 3 - Max	Combination Min	-6.913014616	228.012903	-1.222204245	-46.54238686	-52.13835466	114.9325323	9-3		23.56666667
9	192.4333333	Strength 3 - Max	Combination Min	-6.913014616	234.2482502	-1.222204245	-46.54238686	-23.33507462	-5595.228396	9-3		47.13333333
9	216	Strength 3 - Max	Combination Min	-6.913014616	240.4835974	-1.222204245	-46.54238686	2.023236003	-11458.16724	9-3		70.7
9	0	Strength 3 - Min	Combination Max	-6.398516096	-210.4060064	1.597795755	29.59761314	12.33308851	-8400.857411	9-1		0
9	23.4	Strength 3 - Min	Combination Max	-6.398516096	-206.0575064	1.597795755	29.59761314	-9.2704729	-3469.397978	9-1		23.4
9	46.8	Strength 3 - Min	Combination Max	-6.398516096	-201.7090064	1.597795755	29.59761314	-23.10418855	1432.813275	9-1		46.8
9	46.8	Strength 3 - Min	Combination Max	-5.024641507	-34.64590742	0.187795755	-3.134783138	-23.10418855	1405.840275	9-2		0
9	66.5	Strength 3 - Min	Combination Max	-5.024641507	-30.77814075	0.187795755	-3.134783138	-24.47303181	2050.26715	9-2		19.7
9	86.2	Strength 3 - Min	Combination Max	-5.024641507	-26.91037409	0.187795755	-3.134783138	-25.84187506	2618.499021	9-2		39.4

9	105.9	Strength 3 - Min	Combination Max	-5.024641507	-23.04260742	0.187795755	-3.134783138	-27.21071832	3110.535889	9-2		59.1
9	125.6	Strength 3 - Min	Combination Max	-5.024641507	-19.17484075	0.187795755	-3.134783138	-28.57956158	3526.377753	9-2		78.8
9	145.3	Strength 3 - Min	Combination Max	-5.024641507	-15.30707409	0.187795755	-3.134783138	-29.94840484	3866.024614	9-2		98.5
9	145.3	Strength 3 - Min	Combination Max	-2.324641507	156.1250259	-0.452215571	-17.22068314	-29.94840484	3839.051614	9-3		0
9	168.8666667	Strength 3 - Min	Combination Max	-2.324641507	160.7519481	-0.452215571	-17.22068314	-19.29119123	250.8981521	9-3		23.56666667
9	192.4333333	Strength 3 - Min	Combination Max	-2.324641507	165.3788704	-0.452215571	-17.22068314	-8.633977611	-3331.896838	9-3		47.13333333
9	216	Strength 3 - Min	Combination Max	-2.324641507	170.0057926	-0.452215571	-17.22068314	5.468205414	-7014.830872	9-3		70.7
9	0	Strength 3 - Min	Combination Min	-8.245625443	-216.3875074	0.591184429	10.95111686	4.563242748	-8479.113512	9-1		0
9	23.4	Strength 3 - Min	Combination Min	-8.245625443	-211.7933074	0.591184429	10.95111686	-25.05533216	-3557.478083	9-1		23.4
9	46.8	Strength 3 - Min	Combination Min	-8.245625443	-207.1991074	0.591184429	10.95111686	-62.44375283	1241.148345	9-1		46.8
9	46.8	Strength 3 - Min	Combination Min	-5.545625443	-36.83075978	0.069484429	-8.472386859	-62.44375283	1168.248345	9-2		0
9	66.5	Strength 3 - Min	Combination Min	-5.545625443	-32.85792645	0.069484429	-8.472386859	-66.1433292	1839.475738	9-2		19.7
9	86.2	Strength 3 - Min	Combination Min	-5.545625443	-28.88509311	0.069484429	-8.472386859	-69.84290558	2437.097527	9-2		39.4
9	105.9	Strength 3 - Min	Combination Min	-5.545625443	-24.91225978	0.069484429	-8.472386859	-73.54248195	2962.599258	9-2		59.1
9	125.6	Strength 3 - Min	Combination Min	-5.545625443	-21.18383976	0.069484429	-8.472386859	-77.24205833	3415.98093	9-2		78.8
9	145.3	Strength 3 - Min	Combination Min	-5.545625443	-17.5229231	0.069484429	-8.472386859	-80.9416347	3797.242545	9-2		98.5
9	145.3	Strength 3 - Min	Combination Min	-4.400516096	145.3285769	-1.222204245	-46.54238686	-80.9416347	3724.342545	9-3		0
9	168.8666667	Strength 3 - Min	Combination Min	-4.400516096	149.7080491	-1.222204245	-46.54238686	-52.13835466	105.1846035	9-3		23.56666667
9	192.4333333	Strength 3 - Min	Combination Min	-4.400516096	154.0875213	-1.222204245	-46.54238686	-23.33507462	-3737.723541	9-3		47.13333333
9	216	Strength 3 - Min	Combination Min	-4.400516096	158.4669936	-1.222204245	-46.54238686	2.023236003	-7689.672819	9-3		70.7
9	0	Strength 5 - Max	Combination Max	-14.17125042	-364.737337	18.58932241	344.3491269	143.4875251	-14731.11305	9-1		0
9	23.4	Strength 5 - Max	Combination Max	-14.17125042	-358.382599	18.58932241	344.3491269	-91.67301794	-6270.609799	9-1		23.4
9	46.8	Strength 5 - Max	Combination Max	-14.17125042	-352.027861	18.58932241	344.3491269	-228.47062	2043.034597	9-1		46.8
9	46.8	Strength 5 - Max	Combination Max	-8.272950418	-61.36992097	2.184882409	-30.99896132	-228.47062	1883.780497	9-2		0
9	66.5	Strength 5 - Max	Combination Max	-8.272950418	-56.01999197	2.184882409	-30.99896132	-242.006714	3071.588116	9-2		19.7
9	86.2	Strength 5 - Max	Combination Max	-8.272950418	-50.67006297	2.184882409	-30.99896132	-255.542808	4566.146842	9-2		39.4
9	105.9	Strength 5 - Max	Combination Max	-8.272950418	-45.31677823	2.184882409	-30.99896132	-269.078902	5951.555255	9-2		59.1
9	125.6	Strength 5 - Max	Combination Max	-8.272950418	-39.77615323	2.184882409	-30.99896132	-282.614996	7228.010727	9-2		78.8
9	145.3	Strength 5 - Max	Combination Max	-8.272950418	-34.23552823	2.184882409	-30.99896132	-296.15109	8396.335083	9-2		98.5
9	145.3	Strength 5 - Max	Combination Max	6.914470528	281.0826823	-4.471828629	-170.2903413	-296.15109	7943.293983	9-3		0
9	168.8666667	Strength 5 - Max	Combination Max	6.914470528	287.7108073	-4.471828629	-170.2903413	-190.7649953	1242.671679	9-3		23.56666667
9	192.4333333	Strength 5 - Max	Combination Max	6.914470528	294.3389323	-4.471828629	-170.2903413	-85.37890063	-5312.188277	9-3		47.13333333
9	216	Strength 5 - Max	Combination Max	6.914470528	300.9670573	-4.471828629	-170.2903413	63.61904087	-11604.00802	9-3		70.7
9	0	Strength 5 - Max	Combination Min	-26.8962857	-441.7479259	5.846051371	108.2924187	45.12458413	-18448.42556	9-1		0
9	23.4	Strength 5 - Max	Combination Min	-26.8962857	-435.1761139	5.846051371	108.2924187	-291.5026192	-8188.41429	9-1		23.4
9	46.8	Strength 5 - Max	Combination Min	-26.8962857	-428.6043019	5.846051371	108.2924187	-726.4927636	1917.791043	9-1		46.8
9	46.8	Strength 5 - Max	Combination Min	-10.1169857	-84.20286187	0.687111371	-98.57075312	-726.4927636	1464.749943	9-2		0
9	66.5	Strength 5 - Max	Combination Min	-10.1169857	-78.67018254	0.687111371	-98.57075312	-769.534947	3006.81675	9-2		19.7
9	86.2	Strength 5 - Max	Combination Min	-10.1169857	-73.13750321	0.687111371	-98.57075312	-812.5771305	4089.126166	9-2		39.4
9	105.9	Strength 5 - Max	Combination Min	-10.1169857	-67.60482387	0.687111371	-98.57075312	-855.6193139	5034.629606	9-2		59.1
9	125.6	Strength 5 - Max	Combination Min	-10.1169857	-62.20841441	0.687111371	-98.57075312	-898.6614974	5874.739444	9-2		78.8
9	145.3	Strength 5 - Max	Combination Min	-10.1169857	-56.85848541	0.687111371	-98.57075312	-941.7036808	6609.455681	9-2		98.5

9	145.3	Strength 5 - Max	Combination Min	-2.626806643	245.763644	-14.21955759	-541.4906331	-941.7036808	6450.201581	9-3	0
9	168.8666667	Strength 5 - Max	Combination Min	-2.626806643	252.1636437	-14.21955759	-541.4906331	-606.5961069	582.1063277	9-3	23.56666667
9	192.4333333	Strength 5 - Max	Combination Min	-2.626806643	258.5636434	-14.21955759	-541.4906331	-271.488533	-5618.889342	9-3	47.13333333
9	216	Strength 5 - Max	Combination Min	-2.626806643	264.963643	-14.21955759	-541.4906331	20.00719407	-12633.57825	9-3	70.7
9	0	Strength 5 - Min	Combination Max	-11.6587519	-262.2569408	18.58932241	344.3491269	143.4875251	-10753.99871	9-1	0
9	23.4	Strength 5 - Min	Combination Max	-11.6587519	-257.7449528	18.58932241	344.3491269	-91.67301794	-4669.976554	9-1	23.4
9	46.8	Strength 5 - Min	Combination Max	-11.6587519	-253.2329648	18.58932241	344.3491269	-228.47062	1310.307097	9-1	46.8
9	46.8	Strength 5 - Min	Combination Max	-5.760451898	-46.31852484	2.184882409	-30.99896132	-228.47062	1151.052997	9-2	0
9	66.5	Strength 5 - Min	Combination Max	-5.760451898	-42.51997084	2.184882409	-30.99896132	-242.006714	2057.629157	9-2	19.7
9	86.2	Strength 5 - Min	Combination Max	-5.760451898	-38.72141684	2.184882409	-30.99896132	-255.542808	3301.51851	9-2	39.4
9	105.9	Strength 5 - Min	Combination Max	-5.760451898	-34.9195071	2.184882409	-30.99896132	-269.078902	4466.819638	9-2	59.1
9	125.6	Strength 5 - Min	Combination Max	-5.760451898	-30.9302571	2.184882409	-30.99896132	-282.614996	5553.729912	9-2	78.8
9	145.3	Strength 5 - Min	Combination Max	-5.760451898	-26.9410071	2.184882409	-30.99896132	-296.15109	6563.071158	9-2	98.5
9	145.3	Strength 5 - Min	Combination Max	9.426969048	204.6337035	-4.471828629	-170.2903413	-296.15109	6110.030058	9-3	0
9	168.8666667	Strength 5 - Min	Combination Max	9.426969048	209.4059535	-4.471828629	-170.2903413	-190.7649953	1232.92375	9-3	23.56666667
9	192.4333333	Strength 5 - Min	Combination Max	9.426969048	214.1782035	-4.471828629	-170.2903413	-85.37890063	-3454.683423	9-3	47.13333333
9	216	Strength 5 - Min	Combination Max	9.426969048	218.9504535	-4.471828629	-170.2903413	63.61904087	-7835.513591	9-3	70.7
9	0	Strength 5 - Min	Combination Min	-24.38378718	-339.2675297	5.846051371	108.2924187	45.12458413	-14471.31122	9-1	0
9	23.4	Strength 5 - Min	Combination Min	-24.38378718	-334.5384677	5.846051371	108.2924187	-291.5026192	-6587.781045	9-1	23.4
9	46.8	Strength 5 - Min	Combination Min	-24.38378718	-329.8094057	5.846051371	108.2924187	-726.4927636	1185.063543	9-1	46.8
9	46.8	Strength 5 - Min	Combination Min	-7.604487177	-69.15146574	0.687111371	-98.57075312	-726.4927636	732.0224433	9-2	0
9	66.5	Strength 5 - Min	Combination Min	-7.604487177	-65.17016141	0.687111371	-98.57075312	-769.534947	1992.857791	9-2	19.7
9	86.2	Strength 5 - Min	Combination Min	-7.604487177	-61.18885708	0.687111371	-98.57075312	-812.5771305	2824.497834	9-2	39.4
9	105.9	Strength 5 - Min	Combination Min	-7.604487177	-57.20755274	0.687111371	-98.57075312	-855.6193139	3549.893989	9-2	59.1
9	125.6	Strength 5 - Min	Combination Min	-7.604487177	-53.36251828	0.687111371	-98.57075312	-898.6614974	4200.45863	9-2	78.8
9	145.3	Strength 5 - Min	Combination Min	-7.604487177	-49.56396428	0.687111371	-98.57075312	-941.7036808	4776.191757	9-2	98.5
9	145.3	Strength 5 - Min	Combination Min	-0.114308122	169.3146652	-14.21955759	-541.4906331	-941.7036808	4616.937657	9-3	0
9	168.8666667	Strength 5 - Min	Combination Min	-0.114308122	173.8587898	-14.21955759	-541.4906331	-606.5961069	572.3583989	9-3	23.56666667
9	192.4333333	Strength 5 - Min	Combination Min	-0.114308122	178.4029145	-14.21955759	-541.4906331	-271.488533	-3761.384488	9-3	47.13333333
9	216	Strength 5 - Min	Combination Min	-0.114308122	182.9470392	-14.21955759	-541.4906331	20.00719407	-8865.083828	9-3	70.7
9	0	Service 1	Combination Max	-10.35267032	-282.8353155	13.41887801	248.5716706	103.5778257	-11367.27367	9-1	0
9	23.4	Service 1	Combination Max	-10.35267032	-277.7146155	13.41887801	248.5716706	-62.40199287	-4808.839478	9-1	23.4
9	46.8	Service 1	Combination Max	-10.35267032	-272.5939155	13.41887801	248.5716706	-155.5203736	1631.61279	9-1	46.8
9	46.8	Service 1	Combination Max	-6.463670321	-47.09221548	1.577178009	-21.10105031	-155.5203736	1526.60979	9-2	0
9	66.5	Service 1	Combination Max	-6.463670321	-42.78119882	1.577178009	-21.10105031	-164.7344178	2434.025483	9-2	19.7
9	86.2	Service 1	Combination Max	-6.463670321	-38.47018215	1.577178009	-21.10105031	-173.9484621	3562.196051	9-2	39.4
9	105.9	Service 1	Combination Max	-6.463670321	-34.14604379	1.577178009	-21.10105031	-183.1625063	4603.046369	9-2	59.1
9	125.6	Service 1	Combination Max	-6.463670321	-29.71354379	1.577178009	-21.10105031	-192.3765505	5556.72732	9-2	78.8
9	145.3	Service 1	Combination Max	-6.463670321	-25.28104379	1.577178009	-21.10105031	-201.5905947	6423.867159	9-2	98.5
9	145.3	Service 1	Combination Max	4.30616001	218.5268085	-3.043982019	-115.9169503	-201.5905947	6101.244159	9-3	0
9	168.8666667	Service 1	Combination Max	4.30616001	223.8293085	-3.043982019	-115.9169503	-129.8540852	890.0843396	9-3	23.56666667
9	192.4333333	Service 1	Combination Max	4.30616001	229.1318085	-3.043982019	-115.9169503	-58.11757557	-4223.406231	9-3	47.13333333

9	216	Service 1	Combination Max	4.30616001	234.4343085	-3.043982019	-115.9169503	45.92400571	-9152.376586	9-3		70.7
9	0	Service 1	Combination Min	-19.78460405	-339.763437	3.979417981	73.71484969	30.71638788	-14116.07944	9-1		0
9	23.4	Service 1	Combination Min	-19.78460405	-334.5056519	3.979417981	73.71484969	-210.4239198	-6227.131096	9-1		23.4
9	46.8	Service 1	Combination Min	-19.78460405	-329.2478669	3.979417981	73.71484969	-524.4256652	1538.765558	9-1		46.8
9	46.8	Service 1	Combination Min	-7.835604046	-63.93616695	0.467717981	-71.15422941	-524.4256652	1216.142558	9-2		0
9	66.5	Service 1	Combination Min	-7.835604046	-59.50974112	0.467717981	-71.15422941	-555.4960719	2386.75204	9-2		19.7
9	86.2	Service 1	Combination Min	-7.835604046	-55.08331528	0.467717981	-71.15422941	-586.5664787	3210.346568	9-2		39.4
9	105.9	Service 1	Combination Min	-7.835604046	-50.65688945	0.467717981	-71.15422941	-617.6368855	3925.745642	9-2		59.1
9	125.6	Service 1	Combination Min	-7.835604046	-46.32089654	0.467717981	-71.15422941	-648.7072923	4556.217688	9-2		78.8
9	145.3	Service 1	Combination Min	-7.835604046	-42.00987988	0.467717981	-71.15422941	-679.777699	5101.762705	9-2		98.5
9	145.3	Service 1	Combination Min	-2.767434377	192.3934679	-10.26452199	-390.8801294	-679.777699	4996.759705	9-3		0
9	168.8666667	Service 1	Combination Min	-2.767434377	197.5506401	-10.26452199	-390.8801294	-437.8771308	400.7037288	9-3		23.56666667
9	192.4333333	Service 1	Combination Min	-2.767434377	202.7078123	-10.26452199	-390.8801294	-195.9765625	-4449.658152	9-3		47.13333333
9	216	Service 1	Combination Min	-2.767434377	207.8649845	-10.26452199	-390.8801294	13.61893401	-9912.01223	9-3		70.7
9	0	WServ1: 45deg	Combination	-1.005487236	3.238216568	0.591184429	10.95111686	4.563242748	35.39848001	9-1		0
9	23.4	WServ1: 45deg	Combination	-1.005487236	3.151636568	0.591184429	10.95111686	-9.2704729	-39.36280169	9-1		23.4
9	46.8	WServ1: 45deg	Combination	-1.005487236	3.065056568	0.591184429	10.95111686	-23.10418855	-112.0981114	9-1		46.8
9	46.8	WServ1: 45deg	Combination	-0.006487236	-0.853243432	0.069484429	-3.134783138	-23.10418855	-139.0711114	9-2		0
9	66.5	WServ1: 45deg	Combination	-0.006487236	-0.926133432	0.069484429	-3.134783138	-24.47303181	-121.5442493	9-2		19.7
9	86.2	WServ1: 45deg	Combination	-0.006487236	-0.999023432	0.069484429	-3.134783138	-25.84187506	-102.5814542	9-2		39.4
9	105.9	WServ1: 45deg	Combination	-0.006487236	-1.071913432	0.069484429	-3.134783138	-27.21071832	-82.18272606	9-2		59.1
9	125.6	WServ1: 45deg	Combination	-0.006487236	-1.144803432	0.069484429	-3.134783138	-28.57956158	-60.34806495	9-2		78.8
9	145.3	WServ1: 45deg	Combination	-0.006487236	-1.217693432	0.069484429	-3.134783138	-29.94840484	-37.07747084	9-2		98.5
9	145.3	WServ1: 45deg	Combination	0.992512764	-6.257093432	-0.452215571	-17.22068314	-29.94840484	-64.05047084	9-3		0
9	168.8666667	WServ1: 45deg	Combination	0.992512764	-6.344290099	-0.452215571	-17.22068314	-19.29119123	84.43583176	9-3		23.56666667
9	192.4333333	WServ1: 45deg	Combination	0.992512764	-6.431486765	-0.452215571	-17.22068314	-8.633977611	234.9770691	9-3		47.13333333
9	216	WServ1: 45deg	Combination	0.992512764	-6.518683432	-0.452215571	-17.22068314	2.023236003	387.5732413	9-3		70.7
9	0	WServ1: 30deg	Combination	-1.029110489	3.0347955	0.591184429	10.95111686	4.563242748	27.76015084	9-1		0
9	23.4	WServ1: 30deg	Combination	-1.029110489	2.9915055	0.591184429	10.95111686	-9.2704729	-42.74757086	9-1		23.4
9	46.8	WServ1: 30deg	Combination	-1.029110489	2.9482155	0.591184429	10.95111686	-23.10418855	-112.2423066	9-1		46.8
9	46.8	WServ1: 30deg	Combination	-0.030110489	-0.9700845	0.069484429	-3.134783138	-23.10418855	-139.2153066	9-2		0
9	66.5	WServ1: 30deg	Combination	-0.030110489	-1.0065295	0.069484429	-3.134783138	-24.47303181	-119.7456587	9-2		19.7
9	86.2	WServ1: 30deg	Combination	-0.030110489	-1.0429745	0.069484429	-3.134783138	-25.84187506	-99.55804425	9-2		39.4
9	105.9	WServ1: 30deg	Combination	-0.030110489	-1.0794195	0.069484429	-3.134783138	-27.21071832	-78.65246335	9-2		59.1
9	125.6	WServ1: 30deg	Combination	-0.030110489	-1.1158645	0.069484429	-3.134783138	-28.57956158	-57.02891595	9-2		78.8
9	145.3	WServ1: 30deg	Combination	-0.030110489	-1.1523095	0.069484429	-3.134783138	-29.94840484	-34.68740205	9-2		98.5
9	145.3	WServ1: 30deg	Combination	0.968889511	-6.1917095	-0.452215571	-17.22068314	-29.94840484	-61.66040205	9-3		0
9	168.8666667	WServ1: 30deg	Combination	0.968889511	-6.235307833	-0.452215571	-17.22068314	-19.29119123	84.77128553	9-3		23.56666667
9	192.4333333	WServ1: 30deg	Combination	0.968889511	-6.278906167	-0.452215571	-17.22068314	-8.633977611	232.2304405	9-3		47.13333333
9	216	WServ1: 30deg	Combination	0.968889511	-6.3225045	-0.452215571	-17.22068314	2.023236003	380.7170629	9-3		70.7
9	0	WServ1: 15deg	Combination	-1.03733235	2.867571286	0.591184429	10.95111686	4.563242748	21.64188542	9-1		0
9	23.4	WServ1: 15deg	Combination	-1.03733235	2.860356286	0.591184429	10.95111686	-9.2704729	-45.37486718	9-1		23.4

9	46.8	WServ1: 15deg	Combination	-1.03733235	2.853141286	0.591184429	10.95111686	-23.10418855	-112.2227888	9-1	46.8
9	46.8	WServ1: 15deg	Combination	-0.03833235	-1.065158714	0.069484429	-3.134783138	-23.10418855	-139.1957888	9-2	0
9	66.5	WServ1: 15deg	Combination	-0.03833235	-1.07123288	0.069484429	-3.134783138	-24.47303181	-118.1523316	9-2	19.7
9	86.2	WServ1: 15deg	Combination	-0.03833235	-1.077307047	0.069484429	-3.134783138	-25.84187506	-96.98921329	9-2	39.4
9	105.9	WServ1: 15deg	Combination	-0.03833235	-1.083381214	0.069484429	-3.134783138	-27.21071832	-75.70643392	9-2	59.1
9	125.6	WServ1: 15deg	Combination	-0.03833235	-1.08945538	0.069484429	-3.134783138	-28.57956158	-54.30399347	9-2	78.8
9	145.3	WServ1: 15deg	Combination	-0.03833235	-1.095529547	0.069484429	-3.134783138	-29.94840484	-32.78189193	9-2	98.5
9	145.3	WServ1: 15deg	Combination	0.96066765	-6.134929547	-0.452215571	-17.22068314	-29.94840484	-59.75489193	9-3	0
9	168.8666667	WServ1: 15deg	Combination	0.96066765	-6.142195936	-0.452215571	-17.22068314	-19.29119123	84.91057001	9-3	23.56666667
9	192.4333333	WServ1: 15deg	Combination	0.96066765	-6.149462325	-0.452215571	-17.22068314	-8.633977611	229.7472765	9-3	47.13333333
9	216	WServ1: 15deg	Combination	0.96066765	-6.156728714	-0.452215571	-17.22068314	2.023236003	374.7552276	9-3	70.7
9	0	WServ1: 0deg	Combination	-1.02183945	3.10248182	0.591184429	10.95111686	4.563242748	30.29326009	9-1	0
9	23.4	WServ1: 0deg	Combination	-1.02183945	3.04476182	0.591184429	10.95111686	-9.2704729	-41.6294905	9-1	23.4
9	46.8	WServ1: 0deg	Combination	-1.02183945	2.98704182	0.591184429	10.95111686	-23.10418855	-112.2015931	9-1	46.8
9	46.8	WServ1: 0deg	Combination	-0.02283945	-0.93125818	0.069484429	-3.134783138	-23.10418855	-139.1745931	9-2	0
9	66.5	WServ1: 0deg	Combination	-0.02283945	-0.979851513	0.069484429	-3.134783138	-24.47303181	-120.3501626	9-2	19.7
9	86.2	WServ1: 0deg	Combination	-0.02283945	-1.028444846	0.069484429	-3.134783138	-25.84187506	-100.5684435	9-2	39.4
9	105.9	WServ1: 0deg	Combination	-0.02283945	-1.07703818	0.069484429	-3.134783138	-27.21071832	-79.82943568	9-2	59.1
9	125.6	WServ1: 0deg	Combination	-0.02283945	-1.125631513	0.069484429	-3.134783138	-28.57956158	-58.13313921	9-2	78.8
9	145.3	WServ1: 0deg	Combination	-0.02283945	-1.174224846	0.069484429	-3.134783138	-29.94840484	-35.47955407	9-2	98.5
9	145.3	WServ1: 0deg	Combination	0.97616055	-6.213624846	-0.452215571	-17.22068314	-29.94840484	-62.45255407	9-3	0
9	168.8666667	WServ1: 0deg	Combination	0.97616055	-6.271755957	-0.452215571	-17.22068314	-19.29119123	84.66684973	9-3	23.56666667
9	192.4333333	WServ1: 0deg	Combination	0.97616055	-6.329887069	-0.452215571	-17.22068314	-8.633977611	233.1562101	9-3	47.13333333
9	216	WServ1: 0deg	Combination	0.97616055	-6.38801818	-0.452215571	-17.22068314	2.023236003	383.0155269	9-3	70.7
9	0	WServ1: -15deg	Combination	-0.994595927	3.306627102	0.591184429	10.95111686	4.563242748	38.00959207	9-1	0
9	23.4	WServ1: -15deg	Combination	-0.994595927	3.205617102	0.591184429	10.95111686	-9.2704729	-38.18366512	9-1	23.4
9	46.8	WServ1: -15deg	Combination	-0.994595927	3.104607102	0.591184429	10.95111686	-23.10418855	-112.0132883	9-1	46.8
9	46.8	WServ1: -15deg	Combination	0.004404073	-0.813692898	0.069484429	-3.134783138	-23.10418855	-138.9862883	9-2	0
9	66.5	WServ1: -15deg	Combination	0.004404073	-0.898731231	0.069484429	-3.134783138	-24.47303181	-122.1189106	9-2	19.7
9	86.2	WServ1: -15deg	Combination	0.004404073	-0.983769564	0.069484429	-3.134783138	-25.84187506	-103.5762778	9-2	39.4
9	105.9	WServ1: -15deg	Combination	0.004404073	-1.068807898	0.069484429	-3.134783138	-27.21071832	-83.3583898	9-2	59.1
9	125.6	WServ1: -15deg	Combination	0.004404073	-1.153846231	0.069484429	-3.134783138	-28.57956158	-61.46524664	9-2	78.8
9	145.3	WServ1: -15deg	Combination	0.004404073	-1.238884564	0.069484429	-3.134783138	-29.94840484	-37.8968483	9-2	98.5
9	145.3	WServ1: -15deg	Combination	1.003404073	-6.278284564	-0.452215571	-17.22068314	-29.94840484	-64.8698483	9-3	0
9	168.8666667	WServ1: -15deg	Combination	1.003404073	-6.380014009	-0.452215571	-17.22068314	-19.29119123	84.28710322	9-3	23.56666667
9	192.4333333	WServ1: -15deg	Combination	1.003404073	-6.481743453	-0.452215571	-17.22068314	-8.633977611	235.8414787	9-3	47.13333333
9	216	WServ1: -15deg	Combination	1.003404073	-6.583472898	-0.452215571	-17.22068314	2.023236003	389.793278	9-3	70.7
9	0	WServ1: -30deg	Combination	-0.956491599	3.512945025	0.591184429	10.95111686	4.563242748	45.95993248	9-1	0
9	23.4	WServ1: -30deg	Combination	-0.956491599	3.368645025	0.591184429	10.95111686	-9.2704729	-34.55467111	9-1	23.4
9	46.8	WServ1: -30deg	Combination	-0.956491599	3.224345025	0.591184429	10.95111686	-23.10418855	-111.6926547	9-1	46.8
9	46.8	WServ1: -30deg	Combination	0.042508401	-0.693954975	0.069484429	-3.134783138	-23.10418855	-138.6656547	9-2	0
9	66.5	WServ1: -30deg	Combination	0.042508401	-0.815438308	0.069484429	-3.134783138	-24.47303181	-123.7981309	9-2	19.7

9	86.2	WServ1: -30deg	Combination		0.042508401	-0.936921642	0.069484429	-3.134783138	-25.84187506	-106.5373853	9-2	39.4
9	105.9	WServ1: -30deg	Combination		0.042508401	-1.058404975	0.069484429	-3.134783138	-27.21071832	-86.88341818	9-2	59.1
9	125.6	WServ1: -30deg	Combination		0.042508401	-1.179888308	0.069484429	-3.134783138	-28.57956158	-64.83622934	9-2	78.8
9	145.3	WServ1: -30deg	Combination		0.042508401	-1.301371642	0.069484429	-3.134783138	-29.94840484	-40.39581883	9-2	98.5
9	145.3	WServ1: -30deg	Combination		1.041508401	-6.340771642	-0.452215571	-17.22068314	-29.94840484	-67.36881883	9-3	0
9	168.8666667	WServ1: -30deg	Combination		1.041508401	-6.486099419	-0.452215571	-17.22068314	-19.29119123	83.77447851	9-3	23.56666667
9	192.4333333	WServ1: -30deg	Combination		1.041508401	-6.631427197	-0.452215571	-17.22068314	-8.633977611	238.3426671	9-3	47.13333333
9	216	WServ1: -30deg	Combination		1.041508401	-6.776754975	-0.452215571	-17.22068314	2.023236003	396.3357471	9-3	70.7
9	0	WServ1 + WA	Combination		-0.844568294	2.873016716	0.591184429	10.95111686	4.563242748	24.60698312	9-1	0
9	23.4	WServ1 + WA	Combination		-0.844568294	2.873016716	0.591184429	10.95111686	-9.2704729	-42.62160804	9-1	23.4
9	46.8	WServ1 + WA	Combination		-0.844568294	2.873016716	0.591184429	10.95111686	-23.10418855	-109.8501992	9-1	46.8
9	46.8	WServ1 + WA	Combination		0.154431706	-1.045283284	0.069484429	-3.134783138	-23.10418855	-136.8231992	9-2	0
9	66.5	WServ1 + WA	Combination		0.154431706	-1.045283284	0.069484429	-3.134783138	-24.47303181	-116.2311185	9-2	19.7
9	86.2	WServ1 + WA	Combination		0.154431706	-1.045283284	0.069484429	-3.134783138	-25.84187506	-95.63903782	9-2	39.4
9	105.9	WServ1 + WA	Combination		0.154431706	-1.045283284	0.069484429	-3.134783138	-27.21071832	-75.04695713	9-2	59.1
9	125.6	WServ1 + WA	Combination		0.154431706	-1.045283284	0.069484429	-3.134783138	-28.57956158	-54.45487644	9-2	78.8
9	145.3	WServ1 + WA	Combination		0.154431706	-1.045283284	0.069484429	-3.134783138	-29.94840484	-33.86279575	9-2	98.5
9	145.3	WServ1 + WA	Combination		1.153431706	-6.084683284	-0.452215571	-17.22068314	-29.94840484	-60.83579575	9-3	0
9	168.8666667	WServ1 + WA	Combination		1.153431706	-6.084683284	-0.452215571	-17.22068314	-19.29119123	82.55990697	9-3	23.56666667
9	192.4333333	WServ1 + WA	Combination		1.153431706	-6.084683284	-0.452215571	-17.22068314	-8.633977611	225.9556097	9-3	47.13333333
9	216	WServ1 + WA	Combination		1.153431706	-6.084683284	-0.452215571	-17.22068314	2.023236003	369.3513124	9-3	70.7
9	0	WServ1 & WA envelope	Combination	Max	-0.844568294	3.512945025	0.591184429	10.95111686	4.563242748	45.95993248	9-1	0
9	23.4	WServ1 & WA envelope	Combination	Max	-0.844568294	3.368645025	0.591184429	10.95111686	-9.2704729	-34.55467111	9-1	23.4
9	46.8	WServ1 & WA envelope	Combination	Max	-0.844568294	3.224345025	0.591184429	10.95111686	-23.10418855	-109.8501992	9-1	46.8
9	46.8	WServ1 & WA envelope	Combination	Max	0.154431706	-0.693954975	0.069484429	-3.134783138	-23.10418855	-136.8231992	9-2	0
9	66.5	WServ1 & WA envelope	Combination	Max	0.154431706	-0.815438308	0.069484429	-3.134783138	-24.47303181	-116.2311185	9-2	19.7
9	86.2	WServ1 & WA envelope	Combination	Max	0.154431706	-0.936921642	0.069484429	-3.134783138	-25.84187506	-95.63903782	9-2	39.4
9	105.9	WServ1 & WA envelope	Combination	Max	0.154431706	-1.045283284	0.069484429	-3.134783138	-27.21071832	-75.04695713	9-2	59.1
9	125.6	WServ1 & WA envelope	Combination	Max	0.154431706	-1.045283284	0.069484429	-3.134783138	-28.57956158	-54.30399347	9-2	78.8
9	145.3	WServ1 & WA envelope	Combination	Max	0.154431706	-1.045283284	0.069484429	-3.134783138	-29.94840484	-32.78189193	9-2	98.5
9	145.3	WServ1 & WA envelope	Combination	Max	1.153431706	-6.084683284	-0.452215571	-17.22068314	-29.94840484	-59.75489193	9-3	0
9	168.8666667	WServ1 & WA envelope	Combination	Max	1.153431706	-6.084683284	-0.452215571	-17.22068314	-19.29119123	84.91057001	9-3	23.56666667
9	192.4333333	WServ1 & WA envelope	Combination	Max	1.153431706	-6.084683284	-0.452215571	-17.22068314	-8.633977611	238.3426671	9-3	47.13333333
9	216	WServ1 & WA envelope	Combination	Max	1.153431706	-6.084683284	-0.452215571	-17.22068314	2.023236003	396.3357471	9-3	70.7
9	0	WServ1 & WA envelope	Combination	Min	-1.03733235	2.867571286	0.591184429	10.95111686	4.563242748	21.64188542	9-1	0
9	23.4	WServ1 & WA envelope	Combination	Min	-1.03733235	2.860356286	0.591184429	10.95111686	-9.2704729	-45.37486718	9-1	23.4
9	46.8	WServ1 & WA envelope	Combination	Min	-1.03733235	2.853141286	0.591184429	10.95111686	-23.10418855	-112.2423066	9-1	46.8
9	46.8	WServ1 & WA envelope	Combination	Min	-0.03833235	-1.065158714	0.069484429	-3.134783138	-23.10418855	-139.2153066	9-2	0
9	66.5	WServ1 & WA envelope	Combination	Min	-0.03833235	-1.07123288	0.069484429	-3.134783138	-24.47303181	-123.7981309	9-2	19.7
9	86.2	WServ1 & WA envelope	Combination	Min	-0.03833235	-1.077307047	0.069484429	-3.134783138	-25.84187506	-106.5373853	9-2	39.4
9	105.9	WServ1 & WA envelope	Combination	Min	-0.03833235	-1.083381214	0.069484429	-3.134783138	-27.21071832	-86.88341818	9-2	59.1
9	125.6	WServ1 & WA envelope	Combination	Min	-0.03833235	-1.179888308	0.069484429	-3.134783138	-28.57956158	-64.83622934	9-2	78.8

9	145.3	WServ1 & WA envelope	Combination	Min	-0.03833235	-1.301371642	0.069484429	-3.134783138	-29.94840484	-40.39581883	9-2	98.5
9	145.3	WServ1 & WA envelope	Combination	Min	0.96066765	-6.340771642	-0.452215571	-17.22068314	-29.94840484	-67.36881883	9-3	0
9	168.8666667	WServ1 & WA envelope	Combination	Min	0.96066765	-6.486099419	-0.452215571	-17.22068314	-19.29119123	82.55990697	9-3	23.56666667
9	192.4333333	WServ1 & WA envelope	Combination	Min	0.96066765	-6.631427197	-0.452215571	-17.22068314	-8.633977611	225.9556097	9-3	47.13333333
9	216	WServ1 & WA envelope	Combination	Min	0.96066765	-6.776754975	-0.452215571	-17.22068314	2.023236003	369.3513124	9-3	70.7
9	0	Strength Envelope	Combination	Max	-6.398516096	-210.4060064	22.44846376	415.835969	173.2755201	-8400.857411	9-1	0
9	23.4	Strength Envelope	Combination	Max	-6.398516096	-206.0575064	22.44846376	415.835969	-9.2704729	-3469.397978	9-1	23.4
9	46.8	Strength Envelope	Combination	Max	-6.398516096	-201.7090064	22.44846376	415.835969	-23.10418855	2214.075578	9-1	46.8
9	46.8	Strength Envelope	Combination	Max	-5.024641507	-34.64590742	2.638463764	-3.134783138	-23.10418855	2138.567775	9-2	0
9	66.5	Strength Envelope	Combination	Max	-5.024641507	-30.77814075	2.638463764	-3.134783138	-24.47303181	3286.481823	9-2	19.7
9	86.2	Strength Envelope	Combination	Max	-5.024641507	-26.91037409	2.638463764	-3.134783138	-25.84187506	4925.421724	9-2	39.4
9	105.9	Strength Envelope	Combination	Max	-5.024641507	-23.04260742	2.638463764	-3.134783138	-27.21071832	6455.211312	9-2	59.1
9	125.6	Strength Envelope	Combination	Max	-5.024641507	-19.17484075	2.638463764	-3.134783138	-28.57956158	7875.850589	9-2	78.8
9	145.3	Strength Envelope	Combination	Max	-5.024641507	-15.30707409	2.638463764	-3.134783138	-29.94840484	9187.339552	9-2	98.5
9	145.3	Strength Envelope	Combination	Max	10.97941662	305.2797687	-0.452215571	-17.22068314	-29.94840484	8669.952052	9-3	0
9	168.8666667	Strength Envelope	Combination	Max	10.97941662	311.9078937	-0.452215571	-17.22068314	-19.29119123	1397.424098	9-3	23.56666667
9	192.4333333	Strength Envelope	Combination	Max	10.97941662	318.5360187	-0.452215571	-17.22068314	-8.633977611	-3331.896838	9-3	47.13333333
9	216	Strength Envelope	Combination	Max	10.97941662	325.1641437	-0.452215571	-17.22068314	76.82634699	-7014.830872	9-3	70.7
9	0	Strength Envelope	Combination	Min	-29.8580819	-480.5933563	0.591184429	10.95111686	4.563242748	-20127.98747	9-1	0
9	23.4	Strength Envelope	Combination	Min	-29.8580819	-474.0121063	0.591184429	10.95111686	-352.018532	-8959.103555	9-1	23.4
9	46.8	Strength Envelope	Combination	Min	-29.8580819	-467.4308563	0.591184429	10.95111686	-877.3125841	1185.063543	9-1	46.8
9	46.8	Strength Envelope	Combination	Min	-10.6955819	-91.50585634	0.069484429	-119.034031	-877.3125841	732.0224433	9-2	0
9	66.5	Strength Envelope	Combination	Min	-10.6955819	-85.96523134	0.069484429	-119.034031	-929.2903202	1839.475738	9-2	19.7
9	86.2	Strength Envelope	Combination	Min	-10.6955819	-80.42460634	0.069484429	-119.034031	-981.2680564	2437.097527	9-2	39.4
9	105.9	Strength Envelope	Combination	Min	-10.6955819	-74.88398134	0.069484429	-119.034031	-1033.245793	2962.599258	9-2	59.1
9	125.6	Strength Envelope	Combination	Min	-10.6955819	-69.34335634	0.069484429	-119.034031	-1085.223529	3415.98093	9-2	78.8
9	145.3	Strength Envelope	Combination	Min	-10.6955819	-63.80273134	0.069484429	-119.034031	-1137.201265	3797.242545	9-2	98.5
9	145.3	Strength Envelope	Combination	Min	-6.913014616	145.3285769	-17.17153624	-653.904031	-1137.201265	3724.342545	9-3	0
9	168.8666667	Strength Envelope	Combination	Min	-6.913014616	149.7080491	-17.17153624	-653.904031	-732.5253942	105.1846035	9-3	23.56666667
9	192.4333333	Strength Envelope	Combination	Min	-6.913014616	154.0875213	-17.17153624	-653.904031	-327.8495236	-6031.306669	9-3	47.13333333
9	216	Strength Envelope	Combination	Min	-6.913014616	158.4669936	-17.17153624	-653.904031	2.023236003	-13616.24025	9-3	70.7
10	0	DEAD	LinStatic		-0.682660482	-24.27077287	0	0	0	-883.5517275	10-1	0
10	14	DEAD	LinStatic		-0.682660482	-21.12077287	0	0	0	-565.8109073	10-1	14
10	28	DEAD	LinStatic		-0.682660482	-17.97077287	0	0	0	-292.1700871	10-1	28
10	28	DEAD	LinStatic		-0.682660482	-17.97077287	0	0	0	-292.1700871	10-2	0
10	47.74	DEAD	LinStatic		-0.682660482	-13.52927287	0	0	0	18.73536428	10-2	19.74
10	67.48	DEAD	LinStatic		-0.682660482	-9.087772868	0	0	0	241.9656057	10-2	39.48
10	87.22	DEAD	LinStatic		-0.682660482	-4.646272868	0	0	0	377.5206371	10-2	59.22
10	106.96	DEAD	LinStatic		-0.682660482	-0.204772868	0	0	0	425.4004585	10-2	78.96
10	126.7	DEAD	LinStatic		-0.682660482	4.236727133	0	0	0	385.6050699	10-2	98.7
10	126.7	DEAD	LinStatic		-0.682660482	4.236727133	0	0	0	385.6050699	10-3	0
10	149.025	DEAD	LinStatic		-0.682660482	9.259852133	0	0	0	234.9495039	10-3	22.325

10	171.35	DEAD	LinStatic	-0.682660482	14.28297713	0	0	0	-27.84732782	10-3	44.65
10	193.675	DEAD	LinStatic	-0.682660482	19.30610213	0	0	0	-402.7854251	10-3	66.975
10	216	DEAD	LinStatic	-0.682660482	24.32922713	0	0	0	-889.8647881	10-3	89.3
10	0	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.207592688	10-1	0
10	14	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.182264734	10-1	14
10	28	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.156936781	10-1	28
10	28	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.156936781	10-2	0
10	47.74	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.121224367	10-2	19.74
10	67.48	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.085511954	10-2	39.48
10	87.22	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.04979954	10-2	59.22
10	106.96	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	0.014087126	10-2	78.96
10	126.7	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	-0.021625288	10-2	98.7
10	126.7	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	-0.021625288	10-3	0
10	149.025	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	-0.062014328	10-3	22.325
10	171.35	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	-0.102403367	10-3	44.65
10	193.675	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	-0.142792407	10-3	66.975
10	216	R01_Z	LinStatic	-0.006282439	0.00180914	0	0	0	-0.183181446	10-3	89.3
10	0	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.32212794	10-1	0
10	14	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.292850564	10-1	14
10	28	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.263573187	10-1	28
10	28	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.263573187	10-2	0
10	47.74	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.222292087	10-2	19.74
10	67.48	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.181010987	10-2	39.48
10	87.22	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.139729886	10-2	59.22
10	106.96	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.098448786	10-2	78.96
10	126.7	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.057167686	10-2	98.7
10	126.7	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.057167686	10-3	0
10	149.025	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	-0.010480727	10-3	22.325
10	171.35	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	0.036206232	10-3	44.65
10	193.675	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	0.08289319	10-3	66.975
10	216	R02_Z	LinStatic	0.003394882	-0.002091241	0	0	0	0.129580149	10-3	89.3
10	0	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.351483723	10-1	0
10	14	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.328026902	10-1	14
10	28	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.30457008	10-1	28
10	28	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.30457008	10-2	0
10	47.74	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.271495962	10-2	19.74
10	67.48	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.238421845	10-2	39.48
10	87.22	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.205347727	10-2	59.22
10	106.96	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.172273609	10-2	78.96
10	126.7	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.139199491	10-2	98.7
10	126.7	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.139199491	10-3	0
10	149.025	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.101794238	10-3	22.325

10	171.35	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.064388986	10-3	44.65
10	193.675	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	-0.026983733	10-3	66.975
10	216	R03_Z	LinStatic	0.000653815	-0.001675487	0	0	0	0.010421519	10-3	89.3
10	0	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.238035238	10-1	0
10	14	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.2309768	10-1	14
10	28	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.223918363	10-1	28
10	28	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.223918363	10-2	0
10	47.74	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.213965966	10-2	19.74
10	67.48	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.204013569	10-2	39.48
10	87.22	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.194061171	10-2	59.22
10	106.96	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.184108774	10-2	78.96
10	126.7	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.174156377	10-2	98.7
10	126.7	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.174156377	10-3	0
10	149.025	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.16290069	10-3	22.325
10	171.35	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.151645003	10-3	44.65
10	193.675	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.140389315	10-3	66.975
10	216	R04_Z	LinStatic	0.001547057	-0.000504174	0	0	0	-0.129133628	10-3	89.3
10	0	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	1.881142962	10-1	0
10	14	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	1.73156989	10-1	14
10	28	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	1.581996818	10-1	28
10	28	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	1.581996818	10-2	0
10	47.74	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	1.371098787	10-2	19.74
10	67.48	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	1.160200756	10-2	39.48
10	87.22	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	0.949302725	10-2	59.22
10	106.96	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	0.738404694	10-2	78.96
10	126.7	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	0.527506663	10-2	98.7
10	126.7	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	0.527506663	10-3	0
10	149.025	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	0.288991033	10-3	22.325
10	171.35	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	0.050475403	10-3	44.65
10	193.675	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	-0.188040228	10-3	66.975
10	216	R05_Z	LinStatic	-0.001913168	0.010683791	0	0	0	-0.426555858	10-3	89.3
10	0	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	8.734042247	10-1	0
10	14	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	8.143740825	10-1	14
10	28	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	7.553439402	10-1	28
10	28	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	7.553439402	10-2	0
10	47.74	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	6.721114397	10-2	19.74
10	67.48	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	5.888789392	10-2	39.48
10	87.22	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	5.056464386	10-2	59.22
10	106.96	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	4.224139381	10-2	78.96
10	126.7	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	3.391814375	10-2	98.7
10	126.7	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	3.391814375	10-3	0
10	149.025	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	2.450494429	10-3	22.325

10	171.35	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	1.509174482	10-3	44.65
10	193.675	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	0.567854536	10-3	66.975
10	216	R06_Z	LinStatic	0.000516676	0.042164387	0	0	0	-0.373465411	10-3	89.3
10	0	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	9.752498451	10-1	0
10	14	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	9.202882186	10-1	14
10	28	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	8.65326592	10-1	28
10	28	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	8.65326592	10-2	0
10	47.74	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	7.878306986	10-2	19.74
10	67.48	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	7.103348052	10-2	39.48
10	87.22	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	6.328389117	10-2	59.22
10	106.96	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	5.553430183	10-2	78.96
10	126.7	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	4.778471249	10-2	98.7
10	126.7	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	4.778471249	10-3	0
10	149.025	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	3.902029597	10-3	22.325
10	171.35	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	3.025587945	10-3	44.65
10	193.675	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	2.149146294	10-3	66.975
10	216	R07_Z	LinStatic	-0.00098431	0.039258305	0	0	0	1.272704642	10-3	89.3
10	0	R08_Z	LinStatic	0.008900653	0.843490714	0	0	0	2.854504006	10-1	0
10	14	R08_Z	LinStatic	0.008900653	0.843490714	0	0	0	-8.95436599	10-1	14
10	28	R08_Z	LinStatic	0.008900653	0.843490714	0	0	0	-20.76323599	10-1	28
10	28	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-20.76323599	10-2	0
10	47.74	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-17.67374268	10-2	19.74
10	67.48	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-14.58424937	10-2	39.48
10	87.22	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-11.49475607	10-2	59.22
10	106.96	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-8.405262761	10-2	78.96
10	126.7	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-5.315769455	10-2	98.7
10	126.7	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-5.315769455	10-3	0
10	149.025	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	-1.821699645	10-3	22.325
10	171.35	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	1.672370166	10-3	44.65
10	193.675	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	5.166439976	10-3	66.975
10	216	R08_Z	LinStatic	0.008900653	-0.156509286	0	0	0	8.660509787	10-3	89.3
10	0	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	14.55059832	10-1	0
10	14	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	8.761298586	10-1	14
10	28	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	2.971998852	10-1	28
10	28	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	2.971998852	10-2	0
10	47.74	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	-5.190913773	10-2	19.74
10	67.48	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	-13.3538264	10-2	39.48
10	87.22	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	-21.51673902	10-2	59.22
10	106.96	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	-29.67965165	10-2	78.96
10	126.7	R09_Z	LinStatic	0.016534802	0.41352141	0	0	0	-37.84256428	10-2	98.7
10	126.7	R09_Z	LinStatic	0.016534802	-0.58647859	0	0	0	-37.84256428	10-3	0
10	149.025	R09_Z	LinStatic	0.016534802	-0.58647859	0	0	0	-24.74942974	10-3	22.325

10	171.35	R09_Z	LinStatic	0.016534802	-0.58647859	0	0	0	-11.65629521	10-3	44.65
10	193.675	R09_Z	LinStatic	0.016534802	-0.58647859	0	0	0	1.436839317	10-3	66.975
10	216	R09_Z	LinStatic	0.016534802	-0.58647859	0	0	0	14.52997385	10-3	89.3
10	0	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	4.719340642	10-1	0
10	14	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	4.110751678	10-1	14
10	28	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	3.502162714	10-1	28
10	28	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	3.502162714	10-2	0
10	47.74	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	2.644052274	10-2	19.74
10	67.48	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	1.785941835	10-2	39.48
10	87.22	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	0.927831395	10-2	59.22
10	106.96	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	0.069720956	10-2	78.96
10	126.7	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	-0.788389484	10-2	98.7
10	126.7	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	-0.788389484	10-3	0
10	149.025	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	-1.758871528	10-3	22.325
10	171.35	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	-2.729353573	10-3	44.65
10	193.675	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	-3.699835618	10-3	66.975
10	216	R10_Z	LinStatic	0.005492302	0.04347064	0	0	0	-4.670317662	10-3	89.3
10	0	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	0.415661285	10-1	0
10	14	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	1.219310047	10-1	14
10	28	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	2.022958809	10-1	28
10	28	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	2.022958809	10-2	0
10	47.74	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	3.156103563	10-2	19.74
10	67.48	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	4.289248317	10-2	39.48
10	87.22	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	5.422393071	10-2	59.22
10	106.96	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	6.555537825	10-2	78.96
10	126.7	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	7.688682579	10-2	98.7
10	126.7	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	7.688682579	10-3	0
10	149.025	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	8.970215336	10-3	22.325
10	171.35	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	10.25174809	10-3	44.65
10	193.675	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	11.53328085	10-3	66.975
10	216	R11_Z	LinStatic	0.005618899	-0.057403483	0	0	0	12.81481361	10-3	89.3
10	0	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	-0.530620611	10-1	0
10	14	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	-0.173688196	10-1	14
10	28	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	0.18324422	10-1	28
10	28	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	0.18324422	10-2	0
10	47.74	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	0.686518926	10-2	19.74
10	67.48	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	1.189793631	10-2	39.48
10	87.22	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	1.693068337	10-2	59.22
10	106.96	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	2.196343043	10-2	78.96
10	126.7	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	2.699617749	10-2	98.7
10	126.7	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	2.699617749	10-3	0
10	149.025	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	3.268797476	10-3	22.325

10	171.35	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	3.837977203	10-3	44.65
10	193.675	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	4.407156929	10-3	66.975
10	216	R12_Z	LinStatic	-0.004606451	-0.025495173	0	0	0	4.976336656	10-3	89.3
10	0	R_X	LinStatic	1.041860628	1.432600534	0	0	0	124.6926912	10-1	0
10	14	R_X	LinStatic	1.041860628	1.432600534	0	0	0	104.6362837	10-1	14
10	28	R_X	LinStatic	1.041860628	1.432600534	0	0	0	84.57987621	10-1	28
10	28	R_X	LinStatic	0.041860628	1.432600534	0	0	0	111.5798762	10-2	0
10	47.74	R_X	LinStatic	0.041860628	1.432600534	0	0	0	83.30034168	10-2	19.74
10	67.48	R_X	LinStatic	0.041860628	1.432600534	0	0	0	55.02080715	10-2	39.48
10	87.22	R_X	LinStatic	0.041860628	1.432600534	0	0	0	26.74127262	10-2	59.22
10	106.96	R_X	LinStatic	0.041860628	1.432600534	0	0	0	-1.538261915	10-2	78.96
10	126.7	R_X	LinStatic	0.041860628	1.432600534	0	0	0	-29.81779645	10-2	98.7
10	126.7	R_X	LinStatic	-0.958139372	1.432600534	0	0	0	-2.817796447	10-3	0
10	149.025	R_X	LinStatic	-0.958139372	1.432600534	0	0	0	-34.80060336	10-3	22.325
10	171.35	R_X	LinStatic	-0.958139372	1.432600534	0	0	0	-66.78341027	10-3	44.65
10	193.675	R_X	LinStatic	-0.958139372	1.432600534	0	0	0	-98.76621718	10-3	66.975
10	216	R_X	LinStatic	-0.958139372	1.432600534	0	0	0	-130.7490241	10-3	89.3
10	0	R_Y	LinStatic	0	0	-1.304945245	-4.454271914	1.061770881	0	10-1	0
10	14	R_Y	LinStatic	0	0	-1.304945245	-4.454271914	19.33100431	0	10-1	14
10	28	R_Y	LinStatic	0	0	-1.304945245	-4.454271914	37.60023775	0	10-1	28
10	28	R_Y	LinStatic	0	0	-0.304945245	22.54572809	37.60023775	0	10-2	0
10	47.74	R_Y	LinStatic	0	0	-0.304945245	22.54572809	43.61985689	0	10-2	19.74
10	67.48	R_Y	LinStatic	0	0	-0.304945245	22.54572809	49.63947603	0	10-2	39.48
10	87.22	R_Y	LinStatic	0	0	-0.304945245	22.54572809	55.65909517	0	10-2	59.22
10	106.96	R_Y	LinStatic	0	0	-0.304945245	22.54572809	61.67871431	0	10-2	78.96
10	126.7	R_Y	LinStatic	0	0	-0.304945245	22.54572809	67.69833345	0	10-2	98.7
10	126.7	R_Y	LinStatic	0	0	0.695054755	49.54572809	67.69833345	0	10-3	0
10	149.025	R_Y	LinStatic	0	0	0.695054755	49.54572809	52.18123605	0	10-3	22.325
10	171.35	R_Y	LinStatic	0	0	0.695054755	49.54572809	36.66413865	0	10-3	44.65
10	193.675	R_Y	LinStatic	0	0	0.695054755	49.54572809	21.14704124	0	10-3	66.975
10	216	R_Y	LinStatic	0	0	0.695054755	49.54572809	5.629943843	0	10-3	89.3
10	0	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	10.90746785	10-1	0
10	14	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	9.545544129	10-1	14
10	28	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	8.183620412	10-1	28
10	28	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	8.183620412	10-2	0
10	47.74	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	6.263307971	10-2	19.74
10	67.48	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	4.34299553	10-2	39.48
10	87.22	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	2.422683089	10-2	59.22
10	106.96	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	0.502370648	10-2	78.96
10	126.7	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	-1.417941793	10-2	98.7
10	126.7	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	-1.417941793	10-3	0
10	149.025	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	-3.589723721	10-3	22.325

10	171.35	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	-5.761505648	10-3	44.65
10	193.675	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	-7.933287575	10-3	66.975
10	216	Cap_R_X	LinStatic	0.658897709	0.097280266	0	0	0	-10.1050695	10-3	89.3
10	0	Cap_w_Y	LinStatic	-0.252837215	-8.989175136	0	0	0	-327.2413805	10-1	0
10	14	Cap_w_Y	LinStatic	-0.252837215	-7.822508469	0	0	0	-209.5595953	10-1	14
10	28	Cap_w_Y	LinStatic	-0.252837215	-6.655841803	0	0	0	-108.2111434	10-1	28
10	28	Cap_w_Y	LinStatic	-0.252837215	-6.655841803	0	0	0	-108.2111434	10-2	0
10	47.74	Cap_w_Y	LinStatic	-0.252837215	-5.010841803	0	0	0	6.939023806	10-2	19.74
10	67.48	Cap_w_Y	LinStatic	-0.252837215	-3.365841803	0	0	0	89.61689099	10-2	39.48
10	87.22	Cap_w_Y	LinStatic	-0.252837215	-1.720841803	0	0	0	139.8224582	10-2	59.22
10	106.96	Cap_w_Y	LinStatic	-0.252837215	-0.075841803	0	0	0	157.5557254	10-2	78.96
10	126.7	Cap_w_Y	LinStatic	-0.252837215	1.569158197	0	0	0	142.8166926	10-2	98.7
10	126.7	Cap_w_Y	LinStatic	-0.252837215	1.569158197	0	0	0	142.8166926	10-3	0
10	149.025	Cap_w_Y	LinStatic	-0.252837215	3.429574864	0	0	0	87.01833476	10-3	22.325
10	171.35	Cap_w_Y	LinStatic	-0.252837215	5.289991531	0	0	0	-10.31382512	10-3	44.65
10	193.675	Cap_w_Y	LinStatic	-0.252837215	7.150408197	0	0	0	-149.1797871	10-3	66.975
10	216	Cap_w_Y	LinStatic	-0.252837215	9.010824864	0	0	0	-329.5795511	10-3	89.3
10	0	Cap_w_Z	LinStatic	-0.252837215	-8.989175136	0	0	0	-327.2413805	10-1	0
10	14	Cap_w_Z	LinStatic	-0.252837215	-7.822508469	0	0	0	-209.5595953	10-1	14
10	28	Cap_w_Z	LinStatic	-0.252837215	-6.655841803	0	0	0	-108.2111434	10-1	28
10	28	Cap_w_Z	LinStatic	-0.252837215	-6.655841803	0	0	0	-108.2111434	10-2	0
10	47.74	Cap_w_Z	LinStatic	-0.252837215	-5.010841803	0	0	0	6.939023806	10-2	19.74
10	67.48	Cap_w_Z	LinStatic	-0.252837215	-3.365841803	0	0	0	89.61689099	10-2	39.48
10	87.22	Cap_w_Z	LinStatic	-0.252837215	-1.720841803	0	0	0	139.8224582	10-2	59.22
10	106.96	Cap_w_Z	LinStatic	-0.252837215	-0.075841803	0	0	0	157.5557254	10-2	78.96
10	126.7	Cap_w_Z	LinStatic	-0.252837215	1.569158197	0	0	0	142.8166926	10-2	98.7
10	126.7	Cap_w_Z	LinStatic	-0.252837215	1.569158197	0	0	0	142.8166926	10-3	0
10	149.025	Cap_w_Z	LinStatic	-0.252837215	3.429574864	0	0	0	87.01833476	10-3	22.325
10	171.35	Cap_w_Z	LinStatic	-0.252837215	5.289991531	0	0	0	-10.31382512	10-3	44.65
10	193.675	Cap_w_Z	LinStatic	-0.252837215	7.150408197	0	0	0	-149.1797871	10-3	66.975
10	216	Cap_w_Z	LinStatic	-0.252837215	9.010824864	0	0	0	-329.5795511	10-3	89.3
10	0	Col_w_X	LinStatic	7.81741E-16	7.10543E-15	0	0	0	3.41061E-13	10-1	0
10	14	Col_w_X	LinStatic	7.81741E-16	7.10543E-15	0	0	0	2.41585E-13	10-1	14
10	28	Col_w_X	LinStatic	7.81741E-16	7.10543E-15	0	0	0	1.42109E-13	10-1	28
10	28	Col_w_X	LinStatic	7.77972E-16	5.32907E-15	0	0	0	2.84217E-13	10-2	0
10	47.74	Col_w_X	LinStatic	7.77972E-16	5.32907E-15	0	0	0	1.79021E-13	10-2	19.74
10	67.48	Col_w_X	LinStatic	7.77972E-16	5.32907E-15	0	0	0	7.38254E-14	10-2	39.48
10	87.22	Col_w_X	LinStatic	7.77972E-16	5.32907E-15	0	0	0	-3.13705E-14	10-2	59.22
10	106.96	Col_w_X	LinStatic	7.77972E-16	5.32907E-15	0	0	0	-1.36566E-13	10-2	78.96
10	126.7	Col_w_X	LinStatic	7.77972E-16	5.32907E-15	0	0	0	-2.41762E-13	10-2	98.7
10	126.7	Col_w_X	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-2.27374E-13	10-3	0
10	149.025	Col_w_X	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-3.86002E-13	10-3	22.325

10	171.35	Col_w_X	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-5.44631E-13	10-3	44.65
10	193.675	Col_w_X	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-7.0326E-13	10-3	66.975
10	216	Col_w_X	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-8.61888E-13	10-3	89.3
10	0	Col_w_Y	LinStatic	7.81741E-16	7.10543E-15	0	0	0	3.41061E-13	10-1	0
10	14	Col_w_Y	LinStatic	7.81741E-16	7.10543E-15	0	0	0	2.41585E-13	10-1	14
10	28	Col_w_Y	LinStatic	7.81741E-16	7.10543E-15	0	0	0	1.42109E-13	10-1	28
10	28	Col_w_Y	LinStatic	7.77972E-16	5.32907E-15	0	0	0	2.84217E-13	10-2	0
10	47.74	Col_w_Y	LinStatic	7.77972E-16	5.32907E-15	0	0	0	1.79021E-13	10-2	19.74
10	67.48	Col_w_Y	LinStatic	7.77972E-16	5.32907E-15	0	0	0	7.38254E-14	10-2	39.48
10	87.22	Col_w_Y	LinStatic	7.77972E-16	5.32907E-15	0	0	0	-3.13705E-14	10-2	59.22
10	106.96	Col_w_Y	LinStatic	7.77972E-16	5.32907E-15	0	0	0	-1.36566E-13	10-2	78.96
10	126.7	Col_w_Y	LinStatic	7.77972E-16	5.32907E-15	0	0	0	-2.41762E-13	10-2	98.7
10	126.7	Col_w_Y	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-2.27374E-13	10-3	0
10	149.025	Col_w_Y	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-3.86002E-13	10-3	22.325
10	171.35	Col_w_Y	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-5.44631E-13	10-3	44.65
10	193.675	Col_w_Y	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-7.0326E-13	10-3	66.975
10	216	Col_w_Y	LinStatic	7.77972E-16	7.10543E-15	0	0	0	-8.61888E-13	10-3	89.3
10	0	Cais_w_X	LinStatic	2.3488E-16	0	0	0	0	8.52651E-14	10-1	0
10	14	Cais_w_X	LinStatic	2.3488E-16	0	0	0	0	8.52651E-14	10-1	14
10	28	Cais_w_X	LinStatic	2.3488E-16	0	0	0	0	8.52651E-14	10-1	28
10	28	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	4.26326E-14	10-2	0
10	47.74	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	1.63336E-14	10-2	19.74
10	67.48	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-9.96536E-15	10-2	39.48
10	87.22	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-3.62643E-14	10-2	59.22
10	106.96	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-6.25633E-14	10-2	78.96
10	126.7	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-8.88623E-14	10-2	98.7
10	126.7	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-5.68434E-14	10-3	0
10	149.025	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-8.65863E-14	10-3	22.325
10	171.35	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-1.16329E-13	10-3	44.65
10	193.675	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-1.46072E-13	10-3	66.975
10	216	Cais_w_X	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-1.75815E-13	10-3	89.3
10	0	Cais_w_Y	LinStatic	2.3488E-16	0	0	0	0	8.52651E-14	10-1	0
10	14	Cais_w_Y	LinStatic	2.3488E-16	0	0	0	0	8.52651E-14	10-1	14
10	28	Cais_w_Y	LinStatic	2.3488E-16	0	0	0	0	8.52651E-14	10-1	28
10	28	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	4.26326E-14	10-2	0
10	47.74	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	1.63336E-14	10-2	19.74
10	67.48	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-9.96536E-15	10-2	39.48
10	87.22	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-3.62643E-14	10-2	59.22
10	106.96	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-6.25633E-14	10-2	78.96
10	126.7	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-8.88623E-14	10-2	98.7
10	126.7	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-5.68434E-14	10-3	0
10	149.025	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-8.65863E-14	10-3	22.325

10	171.35	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-1.16329E-13	10-3	44.65
10	193.675	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-1.46072E-13	10-3	66.975
10	216	Cais_w_Y	LinStatic	2.31889E-16	1.33227E-15	0	0	0	-1.75815E-13	10-3	89.3
10	0	DC	LinStatic	-5.339042497	-232.8722411	0	0	0	-7415.575044	10-1	0
10	14	DC	LinStatic	-5.339042497	-232.8722411	0	0	0	-4155.363669	10-1	14
10	28	DC	LinStatic	-5.339042497	-232.8722411	0	0	0	-895.1522937	10-1	28
10	28	DC	LinStatic	-5.339042497	-55.07224109	0	0	0	-895.1522937	10-2	0
10	47.74	DC	LinStatic	-5.339042497	-55.07224109	0	0	0	191.9737455	10-2	19.74
10	67.48	DC	LinStatic	-5.339042497	-55.07224109	0	0	0	1279.099785	10-2	39.48
10	87.22	DC	LinStatic	-5.339042497	-55.07224109	0	0	0	2366.225824	10-2	59.22
10	106.96	DC	LinStatic	-5.339042497	-55.07224109	0	0	0	3453.351863	10-2	78.96
10	126.7	DC	LinStatic	-5.339042497	-55.07224109	0	0	0	4540.477902	10-2	98.7
10	126.7	DC	LinStatic	-5.339042497	122.7277589	0	0	0	4540.477902	10-3	0
10	149.025	DC	LinStatic	-5.339042497	122.7277589	0	0	0	1800.580685	10-3	22.325
10	171.35	DC	LinStatic	-5.339042497	122.7277589	0	0	0	-939.316533	10-3	44.65
10	193.675	DC	LinStatic	-5.339042497	122.7277589	0	0	0	-3679.213751	10-3	66.975
10	216	DC	LinStatic	-5.339042497	122.7277589	0	0	0	-6419.110968	10-3	89.3
10	0	DW	LinStatic	-0.730768476	-33.08596164	0	0	0	-1054.746492	10-1	0
10	14	DW	LinStatic	-0.730768476	-33.08596164	0	0	0	-591.5430293	10-1	14
10	28	DW	LinStatic	-0.730768476	-33.08596164	0	0	0	-128.3395663	10-1	28
10	28	DW	LinStatic	-0.730768476	-7.775961641	0	0	0	-128.3395663	10-2	0
10	47.74	DW	LinStatic	-0.730768476	-7.775961641	0	0	0	25.15791645	10-2	19.74
10	67.48	DW	LinStatic	-0.730768476	-7.775961641	0	0	0	178.6553992	10-2	39.48
10	87.22	DW	LinStatic	-0.730768476	-7.775961641	0	0	0	332.152882	10-2	59.22
10	106.96	DW	LinStatic	-0.730768476	-7.775961641	0	0	0	485.6503648	10-2	78.96
10	126.7	DW	LinStatic	-0.730768476	-7.775961641	0	0	0	639.1478476	10-2	98.7
10	126.7	DW	LinStatic	-0.730768476	17.53403836	0	0	0	639.1478476	10-3	0
10	149.025	DW	LinStatic	-0.730768476	17.53403836	0	0	0	247.7004413	10-3	22.325
10	171.35	DW	LinStatic	-0.730768476	17.53403836	0	0	0	-143.7469651	10-3	44.65
10	193.675	DW	LinStatic	-0.730768476	17.53403836	0	0	0	-535.1943714	10-3	66.975
10	216	DW	LinStatic	-0.730768476	17.53403836	0	0	0	-926.6417778	10-3	89.3
10	0	WS3	LinStatic	-2.193193814	18.14532919	1.839972796	6.280523399	-1.497096942	337.4882916	10-1	0
10	14	WS3	LinStatic	-2.193193814	18.14532919	1.839972796	6.280523399	-27.25671608	83.45368294	10-1	14
10	28	WS3	LinStatic	-2.193193814	18.14532919	1.839972796	6.280523399	-53.01633522	-170.5809257	10-1	28
10	28	WS3	LinStatic	0.506806186	1.495329188	0.429972796	-31.7894766	-53.01633522	-243.4809257	10-2	0
10	47.74	WS3	LinStatic	0.506806186	1.495329188	0.429972796	-31.7894766	-61.50399821	-272.9987239	10-2	19.74
10	67.48	WS3	LinStatic	0.506806186	1.495329188	0.429972796	-31.7894766	-69.9916612	-302.5165221	10-2	39.48
10	87.22	WS3	LinStatic	0.506806186	1.495329188	0.429972796	-31.7894766	-78.47932419	-332.0343202	10-2	59.22
10	106.96	WS3	LinStatic	0.506806186	1.495329188	0.429972796	-31.7894766	-86.96698717	-361.5521184	10-2	78.96
10	126.7	WS3	LinStatic	0.506806186	1.495329188	0.429972796	-31.7894766	-95.45465016	-391.0699166	10-2	98.7
10	126.7	WS3	LinStatic	3.206806186	-18.19467081	-0.980027204	-69.8594766	-95.45465016	-463.9699166	10-3	0
10	149.025	WS3	LinStatic	3.206806186	-18.19467081	-0.980027204	-69.8594766	-73.57554283	-57.77389071	10-3	22.325

10	171.35	WS3	LinStatic	3.206806186	-18.19467081	-0.980027204	-69.8594766	-51.69643549	348.4221352	10-3	44.65
10	193.675	WS3	LinStatic	3.206806186	-18.19467081	-0.980027204	-69.8594766	-29.81732815	754.618161	10-3	66.975
10	216	WS3	LinStatic	3.206806186	-18.19467081	-0.980027204	-69.8594766	-7.938220819	1160.814187	10-3	89.3
10	0	WL5	LinStatic	-0.709973802	-0.784318974	0.574175908	1.959879642	-0.467179188	-80.44309517	10-1	0
10	14	WL5	LinStatic	-0.709973802	-0.784318974	0.574175908	1.959879642	-8.505641898	-69.46262954	10-1	14
10	28	WL5	LinStatic	-0.709973802	-0.784318974	0.574175908	1.959879642	-16.54410461	-58.48216391	10-1	28
10	28	WL5	LinStatic	-0.019973802	-0.934318974	0.134175908	-9.920120358	-16.54410461	-77.11216391	10-2	0
10	47.74	WL5	LinStatic	-0.019973802	-0.934318974	0.134175908	-9.920120358	-19.19273703	-58.66870737	10-2	19.74
10	67.48	WL5	LinStatic	-0.019973802	-0.934318974	0.134175908	-9.920120358	-21.84136945	-40.22525083	10-2	39.48
10	87.22	WL5	LinStatic	-0.019973802	-0.934318974	0.134175908	-9.920120358	-24.49000187	-21.78179429	10-2	59.22
10	106.96	WL5	LinStatic	-0.019973802	-0.934318974	0.134175908	-9.920120358	-27.1386343	-3.338337749	10-2	78.96
10	126.7	WL5	LinStatic	-0.019973802	-0.934318974	0.134175908	-9.920120358	-29.78726672	15.10511879	10-2	98.7
10	126.7	WL5	LinStatic	0.670026198	-1.184318974	-0.305824092	-21.80012036	-29.78726672	-3.524881208	10-3	0
10	149.025	WL5	LinStatic	0.670026198	-1.184318974	-0.305824092	-21.80012036	-22.95974386	22.91503988	10-3	22.325
10	171.35	WL5	LinStatic	0.670026198	-1.184318974	-0.305824092	-21.80012036	-16.132221	49.35496097	10-3	44.65
10	193.675	WL5	LinStatic	0.670026198	-1.184318974	-0.305824092	-21.80012036	-9.304698148	75.79488205	10-3	66.975
10	216	WL5	LinStatic	0.670026198	-1.184318974	-0.305824092	-21.80012036	-2.477175291	102.2348031	10-3	89.3
10	0	PL	LinStatic	-0.241664644	-10.94150529	0	0	0	-348.8039566	10-1	0
10	14	PL	LinStatic	-0.241664644	-10.94150529	0	0	0	-195.6228825	10-1	14
10	28	PL	LinStatic	-0.241664644	-10.94150529	0	0	0	-42.44180839	10-1	28
10	28	PL	LinStatic	-0.241664644	-2.571505292	0	0	0	-42.44180839	10-2	0
10	47.74	PL	LinStatic	-0.241664644	-2.571505292	0	0	0	8.319706072	10-2	19.74
10	67.48	PL	LinStatic	-0.241664644	-2.571505292	0	0	0	59.08122053	10-2	39.48
10	87.22	PL	LinStatic	-0.241664644	-2.571505292	0	0	0	109.842735	10-2	59.22
10	106.96	PL	LinStatic	-0.241664644	-2.571505292	0	0	0	160.6042495	10-2	78.96
10	126.7	PL	LinStatic	-0.241664644	-2.571505292	0	0	0	211.3657639	10-2	98.7
10	126.7	PL	LinStatic	-0.241664644	5.798494708	0	0	0	211.3657639	10-3	0
10	149.025	PL	LinStatic	-0.241664644	5.798494708	0	0	0	81.91436956	10-3	22.325
10	171.35	PL	LinStatic	-0.241664644	5.798494708	0	0	0	-47.5370248	10-3	44.65
10	193.675	PL	LinStatic	-0.241664644	5.798494708	0	0	0	-176.9884192	10-3	66.975
10	216	PL	LinStatic	-0.241664644	5.798494708	0	0	0	-306.4398135	10-3	89.3
10	0	LL-1 Lane	LinStatic	0.118467938	-6.786932381	0	0	0	-272.0351662	10-1	0
10	14	LL-1 Lane	LinStatic	0.118467938	-6.786932381	0	0	0	-177.0181129	10-1	14
10	28	LL-1 Lane	LinStatic	0.118467938	-6.786932381	0	0	0	-82.00105956	10-1	28
10	28	LL-1 Lane	LinStatic	0.118467938	-1.216932381	0	0	0	-82.00105956	10-2	0
10	47.74	LL-1 Lane	LinStatic	0.118467938	-1.216932381	0	0	0	-57.97881435	10-2	19.74
10	67.48	LL-1 Lane	LinStatic	0.118467938	-1.216932381	0	0	0	-33.95656914	10-2	39.48
10	87.22	LL-1 Lane	LinStatic	0.118467938	-1.216932381	0	0	0	-9.93432393	10-2	59.22
10	106.96	LL-1 Lane	LinStatic	0.118467938	-1.216932381	0	0	0	14.08792128	10-2	78.96
10	126.7	LL-1 Lane	LinStatic	0.118467938	-1.216932381	0	0	0	38.11016649	10-2	98.7
10	126.7	LL-1 Lane	LinStatic	0.118467938	-1.746932381	0	0	0	38.11016649	10-3	0
10	149.025	LL-1 Lane	LinStatic	0.118467938	-1.746932381	0	0	0	77.1104319	10-3	22.325

10	171.35	LL-1 Lane	LinStatic	0.118467938	-1.746932381	0	0	0	116.1106973	10-3	44.65
10	193.675	LL-1 Lane	LinStatic	0.118467938	-1.746932381	0	0	0	155.1109627	10-3	66.975
10	216	LL-1 Lane	LinStatic	0.118467938	-1.746932381	0	0	0	194.1112281	10-3	89.3
10	0	LL-2 Lane	LinStatic	0.06330115	-14.38340397	0	0	0	-537.6273235	10-1	0
10	14	LL-2 Lane	LinStatic	0.06330115	-14.38340397	0	0	0	-336.259668	10-1	14
10	28	LL-2 Lane	LinStatic	0.06330115	-14.38340397	0	0	0	-134.8920124	10-1	28
10	28	LL-2 Lane	LinStatic	0.06330115	-2.843403965	0	0	0	-134.8920124	10-2	0
10	47.74	LL-2 Lane	LinStatic	0.06330115	-2.843403965	0	0	0	-78.76321817	10-2	19.74
10	67.48	LL-2 Lane	LinStatic	0.06330115	-2.843403965	0	0	0	-22.6344239	10-2	39.48
10	87.22	LL-2 Lane	LinStatic	0.06330115	-2.843403965	0	0	0	33.49437037	10-2	59.22
10	106.96	LL-2 Lane	LinStatic	0.06330115	-2.843403965	0	0	0	89.62316465	10-2	78.96
10	126.7	LL-2 Lane	LinStatic	0.06330115	-2.843403965	0	0	0	145.7519589	10-2	98.7
10	126.7	LL-2 Lane	LinStatic	0.06330115	0.036596035	0	0	0	145.7519589	10-3	0
10	149.025	LL-2 Lane	LinStatic	0.06330115	0.036596035	0	0	0	144.9349524	10-3	22.325
10	171.35	LL-2 Lane	LinStatic	0.06330115	0.036596035	0	0	0	144.117946	10-3	44.65
10	193.675	LL-2 Lane	LinStatic	0.06330115	0.036596035	0	0	0	143.3009395	10-3	66.975
10	216	LL-2 Lane	LinStatic	0.06330115	0.036596035	0	0	0	142.483933	10-3	89.3
10	0	LL-3 Lane	LinStatic	-0.090287449	-22.25544007	0	0	0	-792.8703679	10-1	0
10	14	LL-3 Lane	LinStatic	-0.090287449	-22.25544007	0	0	0	-481.2942069	10-1	14
10	28	LL-3 Lane	LinStatic	-0.090287449	-22.25544007	0	0	0	-169.7180459	10-1	28
10	28	LL-3 Lane	LinStatic	-0.090287449	-4.665440072	0	0	0	-169.7180459	10-2	0
10	47.74	LL-3 Lane	LinStatic	-0.090287449	-4.665440072	0	0	0	-77.62225891	10-2	19.74
10	67.48	LL-3 Lane	LinStatic	-0.090287449	-4.665440072	0	0	0	14.47352811	10-2	39.48
10	87.22	LL-3 Lane	LinStatic	-0.090287449	-4.665440072	0	0	0	106.5693151	10-2	59.22
10	106.96	LL-3 Lane	LinStatic	-0.090287449	-4.665440072	0	0	0	198.6651021	10-2	78.96
10	126.7	LL-3 Lane	LinStatic	-0.090287449	-4.665440072	0	0	0	290.7608892	10-2	98.7
10	126.7	LL-3 Lane	LinStatic	-0.090287449	3.804559928	0	0	0	290.7608892	10-3	0
10	149.025	LL-3 Lane	LinStatic	-0.090287449	3.804559928	0	0	0	205.8240888	10-3	22.325
10	171.35	LL-3 Lane	LinStatic	-0.090287449	3.804559928	0	0	0	120.8872884	10-3	44.65
10	193.675	LL-3 Lane	LinStatic	-0.090287449	3.804559928	0	0	0	35.95048795	10-3	66.975
10	216	LL-3 Lane	LinStatic	-0.090287449	3.804559928	0	0	0	-48.98631245	10-3	89.3
10	0	LL-7 Lane	LinStatic	-1.381994327	-67.68952765	0	0	0	-2181.364544	10-1	0
10	14	LL-7 Lane	LinStatic	-1.381994327	-67.68952765	0	0	0	-1233.711157	10-1	14
10	28	LL-7 Lane	LinStatic	-1.381994327	-67.68952765	0	0	0	-286.0577697	10-1	28
10	28	LL-7 Lane	LinStatic	-1.381994327	-15.74952765	0	0	0	-286.0577697	10-2	0
10	47.74	LL-7 Lane	LinStatic	-1.381994327	-15.74952765	0	0	0	24.83790613	10-2	19.74
10	67.48	LL-7 Lane	LinStatic	-1.381994327	-15.74952765	0	0	0	335.733582	10-2	39.48
10	87.22	LL-7 Lane	LinStatic	-1.381994327	-15.74952765	0	0	0	646.6292578	10-2	59.22
10	106.96	LL-7 Lane	LinStatic	-1.381994327	-15.74952765	0	0	0	957.5249337	10-2	78.96
10	126.7	LL-7 Lane	LinStatic	-1.381994327	-15.74952765	0	0	0	1268.420609	10-2	98.7
10	126.7	LL-7 Lane	LinStatic	-1.381994327	33.62047235	0	0	0	1268.420609	10-3	0
10	149.025	LL-7 Lane	LinStatic	-1.381994327	33.62047235	0	0	0	517.8435643	10-3	22.325

10	171.35	LL-7 Lane	LinStatic	-1.381994327	33.62047235	0	0	0	-232.7334809	10-3	44.65
10	193.675	LL-7 Lane	LinStatic	-1.381994327	33.62047235	0	0	0	-983.310526	10-3	66.975
10	216	LL-7 Lane	LinStatic	-1.381994327	33.62047235	0	0	0	-1733.887571	10-3	89.3
10	0	CE-1 Lane	LinStatic	-2.218981266	-2.374145696	0.887362767	3.028904902	-0.722004199	-249.5942386	10-1	0
10	14	CE-1 Lane	LinStatic	-2.218981266	-2.374145696	0.887362767	3.028904902	-13.14508293	-216.3561989	10-1	14
10	28	CE-1 Lane	LinStatic	-2.218981266	-2.374145696	0.887362767	3.028904902	-25.56816167	-183.1181591	10-1	28
10	28	CE-1 Lane	LinStatic	-0.058981266	-2.904145696	0.207362767	-15.3310951	-25.56816167	-241.4381591	10-2	0
10	47.74	CE-1 Lane	LinStatic	-0.058981266	-2.904145696	0.207362767	-15.3310951	-29.66150268	-184.1103231	10-2	19.74
10	67.48	CE-1 Lane	LinStatic	-0.058981266	-2.904145696	0.207362767	-15.3310951	-33.7548437	-126.782487	10-2	39.48
10	87.22	CE-1 Lane	LinStatic	-0.058981266	-2.904145696	0.207362767	-15.3310951	-37.84818471	-69.45465099	10-2	59.22
10	106.96	CE-1 Lane	LinStatic	-0.058981266	-2.904145696	0.207362767	-15.3310951	-41.94152573	-12.12681495	10-2	78.96
10	126.7	CE-1 Lane	LinStatic	-0.058981266	-2.904145696	0.207362767	-15.3310951	-46.03486674	45.20102109	10-2	98.7
10	126.7	CE-1 Lane	LinStatic	2.101018734	-3.784145696	-0.472637233	-33.6910951	-46.03486674	-13.11897891	10-3	0
10	149.025	CE-1 Lane	LinStatic	2.101018734	-3.784145696	-0.472637233	-33.6910951	-35.48324051	71.36207376	10-3	22.325
10	171.35	CE-1 Lane	LinStatic	2.101018734	-3.784145696	-0.472637233	-33.6910951	-24.93161428	155.8431264	10-3	44.65
10	193.675	CE-1 Lane	LinStatic	2.101018734	-3.784145696	-0.472637233	-33.6910951	-14.37998805	240.3241791	10-3	66.975
10	216	CE-1 Lane	LinStatic	2.101018734	-3.784145696	-0.472637233	-33.6910951	-3.828361814	324.8052318	10-3	89.3
10	0	CE-2 Lane	LinStatic	-3.69829427	-3.958759373	1.48763758	5.077869982	-1.210418804	-415.9932582	10-1	0
10	14	CE-2 Lane	LinStatic	-3.69829427	-3.958759373	1.48763758	5.077869982	-22.03734492	-360.570627	10-1	14
10	28	CE-2 Lane	LinStatic	-3.69829427	-3.958759373	1.48763758	5.077869982	-42.86427103	-305.1479958	10-1	28
10	28	CE-2 Lane	LinStatic	-0.09829427	-4.838759373	0.34763758	-25.70213002	-42.86427103	-402.3479958	10-2	0
10	47.74	CE-2 Lane	LinStatic	-0.09829427	-4.838759373	0.34763758	-25.70213002	-49.72663685	-306.8308858	10-2	19.74
10	67.48	CE-2 Lane	LinStatic	-0.09829427	-4.838759373	0.34763758	-25.70213002	-56.58900267	-211.3137757	10-2	39.48
10	87.22	CE-2 Lane	LinStatic	-0.09829427	-4.838759373	0.34763758	-25.70213002	-63.45136849	-115.7966657	10-2	59.22
10	106.96	CE-2 Lane	LinStatic	-0.09829427	-4.838759373	0.34763758	-25.70213002	-70.31373431	-20.27955567	10-2	78.96
10	126.7	CE-2 Lane	LinStatic	-0.09829427	-4.838759373	0.34763758	-25.70213002	-77.17610013	75.23755436	10-2	98.7
10	126.7	CE-2 Lane	LinStatic	3.50170573	-6.308759373	-0.79236242	-56.48213002	-77.17610013	-21.96244564	10-3	0
10	149.025	CE-2 Lane	LinStatic	3.50170573	-6.308759373	-0.79236242	-56.48213002	-59.48660909	118.8806074	10-3	22.325
10	171.35	CE-2 Lane	LinStatic	3.50170573	-6.308759373	-0.79236242	-56.48213002	-41.79711806	259.7236604	10-3	44.65
10	193.675	CE-2 Lane	LinStatic	3.50170573	-6.308759373	-0.79236242	-56.48213002	-24.10762702	400.5667134	10-3	66.975
10	216	CE-2 Lane	LinStatic	3.50170573	-6.308759373	-0.79236242	-56.48213002	-6.418135981	541.4097664	10-3	89.3
10	0	CE-3 Lane	LinStatic	-4.67542127	-4.825496517	1.892170606	6.458694276	-1.539567777	-525.6725258	10-1	0
10	14	CE-3 Lane	LinStatic	-4.67542127	-4.825496517	1.892170606	6.458694276	-28.02995625	-458.1155746	10-1	14
10	28	CE-3 Lane	LinStatic	-4.67542127	-4.825496517	1.892170606	6.458694276	-54.52034473	-390.5586234	10-1	28
10	28	CE-3 Lane	LinStatic	-0.08542127	-5.955496517	0.442170606	-32.69130572	-54.52034473	-514.4886234	10-2	0
10	47.74	CE-3 Lane	LinStatic	-0.08542127	-5.955496517	0.442170606	-32.69130572	-63.24879249	-396.9271221	10-2	19.74
10	67.48	CE-3 Lane	LinStatic	-0.08542127	-5.955496517	0.442170606	-32.69130572	-71.97724024	-279.3656209	10-2	39.48
10	87.22	CE-3 Lane	LinStatic	-0.08542127	-5.955496517	0.442170606	-32.69130572	-80.70568799	-161.8041196	10-2	59.22
10	106.96	CE-3 Lane	LinStatic	-0.08542127	-5.955496517	0.442170606	-32.69130572	-89.43413575	-44.2426184	10-2	78.96
10	126.7	CE-3 Lane	LinStatic	-0.08542127	-5.955496517	0.442170606	-32.69130572	-98.1625835	73.31888284	10-2	98.7
10	126.7	CE-3 Lane	LinStatic	4.50457873	-7.835496517	-1.007829394	-71.84130572	-98.1625835	-50.61111716	10-3	0
10	149.025	CE-3 Lane	LinStatic	4.50457873	-7.835496517	-1.007829394	-71.84130572	-75.66279227	124.3163426	10-3	22.325

10	171.35	CE-3 Lane	LinStatic	4.50457873	-7.835496517	-1.007829394	-71.84130572	-53.16300104	299.2438023	10-3		44.65
10	193.675	CE-3 Lane	LinStatic	4.50457873	-7.835496517	-1.007829394	-71.84130572	-30.6632098	474.1712621	10-3		66.975
10	216	CE-3 Lane	LinStatic	4.50457873	-7.835496517	-1.007829394	-71.84130572	-8.163418573	649.0987218	10-3		89.3
10	0	CE-7 Lane	LinStatic	-8.413460879	-8.996775041	3.366758733	11.49202154	-2.739368872	-946.2546113	10-1		0
10	14	CE-7 Lane	LinStatic	-8.413460879	-8.996775041	3.366758733	11.49202154	-49.87399113	-820.2997608	10-1		14
10	28	CE-7 Lane	LinStatic	-8.413460879	-8.996775041	3.366758733	11.49202154	-97.00861339	-694.3449102	10-1		28
10	28	CE-7 Lane	LinStatic	-0.223460879	-11.00677504	0.786758733	-58.16797846	-97.00861339	-915.4749102	10-2		0
10	47.74	CE-7 Lane	LinStatic	-0.223460879	-11.00677504	0.786758733	-58.16797846	-112.5392308	-698.2011709	10-2		19.74
10	67.48	CE-7 Lane	LinStatic	-0.223460879	-11.00677504	0.786758733	-58.16797846	-128.0698481	-480.9274316	10-2		39.48
10	87.22	CE-7 Lane	LinStatic	-0.223460879	-11.00677504	0.786758733	-58.16797846	-143.6004655	-263.6536923	10-2		59.22
10	106.96	CE-7 Lane	LinStatic	-0.223460879	-11.00677504	0.786758733	-58.16797846	-159.1310829	-46.37995298	10-2		78.96
10	126.7	CE-7 Lane	LinStatic	-0.223460879	-11.00677504	0.786758733	-58.16797846	-174.6617003	170.8937863	10-2		98.7
10	126.7	CE-7 Lane	LinStatic	7.966539121	-14.35677504	-1.793241267	-127.8279785	-174.6617003	-50.23621367	10-3		0
10	149.025	CE-7 Lane	LinStatic	7.966539121	-14.35677504	-1.793241267	-127.8279785	-134.627589	270.2787891	10-3		22.325
10	171.35	CE-7 Lane	LinStatic	7.966539121	-14.35677504	-1.793241267	-127.8279785	-94.5934777	590.7937919	10-3		44.65
10	193.675	CE-7 Lane	LinStatic	7.966539121	-14.35677504	-1.793241267	-127.8279785	-54.55936641	911.3087947	10-3		66.975
10	216	CE-7 Lane	LinStatic	7.966539121	-14.35677504	-1.793241267	-127.8279785	-14.52525512	1231.823797	10-3		89.3
10	0	BR-1 Lane	LinStatic	-0.760558258	-1.045798389	3.014423516	10.28936812	-2.452690735	-91.02566454	10-1		0
10	14	BR-1 Lane	LinStatic	-0.760558258	-1.045798389	3.014423516	10.28936812	-44.65461996	-76.38448709	10-1		14
10	28	BR-1 Lane	LinStatic	-0.760558258	-1.045798389	3.014423516	10.28936812	-86.85654919	-61.74330964	10-1		28
10	28	BR-1 Lane	LinStatic	-0.030558258	-1.045798389	0.704423516	-52.08063188	-86.85654919	-81.45330964	10-2		0
10	47.74	BR-1 Lane	LinStatic	-0.030558258	-1.045798389	0.704423516	-52.08063188	-100.7618694	-60.80924943	10-2		19.74
10	67.48	BR-1 Lane	LinStatic	-0.030558258	-1.045798389	0.704423516	-52.08063188	-114.6671896	-40.16518922	10-2		39.48
10	87.22	BR-1 Lane	LinStatic	-0.030558258	-1.045798389	0.704423516	-52.08063188	-128.5725098	-19.52112901	10-2		59.22
10	106.96	BR-1 Lane	LinStatic	-0.030558258	-1.045798389	0.704423516	-52.08063188	-142.47783	1.122931198	10-2		78.96
10	126.7	BR-1 Lane	LinStatic	-0.030558258	-1.045798389	0.704423516	-52.08063188	-156.3831503	21.76699141	10-2		98.7
10	126.7	BR-1 Lane	LinStatic	0.699441742	-1.045798389	-1.605576484	-114.4506319	-156.3831503	2.056991406	10-3		0
10	149.025	BR-1 Lane	LinStatic	0.699441742	-1.045798389	-1.605576484	-114.4506319	-120.5386553	25.40444045	10-3		22.325
10	171.35	BR-1 Lane	LinStatic	0.699441742	-1.045798389	-1.605576484	-114.4506319	-84.69416027	48.7518895	10-3		44.65
10	193.675	BR-1 Lane	LinStatic	0.699441742	-1.045798389	-1.605576484	-114.4506319	-48.84966527	72.09933854	10-3		66.975
10	216	BR-1 Lane	LinStatic	0.699441742	-1.045798389	-1.605576484	-114.4506319	-13.00517028	95.44678759	10-3		89.3
10	0	BR-2 Lane	LinStatic	-1.26065136	-1.733446646	5.010989742	17.10440415	-4.077200182	-150.8781563	10-1		0
10	14	BR-2 Lane	LinStatic	-1.26065136	-1.733446646	5.010989742	17.10440415	-74.23105656	-126.6099033	10-1		14
10	28	BR-2 Lane	LinStatic	-1.26065136	-1.733446646	5.010989742	17.10440415	-144.3849129	-102.3416502	10-1		28
10	28	BR-2 Lane	LinStatic	-0.05065136	-1.733446646	1.170989742	-86.57559585	-144.3849129	-135.0116502	10-2		0
10	47.74	BR-2 Lane	LinStatic	-0.05065136	-1.733446646	1.170989742	-86.57559585	-167.5002504	-100.7934134	10-2		19.74
10	67.48	BR-2 Lane	LinStatic	-0.05065136	-1.733446646	1.170989742	-86.57559585	-190.6155879	-66.57517665	10-2		39.48
10	87.22	BR-2 Lane	LinStatic	-0.05065136	-1.733446646	1.170989742	-86.57559585	-213.7309254	-32.35693987	10-2		59.22
10	106.96	BR-2 Lane	LinStatic	-0.05065136	-1.733446646	1.170989742	-86.57559585	-236.8462629	1.861296917	10-2		78.96
10	126.7	BR-2 Lane	LinStatic	-0.05065136	-1.733446646	1.170989742	-86.57559585	-259.9616004	36.0795337	10-2		98.7
10	126.7	BR-2 Lane	LinStatic	1.15934864	-1.733446646	-2.669010258	-190.2555958	-259.9616004	3.409533701	10-3		0
10	149.025	BR-2 Lane	LinStatic	1.15934864	-1.733446646	-2.669010258	-190.2555958	-200.3759464	42.10873006	10-3		22.325

10	171.35	BR-2 Lane	LinStatic	1.15934864	-1.733446646	-2.669010258	-190.2555958	-140.7902924	80.80792643	10-3		44.65
10	193.675	BR-2 Lane	LinStatic	1.15934864	-1.733446646	-2.669010258	-190.2555958	-81.20463838	119.5071228	10-3		66.975
10	216	BR-2 Lane	LinStatic	1.15934864	-1.733446646	-2.669010258	-190.2555958	-21.61898436	158.2063192	10-3		89.3
10	0	BR-3 Lane	LinStatic	-1.614883973	-2.220530827	6.394231701	21.82593238	-5.202677316	-193.2736713	10-1		0
10	14	BR-3 Lane	LinStatic	-1.614883973	-2.220530827	6.394231701	21.82593238	-94.72192114	-162.1862397	10-1		14
10	28	BR-3 Lane	LinStatic	-1.614883973	-2.220530827	6.394231701	21.82593238	-184.241165	-131.0988081	10-1		28
10	28	BR-3 Lane	LinStatic	-0.064883973	-2.220530827	1.494231701	-110.4740676	-184.241165	-172.9488081	10-2		0
10	47.74	BR-3 Lane	LinStatic	-0.064883973	-2.220530827	1.494231701	-110.4740676	-213.7372987	-129.1155296	10-2		19.74
10	67.48	BR-3 Lane	LinStatic	-0.064883973	-2.220530827	1.494231701	-110.4740676	-243.2334325	-85.28225108	10-2		39.48
10	87.22	BR-3 Lane	LinStatic	-0.064883973	-2.220530827	1.494231701	-110.4740676	-272.7295663	-41.44897256	10-2		59.22
10	106.96	BR-3 Lane	LinStatic	-0.064883973	-2.220530827	1.494231701	-110.4740676	-302.2257001	2.384305968	10-2		78.96
10	126.7	BR-3 Lane	LinStatic	-0.064883973	-2.220530827	1.494231701	-110.4740676	-331.7218339	46.21758449	10-2		98.7
10	126.7	BR-3 Lane	LinStatic	1.485116027	-2.220530827	-3.405768299	-242.7740676	-331.7218339	4.367584493	10-3		0
10	149.025	BR-3 Lane	LinStatic	1.485116027	-2.220530827	-3.405768299	-242.7740676	-255.6880566	53.94093521	10-3		22.325
10	171.35	BR-3 Lane	LinStatic	1.485116027	-2.220530827	-3.405768299	-242.7740676	-179.6542794	103.5142859	10-3		44.65
10	193.675	BR-3 Lane	LinStatic	1.485116027	-2.220530827	-3.405768299	-242.7740676	-103.6205021	153.0876366	10-3		66.975
10	216	BR-3 Lane	LinStatic	1.485116027	-2.220530827	-3.405768299	-242.7740676	-27.58672483	202.6609873	10-3		89.3
10	0	BR-7 Lane	LinStatic	-2.875535333	-3.953977473	11.40522144	38.93033653	-9.279877498	-344.1518276	10-1		0
10	14	BR-7 Lane	LinStatic	-2.875535333	-3.953977473	11.40522144	38.93033653	-168.9529777	-288.796143	10-1		14
10	28	BR-7 Lane	LinStatic	-2.875535333	-3.953977473	11.40522144	38.93033653	-328.6260779	-233.4404583	10-1		28
10	28	BR-7 Lane	LinStatic	-0.115535333	-3.953977473	2.665221443	-197.0496635	-328.6260779	-307.9604583	10-2		0
10	47.74	BR-7 Lane	LinStatic	-0.115535333	-3.953977473	2.665221443	-197.0496635	-381.2375492	-229.908943	10-2		19.74
10	67.48	BR-7 Lane	LinStatic	-0.115535333	-3.953977473	2.665221443	-197.0496635	-433.8490205	-151.8574277	10-2		39.48
10	87.22	BR-7 Lane	LinStatic	-0.115535333	-3.953977473	2.665221443	-197.0496635	-486.4604918	-73.80591242	10-2		59.22
10	106.96	BR-7 Lane	LinStatic	-0.115535333	-3.953977473	2.665221443	-197.0496635	-539.071963	4.245602885	10-2		78.96
10	126.7	BR-7 Lane	LinStatic	-0.115535333	-3.953977473	2.665221443	-197.0496635	-591.6834343	82.29711819	10-2		98.7
10	126.7	BR-7 Lane	LinStatic	2.644464667	-3.953977473	-6.074778557	-433.0296635	-591.6834343	7.777118194	10-3		0
10	149.025	BR-7 Lane	LinStatic	2.644464667	-3.953977473	-6.074778557	-433.0296635	-456.064003	96.04966527	10-3		22.325
10	171.35	BR-7 Lane	LinStatic	2.644464667	-3.953977473	-6.074778557	-433.0296635	-320.4445718	184.3222123	10-3		44.65
10	193.675	BR-7 Lane	LinStatic	2.644464667	-3.953977473	-6.074778557	-433.0296635	-184.8251405	272.5947594	10-3		66.975
10	216	BR-7 Lane	LinStatic	2.644464667	-3.953977473	-6.074778557	-433.0296635	-49.20570919	360.8673065	10-3		89.3
10	0	WSub3: 45deg	LinStatic	-0.595612358	0.986284764	0	0	0	28.90687121	10-1		0
10	14	WSub3: 45deg	LinStatic	-0.595612358	0.846284764	0	0	0	16.07888451	10-1		14
10	28	WSub3: 45deg	LinStatic	-0.595612358	0.706284764	0	0	0	5.210897814	10-1		28
10	28	WSub3: 45deg	LinStatic	-0.595612358	0.706284764	0	0	0	5.210897814	10-2		0
10	47.74	WSub3: 45deg	LinStatic	-0.595612358	0.508884764	0	0	0	-6.782825429	10-2		19.74
10	67.48	WSub3: 45deg	LinStatic	-0.595612358	0.311484764	0	0	0	-14.87987267	10-2		39.48
10	87.22	WSub3: 45deg	LinStatic	-0.595612358	0.114084764	0	0	0	-19.08024392	10-2		59.22
10	106.96	WSub3: 45deg	LinStatic	-0.595612358	-0.083315236	0	0	0	-19.38393916	10-2		78.96
10	126.7	WSub3: 45deg	LinStatic	-0.595612358	-0.280715236	0	0	0	-15.7909584	10-2		98.7
10	126.7	WSub3: 45deg	LinStatic	-0.595612358	-0.280715236	0	0	0	-15.7909584	10-3		0
10	149.025	WSub3: 45deg	LinStatic	-0.595612358	-0.503965236	0	0	0	-7.031962637	10-3		22.325

10	171.35	WSub3: 45deg	LinStatic	-0.595612358	-0.727215236	0	0	0	6.71108938	10-3	44.65
10	193.675	WSub3: 45deg	LinStatic	-0.595612358	-0.950465236	0	0	0	25.43819765	10-3	66.975
10	216	WSub3: 45deg	LinStatic	-0.595612358	-1.173715236	0	0	0	49.14936216	10-3	89.3
10	0	WSub3: 30deg	LinStatic	-0.676672362	0.437206229	0	0	0	8.181641593	10-1	0
10	14	WSub3: 30deg	LinStatic	-0.676672362	0.367206229	0	0	0	2.550754381	10-1	14
10	28	WSub3: 30deg	LinStatic	-0.676672362	0.297206229	0	0	0	-2.10013283	10-1	28
10	28	WSub3: 30deg	LinStatic	-0.676672362	0.297206229	0	0	0	-2.10013283	10-2	0
10	47.74	WSub3: 30deg	LinStatic	-0.676672362	0.198506229	0	0	0	-6.992814798	10-2	19.74
10	67.48	WSub3: 30deg	LinStatic	-0.676672362	0.099806229	0	0	0	-9.937158766	10-2	39.48
10	87.22	WSub3: 30deg	LinStatic	-0.676672362	0.001106229	0	0	0	-10.93316473	10-2	59.22
10	106.96	WSub3: 30deg	LinStatic	-0.676672362	-0.097593771	0	0	0	-9.980832702	10-2	78.96
10	126.7	WSub3: 30deg	LinStatic	-0.676672362	-0.196293771	0	0	0	-7.08016267	10-2	98.7
10	126.7	WSub3: 30deg	LinStatic	-0.676672362	-0.196293771	0	0	0	-7.08016267	10-3	0
10	149.025	WSub3: 30deg	LinStatic	-0.676672362	-0.307918771	0	0	0	-1.451890179	10-3	22.325
10	171.35	WSub3: 30deg	LinStatic	-0.676672362	-0.419543771	0	0	0	6.668410437	10-3	44.65
10	193.675	WSub3: 30deg	LinStatic	-0.676672362	-0.53116877 1	0	0	0	17.28073918	10-3	66.975
10	216	WSub3: 30deg	LinStatic	-0.676672362	-0.642793771	0	0	0	30.38509605	10-3	89.3
10	0	WSub3: 15deg	LinStatic	-0.702492177	-0.014198133	0	0	0	-8.39857679	10-1	0
10	14	WSub3: 15deg	LinStatic	-0.702492177	-0.025864799	0	0	0	-8.118136265	10-1	14
10	28	WSub3: 15deg	LinStatic	-0.702492177	-0.037531466	0	0	0	-7.674362407	10-1	28
10	28	WSub3: 15deg	LinStatic	-0.702492177	-0.037531466	0	0	0	-7.674362407	10-2	0
10	47.74	WSub3: 15deg	LinStatic	-0.702492177	-0.053981466	0	0	0	-6.771129767	10-2	19.74
10	67.48	WSub3: 15deg	LinStatic	-0.702492177	-0.070431466	0	0	0	-5.543174127	10-2	39.48
10	87.22	WSub3: 15deg	LinStatic	-0.702492177	-0.086881466	0	0	0	-3.990495487	10-2	59.22
10	106.96	WSub3: 15deg	LinStatic	-0.702492177	-0.103331466	0	0	0	-2.113093847	10-2	78.96
10	126.7	WSub3: 15deg	LinStatic	-0.702492177	-0.119781466	0	0	0	0.089030793	10-2	98.7
10	126.7	WSub3: 15deg	LinStatic	-0.702492177	-0.119781466	0	0	0	0.089030793	10-3	0
10	149.025	WSub3: 15deg	LinStatic	-0.702492177	-0.138385633	0	0	0	2.970821033	10-3	22.325
10	171.35	WSub3: 15deg	LinStatic	-0.702492177	-0.156989799	0	0	0	6.267949295	10-3	44.65
10	193.675	WSub3: 15deg	LinStatic	-0.702492177	-0.175593966	0	0	0	9.980415576	10-3	66.975
10	216	WSub3: 15deg	LinStatic	-0.702492177	-0.194198133	0	0	0	14.10821988	10-3	89.3
10	0	WSub3: 0deg	LinStatic	-0.651848686	0.61990814	0	0	0	15.05369324	10-1	0
10	14	WSub3: 0deg	LinStatic	-0.651848686	0.526574807	0	0	0	7.028312611	10-1	14
10	28	WSub3: 0deg	LinStatic	-0.651848686	0.433241473	0	0	0	0.30959865	10-1	28
10	28	WSub3: 0deg	LinStatic	-0.651848686	0.433241473	0	0	0	0.30959865	10-2	0
10	47.74	WSub3: 0deg	LinStatic	-0.651848686	0.301641473	0	0	0	-6.943696035	10-2	19.74
10	67.48	WSub3: 0deg	LinStatic	-0.651848686	0.170041473	0	0	0	-11.59920672	10-2	39.48
10	87.22	WSub3: 0deg	LinStatic	-0.651848686	0.038441473	0	0	0	-13.65693341	10-2	59.22
10	106.96	WSub3: 0deg	LinStatic	-0.651848686	-0.093158527	0	0	0	-13.11687609	10-2	78.96
10	126.7	WSub3: 0deg	LinStatic	-0.651848686	-0.224758527	0	0	0	-9.979034775	10-2	98.7
10	126.7	WSub3: 0deg	LinStatic	-0.651848686	-0.224758527	0	0	0	-9.979034775	10-3	0
10	149.025	WSub3: 0deg	LinStatic	-0.651848686	-0.37359186	0	0	0	-3.299948586	10-3	22.325

10	171.35	WSub3: 0deg	LinStatic	-0.651848686	-0.522425193	0	0	0	6.70184177	10-3	44.65
10	193.675	WSub3: 0deg	LinStatic	-0.651848686	-0.671258527	0	0	0	20.02633629	10-3	66.975
10	216	WSub3: 0deg	LinStatic	-0.651848686	-0.82009186	0	0	0	36.67353498	10-3	89.3
10	0	WSub3: -15deg	LinStatic	-0.557610728	1.17093228	0	0	0	35.99707221	10-1	0
10	14	WSub3: -15deg	LinStatic	-0.557610728	1.007598947	0	0	0	20.74735362	10-1	14
10	28	WSub3: -15deg	LinStatic	-0.557610728	0.844265613	0	0	0	7.784301702	10-1	28
10	28	WSub3: -15deg	LinStatic	-0.557610728	0.844265613	0	0	0	7.784301702	10-2	0
10	47.74	WSub3: -15deg	LinStatic	-0.557610728	0.613965613	0	0	0	-6.608440507	10-2	19.74
10	67.48	WSub3: -15deg	LinStatic	-0.557610728	0.383665613	0	0	0	-16.45506072	10-2	39.48
10	87.22	WSub3: -15deg	LinStatic	-0.557610728	0.153365613	0	0	0	-21.75555893	10-2	59.22
10	106.96	WSub3: -15deg	LinStatic	-0.557610728	-0.076934387	0	0	0	-22.50993513	10-2	78.96
10	126.7	WSub3: -15deg	LinStatic	-0.557610728	-0.307234387	0	0	0	-18.71818934	10-2	98.7
10	126.7	WSub3: -15deg	LinStatic	-0.557610728	-0.307234387	0	0	0	-18.71818934	10-3	0
10	149.025	WSub3: -15deg	LinStatic	-0.557610728	-0.56769272	0	0	0	-8.951815518	10-3	22.325
10	171.35	WSub3: -15deg	LinStatic	-0.557610728	-0.828151053	0	0	0	6.629290599	10-3	44.65
10	193.675	WSub3: -15deg	LinStatic	-0.557610728	-1.088609387	0	0	0	28.02512901	10-3	66.975
10	216	WSub3: -15deg	LinStatic	-0.557610728	-1.34906772	0	0	0	55.23569971	10-3	89.3
10	0	WSub3: -30deg	LinStatic	-0.423838908	1.727793236	0	0	0	57.59489926	10-1	0
10	14	WSub3: -30deg	LinStatic	-0.423838908	1.494459903	0	0	0	35.03912728	10-1	14
10	28	WSub3: -30deg	LinStatic	-0.423838908	1.261126569	0	0	0	15.75002198	10-1	28
10	28	WSub3: -30deg	LinStatic	-0.423838908	1.261126569	0	0	0	15.75002198	10-2	0
10	47.74	WSub3: -30deg	LinStatic	-0.423838908	0.932126569	0	0	0	-5.8973865	10-2	19.74
10	67.48	WSub3: -30deg	LinStatic	-0.423838908	0.603126569	0	0	0	-21.05033498	10-2	39.48
10	87.22	WSub3: -30deg	LinStatic	-0.423838908	0.274126569	0	0	0	-29.70882346	10-2	59.22
10	106.96	WSub3: -30deg	LinStatic	-0.423838908	-0.054873431	0	0	0	-31.87285194	10-2	78.96
10	126.7	WSub3: -30deg	LinStatic	-0.423838908	-0.383873431	0	0	0	-27.54242042	10-2	98.7
10	126.7	WSub3: -30deg	LinStatic	-0.423838908	-0.383873431	0	0	0	-27.54242042	10-3	0
10	149.025	WSub3: -30deg	LinStatic	-0.423838908	-0.755956764	0	0	0	-14.81906587	10-3	22.325
10	171.35	WSub3: -30deg	LinStatic	-0.423838908	-1.128040097	0	0	0	6.21104909	10-3	44.65
10	193.675	WSub3: -30deg	LinStatic	-0.423838908	-1.500123431	0	0	0	35.54792447	10-3	66.975
10	216	WSub3: -30deg	LinStatic	-0.423838908	-1.872206764	0	0	0	73.19156027	10-3	89.3
10	0	WSub3: -45deg	LinStatic	-0.268767923	2.1087619	0	0	0	73.0841974	10-1	0
10	14	WSub3: -45deg	LinStatic	-0.268767923	1.8287619	0	0	0	45.5215308	10-1	14
10	28	WSub3: -45deg	LinStatic	-0.268767923	1.5487619	0	0	0	21.87886421	10-1	28
10	28	WSub3: -45deg	LinStatic	-0.268767923	1.5487619	0	0	0	21.87886421	10-2	0
10	47.74	WSub3: -45deg	LinStatic	-0.268767923	1.1539619	0	0	0	-4.797019699	10-2	19.74
10	67.48	WSub3: -45deg	LinStatic	-0.268767923	0.7591619	0	0	0	-23.6795516	10-2	39.48
10	87.22	WSub3: -45deg	LinStatic	-0.268767923	0.3643619	0	0	0	-34.76873151	10-2	59.22
10	106.96	WSub3: -45deg	LinStatic	-0.268767923	-0.0304381	0	0	0	-38.06455941	10-2	78.96
10	126.7	WSub3: -45deg	LinStatic	-0.268767923	-0.4252381	0	0	0	-33.56703532	10-2	98.7
10	126.7	WSub3: -45deg	LinStatic	-0.268767923	-0.4252381	0	0	0	-33.56703532	10-3	0
10	149.025	WSub3: -45deg	LinStatic	-0.268767923	-0.8717381	0	0	0	-19.08953848	10-3	22.325

10	171.35	WSub3: -45deg	LinStatic	-0.268767923	-1.3182381	0	0	0	5.356070852	10-3	44.65
10	193.675	WSub3: -45deg	LinStatic	-0.268767923	-1.7647381	0	0	0	39.76979269	10-3	66.975
10	216	WSub3: -45deg	LinStatic	-0.268767923	-2.2112381	0	0	0	84.15162702	10-3	89.3
10	0	WA	LinStatic	-2.78185E-16	-3.55271E-15	0	0	0	-1.13687E-13	10-1	0
10	14	WA	LinStatic	-2.78185E-16	-3.55271E-15	0	0	0	-6.39488E-14	10-1	14
10	28	WA	LinStatic	-2.78185E-16	-3.55271E-15	0	0	0	-1.42109E-14	10-1	28
10	28	WA	LinStatic	-2.77316E-16	-1.33227E-15	0	0	0	-5.68434E-14	10-2	0
10	47.74	WA	LinStatic	-2.77316E-16	-1.33227E-15	0	0	0	-3.05445E-14	10-2	19.74
10	67.48	WA	LinStatic	-2.77316E-16	-1.33227E-15	0	0	0	-4.24549E-15	10-2	39.48
10	87.22	WA	LinStatic	-2.77316E-16	-1.33227E-15	0	0	0	2.20535E-14	10-2	59.22
10	106.96	WA	LinStatic	-2.77316E-16	-1.33227E-15	0	0	0	4.83524E-14	10-2	78.96
10	126.7	WA	LinStatic	-2.77316E-16	-1.33227E-15	0	0	0	7.46514E-14	10-2	98.7
10	126.7	WA	LinStatic	-2.77316E-16	-2.22045E-15	0	0	0	2.84217E-14	10-3	0
10	149.025	WA	LinStatic	-2.77316E-16	-2.22045E-15	0	0	0	7.79932E-14	10-3	22.325
10	171.35	WA	LinStatic	-2.77316E-16	-2.22045E-15	0	0	0	1.27565E-13	10-3	44.65
10	193.675	WA	LinStatic	-2.77316E-16	-2.22045E-15	0	0	0	1.77136E-13	10-3	66.975
10	216	WA	LinStatic	-2.77316E-16	-2.22045E-15	0	0	0	2.26708E-13	10-3	89.3
10	0	WS3: 45deg	Combination	-2.788806171	19.13161395	1.839972796	6.280523399	-1.497096942	366.3951628	10-1	0
10	14	WS3: 45deg	Combination	-2.788806171	18.99161395	1.839972796	6.280523399	-27.25671608	99.53256745	10-1	14
10	28	WS3: 45deg	Combination	-2.788806171	18.85161395	1.839972796	6.280523399	-53.01633522	-165.3700279	10-1	28
10	28	WS3: 45deg	Combination	-0.088806171	2.201613952	0.429972796	-31.7894766	-53.01633522	-238.2700279	10-2	0
10	47.74	WS3: 45deg	Combination	-0.088806171	2.004213952	0.429972796	-31.7894766	-61.50399821	-279.7815493	10-2	19.74
10	67.48	WS3: 45deg	Combination	-0.088806171	1.806813952	0.429972796	-31.7894766	-69.9916612	-317.3963947	10-2	39.48
10	87.22	WS3: 45deg	Combination	-0.088806171	1.609413952	0.429972796	-31.7894766	-78.47932419	-351.1145641	10-2	59.22
10	106.96	WS3: 45deg	Combination	-0.088806171	1.412013952	0.429972796	-31.7894766	-86.96698717	-380.9360576	10-2	78.96
10	126.7	WS3: 45deg	Combination	-0.088806171	1.214613952	0.429972796	-31.7894766	-95.45465016	-406.860875	10-2	98.7
10	126.7	WS3: 45deg	Combination	2.611193829	-18.47538605	-0.980027204	-69.8594766	-95.45465016	-479.760875	10-3	0
10	149.025	WS3: 45deg	Combination	2.611193829	-18.69863605	-0.980027204	-69.8594766	-73.57554283	-64.80585335	10-3	22.325
10	171.35	WS3: 45deg	Combination	2.611193829	-18.92188605	-0.980027204	-69.8594766	-51.69643549	355.1332245	10-3	44.65
10	193.675	WS3: 45deg	Combination	2.611193829	-19.14513605	-0.980027204	-69.8594766	-29.81732815	780.0563587	10-3	66.975
10	216	WS3: 45deg	Combination	2.611193829	-19.36838605	-0.980027204	-69.8594766	-7.938220819	1209.963549	10-3	89.3
10	0	WS3: 30deg	Combination	-2.869866175	18.58253542	1.839972796	6.280523399	-1.497096942	345.6699332	10-1	0
10	14	WS3: 30deg	Combination	-2.869866175	18.51253542	1.839972796	6.280523399	-27.25671608	86.00443732	10-1	14
10	28	WS3: 30deg	Combination	-2.869866175	18.44253542	1.839972796	6.280523399	-53.01633522	-172.6810585	10-1	28
10	28	WS3: 30deg	Combination	-0.169866175	1.792535418	0.429972796	-31.7894766	-53.01633522	-245.5810585	10-2	0
10	47.74	WS3: 30deg	Combination	-0.169866175	1.693835418	0.429972796	-31.7894766	-61.50399821	-279.9915387	10-2	19.74
10	67.48	WS3: 30deg	Combination	-0.169866175	1.595135418	0.429972796	-31.7894766	-69.9916612	-312.4536808	10-2	39.48
10	87.22	WS3: 30deg	Combination	-0.169866175	1.496435418	0.429972796	-31.7894766	-78.47932419	-342.967485	10-2	59.22
10	106.96	WS3: 30deg	Combination	-0.169866175	1.397735418	0.429972796	-31.7894766	-86.96698717	-371.5329511	10-2	78.96
10	126.7	WS3: 30deg	Combination	-0.169866175	1.299035418	0.429972796	-31.7894766	-95.45465016	-398.1500793	10-2	98.7
10	126.7	WS3: 30deg	Combination	2.530133825	-18.39096458	-0.980027204	-69.8594766	-95.45465016	-471.0500793	10-3	0
10	149.025	WS3: 30deg	Combination	2.530133825	-18.50258958	-0.980027204	-69.8594766	-73.57554283	-59.22578089	10-3	22.325

10	171.35	WS3: 30deg	Combination	2.530133825	-18.61421458	-0.980027204	-69.8594766	-51.69643549	355.0905456	10-3	44.65
10	193.675	WS3: 30deg	Combination	2.530133825	-18.72583958	-0.980027204	-69.8594766	-29.81732815	771.8989002	10-3	66.975
10	216	WS3: 30deg	Combination	2.530133825	-18.83746458	-0.980027204	-69.8594766	-7.938220819	1191.199283	10-3	89.3
10	0	WS3: 15deg	Combination	-2.89568599	18.13113106	1.839972796	6.280523399	-1.497096942	329.0897148	10-1	0
10	14	WS3: 15deg	Combination	-2.89568599	18.11946439	1.839972796	6.280523399	-27.25671608	75.33554667	10-1	14
10	28	WS3: 15deg	Combination	-2.89568599	18.10779772	1.839972796	6.280523399	-53.01633522	-178.2552881	10-1	28
10	28	WS3: 15deg	Combination	-0.19568599	1.457797722	0.429972796	-31.7894766	-53.01633522	-251.1552881	10-2	0
10	47.74	WS3: 15deg	Combination	-0.19568599	1.441347722	0.429972796	-31.7894766	-61.50399821	-279.7698536	10-2	19.74
10	67.48	WS3: 15deg	Combination	-0.19568599	1.424897722	0.429972796	-31.7894766	-69.9916612	-308.0596962	10-2	39.48
10	87.22	WS3: 15deg	Combination	-0.19568599	1.408447722	0.429972796	-31.7894766	-78.47932419	-336.0248157	10-2	59.22
10	106.96	WS3: 15deg	Combination	-0.19568599	1.391997722	0.429972796	-31.7894766	-86.96698717	-363.6652123	10-2	78.96
10	126.7	WS3: 15deg	Combination	-0.19568599	1.375547722	0.429972796	-31.7894766	-95.45465016	-390.9808858	10-2	98.7
10	126.7	WS3: 15deg	Combination	2.50431401	-18.31445228	-0.980027204	-69.8594766	-95.45465016	-463.8808858	10-3	0
10	149.025	WS3: 15deg	Combination	2.50431401	-18.33305644	-0.980027204	-69.8594766	-73.57554283	-54.80306968	10-3	22.325
10	171.35	WS3: 15deg	Combination	2.50431401	-18.35166061	-0.980027204	-69.8594766	-51.69643549	354.6900845	10-3	44.65
10	193.675	WS3: 15deg	Combination	2.50431401	-18.37026478	-0.980027204	-69.8594766	-29.81732815	764.5985766	10-3	66.975
10	216	WS3: 15deg	Combination	2.50431401	-18.38886894	-0.980027204	-69.8594766	-7.938220819	1174.922407	10-3	89.3
10	0	WS3: 0deg	Combination	-2.8450425	18.76523733	1.839972796	6.280523399	-1.497096942	352.5419848	10-1	0
10	14	WS3: 0deg	Combination	-2.8450425	18.671904	1.839972796	6.280523399	-27.25671608	90.48199555	10-1	14
10	28	WS3: 0deg	Combination	-2.8450425	18.57857066	1.839972796	6.280523399	-53.01633522	-170.271327	10-1	28
10	28	WS3: 0deg	Combination	-0.1450425	1.928570662	0.429972796	-31.7894766	-53.01633522	-243.171327	10-2	0
10	47.74	WS3: 0deg	Combination	-0.1450425	1.796970662	0.429972796	-31.7894766	-61.50399821	-279.9424199	10-2	19.74
10	67.48	WS3: 0deg	Combination	-0.1450425	1.665370662	0.429972796	-31.7894766	-69.9916612	-314.1157288	10-2	39.48
10	87.22	WS3: 0deg	Combination	-0.1450425	1.533770662	0.429972796	-31.7894766	-78.47932419	-345.6912536	10-2	59.22
10	106.96	WS3: 0deg	Combination	-0.1450425	1.402170662	0.429972796	-31.7894766	-86.96698717	-374.6689945	10-2	78.96
10	126.7	WS3: 0deg	Combination	-0.1450425	1.270570662	0.429972796	-31.7894766	-95.45465016	-401.0489514	10-2	98.7
10	126.7	WS3: 0deg	Combination	2.5549575	-18.41942934	-0.980027204	-69.8594766	-95.45465016	-473.9489514	10-3	0
10	149.025	WS3: 0deg	Combination	2.5549575	-18.56826267	-0.980027204	-69.8594766	-73.57554283	-61.0738393	10-3	22.325
10	171.35	WS3: 0deg	Combination	2.5549575	-18.717096	-0.980027204	-69.8594766	-51.69643549	355.1239769	10-3	44.65
10	193.675	WS3: 0deg	Combination	2.5549575	-18.86592934	-0.980027204	-69.8594766	-29.81732815	774.6444973	10-3	66.975
10	216	WS3: 0deg	Combination	2.5549575	-19.01476267	-0.980027204	-69.8594766	-7.938220819	1197.487722	10-3	89.3
10	0	WS3: -15deg	Combination	-2.750804542	19.31626147	1.839972796	6.280523399	-1.497096942	373.4853638	10-1	0
10	14	WS3: -15deg	Combination	-2.750804542	19.15292814	1.839972796	6.280523399	-27.25671608	104.2010366	10-1	14
10	28	WS3: -15deg	Combination	-2.750804542	18.9895948	1.839972796	6.280523399	-53.01633522	-162.796624	10-1	28
10	28	WS3: -15deg	Combination	-0.050804542	2.339594802	0.429972796	-31.7894766	-53.01633522	-235.696624	10-2	0
10	47.74	WS3: -15deg	Combination	-0.050804542	2.109294802	0.429972796	-31.7894766	-61.50399821	-279.6071644	10-2	19.74
10	67.48	WS3: -15deg	Combination	-0.050804542	1.878994802	0.429972796	-31.7894766	-69.9916612	-318.9715828	10-2	39.48
10	87.22	WS3: -15deg	Combination	-0.050804542	1.648694802	0.429972796	-31.7894766	-78.47932419	-353.7898792	10-2	59.22
10	106.96	WS3: -15deg	Combination	-0.050804542	1.418394802	0.429972796	-31.7894766	-86.96698717	-384.0620535	10-2	78.96
10	126.7	WS3: -15deg	Combination	-0.050804542	1.188094802	0.429972796	-31.7894766	-95.45465016	-409.7881059	10-2	98.7
10	126.7	WS3: -15deg	Combination	2.649195458	-18.5019052	-0.980027204	-69.8594766	-95.45465016	-482.6881059	10-3	0
10	149.025	WS3: -15deg	Combination	2.649195458	-18.76236353	-0.980027204	-69.8594766	-73.57554283	-66.72570623	10-3	22.325

10	171.35	WS3: -15deg	Combination	2.649195458	-19.02282186	-0.980027204	-69.8594766	-51.69643549	355.0514258	10-3	44.65
10	193.675	WS3: -15deg	Combination	2.649195458	-19.2832802	-0.980027204	-69.8594766	-29.81732815	782.64329	10-3	66.975
10	216	WS3: -15deg	Combination	2.649195458	-19.54373853	-0.980027204	-69.8594766	-7.938220819	1216.049887	10-3	89.3
10	0	WS3: -30deg	Combination	-2.617032721	19.87312242	1.839972796	6.280523399	-1.497096942	395.0831908	10-1	0
10	14	WS3: -30deg	Combination	-2.617032721	19.63978909	1.839972796	6.280523399	-27.25671608	118.4928102	10-1	14
10	28	WS3: -30deg	Combination	-2.617032721	19.40645576	1.839972796	6.280523399	-53.01633522	-154.8309037	10-1	28
10	28	WS3: -30deg	Combination	0.082967279	2.756455758	0.429972796	-31.7894766	-53.01633522	-227.7309037	10-2	0
10	47.74	WS3: -30deg	Combination	0.082967279	2.427455758	0.429972796	-31.7894766	-61.50399821	-278.8961104	10-2	19.74
10	67.48	WS3: -30deg	Combination	0.082967279	2.098455758	0.429972796	-31.7894766	-69.9916612	-323.566857	10-2	39.48
10	87.22	WS3: -30deg	Combination	0.082967279	1.769455758	0.429972796	-31.7894766	-78.47932419	-361.7431437	10-2	59.22
10	106.96	WS3: -30deg	Combination	0.082967279	1.440455758	0.429972796	-31.7894766	-86.96698717	-393.4249703	10-2	78.96
10	126.7	WS3: -30deg	Combination	0.082967279	1.111455758	0.429972796	-31.7894766	-95.45465016	-418.612337	10-2	98.7
10	126.7	WS3: -30deg	Combination	2.782967279	-18.57854424	-0.980027204	-69.8594766	-95.45465016	-491.512337	10-3	0
10	149.025	WS3: -30deg	Combination	2.782967279	-18.95062758	-0.980027204	-69.8594766	-73.57554283	-72.59295658	10-3	22.325
10	171.35	WS3: -30deg	Combination	2.782967279	-19.32271091	-0.980027204	-69.8594766	-51.69643549	354.6331843	10-3	44.65
10	193.675	WS3: -30deg	Combination	2.782967279	-19.69479424	-0.980027204	-69.8594766	-29.81732815	790.1660855	10-3	66.975
10	216	WS3: -30deg	Combination	2.782967279	-20.06687758	-0.980027204	-69.8594766	-7.938220819	1234.005747	10-3	89.3
10	0	WServ1: -45deg	Combination	-0.968302107	7.353055297	0.680789934	2.323793658	-0.553925868	146.1807806	10-1	0
10	14	WServ1: -45deg	Combination	-0.968302107	7.266721964	0.680789934	2.323793658	-10.08498495	43.84233978	10-1	14
10	28	WServ1: -45deg	Combination	-0.968302107	7.18038863	0.680789934	2.323793658	-19.61604403	-57.28743438	10-1	28
10	28	WServ1: -45deg	Combination	0.030697893	1.01988863	0.159089934	-11.76210634	-19.61604403	-84.26043438	10-2	0
10	47.74	WServ1: -45deg	Combination	0.030697893	0.89815863	0.159089934	-11.76210634	-22.75647934	-103.1915608	10-2	19.74
10	67.48	WServ1: -45deg	Combination	0.030697893	0.77642863	0.159089934	-11.76210634	-25.89691464	-119.7197371	10-2	39.48
10	87.22	WServ1: -45deg	Combination	0.030697893	0.65469863	0.159089934	-11.76210634	-29.03734995	-133.8449632	10-2	59.22
10	106.96	WServ1: -45deg	Combination	0.030697893	0.53296863	0.159089934	-11.76210634	-32.17778525	-145.567239	10-2	78.96
10	126.7	WServ1: -45deg	Combination	0.030697893	0.41123863	0.159089934	-11.76210634	-35.31822056	-154.8865647	10-2	98.7
10	126.7	WServ1: -45deg	Combination	1.029697893	-6.87406137	-0.362610066	-25.84800634	-35.31822056	-181.8595647	10-3	0
10	149.025	WServ1: -45deg	Combination	1.029697893	-7.011732203	-0.362610066	-25.84800634	-27.22295085	-26.85939394	10-3	22.325
10	171.35	WServ1: -45deg	Combination	1.029697893	-7.149403036	-0.362610066	-25.84800634	-19.12768113	131.2142782	10-3	44.65
10	193.675	WServ1: -45deg	Combination	1.029697893	-7.28707387	-0.362610066	-25.84800634	-11.03241142	292.3614516	10-3	66.975
10	216	WServ1: -45deg	Combination	1.029697893	-7.424744703	-0.362610066	-25.84800634	-2.937141703	456.5821265	10-3	89.3
10	0	WS5: 45deg	Combination	-2.059755989	8.475382179	1.464722741	4.999652968	-1.191774107	96.89216361	10-1	0
10	14	WS5: 45deg	Combination	-2.059755989	8.407622179	1.464722741	4.999652968	-21.69789248	-21.2888669	10-1	14
10	28	WS5: 45deg	Combination	-2.059755989	8.339862179	1.464722741	4.999652968	-42.20401086	-138.5212574	10-1	28
10	28	WS5: 45deg	Combination	-0.062955989	0.131262179	0.342282741	-25.30622703	-42.20401086	-192.4348574	10-2	0
10	47.74	WS5: 45deg	Combination	-0.062955989	0.035720579	0.342282741	-25.30622703	-48.96067216	-194.0829772	10-2	19.74
10	67.48	WS5: 45deg	Combination	-0.062955989	-0.059821021	0.342282741	-25.30622703	-55.71733347	-193.8451059	10-2	39.48
10	87.22	WS5: 45deg	Combination	-0.062955989	-0.155362621	0.342282741	-25.30622703	-62.47399478	-191.7212433	10-2	59.22
10	106.96	WS5: 45deg	Combination	-0.062955989	-0.250904221	0.342282741	-25.30622703	-69.23065609	-187.7113896	10-2	78.96
10	126.7	WS5: 45deg	Combination	-0.062955989	-0.346445821	0.342282741	-25.30622703	-75.98731739	-181.8155447	10-2	98.7
10	126.7	WS5: 45deg	Combination	1.933844011	-10.12640582	-0.780157259	-55.61210703	-75.98731739	-235.7291447	10-3	0
10	149.025	WS5: 45deg	Combination	1.933844011	-10.23445882	-0.780157259	-55.61210703	-58.57030659	-8.450993141	10-3	22.325

10	171.35	WS5: 45deg	Combination	1.93384011	-10.34251182	-0.780157259	-55.61210703	-41.15329578	221.2394416	10-3	44.65
10	193.675	WS5: 45deg	Combination	1.93384011	-10.45056482	-0.780157259	-55.61210703	-23.73628497	453.3421597	10-3	66.975
10	216	WS5: 45deg	Combination	1.93384011	-10.55861782	-0.780157259	-55.61210703	-6.319274168	687.8571609	10-3	89.3
10	0	WS5: 30deg	Combination	-2.098989031	8.209628168	1.464722741	4.999652968	-1.191774107	86.86115248	10-1	0
10	14	WS5: 30deg	Combination	-2.098989031	8.175748168	1.464722741	4.999652968	-21.69789248	-27.83648188	10-1	14
10	28	WS5: 30deg	Combination	-2.098989031	8.141868168	1.464722741	4.999652968	-42.20401086	-142.0597962	10-1	28
10	28	WS5: 30deg	Combination	-0.102189031	-0.066731832	0.342282741	-25.30622703	-42.20401086	-195.9733962	10-2	0
10	47.74	WS5: 30deg	Combination	-0.102189031	-0.114502632	0.342282741	-25.30622703	-48.96067216	-194.1846121	10-2	19.74
10	67.48	WS5: 30deg	Combination	-0.102189031	-0.162273432	0.342282741	-25.30622703	-55.71733347	-191.4528323	10-2	39.48
10	87.22	WS5: 30deg	Combination	-0.102189031	-0.210044232	0.342282741	-25.30622703	-62.47399478	-187.778057	10-2	59.22
10	106.96	WS5: 30deg	Combination	-0.102189031	-0.257815032	0.342282741	-25.30622703	-69.23065609	-183.1602861	10-2	78.96
10	126.7	WS5: 30deg	Combination	-0.102189031	-0.305585832	0.342282741	-25.30622703	-75.98731739	-177.5995196	10-2	98.7
10	126.7	WS5: 30deg	Combination	1.894610969	-10.08554583	-0.780157259	-55.61210703	-75.98731739	-231.5131196	10-3	0
10	149.025	WS5: 30deg	Combination	1.894610969	-10.13957233	-0.780157259	-55.61210703	-58.57030659	-5.750238072	10-3	22.325
10	171.35	WS5: 30deg	Combination	1.894610969	-10.19359883	-0.780157259	-55.61210703	-41.15329578	221.218785	10-3	44.65
10	193.675	WS5: 30deg	Combination	1.894610969	-10.24762533	-0.780157259	-55.61210703	-23.73628497	449.3939498	10-3	66.975
10	216	WS5: 30deg	Combination	1.894610969	-10.30165183	-0.780157259	-55.61210703	-6.319274168	678.7752561	10-3	89.3
10	0	WS5: 15deg	Combination	-2.111485821	7.991148457	1.464722741	4.999652968	-1.191774107	78.83632678	10-1	0
10	14	WS5: 15deg	Combination	-2.111485821	7.985501791	1.464722741	4.999652968	-21.69789248	-33.00022495	10-1	14
10	28	WS5: 15deg	Combination	-2.111485821	7.979855124	1.464722741	4.999652968	-42.20401086	-144.7577234	10-1	28
10	28	WS5: 15deg	Combination	-0.111468582l	-0.228744876	0.342282741	-25.30622703	-42.20401086	-198.6713234	10-2	0
10	47.74	WS5: 15deg	Combination	-0.111468582l	-0.236706676	0.342282741	-25.30622703	-48.96067216	-194.0773165	10-2	19.74
10	67.48	WS5: 15deg	Combination	-0.111468582l	-0.244668476	0.342282741	-25.30622703	-55.71733347	-189.3261438	10-2	39.48
10	87.22	WS5: 15deg	Combination	-0.111468582l	-0.252630276	0.342282741	-25.30622703	-62.47399478	-184.4178051	10-2	59.22
10	106.96	WS5: 15deg	Combination	-0.111468582l	-0.260592076	0.342282741	-25.30622703	-69.23065609	-179.3523005	10-2	78.96
10	126.7	WS5: 15deg	Combination	-0.111468582l	-0.268553876	0.342282741	-25.30622703	-75.98731739	-174.1296299	10-2	98.7
10	126.7	WS5: 15deg	Combination	1.882114179	-10.04851388	-0.780157259	-55.61210703	-75.98731739	-228.0432299	10-3	0
10	149.025	WS5: 15deg	Combination	1.882114179	-10.05751829	-0.780157259	-55.61210703	-58.57030659	-3.609645845	10-3	22.325
10	171.35	WS5: 15deg	Combination	1.882114179	-10.06652271	-0.780157259	-55.61210703	-41.15329578	221.0249618	10-3	44.65
10	193.675	WS5: 15deg	Combination	1.882114179	-10.07552713	-0.780157259	-55.61210703	-23.73628497	445.8605931	10-3	66.975
10	216	WS5: 15deg	Combination	1.882114179	-10.08453154	-0.780157259	-55.61210703	-6.319274168	670.897248	10-3	89.3
10	0	WS5: 0deg	Combination	-2.086974372	8.298055893	1.464722741	4.999652968	-1.191774107	90.18722548	10-1	0
10	14	WS5: 0deg	Combination	-2.086974372	8.25288256	1.464722741	4.999652968	-21.69789248	-25.6693437	10-1	14
10	28	WS5: 0deg	Combination	-2.086974372	8.207709227	1.464722741	4.999652968	-42.20401086	-140.8934862	10-1	28
10	28	WS5: 0deg	Combination	-0.090174372	-0.000890773	0.342282741	-25.30622703	-42.20401086	-194.8070862	10-2	0
10	47.74	WS5: 0deg	Combination	-0.090174372	-0.064585173	0.342282741	-25.30622703	-48.96067216	-194.1608386	10-2	19.74
10	67.48	WS5: 0deg	Combination	-0.090174372	-0.128279573	0.342282741	-25.30622703	-55.71733347	-192.2572636	10-2	39.48
10	87.22	WS5: 0deg	Combination	-0.090174372	-0.191973973	0.342282741	-25.30622703	-62.47399478	-189.096361	10-2	59.22
10	106.96	WS5: 0deg	Combination	-0.090174372	-0.255668373	0.342282741	-25.30622703	-69.23065609	-184.6781311	10-2	78.96
10	126.7	WS5: 0deg	Combination	-0.090174372	-0.319362773	0.342282741	-25.30622703	-75.98731739	-179.0025737	10-2	98.7
10	126.7	WS5: 0deg	Combination	1.906625628	-10.09932277	-0.780157259	-55.61210703	-75.98731739	-232.9161737	10-3	0
10	149.025	WS5: 0deg	Combination	1.906625628	-10.17135811	-0.780157259	-55.61210703	-58.57030659	-6.64469834	10-3	22.325

10	171.35	WS5: 0deg	Combination	1.906625628	-10.24339344	-0.780157259	-55.61210703	-41.15329578	221.2349658	10-3	44.65
10	193.675	WS5: 0deg	Combination	1.906625628	-10.31542877	-0.780157259	-55.61210703	-23.73628497	450.7228188	10-3	66.975
10	216	WS5: 0deg	Combination	1.906625628	-10.38746411	-0.780157259	-55.61210703	-6.319274168	681.8188605	10-3	89.3
10	0	WS5: -15deg	Combination	-2.0413632	8.564751577	1.464722741	4.999652968	-1.191774107	100.3238209	10-1	0
10	14	WS5: -15deg	Combination	-2.0413632	8.485698244	1.464722741	4.999652968	-21.69789248	-19.02932785	10-1	14
10	28	WS5: -15deg	Combination	-2.0413632	8.40664491	1.464722741	4.999652968	-42.20401086	-137.2757299	10-1	28
10	28	WS5: -15deg	Combination	-0.0445632	0.19804491	0.342282741	-25.30622703	-42.20401086	-191.1893299	10-2	0
10	47.74	WS5: -15deg	Combination	-0.0445632	0.08657971	0.342282741	-25.30622703	-48.96067216	-193.9985749	10-2	19.74
10	67.48	WS5: -15deg	Combination	-0.0445632	-0.02488549	0.342282741	-25.30622703	-55.71733347	-194.6074969	10-2	39.48
10	87.22	WS5: -15deg	Combination	-0.0445632	-0.13635069	0.342282741	-25.30622703	-62.47399478	-193.0160958	10-2	59.22
10	106.96	WS5: -15deg	Combination	-0.0445632	-0.24781589	0.342282741	-25.30622703	-69.23065609	-189.2243717	10-2	78.96
10	126.7	WS5: -15deg	Combination	-0.0445632	-0.35928109	0.342282741	-25.30622703	-75.98731739	-183.2323245	10-2	98.7
10	126.7	WS5: -15deg	Combination	1.9522368	-10.13924109	-0.780157259	-55.61210703	-75.98731739	-237.1459245	10-3	0
10	149.025	WS5: -15deg	Combination	1.9522368	-10.26530292	-0.780157259	-55.61210703	-58.57030659	-9.380201936	10-3	22.325
10	171.35	WS5: -15deg	Combination	1.9522368	-10.39136476	-0.780157259	-55.61210703	-41.15329578	221.199851	10-3	44.65
10	193.675	WS5: -15deg	Combination	1.9522368	-10.51742659	-0.780157259	-55.61210703	-23.73628497	454.5942344	10-3	66.975
10	216	WS5: -15deg	Combination	1.9522368	-10.64348842	-0.780157259	-55.61210703	-6.319274168	690.8029483	10-3	89.3
10	0	WS5: -30deg	Combination	-1.976617639	8.83427228	1.464722741	4.999652968	-1.191774107	110.7771692	10-1	0
10	14	WS5: -30deg	Combination	-1.976617639	8.721338946	1.464722741	4.999652968	-21.69789248	-12.11210939	10-1	14
10	28	WS5: -30deg	Combination	-1.976617639	8.608405613	1.464722741	4.999652968	-42.20401086	-133.4203213	10-1	28
10	28	WS5: -30deg	Combination	0.020182361	0.399805613	0.342282741	-25.30622703	-42.20401086	-187.3339213	10-2	0
10	47.74	WS5: -30deg	Combination	0.020182361	0.240569613	0.342282741	-25.30622703	-48.96067216	-193.6544248	10-2	19.74
10	67.48	WS5: -30deg	Combination	0.020182361	0.081333613	0.342282741	-25.30622703	-55.71733347	-196.8316096	10-2	39.48
10	87.22	WS5: -30deg	Combination	0.020182361	-0.077902387	0.342282741	-25.30622703	-62.47399478	-196.8654758	10-2	59.22
10	106.96	WS5: -30deg	Combination	0.020182361	-0.237138387	0.342282741	-25.30622703	-69.23065609	-193.7560234	10-2	78.96
10	126.7	WS5: -30deg	Combination	0.020182361	-0.396374387	0.342282741	-25.30622703	-75.98731739	-187.5032523	10-2	98.7
10	126.7	WS5: -30deg	Combination	2.016982361	-10.17633439	-0.780157259	-55.61210703	-75.98731739	-241.4168523	10-3	0
10	149.025	WS5: -30deg	Combination	2.016982361	-10.35642272	-0.780157259	-55.61210703	-58.57030659	-12.21995111	10-3	22.325
10	171.35	WS5: -30deg	Combination	2.016982361	-10.53651105	-0.780157259	-55.61210703	-41.15329578	220.9974221	10-3	44.65
10	193.675	WS5: -30deg	Combination	2.016982361	-10.71659939	-0.780157259	-55.61210703	-23.73628497	458.2352674	10-3	66.975
10	216	WS5: -30deg	Combination	2.016982361	-10.89668772	-0.780157259	-55.61210703	-6.319274168	699.4935848	10-3	89.3
10	0	WS5: -45deg	Combination	-1.901563282	9.018661113	1.464722741	4.999652968	-1.191774107	118.2739895	10-1	0
10	14	WS5: -45deg	Combination	-1.901563282	8.883141113	1.464722741	4.999652968	-21.69789248	-7.038626091	10-1	14
10	28	WS5: -45deg	Combination	-1.901563282	8.747621113	1.464722741	4.999652968	-42.20401086	-130.4539617	10-1	28
10	28	WS5: -45deg	Combination	0.095236718	0.539021113	0.342282741	-25.30622703	-42.20401086	-184.3675617	10-2	0
10	47.74	WS5: -45deg	Combination	0.095236718	0.347937913	0.342282741	-25.30622703	-48.96067216	-193.1218473	10-2	19.74
10	67.48	WS5: -45deg	Combination	0.095236718	0.156854713	0.342282741	-25.30622703	-55.71733347	-198.1041505	10-2	39.48
10	87.22	WS5: -45deg	Combination	0.095236718	-0.034228487	0.342282741	-25.30622703	-62.47399478	-199.3144713	10-2	59.22
10	106.96	WS5: -45deg	Combination	0.095236718	-0.225311687	0.342282741	-25.30622703	-69.23065609	-196.7528098	10-2	78.96
10	126.7	WS5: -45deg	Combination	0.095236718	-0.416394887	0.342282741	-25.30622703	-75.98731739	-190.4191659	10-2	98.7
10	126.7	WS5: -45deg	Combination	2.092036718	-10.19635489	-0.780157259	-55.61210703	-75.98731739	-244.3327659	10-3	0
10	149.025	WS5: -45deg	Combination	2.092036718	-10.41246089	-0.780157259	-55.61210703	-58.57030659	-14.28685985	10-3	22.325

10	171.35	WS5: -45deg	Combination	2.092036718	-10.62856689	-0.780157259	-55.61210703	-41.15329578	220.5836127	10-3	44.65
10	193.675	WS5: -45deg	Combination	2.092036718	-10.84467289	-0.780157259	-55.61210703	-23.73628497	460.2786517	10-3	66.975
10	216	WS5: -45deg	Combination	2.092036718	-11.06077889	-0.780157259	-55.61210703	-6.319274168	704.7982571	10-3	89.3
10	0	LL - 1 Lane	Combination	-3.10273623	-21.14838176	3.901786283	13.31827302	-3.174694933	-961.4590259	10-1	0
10	14	LL - 1 Lane	Combination	-3.10273623	-21.14838176	3.901786283	13.31827302	-57.7997029	-665.3816813	10-1	14
10	28	LL - 1 Lane	Combination	-3.10273623	-21.14838176	3.901786283	13.31827302	-112.4247109	-369.3043367	10-1	28
10	28	LL - 1 Lane	Combination	-0.21273623	-7.738381759	0.911786283	-67.41172698	-112.4247109	-447.3343367	10-2	0
10	47.74	LL - 1 Lane	Combination	-0.21273623	-7.738381759	0.911786283	-67.41172698	-130.4233721	-294.5786808	10-2	19.74
10	67.48	LL - 1 Lane	Combination	-0.21273623	-7.738381759	0.911786283	-67.41172698	-148.4220333	-141.8230249	10-2	39.48
10	87.22	LL - 1 Lane	Combination	-0.21273623	-7.738381759	0.911786283	-67.41172698	-166.4206945	10.93263106	10-2	59.22
10	106.96	LL - 1 Lane	Combination	-0.21273623	-7.738381759	0.911786283	-67.41172698	-184.4193558	163.688287	10-2	78.96
10	126.7	LL - 1 Lane	Combination	-0.21273623	-7.738381759	0.911786283	-67.41172698	-202.418017	316.4439429	10-2	98.7
10	126.7	LL - 1 Lane	Combination	2.67726377	-0.778381759	-2.078213717	-148.141727	-202.418017	238.4139429	10-3	0
10	149.025	LL - 1 Lane	Combination	2.67726377	-0.778381759	-2.078213717	-148.141727	-156.0218958	255.7913157	10-3	22.325
10	171.35	LL - 1 Lane	Combination	2.67726377	-0.778381759	-2.078213717	-148.141727	-109.6257745	273.1686884	10-3	44.65
10	193.675	LL - 1 Lane	Combination	2.67726377	-0.778381759	-2.078213717	-148.141727	-63.22965332	290.5460612	10-3	66.975
10	216	LL - 1 Lane	Combination	2.67726377	-0.778381759	-2.078213717	-148.141727	-16.83353209	307.923434	10-3	89.3
10	0	WS5 + WA	Combination	-1.771479607	7.998020353	1.464722741	4.999652968	-1.191774107	82.90123795	10-1	0
10	14	WS5 + WA	Combination	-1.771479607	7.998020353	1.464722741	4.999652968	-21.69789248	-29.071047	10-1	14
10	28	WS5 + WA	Combination	-1.771479607	7.998020353	1.464722741	4.999652968	-42.20401086	-141.0433319	10-1	28
10	28	WS5 + WA	Combination	0.225320393	-0.210579647	0.342282741	-25.30622703	-42.20401086	-194.9569319	10-2	0
10	47.74	WS5 + WA	Combination	0.225320393	-0.210579647	0.342282741	-25.30622703	-48.96067216	-190.8000897	10-2	19.74
10	67.48	WS5 + WA	Combination	0.225320393	-0.210579647	0.342282741	-25.30622703	-55.71733347	-186.6432475	10-2	39.48
10	87.22	WS5 + WA	Combination	0.225320393	-0.210579647	0.342282741	-25.30622703	-62.47399478	-182.4864053	10-2	59.22
10	106.96	WS5 + WA	Combination	0.225320393	-0.210579647	0.342282741	-25.30622703	-69.23065609	-178.3295631	10-2	78.96
10	126.7	WS5 + WA	Combination	0.225320393	-0.210579647	0.342282741	-25.30622703	-75.98731739	-174.1727208	10-2	98.7
10	126.7	WS5 + WA	Combination	2.222120393	-9.990539647	-0.780157259	-55.61210703	-75.98731739	-228.0863208	10-3	0
10	149.025	WS5 + WA	Combination	2.222120393	-9.990539647	-0.780157259	-55.61210703	-58.57030659	-5.047523225	10-3	22.325
10	171.35	WS5 + WA	Combination	2.222120393	-9.990539647	-0.780157259	-55.61210703	-41.15329578	217.9912744	10-3	44.65
10	193.675	WS5 + WA	Combination	2.222120393	-9.990539647	-0.780157259	-55.61210703	-23.73628497	441.030072	10-3	66.975
10	216	WS5 + WA	Combination	2.222120393	-9.990539647	-0.780157259	-55.61210703	-6.319274168	664.0688696	10-3	89.3
10	0	LL - 2 Lane	Combination	-5.137309123	-31.01711528	6.498627321	22.18227413	-5.287618986	-1453.302695	10-1	0
10	14	LL - 2 Lane	Combination	-5.137309123	-31.01711528	6.498627321	22.18227413	-96.26840148	-1019.063081	10-1	14
10	28	LL - 2 Lane	Combination	-5.137309123	-31.01711528	6.498627321	22.18227413	-187.249184	-584.8234668	10-1	28
10	28	LL - 2 Lane	Combination	-0.327309123	-11.98711528	1.518627321	-112.2777259	-187.249184	-714.6934668	10-2	0
10	47.74	LL - 2 Lane	Combination	-0.327309123	-11.98711528	1.518627321	-112.2777259	-217.2268873	-478.0678113	10-2	19.74
10	67.48	LL - 2 Lane	Combination	-0.327309123	-11.98711528	1.518627321	-112.2777259	-247.2045906	-241.4421557	10-2	39.48
10	87.22	LL - 2 Lane	Combination	-0.327309123	-11.98711528	1.518627321	-112.2777259	-277.1822939	-4.816500197	10-2	59.22
10	106.96	LL - 2 Lane	Combination	-0.327309123	-11.98711528	1.518627321	-112.2777259	-307.1599972	231.8091554	10-2	78.96
10	126.7	LL - 2 Lane	Combination	-0.327309123	-11.98711528	1.518627321	-112.2777259	-337.1377006	468.4348109	10-2	98.7
10	126.7	LL - 2 Lane	Combination	4.482690877	-2.207115276	-3.461372679	-246.7377259	-337.1377006	338.5648109	10-3	0
10	149.025	LL - 2 Lane	Combination	4.482690877	-2.207115276	-3.461372679	-246.7377259	-259.8625555	387.8386594	10-3	22.325

10	171.35	LL - 2 Lane	Combination	4.482690877	-2.207115276	-3.461372679	-246.7377259	-182.5874105	437.112508	10-3	44.65
10	193.675	LL - 2 Lane	Combination	4.482690877	-2.207115276	-3.461372679	-246.7377259	-105.3122654	486.3863565	10-3	66.975
10	216	LL - 2 Lane	Combination	4.482690877	-2.207115276	-3.461372679	-246.7377259	-28.03712034	535.6602051	10-3	89.3
10	0	LL - 3 Lane	Combination	-6.622257337	-40.24297271	8.286402307	28.28462666	-6.742245093	-1860.620522	10-1	0
10	14	LL - 3 Lane	Combination	-6.622257337	-40.24297271	8.286402307	28.28462666	-122.7518774	-1297.218904	10-1	14
10	28	LL - 3 Lane	Combination	-6.622257337	-40.24297271	8.286402307	28.28462666	-238.7615097	-733.8172858	10-1	28
10	28	LL - 3 Lane	Combination	-0.482257337	-15.41297271	1.936402307	-143.1653733	-238.7615097	-899.5972858	10-2	0
10	47.74	LL - 3 Lane	Combination	-0.482257337	-15.41297271	1.936402307	-143.1653733	-276.9860912	-595.3452046	10-2	19.74
10	67.48	LL - 3 Lane	Combination	-0.482257337	-15.41297271	1.936402307	-143.1653733	-315.2106728	-291.0931233	10-2	39.48
10	87.22	LL - 3 Lane	Combination	-0.482257337	-15.41297271	1.936402307	-143.1653733	-353.4352543	13.15895792	10-2	59.22
10	106.96	LL - 3 Lane	Combination	-0.482257337	-15.41297271	1.936402307	-143.1653733	-391.6598358	317.4110392	10-2	78.96
10	126.7	LL - 3 Lane	Combination	-0.482257337	-15.41297271	1.936402307	-143.1653733	-429.8844174	621.6631204	10-2	98.7
10	126.7	LL - 3 Lane	Combination	5.657742663	-0.452972707	-4.413597693	-314.6153733	-429.8844174	455.8831204	10-3	0
10	149.025	LL - 3 Lane	Combination	5.657742663	-0.452972707	-4.413597693	-314.6153733	-331.3508489	465.9957361	10-3	22.325
10	171.35	LL - 3 Lane	Combination	5.657742663	-0.452972707	-4.413597693	-314.6153733	-232.8172804	476.1083518	10-3	44.65
10	193.675	LL - 3 Lane	Combination	5.657742663	-0.452972707	-4.413597693	-314.6153733	-134.2837119	486.2209675	10-3	66.975
10	216	LL - 3 Lane	Combination	5.657742663	-0.452972707	-4.413597693	-314.6153733	-35.75014341	496.3335832	10-3	89.3
10	0	LL - 7 Lane	Combination	-12.91265518	-91.58178546	14.77198018	50.42235807	-12.01924637	-3820.574939	10-1	0
10	14	LL - 7 Lane	Combination	-12.91265518	-91.58178546	14.77198018	50.42235807	-218.8269688	-2538.429943	10-1	14
10	28	LL - 7 Lane	Combination	-12.91265518	-91.58178546	14.77198018	50.42235807	-425.6346913	-1256.284947	10-1	28
10	28	LL - 7 Lane	Combination	-1.962655184	-33.28178546	3.451980176	-255.2176419	-425.6346913	-1551.934947	10-2	0
10	47.74	LL - 7 Lane	Combination	-1.962655184	-33.28178546	3.451980176	-255.2176419	-493.77678	-894.9525017	10-2	19.74
10	67.48	LL - 7 Lane	Combination	-1.962655184	-33.28178546	3.451980176	-255.2176419	-561.9188686	-237.9700568	10-2	39.48
10	87.22	LL - 7 Lane	Combination	-1.962655184	-33.28178546	3.451980176	-255.2176419	-630.0609573	419.0123881	10-2	59.22
10	106.96	LL - 7 Lane	Combination	-1.962655184	-33.28178546	3.451980176	-255.2176419	-698.203046	1075.994833	10-2	78.96
10	126.7	LL - 7 Lane	Combination	-1.962655184	-33.28178546	3.451980176	-255.2176419	-766.3451346	1732.977278	10-2	98.7
10	126.7	LL - 7 Lane	Combination	8.987344816	21.10821454	-7.868019824	-560.8576419	-766.3451346	1437.327278	10-3	0
10	149.025	LL - 7 Lane	Combination	8.987344816	21.10821454	-7.868019824	-560.8576419	-590.691592	966.0863883	10-3	22.325
10	171.35	LL - 7 Lane	Combination	8.987344816	21.10821454	-7.868019824	-560.8576419	-415.0380495	494.8454986	10-3	44.65
10	193.675	LL - 7 Lane	Combination	8.987344816	21.10821454	-7.868019824	-560.8576419	-239.3845069	23.6046089	10-3	66.975
10	216	LL - 7 Lane	Combination	8.987344816	21.10821454	-7.868019824	-560.8576419	-63.73096431	-447.6362808	10-3	89.3
10	0	LL Envelope	Combination Max	-3.10273623	-21.14838176	14.77198018	50.42235807	-3.174694933	-961.4590259	10-1	0
10	14	LL Envelope	Combination Max	-3.10273623	-21.14838176	14.77198018	50.42235807	-57.7997029	-665.3816813	10-1	14
10	28	LL Envelope	Combination Max	-3.10273623	-21.14838176	14.77198018	50.42235807	-112.4247109	-369.3043367	10-1	28
10	28	LL Envelope	Combination Max	-0.21273623	-7.738381759	3.451980176	-67.41172698	-112.4247109	-447.3343367	10-2	0
10	47.74	LL Envelope	Combination Max	-0.21273623	-7.738381759	3.451980176	-67.41172698	-130.4233721	-294.5786808	10-2	19.74
10	67.48	LL Envelope	Combination Max	-0.21273623	-7.738381759	3.451980176	-67.41172698	-148.4220333	-141.8230249	10-2	39.48
10	87.22	LL Envelope	Combination Max	-0.21273623	-7.738381759	3.451980176	-67.41172698	-166.4206945	419.0123881	10-2	59.22
10	106.96	LL Envelope	Combination Max	-0.21273623	-7.738381759	3.451980176	-67.41172698	-184.4193558	1075.994833	10-2	78.96
10	126.7	LL Envelope	Combination Max	-0.21273623	-7.738381759	3.451980176	-67.41172698	-202.418017	1732.977278	10-2	98.7
10	126.7	LL Envelope	Combination Max	8.987344816	21.10821454	-2.078213717	-148.141727	-202.418017	1437.327278	10-3	0
10	149.025	LL Envelope	Combination Max	8.987344816	21.10821454	-2.078213717	-148.141727	-156.0218958	966.0863883	10-3	22.325

10	171.35	LL Envelope	Combination	Max	8.987344816	21.10821454	-2.078213717	-148.141727	-109.6257745	494.8454986	10-3	44.65
10	193.675	LL Envelope	Combination	Max	8.987344816	21.10821454	-2.078213717	-148.141727	-63.22965332	486.3863565	10-3	66.975
10	216	LL Envelope	Combination	Max	8.987344816	21.10821454	-2.078213717	-148.141727	-16.83353209	535.6602051	10-3	89.3
10	0	LL Envelope	Combination	Min	-12.91265518	-91.58178546	3.901786283	13.31827302	-12.01924637	-3820.574939	10-1	0
10	14	LL Envelope	Combination	Min	-12.91265518	-91.58178546	3.901786283	13.31827302	-218.8269688	-2538.429943	10-1	14
10	28	LL Envelope	Combination	Min	-12.91265518	-91.58178546	3.901786283	13.31827302	-425.6346913	-1256.284947	10-1	28
10	28	LL Envelope	Combination	Min	-1.962655184	-33.28178546	0.911786283	-255.2176419	-425.6346913	-1551.934947	10-2	0
10	47.74	LL Envelope	Combination	Min	-1.962655184	-33.28178546	0.911786283	-255.2176419	-493.77678	-894.9525017	10-2	19.74
10	67.48	LL Envelope	Combination	Min	-1.962655184	-33.28178546	0.911786283	-255.2176419	-561.9188686	-291.0931233	10-2	39.48
10	87.22	LL Envelope	Combination	Min	-1.962655184	-33.28178546	0.911786283	-255.2176419	-630.0609573	-4.816500197	10-2	59.22
10	106.96	LL Envelope	Combination	Min	-1.962655184	-33.28178546	0.911786283	-255.2176419	-698.203046	163.688287	10-2	78.96
10	126.7	LL Envelope	Combination	Min	-1.962655184	-33.28178546	0.911786283	-255.2176419	-766.3451346	316.4439429	10-2	98.7
10	126.7	LL Envelope	Combination	Min	2.67726377	-2.207115276	-7.868019824	-560.8576419	-766.3451346	238.4139429	10-3	0
10	149.025	LL Envelope	Combination	Min	2.67726377	-2.207115276	-7.868019824	-560.8576419	-590.691592	255.7913157	10-3	22.325
10	171.35	LL Envelope	Combination	Min	2.67726377	-2.207115276	-7.868019824	-560.8576419	-415.0380495	273.1686884	10-3	44.65
10	193.675	LL Envelope	Combination	Min	2.67726377	-2.207115276	-7.868019824	-560.8576419	-239.3845069	23.6046089	10-3	66.975
10	216	LL Envelope	Combination	Min	2.67726377	-2.207115276	-7.868019824	-560.8576419	-63.73096431	-447.6362808	10-3	89.3
10	0	WS3 & WA envelope	Combination	Max	-0.968302107	19.87312242	1.839972796	6.280523399	-0.553925868	395.0831908	10-1	0
10	14	WS3 & WA envelope	Combination	Max	-0.968302107	19.63978909	1.839972796	6.280523399	-10.08498495	118.4928102	10-1	14
10	28	WS3 & WA envelope	Combination	Max	-0.968302107	19.40645576	1.839972796	6.280523399	-19.61604403	-57.28743438	10-1	28
10	28	WS3 & WA envelope	Combination	Max	0.506806186	2.756455758	0.429972796	-11.76210634	-19.61604403	-84.26043438	10-2	0
10	47.74	WS3 & WA envelope	Combination	Max	0.506806186	2.427455758	0.429972796	-11.76210634	-22.75647934	-103.1915608	10-2	19.74
10	67.48	WS3 & WA envelope	Combination	Max	0.506806186	2.098455758	0.429972796	-11.76210634	-25.89691464	-119.7197371	10-2	39.48
10	87.22	WS3 & WA envelope	Combination	Max	0.506806186	1.769455758	0.429972796	-11.76210634	-29.03734995	-133.8449632	10-2	59.22
10	106.96	WS3 & WA envelope	Combination	Max	0.506806186	1.495329188	0.429972796	-11.76210634	-32.17778525	-145.567239	10-2	78.96
10	126.7	WS3 & WA envelope	Combination	Max	0.506806186	1.495329188	0.429972796	-11.76210634	-35.31822056	-154.8865647	10-2	98.7
10	126.7	WS3 & WA envelope	Combination	Max	3.206806186	-6.87406137	-0.362610066	-25.84800634	-35.31822056	-181.8595647	10-3	0
10	149.025	WS3 & WA envelope	Combination	Max	3.206806186	-7.011732203	-0.362610066	-25.84800634	-27.22295085	-26.85939394	10-3	22.325
10	171.35	WS3 & WA envelope	Combination	Max	3.206806186	-7.149403036	-0.362610066	-25.84800634	-19.12768113	355.1332245	10-3	44.65
10	193.675	WS3 & WA envelope	Combination	Max	3.206806186	-7.28707387	-0.362610066	-25.84800634	-11.03241142	790.1660855	10-3	66.975
10	216	WS3 & WA envelope	Combination	Max	3.206806186	-7.424744703	-0.362610066	-25.84800634	-2.937141703	1234.005747	10-3	89.3
10	0	WS3 & WA envelope	Combination	Min	-2.89568599	7.353055297	0.680789934	2.323793658	-1.497096942	146.1807806	10-1	0
10	14	WS3 & WA envelope	Combination	Min	-2.89568599	7.266721964	0.680789934	2.323793658	-27.25671608	43.84233978	10-1	14
10	28	WS3 & WA envelope	Combination	Min	-2.89568599	7.18038863	0.680789934	2.323793658	-53.01633522	-178.2552881	10-1	28
10	28	WS3 & WA envelope	Combination	Min	-0.19568599	1.01988863	0.159089934	-31.7894766	-53.01633522	-251.1552881	10-2	0
10	47.74	WS3 & WA envelope	Combination	Min	-0.19568599	0.89815863	0.159089934	-31.7894766	-61.50399821	-279.9915387	10-2	19.74
10	67.48	WS3 & WA envelope	Combination	Min	-0.19568599	0.77642863	0.159089934	-31.7894766	-69.9916612	-323.566857	10-2	39.48
10	87.22	WS3 & WA envelope	Combination	Min	-0.19568599	0.65469863	0.159089934	-31.7894766	-78.47932419	-361.7431437	10-2	59.22
10	106.96	WS3 & WA envelope	Combination	Min	-0.19568599	0.53296863	0.159089934	-31.7894766	-86.96698717	-393.4249703	10-2	78.96
10	126.7	WS3 & WA envelope	Combination	Min	-0.19568599	0.41123863	0.159089934	-31.7894766	-95.45465016	-418.612337	10-2	98.7
10	126.7	WS3 & WA envelope	Combination	Min	1.029697893	-18.57854424	-0.980027204	-69.8594766	-95.45465016	-491.512337	10-3	0
10	149.025	WS3 & WA envelope	Combination	Min	1.029697893	-18.95062758	-0.980027204	-69.8594766	-73.57554283	-72.59295658	10-3	22.325

10	171.35	WS3 & WA envelope	Combination Min	1.029697893	-19.32271091	-0.980027204	-69.8594766	-51.69643549	131.2142782	10-3	44.65
10	193.675	WS3 & WA envelope	Combination Min	1.029697893	-19.69479424	-0.980027204	-69.8594766	-29.81732815	292.3614516	10-3	66.975
10	216	WS3 & WA envelope	Combination Min	1.029697893	-20.06687758	-0.980027204	-69.8594766	-7.938220819	456.5821265	10-3	89.3
10	0	WS3 + WA	Combination	-2.193193814	18.14532919	1.839972796	6.280523399	-1.497096942	337.4882916	10-1	0
10	14	WS3 + WA	Combination	-2.193193814	18.14532919	1.839972796	6.280523399	-27.25671608	83.45368294	10-1	14
10	28	WS3 + WA	Combination	-2.193193814	18.14532919	1.839972796	6.280523399	-53.01633522	-170.5809257	10-1	28
10	28	WS3 + WA	Combination	0.506806186	1.495329188	0.429972796	-31.7894766	-53.01633522	-243.4809257	10-2	0
10	47.74	WS3 + WA	Combination	0.506806186	1.495329188	0.429972796	-31.7894766	-61.50399821	-272.9987239	10-2	19.74
10	67.48	WS3 + WA	Combination	0.506806186	1.495329188	0.429972796	-31.7894766	-69.9916612	-302.5165221	10-2	39.48
10	87.22	WS3 + WA	Combination	0.506806186	1.495329188	0.429972796	-31.7894766	-78.47932419	-332.0343202	10-2	59.22
10	106.96	WS3 + WA	Combination	0.506806186	1.495329188	0.429972796	-31.7894766	-86.96698717	-361.5521184	10-2	78.96
10	126.7	WS3 + WA	Combination	0.506806186	1.495329188	0.429972796	-31.7894766	-95.45465016	-391.0699166	10-2	98.7
10	126.7	WS3 + WA	Combination	3.206806186	-18.19467081	-0.980027204	-69.8594766	-95.45465016	-463.9699166	10-3	0
10	149.025	WS3 + WA	Combination	3.206806186	-18.19467081	-0.980027204	-69.8594766	-73.57554283	-57.77389071	10-3	22.325
10	171.35	WS3 + WA	Combination	3.206806186	-18.19467081	-0.980027204	-69.8594766	-51.69643549	348.4221352	10-3	44.65
10	193.675	WS3 + WA	Combination	3.206806186	-18.19467081	-0.980027204	-69.8594766	-29.81732815	754.618161	10-3	66.975
10	216	WS3 + WA	Combination	3.206806186	-18.19467081	-0.980027204	-69.8594766	-7.938220819	1160.814187	10-3	89.3
10	0	WS5 & WA envelope	Combination Max	-1.771479607	9.018661113	1.464722741	4.999652968	-1.191774107	118.2739895	10-1	0
10	14	WS5 & WA envelope	Combination Max	-1.771479607	8.883141113	1.464722741	4.999652968	-21.69789248	-7.038626091	10-1	14
10	28	WS5 & WA envelope	Combination Max	-1.771479607	8.747621113	1.464722741	4.999652968	-42.20401086	-130.4539617	10-1	28
10	28	WS5 & WA envelope	Combination Max	0.225320393	0.539021113	0.342282741	-25.30622703	-42.20401086	-184.3675617	10-2	0
10	47.74	WS5 & WA envelope	Combination Max	0.225320393	0.347937913	0.342282741	-25.30622703	-48.96067216	-190.8000897	10-2	19.74
10	67.48	WS5 & WA envelope	Combination Max	0.225320393	0.156854713	0.342282741	-25.30622703	-55.71733347	-186.6432475	10-2	39.48
10	87.22	WS5 & WA envelope	Combination Max	0.225320393	-0.034228487	0.342282741	-25.30622703	-62.47399478	-182.4864053	10-2	59.22
10	106.96	WS5 & WA envelope	Combination Max	0.225320393	-0.210579647	0.342282741	-25.30622703	-69.23065609	-178.3295631	10-2	78.96
10	126.7	WS5 & WA envelope	Combination Max	0.225320393	-0.210579647	0.342282741	-25.30622703	-75.98731739	-174.1296299	10-2	98.7
10	126.7	WS5 & WA envelope	Combination Max	2.222120393	-9.990539647	-0.780157259	-55.61210703	-75.98731739	-228.0432299	10-3	0
10	149.025	WS5 & WA envelope	Combination Max	2.222120393	-9.990539647	-0.780157259	-55.61210703	-58.57030659	-3.609645845	10-3	22.325
10	171.35	WS5 & WA envelope	Combination Max	2.222120393	-9.990539647	-0.780157259	-55.61210703	-41.15329578	221.2394416	10-3	44.65
10	193.675	WS5 & WA envelope	Combination Max	2.222120393	-9.990539647	-0.780157259	-55.61210703	-23.73628497	460.2786517	10-3	66.975
10	216	WS5 & WA envelope	Combination Max	2.222120393	-9.990539647	-0.780157259	-55.61210703	-6.319274168	704.7982571	10-3	89.3
10	0	WS5 & WA envelope	Combination Min	-2.111485821	7.991148457	1.464722741	4.999652968	-1.191774107	78.83632678	10-1	0
10	14	WS5 & WA envelope	Combination Min	-2.111485821	7.985501791	1.464722741	4.999652968	-21.69789248	-33.00022495	10-1	14
10	28	WS5 & WA envelope	Combination Min	-2.111485821	7.979855124	1.464722741	4.999652968	-42.20401086	-144.7577234	10-1	28
10	28	WS5 & WA envelope	Combination Min	-0.114685821	-0.228744876	0.342282741	-25.30622703	-42.20401086	-198.6713234	10-2	0
10	47.74	WS5 & WA envelope	Combination Min	-0.114685821	-0.236706676	0.342282741	-25.30622703	-48.96067216	-194.1846121	10-2	19.74
10	67.48	WS5 & WA envelope	Combination Min	-0.114685821	-0.244668476	0.342282741	-25.30622703	-55.71733347	-198.1041505	10-2	39.48
10	87.22	WS5 & WA envelope	Combination Min	-0.114685821	-0.252630276	0.342282741	-25.30622703	-62.47399478	-199.3144713	10-2	59.22
10	106.96	WS5 & WA envelope	Combination Min	-0.114685821	-0.260592076	0.342282741	-25.30622703	-69.23065609	-196.7528098	10-2	78.96
10	126.7	WS5 & WA envelope	Combination Min	-0.114685821	-0.416394887	0.342282741	-25.30622703	-75.98731739	-190.4191659	10-2	98.7
10	126.7	WS5 & WA envelope	Combination Min	1.882114179	-10.19635489	-0.780157259	-55.61210703	-75.98731739	-244.3327659	10-3	0
10	149.025	WS5 & WA envelope	Combination Min	1.882114179	-10.41246089	-0.780157259	-55.61210703	-58.57030659	-14.28685985	10-3	22.325

10	171.35	WS5 & WA envelope	Combination Min	1.882114179	-10.62856689	-0.780157259	-55.61210703	-41.15329578	217.9912744	10-3	44.65
10	193.675	WS5 & WA envelope	Combination Min	1.882114179	-10.84467289	-0.780157259	-55.61210703	-23.73628497	441.030072	10-3	66.975
10	216	WS5 & WA envelope	Combination Min	1.882114179	-11.06077889	-0.780157259	-55.61210703	-6.319274168	664.0688696	10-3	89.3
10	0	Strength 1 - Max	Combination Max	-14.05306984	-408.067378	25.85096531	88.23912663	-5.555716133	-13638.5815	10-1	0
10	14	Strength 1 - Max	Combination Max	-14.05306984	-404.129878	25.85096531	88.23912663	-101.1494801	-7953.200707	10-1	14
10	28	Strength 1 - Max	Combination Max	-14.05306984	-400.192378	25.85096531	88.23912663	-196.743244	-2322.944915	10-1	28
10	28	Strength 1 - Max	Combination Max	-8.99556984	-116.509878	6.040965307	-117.9705222	-196.743244	-2459.497415	10-2	0
10	47.74	Strength 1 - Max	Combination Max	-8.99556984	-110.958003	6.040965307	-117.9705222	-228.2409012	-214.3894294	10-2	19.74
10	67.48	Strength 1 - Max	Combination Max	-8.99556984	-105.406128	6.040965307	-117.9705222	-259.7385583	1921.124543	10-2	39.48
10	87.22	Strength 1 - Max	Combination Max	-8.99556984	-99.85425299	6.040965307	-117.9705222	-291.2362155	4661.184078	10-2	59.22
10	106.96	Strength 1 - Max	Combination Max	-8.99556984	-94.30237799	6.040965307	-117.9705222	-322.7338726	7459.906907	10-2	78.96
10	126.7	Strength 1 - Max	Combination Max	-8.99556984	-88.75050299	6.040965307	-117.9705222	-354.2315298	10149.03572	10-2	98.7
10	126.7	Strength 1 - Max	Combination Max	7.10457199	221.9460405	-3.636874005	-259.2480222	-354.2315298	9631.648223	10-3	0
10	149.025	Strength 1 - Max	Combination Max	7.10457199	228.2249468	-3.636874005	-259.2480222	-273.0383176	4606.614577	10-3	22.325
10	171.35	Strength 1 - Max	Combination Max	7.10457199	234.503853	-3.636874005	-259.2480222	-191.8451055	-558.5956511	10-3	44.65
10	193.675	Strength 1 - Max	Combination Max	7.10457199	240.7827593	-3.636874005	-259.2480222	-110.6518933	-5054.114403	10-3	66.975
10	216	Strength 1 - Max	Combination Max	7.10457199	247.0616655	-3.636874005	-259.2480222	-29.45868116	-9588.777003	10-3	89.3
10	0	Strength 1 - Max	Combination Min	-31.22042801	-531.3258345	6.828125995	23.30697779	-21.03368115	-18642.03435	10-1	0
10	14	Strength 1 - Max	Combination Min	-31.22042801	-527.3883345	6.828125995	23.30697779	-382.9471955	-11231.03516	10-1	14
10	28	Strength 1 - Max	Combination Min	-31.22042801	-523.4508345	6.828125995	23.30697779	-744.8607098	-3875.160982	10-1	28
10	28	Strength 1 - Max	Combination Min	-12.05792801	-161.2108345	1.595625995	-446.6308734	-744.8607098	-4392.548482	10-2	0
10	47.74	Strength 1 - Max	Combination Min	-12.05792801	-155.6589595	1.595625995	-446.6308734	-864.1093649	-1265.043616	10-2	19.74
10	67.48	Strength 1 - Max	Combination Min	-12.05792801	-150.1070845	1.595625995	-446.6308734	-983.3580201	1659.901871	10-2	39.48
10	87.22	Strength 1 - Max	Combination Min	-12.05792801	-144.5552095	1.595625995	-446.6308734	-1102.606675	3919.483524	10-2	59.22
10	106.96	Strength 1 - Max	Combination Min	-12.05792801	-139.0033345	1.595625995	-446.6308734	-1221.85533	5863.370451	10-2	78.96
10	126.7	Strength 1 - Max	Combination Min	-12.05792801	-133.4514595	1.595625995	-446.6308734	-1341.103986	7670.102387	10-2	98.7
10	126.7	Strength 1 - Max	Combination Min	-3.93806984	181.1442134	-13.76903469	-981.5008734	-1341.103986	7533.549887	10-3	0
10	149.025	Strength 1 - Max	Combination Min	-3.93806984	187.4231196	-13.76903469	-981.5008734	-1033.710286	3363.5982	10-3	22.325
10	171.35	Strength 1 - Max	Combination Min	-3.93806984	193.7020259	-13.76903469	-981.5008734	-726.3165866	-946.5300688	10-3	44.65
10	193.675	Strength 1 - Max	Combination Min	-3.93806984	199.9809321	-13.76903469	-981.5008734	-418.9228871	-5863.982461	10-3	66.975
10	216	Strength 1 - Max	Combination Min	-3.93806984	206.2598384	-13.76903469	-981.5008734	-111.5291875	-11309.54585	10-3	89.3
10	0	Strength 1 - Min	Combination Max	-11.32432059	-289.9442557	25.85096531	88.23912663	-5.555716133	-9837.35261	10-1	0
10	14	Strength 1 - Min	Combination Max	-11.32432059	-287.1092557	25.85096531	88.23912663	-101.1494801	-5797.97803	10-1	14
10	28	Strength 1 - Min	Combination Max	-11.32432059	-284.2742557	25.85096531	88.23912663	-196.743244	-1798.29345	10-1	28
10	28	Strength 1 - Min	Combination Max	-6.266820593	-84.33525571	6.040965307	-117.9705222	-196.743244	-1934.84595	10-2	0
10	47.74	Strength 1 - Min	Combination Max	-6.266820593	-80.33790571	6.040965307	-117.9705222	-228.2409012	-309.5218468	10-2	19.74
10	67.48	Strength 1 - Min	Combination Max	-6.266820593	-76.34055571	6.040965307	-117.9705222	-259.7385583	1236.894567	10-2	39.48
10	87.22	Strength 1 - Min	Combination Max	-6.266820593	-72.34320571	6.040965307	-117.9705222	-291.2362155	3418.542867	10-2	59.22
10	106.96	Strength 1 - Min	Combination Max	-6.266820593	-68.34585571	6.040965307	-117.9705222	-322.7338726	5689.540784	10-2	78.96
10	126.7	Strength 1 - Min	Combination Max	-6.266820593	-64.34850571	6.040965307	-117.9705222	-354.2315298	7881.631012	10-2	98.7
10	126.7	Strength 1 - Min	Combination Max	9.833321237	162.6045378	-3.636874005	-259.2480222	-354.2315298	7364.243512	10-3	0
10	149.025	Strength 1 - Min	Combination Max	9.833321237	167.1253503	-3.636874005	-259.2480222	-273.0383176	3683.633636	10-3	22.325

10	171.35	Strength 1 - Min	Combination Max	9.833321237	171.6461628	-3.636874005	-259.2480222	-191.8451055	-97.90337949	10-3	44.65
10	193.675	Strength 1 - Min	Combination Max	9.833321237	176.1669753	-3.636874005	-259.2480222	-110.6518933	-3170.499476	10-3	66.975
10	216	Strength 1 - Min	Combination Max	9.833321237	180.6877878	-3.636874005	-259.2480222	-29.45868116	-6242.989977	10-3	89.3
10	0	Strength 1 - Min	Combination Min	-28.49167876	-413.2027122	6.828125995	23.30697779	-21.03368115	-14840.80546	10-1	0
10	14	Strength 1 - Min	Combination Min	-28.49167876	-410.3677122	6.828125995	23.30697779	-382.9471955	-9075.812488	10-1	14
10	28	Strength 1 - Min	Combination Min	-28.49167876	-407.5327122	6.828125995	23.30697779	-744.8607098	-3350.509517	10-1	28
10	28	Strength 1 - Min	Combination Min	-9.329178763	-129.0362122	1.595625995	-446.6308734	-744.8607098	-3867.897017	10-2	0
10	47.74	Strength 1 - Min	Combination Min	-9.329178763	-125.0388622	1.595625995	-446.6308734	-864.1093649	-1360.176034	10-2	19.74
10	67.48	Strength 1 - Min	Combination Min	-9.329178763	-121.0415122	1.595625995	-446.6308734	-983.3580201	975.6718951	10-2	39.48
10	87.22	Strength 1 - Min	Combination Min	-9.329178763	-117.0441622	1.595625995	-446.6308734	-1102.606675	2676.842313	10-2	59.22
10	106.96	Strength 1 - Min	Combination Min	-9.329178763	-113.0468122	1.595625995	-446.6308734	-1221.85533	4093.004329	10-2	78.96
10	126.7	Strength 1 - Min	Combination Min	-9.329178763	-109.0494622	1.595625995	-446.6308734	-1341.103986	5402.697676	10-2	98.7
10	126.7	Strength 1 - Min	Combination Min	-1.209320593	121.8027106	-13.76903469	-981.5008734	-1341.103986	5266.145176	10-3	0
10	149.025	Strength 1 - Min	Combination Min	-1.209320593	126.3235231	-13.76903469	-981.5008734	-1033.710286	2440.617259	10-3	22.325
10	171.35	Strength 1 - Min	Combination Min	-1.209320593	130.8443356	-13.76903469	-981.5008734	-726.3165866	-485.8377972	10-3	44.65
10	193.675	Strength 1 - Min	Combination Min	-1.209320593	135.3651481	-13.76903469	-981.5008734	-418.9228871	-3980.367534	10-3	66.975
10	216	Strength 1 - Min	Combination Min	-1.209320593	139.8859606	-13.76903469	-981.5008734	-111.5291875	-7963.758828	10-3	89.3
10	0	Strength 3 - Max	Combination Max	-9.591583544	-351.1845875	1.839972796	6.280523399	-0.553925868	-11560.94501	10-1	0
10	14	Strength 3 - Max	Combination Max	-9.591583544	-347.4804208	1.839972796	6.280523399	-10.08498495	-6670.289954	10-1	14
10	28	Strength 3 - Max	Combination Max	-9.591583544	-343.7762542	1.839972796	6.280523399	-19.61604403	-1733.94976	10-1	28
10	28	Strength 3 - Max	Combination Max	-8.116475251	-100.2112542	0.429972796	-11.76210634	-19.61604403	-1760.92276	10-2	0
10	47.74	Strength 3 - Max	Combination Max	-8.116475251	-94.98837916	0.429972796	-11.76210634	-22.75647934	197.9317011	10-2	19.74
10	67.48	Strength 3 - Max	Combination Max	-8.116475251	-89.76550416	0.429972796	-11.76210634	-25.89691464	2049.5951	10-2	39.48
10	87.22	Strength 3 - Max	Combination Max	-8.116475251	-84.54262916	0.429972796	-11.76210634	-29.03734995	3794.067436	10-2	59.22
10	106.96	Strength 3 - Max	Combination Max	-8.116475251	-79.26488072	0.429972796	-11.76210634	-32.17778525	5431.34871	10-2	78.96
10	126.7	Strength 3 - Max	Combination Max	-8.116475251	-73.71300572	0.429972796	-11.76210634	-35.31822056	6961.438922	10-2	98.7
10	126.7	Strength 3 - Max	Combination Max	-5.416475251	178.1326037	-0.362610066	-25.84800634	-35.31822056	6934.465922	10-3	0
10	149.025	Strength 3 - Max	Combination Max	-5.416475251	184.2738391	-0.362610066	-25.84800634	-27.22295085	2889.104004	10-3	22.325
10	171.35	Strength 3 - Max	Combination Max	-5.416475251	190.4150746	-0.362610066	-25.84800634	-19.12768113	-1069.442049	10-3	44.65
10	193.675	Strength 3 - Max	Combination Max	-5.416475251	196.55631	-0.362610066	-25.84800634	-11.03241142	-5115.124441	10-3	66.975
10	216	Strength 3 - Max	Combination Max	-5.416475251	202.6975454	-0.362610066	-25.84800634	-2.937141703	-9292.176615	10-3	89.3
10	0	Strength 3 - Max	Combination Min	-11.51896743	-363.7046546	0.680789934	2.323793658	-1.497096942	-11809.84742	10-1	0
10	14	Strength 3 - Max	Combination Min	-11.51896743	-359.853488	0.680789934	2.323793658	-27.25671608	-6744.940425	10-1	14
10	28	Strength 3 - Max	Combination Min	-11.51896743	-356.0023213	0.680789934	2.323793658	-53.01633522	-1854.917614	10-1	28
10	28	Strength 3 - Max	Combination Min	-8.818967427	-101.9478213	0.159089934	-31.7894766	-53.01633522	-1927.817614	10-2	0
10	47.74	Strength 3 - Max	Combination Min	-8.818967427	-96.51767628	0.159089934	-31.7894766	-61.50399821	21.13172325	10-2	19.74
10	67.48	Strength 3 - Max	Combination Min	-8.818967427	-91.08753128	0.159089934	-31.7894766	-69.9916612	1845.74798	10-2	39.48
10	87.22	Strength 3 - Max	Combination Min	-8.818967427	-85.65738628	0.159089934	-31.7894766	-78.47932419	3566.169256	10-2	59.22
10	106.96	Strength 3 - Max	Combination Min	-8.818967427	-80.22724128	0.159089934	-31.7894766	-86.96698717	5183.490979	10-2	78.96
10	126.7	Strength 3 - Max	Combination Min	-8.818967427	-74.79709628	0.159089934	-31.7894766	-95.45465016	6697.71315	10-2	98.7
10	126.7	Strength 3 - Max	Combination Min	-7.593583544	166.4281208	-0.980027204	-69.8594766	-95.45465016	6624.81315	10-3	0
10	149.025	Strength 3 - Max	Combination Min	-7.593583544	172.3349438	-0.980027204	-69.8594766	-73.57554283	2843.370441	10-3	22.325

10	171.35	Strength 3 - Max	Combination Min	-7.593583544	178.2417667	-0.980027204	-69.8594766	-51.69643549	-1293.360995	10-3	44.65
10	193.675	Strength 3 - Max	Combination Min	-7.593583544	184.1485896	-0.980027204	-69.8594766	-29.81732815	-5612.929075	10-3	66.975
10	216	Strength 3 - Max	Combination Min	-7.593583544	190.0554125	-0.980027204	-69.8594766	-7.938220819	-10069.60024	10-3	89.3
10	0	Strength 3 - Min	Combination Max	-6.862834297	-233.0614652	1.839972796	6.280523399	-0.553925868	-7759.716124	10-1	0
10	14	Strength 3 - Min	Combination Max	-6.862834297	-230.4597985	1.839972796	6.280523399	-10.08498495	-4515.067277	10-1	14
10	28	Strength 3 - Min	Combination Max	-6.862834297	-227.8581319	1.839972796	6.280523399	-19.61604403	-1209.298295	10-1	28
10	28	Strength 3 - Min	Combination Max	-5.387726004	-68.03663187	0.429972796	-11.76210634	-19.61604403	-1236.271295	10-2	0
10	47.74	Strength 3 - Min	Combination Max	-5.387726004	-64.36828187	0.429972796	-11.76210634	-22.75647934	102.7992837	10-2	19.74
10	67.48	Strength 3 - Min	Combination Max	-5.387726004	-60.69993187	0.429972796	-11.76210634	-25.89691464	1365.365124	10-2	39.48
10	87.22	Strength 3 - Min	Combination Max	-5.387726004	-57.03158187	0.429972796	-11.76210634	-29.03734995	2551.426225	10-2	59.22
10	106.96	Strength 3 - Min	Combination Max	-5.387726004	-53.30835844	0.429972796	-11.76210634	-32.17778525	3660.982588	10-2	78.96
10	126.7	Strength 3 - Min	Combination Max	-5.387726004	-49.31100844	0.429972796	-11.76210634	-35.31822056	4694.034211	10-2	98.7
10	126.7	Strength 3 - Min	Combination Max	-2.687726004	118.791101	-0.362610066	-25.84800634	-35.31822056	4667.061211	10-3	0
10	149.025	Strength 3 - Min	Combination Max	-2.687726004	123.1742427	-0.362610066	-25.84800634	-27.22295085	1966.123063	10-3	22.325
10	171.35	Strength 3 - Min	Combination Max	-2.687726004	127.5573843	-0.362610066	-25.84800634	-19.12768113	-608.7497775	10-3	44.65
10	193.675	Strength 3 - Min	Combination Max	-2.687726004	131.940526	-0.362610066	-25.84800634	-11.03241142	-3231.509514	10-3	66.975
10	216	Strength 3 - Min	Combination Max	-2.687726004	136.3236677	-0.362610066	-25.84800634	-2.937141703	-5946.389589	10-3	89.3
10	0	Strength 3 - Min	Combination Min	-8.79021818	-245.5815323	0.680789934	2.323793658	-1.497096942	-8008.618534	10-1	0
10	14	Strength 3 - Min	Combination Min	-8.79021818	-242.8328657	0.680789934	2.323793658	-27.25671608	-4589.717748	10-1	14
10	28	Strength 3 - Min	Combination Min	-8.79021818	-240.084199	0.680789934	2.323793658	-53.01633522	-1330.266149	10-1	28
10	28	Strength 3 - Min	Combination Min	-6.09021818	-69.773199	0.159089934	-31.7894766	-53.01633522	-1403.166149	10-2	0
10	47.74	Strength 3 - Min	Combination Min	-6.09021818	-65.897579	0.159089934	-31.7894766	-61.50399821	-74.00069416	10-2	19.74
10	67.48	Strength 3 - Min	Combination Min	-6.09021818	-62.021959	0.159089934	-31.7894766	-69.9916612	1161.518004	10-2	39.48
10	87.22	Strength 3 - Min	Combination Min	-6.09021818	-58.146339	0.159089934	-31.7894766	-78.47932419	2323.528045	10-2	59.22
10	106.96	Strength 3 - Min	Combination Min	-6.09021818	-54.270719	0.159089934	-31.7894766	-86.96698717	3413.124856	10-2	78.96
10	126.7	Strength 3 - Min	Combination Min	-6.09021818	-50.395099	0.159089934	-31.7894766	-95.45465016	4430.308439	10-2	98.7
10	126.7	Strength 3 - Min	Combination Min	-4.864834297	107.0866181	-0.980027204	-69.8594766	-95.45465016	4357.408439	10-3	0
10	149.025	Strength 3 - Min	Combination Min	-4.864834297	111.2353473	-0.980027204	-69.8594766	-73.57554283	1920.3895	10-3	22.325
10	171.35	Strength 3 - Min	Combination Min	-4.864834297	115.3840765	-0.980027204	-69.8594766	-51.69643549	-832.6687238	10-3	44.65
10	193.675	Strength 3 - Min	Combination Min	-4.864834297	119.5328056	-0.980027204	-69.8594766	-29.81732815	-3729.314148	10-3	66.975
10	216	Strength 3 - Min	Combination Min	-4.864834297	123.6815348	-0.980027204	-69.8594766	-7.938220819	-6723.81321	10-3	89.3
10	0	Strength 5 - Max	Combination Max	-14.58345496	-390.5893642	21.40689598	73.06983636	-5.477612268	-13135.7239	10-1	0
10	14	Strength 5 - Max	Combination Max	-14.58345496	-386.7873842	21.40689598	73.06983636	-99.72749139	-7694.08666	10-1	14
10	28	Strength 5 - Max	Combination Max	-14.58345496	-382.9854042	21.40689598	73.06983636	-193.9773705	-2305.677142	10-1	28
10	28	Strength 5 - Max	Combination Max	-8.685154955	-112.8755042	5.002455978	-116.3120584	-193.9773705	-2464.931242	10-2	0
10	47.74	Strength 5 - Max	Combination Max	-8.685154955	-107.5147124	5.002455978	-116.3120584	-225.0322245	-287.3580468	10-2	19.74
10	67.48	Strength 5 - Max	Combination Max	-8.685154955	-102.1539206	5.002455978	-116.3120584	-256.0870785	1791.210506	10-2	39.48
10	87.22	Strength 5 - Max	Combination Max	-8.685154955	-96.79312877	5.002455978	-116.3120584	-287.1419324	4311.092718	10-2	59.22
10	106.96	Strength 5 - Max	Combination Max	-8.685154955	-91.41760493	5.002455978	-116.3120584	-318.1967864	6851.179411	10-2	78.96
10	126.7	Strength 5 - Max	Combination Max	-8.685154955	-85.86572993	5.002455978	-116.3120584	-349.2516404	9281.715182	10-2	98.7
10	126.7	Strength 5 - Max	Combination Max	5.731754456	203.5122151	-3.585745777	-255.6034384	-349.2516404	8828.674082	10-3	0
10	149.025	Strength 5 - Max	Combination Max	5.731754456	209.7911213	-3.585745777	-255.6034384	-269.1998659	4216.570376	10-3	22.325

10	171.35	Strength 5 - Max	Combination Max	5.731754456	216.0700276	-3.585745777	-255.6034384	-189.1480914	-535.2944089	10-3		44.65
10	193.675	Strength 5 - Max	Combination Max	5.731754456	222.3489338	-3.585745777	-255.6034384	-109.096317	-4788.390294	10-3		66.975
10	216	Strength 5 - Max	Combination Max	5.731754456	228.6278401	-3.585745777	-255.6034384	-29.04454249	-9098.242828	10-3		89.3
10	0	Strength 5 - Max	Combination Min	-28.16685176	-486.7019718	6.732134223	22.97932155	-17.41775671	-17034.96804	10-1		0
10	14	Strength 5 - Max	Combination Min	-28.16685176	-482.7701185	6.732134223	22.97932155	-317.1143004	-10248.66341	10-1		14
10	28	Strength 5 - Max	Combination Min	-28.16685176	-478.8382652	6.732134223	22.97932155	-616.8108441	-3517.404727	10-1		28
10	28	Strength 5 - Max	Combination Min	-11.38755176	-148.1268652	1.573194223	-369.8500436	-616.8108441	-3970.445827	10-2		0
10	47.74	Strength 5 - Max	Combination Min	-11.38755176	-142.582952	1.573194223	-369.8500436	-715.5593251	-1101.247227	10-2		19.74
10	67.48	Strength 5 - Max	Combination Min	-11.38755176	-137.0390388	1.573194223	-369.8500436	-814.3078061	1578.23497	10-2		39.48
10	87.22	Strength 5 - Max	Combination Min	-11.38755176	-131.4951256	1.573194223	-369.8500436	-913.0562871	3722.095653	10-2		59.22
10	106.96	Strength 5 - Max	Combination Min	-11.38755176	-125.9512124	1.573194223	-369.8500436	-1011.804768	5601.142327	10-2		78.96
10	126.7	Strength 5 - Max	Combination Min	-11.38755176	-120.5551402	1.573194223	-369.8500436	-1110.553249	7353.105644	10-2		98.7
10	126.7	Strength 5 - Max	Combination Min	-3.126861169	171.8307046	-11.40198402	-812.7699236	-1110.553249	7193.851544	10-3		0
10	149.025	Strength 5 - Max	Combination Min	-3.126861169	177.8935048	-11.40198402	-812.7699236	-856.0039558	3246.994814	10-3		22.325
10	171.35	Strength 5 - Max	Combination Min	-3.126861169	183.9563051	-11.40198402	-812.7699236	-601.4546626	-837.8062698	10-3		44.65
10	193.675	Strength 5 - Max	Combination Min	-3.126861169	190.0191053	-11.40198402	-812.7699236	-346.9053693	-5432.394233	10-3		66.975
10	216	Strength 5 - Max	Combination Min	-3.126861169	196.0819056	-11.40198402	-812.7699236	-92.35607598	-10466.42247	10-3		89.3
10	0	Strength 5 - Min	Combination Max	-11.85470571	-272.4662419	21.40689598	73.06983636	-5.477612268	-9334.49501	10-1		0
10	14	Strength 5 - Min	Combination Max	-11.85470571	-269.7667619	21.40689598	73.06983636	-99.72749139	-5538.863984	10-1		14
10	28	Strength 5 - Min	Combination Max	-11.85470571	-267.0672819	21.40689598	73.06983636	-193.9773705	-1781.025677	10-1		28
10	28	Strength 5 - Min	Combination Max	-5.956405708	-80.70088189	5.002455978	-116.3120584	-193.9773705	-1940.279777	10-2		0
10	47.74	Strength 5 - Min	Combination Max	-5.956405708	-76.89461509	5.002455978	-116.3120584	-225.0322245	-382.4904643	10-2		19.74
10	67.48	Strength 5 - Min	Combination Max	-5.956405708	-73.08834829	5.002455978	-116.3120584	-256.0870785	1106.98053	10-2		39.48
10	87.22	Strength 5 - Min	Combination Max	-5.956405708	-69.28208149	5.002455978	-116.3120584	-287.1419324	3068.451507	10-2		59.22
10	106.96	Strength 5 - Min	Combination Max	-5.956405708	-65.46108265	5.002455978	-116.3120584	-318.1967864	5080.813288	10-2		78.96
10	126.7	Strength 5 - Min	Combination Max	-5.956405708	-61.46373265	5.002455978	-116.3120584	-349.2516404	7014.310471	10-2		98.7
10	126.7	Strength 5 - Min	Combination Max	8.460503704	144.1707124	-3.585745777	-255.6034384	-349.2516404	6561.269371	10-3		0
10	149.025	Strength 5 - Min	Combination Max	8.460503704	148.6915249	-3.585745777	-255.6034384	-269.1998659	3293.589435	10-3		22.325
10	171.35	Strength 5 - Min	Combination Max	8.460503704	153.2123374	-3.585745777	-255.6034384	-189.1480914	-74.60213727	10-3		44.65
10	193.675	Strength 5 - Min	Combination Max	8.460503704	157.7331499	-3.585745777	-255.6034384	-109.096317	-2904.775367	10-3		66.975
10	216	Strength 5 - Min	Combination Max	8.460503704	162.2539624	-3.585745777	-255.6034384	-29.04454249	-5752.455802	10-3		89.3
10	0	Strength 5 - Min	Combination Min	-25.43810251	-368.5788495	6.732134223	22.97932155	-17.41775671	-13233.73916	10-1		0
10	14	Strength 5 - Min	Combination Min	-25.43810251	-365.7494962	6.732134223	22.97932155	-317.1143004	-8093.440736	10-1		14
10	28	Strength 5 - Min	Combination Min	-25.43810251	-362.9201429	6.732134223	22.97932155	-616.8108441	-2992.753262	10-1		28
10	28	Strength 5 - Min	Combination Min	-8.65880251	-115.9522429	1.573194223	-369.8500436	-616.8108441	-3445.794362	10-2		0
10	47.74	Strength 5 - Min	Combination Min	-8.65880251	-111.9628547	1.573194223	-369.8500436	-715.5593251	-1196.379645	10-2		19.74
10	67.48	Strength 5 - Min	Combination Min	-8.65880251	-107.9734665	1.573194223	-369.8500436	-814.3078061	894.0049939	10-2		39.48
10	87.22	Strength 5 - Min	Combination Min	-8.65880251	-103.9840783	1.573194223	-369.8500436	-913.0562871	2479.454442	10-2		59.22
10	106.96	Strength 5 - Min	Combination Min	-8.65880251	-99.99469007	1.573194223	-369.8500436	-1011.804768	3830.776204	10-2		78.96
10	126.7	Strength 5 - Min	Combination Min	-8.65880251	-96.15314288	1.573194223	-369.8500436	-1110.553249	5085.700933	10-2		98.7
10	126.7	Strength 5 - Min	Combination Min	-0.398111922	112.4892019	-11.40198402	-812.7699236	-1110.553249	4926.446833	10-3		0
10	149.025	Strength 5 - Min	Combination Min	-0.398111922	116.7939084	-11.40198402	-812.7699236	-856.0039558	2324.013873	10-3		22.325

10	171.35	Strength 5 - Min	Combination Min	-0.398111922	121.0986149	-11.40198402	-812.7699236	-601.4546626	-377.1139982	10-3	44.65
10	193.675	Strength 5 - Min	Combination Min	-0.398111922	125.4033214	-11.40198402	-812.7699236	-346.9053693	-3548.779306	10-3	66.975
10	216	Strength 5 - Min	Combination Min	-0.398111922	129.7080279	-11.40198402	-812.7699236	-92.35607598	-7120.635446	10-3	89.3
10	0	Service 1	Combination Max	-10.6666894	-304.0243021	15.45277011	52.74615173	-3.728620802	-10169.15151	10-1	0
10	14	Service 1	Combination Max	-10.6666894	-300.9606354	15.45277011	52.74615173	-67.88468785	-5934.256947	10-1	14
10	28	Service 1	Combination Max	-10.6666894	-297.8969687	15.45277011	52.74615173	-132.0407549	-1742.253718	10-1	28
10	28	Service 1	Combination Max	-6.777689396	-87.53746873	3.61107011	-79.17383332	-132.0407549	-1847.256718	10-2	0
10	47.74	Service 1	Combination Max	-6.777689396	-83.21769873	3.61107011	-79.17383332	-153.1798514	-159.7211824	10-2	19.74
10	67.48	Service 1	Combination Max	-6.777689396	-78.89792873	3.61107011	-79.17383332	-174.318948	1445.966652	10-2	39.48
10	87.22	Service 1	Combination Max	-6.777689396	-74.57815873	3.61107011	-79.17383332	-195.4580445	3372.059033	10-2	59.22
10	106.96	Service 1	Combination Max	-6.777689396	-70.23808556	3.61107011	-79.17383332	-216.597141	5306.623236	10-2	78.96
10	126.7	Service 1	Combination Max	-6.777689396	-65.79658556	3.61107011	-79.17383332	-237.7362376	7153.54517	10-2	98.7
10	126.7	Service 1	Combination Max	3.42139165	158.8747107	-2.440823782	-173.9897333	-237.7362376	6830.92217	10-3	0
10	149.025	Service 1	Combination Max	3.42139165	163.8978357	-2.440823782	-173.9897333	-183.2448466	3229.039882	10-3	22.325
10	171.35	Service 1	Combination Max	3.42139165	168.9209607	-2.440823782	-173.9897333	-128.7534557	-484.6660342	10-3	44.65
10	193.675	Service 1	Combination Max	3.42139165	173.9440857	-2.440823782	-173.9897333	-74.26206474	-3838.445739	10-3	66.975
10	216	Service 1	Combination Max	3.42139165	178.9672107	-2.440823782	-173.9897333	-19.77067379	-7243.375203	10-3	89.3
10	0	Service 1	Combination Min	-20.73653046	-375.1022426	4.582576218	15.64206668	-12.57317224	-13052.68501	10-1	0
10	14	Service 1	Combination Min	-20.73653046	-371.9565592	4.582576218	15.64206668	-228.9119538	-7823.273396	10-1	14
10	28	Service 1	Combination Min	-20.73653046	-368.8108759	4.582576218	15.64206668	-445.2507353	-2637.90135	10-1	28
10	28	Service 1	Combination Min	-8.787530455	-113.5613759	1.070876218	-266.9797483	-445.2507353	-2960.52435	10-2	0
10	47.74	Service 1	Combination Min	-8.787530455	-109.1259624	1.070876218	-266.9797483	-516.5332593	-762.6823448	10-2	19.74
10	67.48	Service 1	Combination Min	-8.787530455	-104.6905489	1.070876218	-266.9797483	-587.8157833	1288.907929	10-2	39.48
10	87.22	Service 1	Combination Min	-8.787530455	-100.2551354	1.070876218	-266.9797483	-659.0983072	2937.23788	10-2	59.22
10	106.96	Service 1	Combination Min	-8.787530455	-95.8197219	1.070876218	-266.9797483	-730.3808312	4382.523734	10-2	78.96
10	126.7	Service 1	Combination Min	-8.787530455	-91.48202243	1.070876218	-266.9797483	-801.6633552	5726.788198	10-2	98.7
10	126.7	Service 1	Combination Min	-3.148611501	135.4173478	-8.23062989	-586.7056483	-801.6633552	5621.785198	10-3	0
10	149.025	Service 1	Combination Min	-3.148611501	140.3028019	-8.23062989	-586.7056483	-617.9145429	2512.162552	10-3	22.325
10	171.35	Service 1	Combination Min	-3.148611501	145.1882561	-8.23062989	-586.7056483	-434.1657306	-708.8259474	10-3	44.65
10	193.675	Service 1	Combination Min	-3.148611501	150.0737103	-8.23062989	-586.7056483	-250.4169183	-4314.380219	10-3	66.975
10	216	Service 1	Combination Min	-3.148611501	154.9591644	-8.23062989	-586.7056483	-66.66810601	-8253.752566	10-3	89.3
10	0	WServ1: 45deg	Combination	-1.031858283	7.078697162	0.680789934	2.323793658	-0.553925868	135.5662102	10-1	0
10	14	WServ1: 45deg	Combination	-1.031858283	7.026897162	0.680789934	2.323793658	-10.08498495	36.82704996	10-1	14
10	28	WServ1: 45deg	Combination	-1.031858283	6.975097162	0.680789934	2.323793658	-19.61604403	-61.18691032	10-1	28
10	28	WServ1: 45deg	Combination	-0.032858283	0.814597162	0.159089934	-11.76210634	-19.61604403	-88.15991032	10-2	0
10	47.74	WServ1: 45deg	Combination	-0.032858283	0.741559162	0.159089934	-11.76210634	-22.75647934	-103.5191732	10-2	19.74
10	67.48	WServ1: 45deg	Combination	-0.032858283	0.668521162	0.159089934	-11.76210634	-25.89691464	-117.436666	10-2	39.48
10	87.22	WServ1: 45deg	Combination	-0.032858283	0.595483162	0.159089934	-11.76210634	-29.03734995	-129.9123887	10-2	59.22
10	106.96	WServ1: 45deg	Combination	-0.032858283	0.522445162	0.159089934	-11.76210634	-32.17778525	-140.9463413	10-2	78.96
10	126.7	WServ1: 45deg	Combination	-0.032858283	0.449407162	0.159089934	-11.76210634	-35.31822056	-150.5385237	10-2	98.7
10	126.7	WServ1: 45deg	Combination	0.966141717	-6.835892838	-0.362610066	-25.84800634	-35.31822056	-177.5115237	10-3	0
10	149.025	WServ1: 45deg	Combination	0.966141717	-6.918495338	-0.362610066	-25.84800634	-27.22295085	-23.97816574	10-3	22.325

10	171.35	WServ1: 45deg	Combination	0.966141717	-7.001097838	-0.362610066	-25.84800634	-19.12768113	131.3992931	10-3	44.65
10	193.675	WServ1: 45deg	Combination	0.966141717	-7.083700338	-0.362610066	-25.84800634	-11.03241142	288.6208527	10-3	66.975
10	216	WServ1: 45deg	Combination	0.966141717	-7.166302838	-0.362610066	-25.84800634	-2.937141703	447.6865132	10-3	89.3
10	0	WServ1: 30deg	Combination	-1.061850485	6.875538105	0.680789934	2.323793658	-0.553925868	127.8978753	10-1	0
10	14	WServ1: 30deg	Combination	-1.061850485	6.849638105	0.680789934	2.323793658	-10.08498495	31.82164181	10-1	14
10	28	WServ1: 30deg	Combination	-1.061850485	6.823738105	0.680789934	2.323793658	-19.61604403	-63.89199166	10-1	28
10	28	WServ1: 30deg	Combination	-0.062850485	0.663238105	0.159089934	-11.76210634	-19.61604403	-90.86499166	10-2	0
10	47.74	WServ1: 30deg	Combination	-0.062850485	0.626719105	0.159089934	-11.76210634	-22.75647934	-103.5968693	10-2	19.74
10	67.48	WServ1: 30deg	Combination	-0.062850485	0.590200105	0.159089934	-11.76210634	-25.89691464	-115.6078619	10-2	39.48
10	87.22	WServ1: 30deg	Combination	-0.062850485	0.553681105	0.159089934	-11.76210634	-29.03734995	-126.8979694	10-2	59.22
10	106.96	WServ1: 30deg	Combination	-0.062850485	0.517162105	0.159089934	-11.76210634	-32.17778525	-137.4671919	10-2	78.96
10	126.7	WServ1: 30deg	Combination	-0.062850485	0.480643105	0.159089934	-11.76210634	-35.31822056	-147.3155293	10-2	98.7
10	126.7	WServ1: 30deg	Combination	0.936149515	-6.804656895	-0.362610066	-25.84800634	-35.31822056	-174.2885293	10-3	0
10	149.025	WServ1: 30deg	Combination	0.936149515	-6.845958145	-0.362610066	-25.84800634	-27.22295085	-21.91353893	10-3	22.325
10	171.35	WServ1: 30deg	Combination	0.936149515	-6.887259395	-0.362610066	-25.84800634	-19.12768113	131.3835019	10-3	44.65
10	193.675	WServ1: 30deg	Combination	0.936149515	-6.928560645	-0.362610066	-25.84800634	-11.03241142	285.6025931	10-3	66.975
10	216	WServ1: 30deg	Combination	0.936149515	-6.969861895	-0.362610066	-25.84800634	-2.937141703	440.7437347	10-3	89.3
10	0	WServ1: 15deg	Combination	-1.071403816	6.708518491	0.680789934	2.323793658	-0.553925868	121.7631945	10-1	0
10	14	WServ1: 15deg	Combination	-1.071403816	6.704201824	0.680789934	2.323793658	-10.08498495	27.87415227	10-1	14
10	28	WServ1: 15deg	Combination	-1.071403816	6.699885157	0.680789934	2.323793658	-19.61604403	-65.9544566	10-1	28
10	28	WServ1: 15deg	Combination	-0.072403816	0.539385157	0.159089934	-11.76210634	-19.61604403	-92.9274566	10-2	0
10	47.74	WServ1: 15deg	Combination	-0.072403816	0.533298657	0.159089934	-11.76210634	-22.75647934	-103.5148458	10-2	19.74
10	67.48	WServ1: 15deg	Combination	-0.072403816	0.527212157	0.159089934	-11.76210634	-25.89691464	-113.9820876	10-2	39.48
10	87.22	WServ1: 15deg	Combination	-0.072403816	0.521125657	0.159089934	-11.76210634	-29.03734995	-124.3291818	10-2	59.22
10	106.96	WServ1: 15deg	Combination	-0.072403816	0.515039157	0.159089934	-11.76210634	-32.17778525	-134.5561285	10-2	78.96
10	126.7	WServ1: 15deg	Combination	-0.072403816	0.508952657	0.159089934	-11.76210634	-35.31822056	-144.6629277	10-2	98.7
10	126.7	WServ1: 15deg	Combination	0.926596184	-6.776347343	-0.362610066	-25.84800634	-35.31822056	-171.6359277	10-3	0
10	149.025	WServ1: 15deg	Combination	0.926596184	-6.783230884	-0.362610066	-25.84800634	-27.22295085	-20.27713578	10-3	22.325
10	171.35	WServ1: 15deg	Combination	0.926596184	-6.790114426	-0.362610066	-25.84800634	-19.12768113	131.2353312	10-3	44.65
10	193.675	WServ1: 15deg	Combination	0.926596184	-6.796997968	-0.362610066	-25.84800634	-11.03241142	282.9014733	10-3	66.975
10	216	WServ1: 15deg	Combination	0.926596184	-6.803881509	-0.362610066	-25.84800634	-2.937141703	434.7212905	10-3	89.3
10	0	WServ1: 0deg	Combination	-1.052665725	6.943137811	0.680789934	2.323793658	-0.553925868	130.4405344	10-1	0
10	14	WServ1: 0deg	Combination	-1.052665725	6.908604478	0.680789934	2.323793658	-10.08498495	33.47833835	10-1	14
10	28	WServ1: 0deg	Combination	-1.052665725	6.874071145	0.680789934	2.323793658	-19.61604403	-63.00039101	10-1	28
10	28	WServ1: 0deg	Combination	-0.053665725	0.713571145	0.159089934	-11.76210634	-19.61604403	-89.97339101	10-2	0
10	47.74	WServ1: 0deg	Combination	-0.053665725	0.664879145	0.159089934	-11.76210634	-22.75647934	-103.5786954	10-2	19.74
10	67.48	WServ1: 0deg	Combination	-0.053665725	0.616187145	0.159089934	-11.76210634	-25.89691464	-116.2228196	10-2	39.48
10	87.22	WServ1: 0deg	Combination	-0.053665725	0.567495145	0.159089934	-11.76210634	-29.03734995	-127.9057638	10-2	59.22
10	106.96	WServ1: 0deg	Combination	-0.053665725	0.518803145	0.159089934	-11.76210634	-32.17778525	-138.627528	10-2	78.96
10	126.7	WServ1: 0deg	Combination	-0.053665725	0.470111145	0.159089934	-11.76210634	-35.31822056	-148.388112	10-2	98.7
10	126.7	WServ1: 0deg	Combination	0.945334275	-6.815188855	-0.362610066	-25.84800634	-35.31822056	-175.361112	10-3	0
10	149.025	WServ1: 0deg	Combination	0.945334275	-6.870257189	-0.362610066	-25.84800634	-27.22295085	-22.59732054	10-3	22.325

10	171.35	WServ1: 0deg	Combination	0.945334275	-6.925325522	-0.362610066	-25.84800634	-19.12768113	131.3958715	10-3	44.65
10	193.675	WServ1: 0deg	Combination	0.945334275	-6.980393855	-0.362610066	-25.84800634	-11.03241142	286.618464	10-3	66.975
10	216	WServ1: 0deg	Combination	0.945334275	-7.035462189	-0.362610066	-25.84800634	-2.937141703	443.0704571	10-3	89.3
10	0	WServ1: -15deg	Combination	-1.01779768	7.147016743	0.680789934	2.323793658	-0.553925868	138.1895846	10-1	0
10	14	WServ1: -15deg	Combination	-1.01779768	7.08658341	0.680789934	2.323793658	-10.08498495	38.55438353	10-1	14
10	28	WServ1: -15deg	Combination	-1.01779768	7.026150077	0.680789934	2.323793658	-19.61604403	-60.23475088	10-1	28
10	28	WServ1: -15deg	Combination	-0.01879768	0.865650077	0.159089934	-11.76210634	-19.61604403	-87.20775088	10-2	0
10	47.74	WServ1: -15deg	Combination	-0.01879768	0.780439077	0.159089934	-11.76210634	-22.75647934	-103.4546508	10-2	19.74
10	67.48	WServ1: -15deg	Combination	-0.01879768	0.695228077	0.159089934	-11.76210634	-25.89691464	-118.0194856	10-2	39.48
10	87.22	WServ1: -15deg	Combination	-0.01879768	0.610017077	0.159089934	-11.76210634	-29.03734995	-130.9022553	10-2	59.22
10	106.96	WServ1: -15deg	Combination	-0.01879768	0.524806077	0.159089934	-11.76210634	-32.17778525	-142.1029598	10-2	78.96
10	126.7	WServ1: -15deg	Combination	-0.01879768	0.439595077	0.159089934	-11.76210634	-35.31822056	-151.6215992	10-2	98.7
10	126.7	WServ1: -15deg	Combination	0.98020232	-6.845704923	-0.362610066	-25.84800634	-35.31822056	-178.5945992	10-3	0
10	149.025	WServ1: -15deg	Combination	0.98020232	-6.942074507	-0.362610066	-25.84800634	-27.22295085	-24.6885113	10-3	22.325
10	171.35	WServ1: -15deg	Combination	0.98020232	-7.03844409	-0.362610066	-25.84800634	-19.12768113	131.3690275	10-3	44.65
10	193.675	WServ1: -15deg	Combination	0.98020232	-7.134813673	-0.362610066	-25.84800634	-11.03241142	289.5780173	10-3	66.975
10	216	WServ1: -15deg	Combination	0.98020232	-7.231183257	-0.362610066	-25.84800634	-2.937141703	449.938458	10-3	89.3
10	0	WServ1: -30deg	Combination	-0.968302107	7.353055297	0.680789934	2.323793658	-0.553925868	146.1807806	10-1	0
10	14	WServ1: -30deg	Combination	-0.968302107	7.266721964	0.680789934	2.323793658	-10.08498495	43.84233978	10-1	14
10	28	WServ1: -30deg	Combination	-0.968302107	7.18038863	0.680789934	2.323793658	-19.61604403	-57.28743438	10-1	28
10	28	WServ1: -30deg	Combination	0.030697893	1.01988863	0.159089934	-11.76210634	-19.61604403	-84.26043438	10-2	0
10	47.74	WServ1: -30deg	Combination	0.030697893	0.89815863	0.159089934	-11.76210634	-22.75647934	-103.1915608	10-2	19.74
10	67.48	WServ1: -30deg	Combination	0.030697893	0.77642863	0.159089934	-11.76210634	-25.89691464	-119.7197371	10-2	39.48
10	87.22	WServ1: -30deg	Combination	0.030697893	0.65469863	0.159089934	-11.76210634	-29.03734995	-133.8449632	10-2	59.22
10	106.96	WServ1: -30deg	Combination	0.030697893	0.53296863	0.159089934	-11.76210634	-32.17778525	-145.567239	10-2	78.96
10	126.7	WServ1: -30deg	Combination	0.030697893	0.41123863	0.159089934	-11.76210634	-35.31822056	-154.8865647	10-2	98.7
10	126.7	WServ1: -30deg	Combination	1.029697893	-6.87406137	-0.362610066	-25.84800634	-35.31822056	-181.8595647	10-3	0
10	149.025	WServ1: -30deg	Combination	1.029697893	-7.011732203	-0.362610066	-25.84800634	-27.22295085	-26.85939394	10-3	22.325
10	171.35	WServ1: -30deg	Combination	1.029697893	-7.149403036	-0.362610066	-25.84800634	-19.12768113	131.2142782	10-3	44.65
10	193.675	WServ1: -30deg	Combination	1.029697893	-7.28707387	-0.362610066	-25.84800634	-11.03241142	292.3614516	10-3	66.975
10	216	WServ1: -30deg	Combination	1.029697893	-7.424744703	-0.362610066	-25.84800634	-2.937141703	456.5821265	10-3	89.3
10	0	WServ1 + WA	Combination	-0.811481711	6.7137718	0.680789934	2.323793658	-0.553925868	124.8706679	10-1	0
10	14	WServ1 + WA	Combination	-0.811481711	6.7137718	0.680789934	2.323793658	-10.08498495	30.87786269	10-1	14
10	28	WServ1 + WA	Combination	-0.811481711	6.7137718	0.680789934	2.323793658	-19.61604403	-63.11494251	10-1	28
10	28	WServ1 + WA	Combination	0.187518289	0.5532718	0.159089934	-11.76210634	-19.61604403	-90.08794251	10-2	0
10	47.74	WServ1 + WA	Combination	0.187518289	0.5532718	0.159089934	-11.76210634	-22.75647934	-101.0095278	10-2	19.74
10	67.48	WServ1 + WA	Combination	0.187518289	0.5532718	0.159089934	-11.76210634	-25.89691464	-111.9311132	10-2	39.48
10	87.22	WServ1 + WA	Combination	0.187518289	0.5532718	0.159089934	-11.76210634	-29.03734995	-122.8526985	10-2	59.22
10	106.96	WServ1 + WA	Combination	0.187518289	0.5532718	0.159089934	-11.76210634	-32.17778525	-133.7742838	10-2	78.96
10	126.7	WServ1 + WA	Combination	0.187518289	0.5532718	0.159089934	-11.76210634	-35.31822056	-144.6958691	10-2	98.7
10	126.7	WServ1 + WA	Combination	1.186518289	-6.7320282	-0.362610066	-25.84800634	-35.31822056	-171.6688691	10-3	0
10	149.025	WServ1 + WA	Combination	1.186518289	-6.7320282	-0.362610066	-25.84800634	-27.22295085	-21.37633956	10-3	22.325

10	171.35	WServ1 + WA	Combination		1.186518289	-6.7320282	-0.362610066	-25.84800634	-19.12768113	128.91619	10-3	44.65
10	193.675	WServ1 + WA	Combination		1.186518289	-6.7320282	-0.362610066	-25.84800634	-11.03241142	279.2087196	10-3	66.975
10	216	WServ1 + WA	Combination		1.186518289	-6.7320282	-0.362610066	-25.84800634	-2.937141703	429.5012492	10-3	89.3
10	0	WServ1 & WA envelope	Combination	Max	-0.811481711	7.353055297	0.680789934	2.323793658	-0.553925868	146.1807806	10-1	0
10	14	WServ1 & WA envelope	Combination	Max	-0.811481711	7.266721964	0.680789934	2.323793658	-10.08498495	43.84233978	10-1	14
10	28	WServ1 & WA envelope	Combination	Max	-0.811481711	7.18038863	0.680789934	2.323793658	-19.61604403	-57.28743438	10-1	28
10	28	WServ1 & WA envelope	Combination	Max	0.187518289	1.01988863	0.159089934	-11.76210634	-19.61604403	-84.26043438	10-2	0
10	47.74	WServ1 & WA envelope	Combination	Max	0.187518289	0.89815863	0.159089934	-11.76210634	-22.75647934	-101.0095278	10-2	19.74
10	67.48	WServ1 & WA envelope	Combination	Max	0.187518289	0.77642863	0.159089934	-11.76210634	-25.89691464	-111.9311132	10-2	39.48
10	87.22	WServ1 & WA envelope	Combination	Max	0.187518289	0.65469863	0.159089934	-11.76210634	-29.03734995	-122.8526985	10-2	59.22
10	106.96	WServ1 & WA envelope	Combination	Max	0.187518289	0.5532718	0.159089934	-11.76210634	-32.17778525	-133.7742838	10-2	78.96
10	126.7	WServ1 & WA envelope	Combination	Max	0.187518289	0.5532718	0.159089934	-11.76210634	-35.31822056	-144.6629277	10-2	98.7
10	126.7	WServ1 & WA envelope	Combination	Max	1.186518289	-6.7320282	-0.362610066	-25.84800634	-35.31822056	-171.6359277	10-3	0
10	149.025	WServ1 & WA envelope	Combination	Max	1.186518289	-6.7320282	-0.362610066	-25.84800634	-27.22295085	-20.27713578	10-3	22.325
10	171.35	WServ1 & WA envelope	Combination	Max	1.186518289	-6.7320282	-0.362610066	-25.84800634	-19.12768113	131.3992931	10-3	44.65
10	193.675	WServ1 & WA envelope	Combination	Max	1.186518289	-6.7320282	-0.362610066	-25.84800634	-11.03241142	292.3614516	10-3	66.975
10	216	WServ1 & WA envelope	Combination	Max	1.186518289	-6.7320282	-0.362610066	-25.84800634	-2.937141703	456.5821265	10-3	89.3
10	0	WServ1 & WA envelope	Combination	Min	-1.071403816	6.708518491	0.680789934	2.323793658	-0.553925868	121.7631945	10-1	0
10	14	WServ1 & WA envelope	Combination	Min	-1.071403816	6.704201824	0.680789934	2.323793658	-10.08498495	27.87415227	10-1	14
10	28	WServ1 & WA envelope	Combination	Min	-1.071403816	6.699885157	0.680789934	2.323793658	-19.61604403	-65.9544566	10-1	28
10	28	WServ1 & WA envelope	Combination	Min	-0.072403816	0.539385157	0.159089934	-11.76210634	-19.61604403	-92.9274566	10-2	0
10	47.74	WServ1 & WA envelope	Combination	Min	-0.072403816	0.533298657	0.159089934	-11.76210634	-22.75647934	-103.5968693	10-2	19.74
10	67.48	WServ1 & WA envelope	Combination	Min	-0.072403816	0.527212157	0.159089934	-11.76210634	-25.89691464	-119.7197371	10-2	39.48
10	87.22	WServ1 & WA envelope	Combination	Min	-0.072403816	0.521125657	0.159089934	-11.76210634	-29.03734995	-133.8449632	10-2	59.22
10	106.96	WServ1 & WA envelope	Combination	Min	-0.072403816	0.515039157	0.159089934	-11.76210634	-32.17778525	-145.567239	10-2	78.96
10	126.7	WServ1 & WA envelope	Combination	Min	-0.072403816	0.41123863	0.159089934	-11.76210634	-35.31822056	-154.8865647	10-2	98.7
10	126.7	WServ1 & WA envelope	Combination	Min	0.926596184	-6.87406137	-0.362610066	-25.84800634	-35.31822056	-181.8595647	10-3	0
10	149.025	WServ1 & WA envelope	Combination	Min	0.926596184	-7.011732203	-0.362610066	-25.84800634	-27.22295085	-26.85939394	10-3	22.325
10	171.35	WServ1 & WA envelope	Combination	Min	0.926596184	-7.149403036	-0.362610066	-25.84800634	-19.12768113	128.91619	10-3	44.65
10	193.675	WServ1 & WA envelope	Combination	Min	0.926596184	-7.28707387	-0.362610066	-25.84800634	-11.03241142	279.2087196	10-3	66.975
10	216	WServ1 & WA envelope	Combination	Min	0.926596184	-7.424744703	-0.362610066	-25.84800634	-2.937141703	429.5012492	10-3	89.3
10	0	Strength Envelope	Combination	Max	-6.862834297	-233.0614652	25.85096531	88.23912663	-0.553925868	-7759.716124	10-1	0
10	14	Strength Envelope	Combination	Max	-6.862834297	-230.4597985	25.85096531	88.23912663	-10.08498495	-4515.067277	10-1	14
10	28	Strength Envelope	Combination	Max	-6.862834297	-227.8581319	25.85096531	88.23912663	-19.61604403	-1209.298295	10-1	28
10	28	Strength Envelope	Combination	Max	-5.387726004	-68.03663187	6.040965307	-11.76210634	-19.61604403	-1236.271295	10-2	0
10	47.74	Strength Envelope	Combination	Max	-5.387726004	-64.36828187	6.040965307	-11.76210634	-22.75647934	197.9317011	10-2	19.74
10	67.48	Strength Envelope	Combination	Max	-5.387726004	-60.69993187	6.040965307	-11.76210634	-25.89691464	2049.5951	10-2	39.48
10	87.22	Strength Envelope	Combination	Max	-5.387726004	-57.03158187	6.040965307	-11.76210634	-29.03734995	4661.184078	10-2	59.22
10	106.96	Strength Envelope	Combination	Max	-5.387726004	-53.30835844	6.040965307	-11.76210634	-32.17778525	7459.906907	10-2	78.96
10	126.7	Strength Envelope	Combination	Max	-5.387726004	-49.31100844	6.040965307	-11.76210634	-35.31822056	10149.03572	10-2	98.7
10	126.7	Strength Envelope	Combination	Max	9.833321237	221.9460405	-0.362610066	-25.84800634	-35.31822056	9631.648223	10-3	0
10	149.025	Strength Envelope	Combination	Max	9.833321237	228.2249468	-0.362610066	-25.84800634	-27.22295085	4606.614577	10-3	22.325

10	171.35	Strength Envelope	Combination Max	9.833321237	234.503853	-0.362610066	-25.84800634	-19.12768113	-74.60213727	10-3	44.65
10	193.675	Strength Envelope	Combination Max	9.833321237	240.7827593	-0.362610066	-25.84800634	-11.03241142	-2904.775367	10-3	66.975
10	216	Strength Envelope	Combination Max	9.833321237	247.0616655	-0.362610066	-25.84800634	-2.937141703	-5752.455802	10-3	89.3
10	0	Strength Envelope	Combination Min	-31.22042801	-531.3258345	0.680789934	2.323793658	-21.03368115	-18642.03435	10-1	0
10	14	Strength Envelope	Combination Min	-31.22042801	-527.3883345	0.680789934	2.323793658	-382.9471955	-11231.03516	10-1	14
10	28	Strength Envelope	Combination Min	-31.22042801	-523.4508345	0.680789934	2.323793658	-744.8607098	-3875.160982	10-1	28
10	28	Strength Envelope	Combination Min	-12.05792801	-161.2108345	0.159089934	-446.6308734	-744.8607098	-4392.548482	10-2	0
10	47.74	Strength Envelope	Combination Min	-12.05792801	-155.6589595	0.159089934	-446.6308734	-864.1093649	-1360.176034	10-2	19.74
10	67.48	Strength Envelope	Combination Min	-12.05792801	-150.1070845	0.159089934	-446.6308734	-983.3580201	894.0049939	10-2	39.48
10	87.22	Strength Envelope	Combination Min	-12.05792801	-144.5552095	0.159089934	-446.6308734	-1102.606675	2323.528045	10-2	59.22
10	106.96	Strength Envelope	Combination Min	-12.05792801	-139.0033345	0.159089934	-446.6308734	-1221.85533	3413.124856	10-2	78.96
10	126.7	Strength Envelope	Combination Min	-12.05792801	-133.4514595	0.159089934	-446.6308734	-1341.103986	4430.308439	10-2	98.7
10	126.7	Strength Envelope	Combination Min	-7.593583544	107.0866181	-13.76903469	-981.5008734	-1341.103986	4357.408439	10-3	0
10	149.025	Strength Envelope	Combination Min	-7.593583544	111.2353473	-13.76903469	-981.5008734	-1033.710286	1920.3895	10-3	22.325
10	171.35	Strength Envelope	Combination Min	-7.593583544	115.3840765	-13.76903469	-981.5008734	-726.3165866	-1293.360995	10-3	44.65
10	193.675	Strength Envelope	Combination Min	-7.593583544	119.5328056	-13.76903469	-981.5008734	-418.9228871	-5863.982461	10-3	66.975
10	216	Strength Envelope	Combination Min	-7.593583544	123.6815348	-13.76903469	-981.5008734	-111.5291875	-11309.54585	10-3	89.3
11	0	DEAD	LinStatic	-0.73019507	-27.13938625	0	0	0	-898.5821925	11-1	0
11	9.6	DEAD	LinStatic	-0.73019507	-24.97938625	0	0	0	-648.4120845	11-1	9.6
11	9.6	DEAD	LinStatic	-0.73019507	-24.97938625	0	0	0	-648.4120845	11-2	0
11	29.4	DEAD	LinStatic	-0.73019507	-20.52438625	0	0	0	-197.9247368	11-2	19.8
11	49.2	DEAD	LinStatic	-0.73019507	-16.06938625	0	0	0	164.3536109	11-2	39.6
11	69	DEAD	LinStatic	-0.73019507	-11.61438625	0	0	0	438.4229586	11-2	59.4
11	88.8	DEAD	LinStatic	-0.73019507	-7.159386247	0	0	0	624.2833063	11-2	79.2
11	108.6	DEAD	LinStatic	-0.73019507	-2.704386246	0	0	0	721.934654	11-2	99
11	108.6	DEAD	LinStatic	-0.73019507	-2.704386246	0	0	0	721.934654	11-3	0
11	128.2	DEAD	LinStatic	-0.73019507	1.705613754	0	0	0	731.7226244	11-3	19.6
11	147.8	DEAD	LinStatic	-0.73019507	6.115613754	0	0	0	655.0745948	11-3	39.2
11	167.4	DEAD	LinStatic	-0.73019507	10.52561375	0	0	0	491.9905652	11-3	58.8
11	187	DEAD	LinStatic	-0.73019507	14.93561375	0	0	0	242.4705356	11-3	78.4
11	206.6	DEAD	LinStatic	-0.73019507	19.34561375	0	0	0	-93.48549395	11-3	98
11	206.6	DEAD	LinStatic	-0.73019507	19.34561375	0	0	0	-93.48549395	11-4	0
11	216	DEAD	LinStatic	-0.73019507	21.46061375	0	0	0	-285.2747632	11-4	9.4
11	0	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	0.229472625	11-1	0
11	9.6	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	0.202699701	11-1	9.6
11	9.6	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	0.202699701	11-2	0
11	29.4	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	0.147480544	11-2	19.8
11	49.2	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	0.092261388	11-2	39.6
11	69	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	0.037042232	11-2	59.4
11	88.8	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.018176925	11-2	79.2
11	108.6	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.073396081	11-2	99
11	108.6	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.073396081	11-3	0

11	128.2	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.128057468	11-3	19.6
11	147.8	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.182718855	11-3	39.2
11	167.4	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.237380242	11-3	58.8
11	187	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.292041629	11-3	78.4
11	206.6	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.346703017	11-3	98
11	206.6	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.346703017	11-4	0
11	216	R01_Z	LinStatic	-0.003034235	0.002788846	0	0	0	-0.372918172	11-4	9.4
11	0	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	-0.097759579	11-1	0
11	9.6	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	-0.084547626	11-1	9.6
11	9.6	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	-0.084547626	11-2	0
11	29.4	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	-0.057297972	11-2	19.8
11	49.2	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	-0.030048319	11-2	39.6
11	69	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	-0.002798666	11-2	59.4
11	88.8	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.024450987	11-2	79.2
11	108.6	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.05170064	11-2	99
11	108.6	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.05170064	11-3	0
11	128.2	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.078675044	11-3	19.6
11	147.8	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.105649448	11-3	39.2
11	167.4	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.132623853	11-3	58.8
11	187	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.159598257	11-3	78.4
11	206.6	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.186572661	11-3	98
11	206.6	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.186572661	11-4	0
11	216	R02_Z	LinStatic	0.001622933	-0.001376245	0	0	0	0.199509365	11-4	9.4
11	0	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.032175116	11-1	0
11	9.6	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.028955894	11-1	9.6
11	9.6	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.028955894	11-2	0
11	29.4	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.022316249	11-2	19.8
11	49.2	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.015676604	11-2	39.6
11	69	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.009036959	11-2	59.4
11	88.8	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	-0.002397314	11-2	79.2
11	108.6	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.004242331	11-2	99
11	108.6	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.004242331	11-3	0
11	128.2	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.010814909	11-3	19.6
11	147.8	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.017387487	11-3	39.2
11	167.4	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.023960065	11-3	58.8
11	187	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.030532643	11-3	78.4
11	206.6	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.037105221	11-3	98
11	206.6	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.037105221	11-4	0
11	216	R03_Z	LinStatic	0.00032049	-0.000335336	0	0	0	0.040257375	11-4	9.4
11	0	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.209097324	11-1	0
11	9.6	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.195075643	11-1	9.6
11	9.6	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.195075643	11-2	0

11	29.4	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.166155926	11-2	19.8
11	49.2	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.137236209	11-2	39.6
11	69	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.108316492	11-2	59.4
11	88.8	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.079396775	11-2	79.2
11	108.6	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.050477058	11-2	99
11	108.6	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.050477058	11-3	0
11	128.2	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	-0.021849459	11-3	19.6
11	147.8	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	0.006778139	11-3	39.2
11	167.4	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	0.035405738	11-3	58.8
11	187	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	0.064033337	11-3	78.4
11	206.6	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	0.092660935	11-3	98
11	206.6	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	0.092660935	11-4	0
11	216	R04_Z	LinStatic	0.000842276	-0.001460592	0	0	0	0.106390498	11-4	9.4
11	0	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.249802086	11-1	0
11	9.6	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.242592997	11-1	9.6
11	9.6	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.242592997	11-2	0
11	29.4	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.22772425	11-2	19.8
11	49.2	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.212855504	11-2	39.6
11	69	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.197986757	11-2	59.4
11	88.8	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.183118011	11-2	79.2
11	108.6	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.168249264	11-2	99
11	108.6	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.168249264	11-3	0
11	128.2	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.153530707	11-3	19.6
11	147.8	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.13881215	11-3	39.2
11	167.4	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.124093593	11-3	58.8
11	187	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.109375036	11-3	78.4
11	206.6	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.094656479	11-3	98
11	206.6	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.094656479	11-4	0
11	216	R05_Z	LinStatic	-0.000721657	-0.000750947	0	0	0	-0.087597579	11-4	9.4
11	0	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.338371833	11-1	0
11	9.6	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.321449323	11-1	9.6
11	9.6	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.321449323	11-2	0
11	29.4	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.286546646	11-2	19.8
11	49.2	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.251643968	11-2	39.6
11	69	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.216741291	11-2	59.4
11	88.8	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.181838614	11-2	79.2
11	108.6	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.146935936	11-2	99
11	108.6	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.146935936	11-3	0
11	128.2	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.112385811	11-3	19.6
11	147.8	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.077835686	11-3	39.2
11	167.4	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.043285561	11-3	58.8
11	187	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	-0.008735436	11-3	78.4

11	206.6	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	0.025814689	11-3	98
11	206.6	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	0.025814689	11-4	0
11	216	R06_Z	LinStatic	0.000461578	-0.001762761	0	0	0	0.042384647	11-4	9.4
11	0	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	1.194472872	11-1	0
11	9.6	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	1.133118239	11-1	9.6
11	9.6	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	1.133118239	11-2	0
11	29.4	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	1.006574309	11-2	19.8
11	49.2	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.880030378	11-2	39.6
11	69	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.753486447	11-2	59.4
11	88.8	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.626942517	11-2	79.2
11	108.6	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.500398586	11-2	99
11	108.6	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.500398586	11-3	0
11	128.2	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.375132877	11-3	19.6
11	147.8	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.249867168	11-3	39.2
11	167.4	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	0.124601459	11-3	58.8
11	187	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	-0.00066425	11-3	78.4
11	206.6	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	-0.125929959	11-3	98
11	206.6	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	-0.125929959	11-4	0
11	216	R07_Z	LinStatic	-0.001185629	0.006391108	0	0	0	-0.18600637	11-4	9.4
11	0	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	6.955264809	11-1	0
11	9.6	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	6.641831621	11-1	9.6
11	9.6	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	6.641831621	11-2	0
11	29.4	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	5.995375672	11-2	19.8
11	49.2	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	5.348919722	11-2	39.6
11	69	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	4.702463772	11-2	59.4
11	88.8	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	4.056007823	11-2	79.2
11	108.6	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	3.409551873	11-2	99
11	108.6	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	3.409551873	11-3	0
11	128.2	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	2.769625782	11-3	19.6
11	147.8	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	2.12969969	11-3	39.2
11	167.4	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	1.489773599	11-3	58.8
11	187	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	0.849847507	11-3	78.4
11	206.6	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	0.209921416	11-3	98
11	206.6	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	0.209921416	11-4	0
11	216	R08_Z	LinStatic	-0.000286046	0.03264929	0	0	0	-0.096981914	11-4	9.4
11	0	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	11.41151699	11-1	0
11	9.6	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	10.90853342	11-1	9.6
11	9.6	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	10.90853342	11-2	0
11	29.4	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	9.871129808	11-2	19.8
11	49.2	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	8.833726197	11-2	39.6
11	69	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	7.796322587	11-2	59.4
11	88.8	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	6.758918976	11-2	79.2

11	108.6	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	5.721515365	11-2	99
11	108.6	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	5.721515365	11-3	0
11	128.2	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	4.694590579	11-3	19.6
11	147.8	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	3.667665792	11-3	39.2
11	167.4	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	2.640741006	11-3	58.8
11	187	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	1.613816219	11-3	78.4
11	206.6	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	0.586891433	11-3	98
11	206.6	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	0.586891433	11-4	0
11	216	R09_Z	LinStatic	0.00031927	0.052394122	0	0	0	0.094386688	11-4	9.4
11	0	R10_Z	LinStatic	0.010295131	0.928800895	0	0	0	-3.786865548	11-1	0
11	9.6	R10_Z	LinStatic	0.010295131	0.928800895	0	0	0	-12.70335414	11-1	9.6
11	9.6	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-12.70335414	11-2	0
11	29.4	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-11.29361187	11-2	19.8
11	49.2	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-9.883869601	11-2	39.6
11	69	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-8.474127329	11-2	59.4
11	88.8	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-7.064385058	11-2	79.2
11	108.6	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-5.654642786	11-2	99
11	108.6	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-5.654642786	11-3	0
11	128.2	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-4.259140336	11-3	19.6
11	147.8	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-2.863637885	11-3	39.2
11	167.4	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-1.468135434	11-3	58.8
11	187	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	-0.072632984	11-3	78.4
11	206.6	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	1.322869467	11-3	98
11	206.6	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	1.322869467	11-4	0
11	216	R10_Z	LinStatic	0.010295131	-0.071199105	0	0	0	1.99214105	11-4	9.4
11	0	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	16.45401083	11-1	0
11	9.6	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	11.16797733	11-1	9.6
11	9.6	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	11.16797733	11-2	0
11	29.4	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	0.265533231	11-2	19.8
11	49.2	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	-10.63691087	11-2	39.6
11	69	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	-21.53935497	11-2	59.4
11	88.8	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	-32.44179907	11-2	79.2
11	108.6	R11_Z	LinStatic	0.025278901	0.55062849	0	0	0	-43.34424317	11-2	99
11	108.6	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	-43.34424317	11-3	0
11	128.2	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	-34.53656157	11-3	19.6
11	147.8	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	-25.72887997	11-3	39.2
11	167.4	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	-16.92119837	11-3	58.8
11	187	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	-8.113516775	11-3	78.4
11	206.6	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	0.694164823	11-3	98
11	206.6	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	0.694164823	11-4	0
11	216	R11_Z	LinStatic	0.025278901	-0.44937151	0	0	0	4.918257018	11-4	9.4
11	0	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	5.899167037	11-1	0

11	9.6	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	5.21532501	11-1	9.6
11	9.6	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	5.21532501	11-2	0
11	29.4	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	3.804900828	11-2	19.8
11	49.2	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	2.394476647	11-2	39.6
11	69	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	0.984052466	11-2	59.4
11	88.8	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-0.426371716	11-2	79.2
11	108.6	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-1.836795897	11-2	99
11	108.6	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-1.836795897	11-3	0
11	128.2	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-3.232973369	11-3	19.6
11	147.8	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-4.629150842	11-3	39.2
11	167.4	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-6.025328314	11-3	58.8
11	187	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-7.421505787	11-3	78.4
11	206.6	R12_Z	LinStatic	-0.000107138	0.071233545	0	0	0	-8.817683259	11-3	98
11	206.6	R12_Z	LinStatic	-0.000107138	-0.928766455	0	0	0	-8.817683259	11-4	0
11	216	R12_Z	LinStatic	-0.000107138	-0.928766455	0	0	0	-0.087278577	11-4	9.4
11	0	R_X	LinStatic	1.093456656	2.056691948	0	0	0	129.9815088	11-1	0
11	9.6	R_X	LinStatic	1.093456656	2.056691948	0	0	0	110.2372661	11-1	9.6
11	9.6	R_X	LinStatic	0.093456656	2.056691948	0	0	0	137.2372661	11-2	0
11	29.4	R_X	LinStatic	0.093456656	2.056691948	0	0	0	96.5147655	11-2	19.8
11	49.2	R_X	LinStatic	0.093456656	2.056691948	0	0	0	55.79226493	11-2	39.6
11	69	R_X	LinStatic	0.093456656	2.056691948	0	0	0	15.06976436	11-2	59.4
11	88.8	R_X	LinStatic	0.093456656	2.056691948	0	0	0	-25.65273621	11-2	79.2
11	108.6	R_X	LinStatic	0.093456656	2.056691948	0	0	0	-66.37523678	11-2	99
11	108.6	R_X	LinStatic	-0.906543344	2.056691948	0	0	0	-39.37523678	11-3	0
11	128.2	R_X	LinStatic	-0.906543344	2.056691948	0	0	0	-79.68639896	11-3	19.6
11	147.8	R_X	LinStatic	-0.906543344	2.056691948	0	0	0	-119.9975611	11-3	39.2
11	167.4	R_X	LinStatic	-0.906543344	2.056691948	0	0	0	-160.3087233	11-3	58.8
11	187	R_X	LinStatic	-0.906543344	2.056691948	0	0	0	-200.6198855	11-3	78.4
11	206.6	R_X	LinStatic	-0.906543344	2.056691948	0	0	0	-240.9310477	11-3	98
11	206.6	R_X	LinStatic	-1.906543344	2.056691948	0	0	0	-213.9310477	11-4	0
11	216	R_X	LinStatic	-1.906543344	2.056691948	0	0	0	-233.263952	11-4	9.4
11	0	R_Y	LinStatic	0	0	-1.325814387	0.934182701	18.03354152	0	11-1	0
11	9.6	R_Y	LinStatic	0	0	-1.325814387	0.934182701	30.76135964	0	11-1	9.6
11	9.6	R_Y	LinStatic	0	0	-0.325814387	27.9341827	30.76135964	0	11-2	0
11	29.4	R_Y	LinStatic	0	0	-0.325814387	27.9341827	37.21248451	0	11-2	19.8
11	49.2	R_Y	LinStatic	0	0	-0.325814387	27.9341827	43.66360937	0	11-2	39.6
11	69	R_Y	LinStatic	0	0	-0.325814387	27.9341827	50.11473424	0	11-2	59.4
11	88.8	R_Y	LinStatic	0	0	-0.325814387	27.9341827	56.5658591	0	11-2	79.2
11	108.6	R_Y	LinStatic	0	0	-0.325814387	27.9341827	63.01698397	0	11-2	99
11	108.6	R_Y	LinStatic	0	0	0.674185613	54.9341827	63.01698397	0	11-3	0
11	128.2	R_Y	LinStatic	0	0	0.674185613	54.9341827	49.80294596	0	11-3	19.6
11	147.8	R_Y	LinStatic	0	0	0.674185613	54.9341827	36.58890795	0	11-3	39.2

11	167.4	R_Y	LinStatic	0	0	0.674185613	54.9341827	23.37486994	0	11-3	58.8
11	187	R_Y	LinStatic	0	0	0.674185613	54.9341827	10.16083193	0	11-3	78.4
11	206.6	R_Y	LinStatic	0	0	0.674185613	54.9341827	-3.053206085	0	11-3	98
11	206.6	R_Y	LinStatic	0	0	1.674185613	81.9341827	-3.053206085	0	11-4	0
11	216	R_Y	LinStatic	0	0	1.674185613	81.9341827	-18.79055085	0	11-4	9.4
11	0	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	12.05393236	11-1	0
11	9.6	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	10.60713918	11-1	9.6
11	9.6	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	10.60713918	11-2	0
11	29.4	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	7.62312825	11-2	19.8
11	49.2	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	4.639117317	11-2	39.6
11	69	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	1.655106383	11-2	59.4
11	88.8	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-1.32890455	11-2	79.2
11	108.6	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-4.312915483	11-2	99
11	108.6	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-4.312915483	11-3	0
11	128.2	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-7.266784892	11-3	19.6
11	147.8	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-10.2206543	11-3	39.2
11	167.4	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-13.17452371	11-3	58.8
11	187	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-16.12839312	11-3	78.4
11	206.6	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-19.08226253	11-3	98
11	206.6	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-19.08226253	11-4	0
11	216	Cap_R_X	LinStatic	0.833111504	0.150707623	0	0	0	-20.49891418	11-4	9.4
11	0	Cap_w_Y	LinStatic	-0.270442618	-10.05162454	0	0	0	-332.8082194	11-1	0
11	9.6	Cap_w_Y	LinStatic	-0.270442618	-9.251624536	0	0	0	-240.1526239	11-1	9.6
11	9.6	Cap_w_Y	LinStatic	-0.270442618	-9.251624536	0	0	0	-240.1526239	11-2	0
11	29.4	Cap_w_Y	LinStatic	-0.270442618	-7.601624536	0	0	0	-73.30545806	11-2	19.8
11	49.2	Cap_w_Y	LinStatic	-0.270442618	-5.951624536	0	0	0	60.87170774	11-2	39.6
11	69	Cap_w_Y	LinStatic	-0.270442618	-4.301624536	0	0	0	162.3788735	11-2	59.4
11	88.8	Cap_w_Y	LinStatic	-0.270442618	-2.651624536	0	0	0	231.2160394	11-2	79.2
11	108.6	Cap_w_Y	LinStatic	-0.270442618	-1.001624536	0	0	0	267.3832052	11-2	99
11	108.6	Cap_w_Y	LinStatic	-0.270442618	-1.001624536	0	0	0	267.3832052	11-3	0
11	128.2	Cap_w_Y	LinStatic	-0.270442618	0.631708798	0	0	0	271.0083794	11-3	19.6
11	147.8	Cap_w_Y	LinStatic	-0.270442618	2.265042131	0	0	0	242.6202203	11-3	39.2
11	167.4	Cap_w_Y	LinStatic	-0.270442618	3.898375464	0	0	0	182.2187279	11-3	58.8
11	187	Cap_w_Y	LinStatic	-0.270442618	5.531708798	0	0	0	89.80390208	11-3	78.4
11	206.6	Cap_w_Y	LinStatic	-0.270442618	7.165042131	0	0	0	-34.62425702	11-3	98
11	206.6	Cap_w_Y	LinStatic	-0.270442618	7.165042131	0	0	0	-34.62425702	11-4	0
11	216	Cap_w_Y	LinStatic	-0.270442618	7.948375464	0	0	0	-105.6573197	11-4	9.4
11	0	Cap_w_Z	LinStatic	-0.270442618	-10.05162454	0	0	0	-332.8082194	11-1	0
11	9.6	Cap_w_Z	LinStatic	-0.270442618	-9.251624536	0	0	0	-240.1526239	11-1	9.6
11	9.6	Cap_w_Z	LinStatic	-0.270442618	-9.251624536	0	0	0	-240.1526239	11-2	0
11	29.4	Cap_w_Z	LinStatic	-0.270442618	-7.601624536	0	0	0	-73.30545806	11-2	19.8
11	49.2	Cap_w_Z	LinStatic	-0.270442618	-5.951624536	0	0	0	60.87170774	11-2	39.6

11	69	Cap_w_Z	LinStatic	-0.270442618	-4.301624536	0	0	0	162.3788735	11-2	59.4
11	88.8	Cap_w_Z	LinStatic	-0.270442618	-2.651624536	0	0	0	231.2160394	11-2	79.2
11	108.6	Cap_w_Z	LinStatic	-0.270442618	-1.001624536	0	0	0	267.3832052	11-2	99
11	108.6	Cap_w_Z	LinStatic	-0.270442618	-1.001624536	0	0	0	267.3832052	11-3	0
11	128.2	Cap_w_Z	LinStatic	-0.270442618	0.631708798	0	0	0	271.0083794	11-3	19.6
11	147.8	Cap_w_Z	LinStatic	-0.270442618	2.265042131	0	0	0	242.6202203	11-3	39.2
11	167.4	Cap_w_Z	LinStatic	-0.270442618	3.898375464	0	0	0	182.2187279	11-3	58.8
11	187	Cap_w_Z	LinStatic	-0.270442618	5.531708798	0	0	0	89.80390208	11-3	78.4
11	206.6	Cap_w_Z	LinStatic	-0.270442618	7.165042131	0	0	0	-34.62425702	11-3	98
11	206.6	Cap_w_Z	LinStatic	-0.270442618	7.165042131	0	0	0	-34.62425702	11-4	0
11	216	Cap_w_Z	LinStatic	-0.270442618	7.948375464	0	0	0	-105.6573197	11-4	9.4
11	0	Col_w_X	LinStatic	6.69873E-16	2.84217E-14	0	0	0	-7.95808E-13	11-1	0
11	9.6	Col_w_X	LinStatic	6.69873E-16	2.84217E-14	0	0	0	-1.06866E-12	11-1	9.6
11	9.6	Col_w_X	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-9.66338E-13	11-2	0
11	29.4	Col_w_X	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-7.90479E-13	11-2	19.8
11	49.2	Col_w_X	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-6.14619E-13	11-2	39.6
11	69	Col_w_X	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-4.3876E-13	11-2	59.4
11	88.8	Col_w_X	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-2.62901E-13	11-2	79.2
11	108.6	Col_w_X	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-8.70415E-14	11-2	99
11	108.6	Col_w_X	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	-2.27374E-13	11-3	0
11	128.2	Col_w_X	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	-8.81073E-14	11-3	19.6
11	147.8	Col_w_X	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	5.11591E-14	11-3	39.2
11	167.4	Col_w_X	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	1.90425E-13	11-3	58.8
11	187	Col_w_X	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	3.29692E-13	11-3	78.4
11	206.6	Col_w_X	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	4.68958E-13	11-3	98
11	206.6	Col_w_X	LinStatic	6.34459E-16	2.84217E-14	0	0	0	5.68434E-13	11-4	0
11	216	Col_w_X	LinStatic	6.34459E-16	2.84217E-14	0	0	0	3.0127E-13	11-4	9.4
11	0	Col_w_Y	LinStatic	6.69873E-16	2.84217E-14	0	0	0	-7.95808E-13	11-1	0
11	9.6	Col_w_Y	LinStatic	6.69873E-16	2.84217E-14	0	0	0	-1.06866E-12	11-1	9.6
11	9.6	Col_w_Y	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-9.66338E-13	11-2	0
11	29.4	Col_w_Y	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-7.90479E-13	11-2	19.8
11	49.2	Col_w_Y	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-6.14619E-13	11-2	39.6
11	69	Col_w_Y	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-4.3876E-13	11-2	59.4
11	88.8	Col_w_Y	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-2.62901E-13	11-2	79.2
11	108.6	Col_w_Y	LinStatic	6.67666E-16	-8.88178E-15	0	0	0	-8.70415E-14	11-2	99
11	108.6	Col_w_Y	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	-2.27374E-13	11-3	0
11	128.2	Col_w_Y	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	-8.81073E-14	11-3	19.6
11	147.8	Col_w_Y	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	5.11591E-14	11-3	39.2
11	167.4	Col_w_Y	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	1.90425E-13	11-3	58.8
11	187	Col_w_Y	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	3.29692E-13	11-3	78.4
11	206.6	Col_w_Y	LinStatic	6.67666E-16	-7.10543E-15	0	0	0	4.68958E-13	11-3	98
11	206.6	Col_w_Y	LinStatic	6.34459E-16	2.84217E-14	0	0	0	5.68434E-13	11-4	0

11	216	Col_w_Y	LinStatic	6.34459E-16	2.84217E-14	0	0	0	3.0127E-13	11-4	9.4
11	0	Cais_w_X	LinStatic	1.93233E-16	0	0	0	0	-2.84217E-13	11-1	0
11	9.6	Cais_w_X	LinStatic	1.93233E-16	0	0	0	0	-2.84217E-13	11-1	9.6
11	9.6	Cais_w_X	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-2.55795E-13	11-2	0
11	29.4	Cais_w_X	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-2.11831E-13	11-2	19.8
11	49.2	Cais_w_X	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-1.67866E-13	11-2	39.6
11	69	Cais_w_X	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-1.23901E-13	11-2	59.4
11	88.8	Cais_w_X	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-7.99361E-14	11-2	79.2
11	108.6	Cais_w_X	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-3.59712E-14	11-2	99
11	108.6	Cais_w_X	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	-4.26326E-14	11-3	0
11	128.2	Cais_w_X	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	-7.81597E-15	11-3	19.6
11	147.8	Cais_w_X	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	2.70006E-14	11-3	39.2
11	167.4	Cais_w_X	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	6.18172E-14	11-3	58.8
11	187	Cais_w_X	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	9.66338E-14	11-3	78.4
11	206.6	Cais_w_X	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	1.3145E-13	11-3	98
11	206.6	Cais_w_X	LinStatic	1.83276E-16	2.13163E-14	0	0	0	1.13687E-13	11-4	0
11	216	Cais_w_X	LinStatic	1.83276E-16	2.13163E-14	0	0	0	-8.66862E-14	11-4	9.4
11	0	Cais_w_Y	LinStatic	1.93233E-16	0	0	0	0	-2.84217E-13	11-1	0
11	9.6	Cais_w_Y	LinStatic	1.93233E-16	0	0	0	0	-2.84217E-13	11-1	9.6
11	9.6	Cais_w_Y	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-2.55795E-13	11-2	0
11	29.4	Cais_w_Y	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-2.11831E-13	11-2	19.8
11	49.2	Cais_w_Y	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-1.67866E-13	11-2	39.6
11	69	Cais_w_Y	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-1.23901E-13	11-2	59.4
11	88.8	Cais_w_Y	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-7.99361E-14	11-2	79.2
11	108.6	Cais_w_Y	LinStatic	1.91255E-16	-2.22045E-15	0	0	0	-3.59712E-14	11-2	99
11	108.6	Cais_w_Y	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	-4.26326E-14	11-3	0
11	128.2	Cais_w_Y	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	-7.81597E-15	11-3	19.6
11	147.8	Cais_w_Y	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	2.70006E-14	11-3	39.2
11	167.4	Cais_w_Y	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	6.18172E-14	11-3	58.8
11	187	Cais_w_Y	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	9.66338E-14	11-3	78.4
11	206.6	Cais_w_Y	LinStatic	1.91255E-16	-1.77636E-15	0	0	0	1.3145E-13	11-3	98
11	206.6	Cais_w_Y	LinStatic	1.83276E-16	2.13163E-14	0	0	0	1.13687E-13	11-4	0
11	216	Cais_w_Y	LinStatic	1.83276E-16	2.13163E-14	0	0	0	-8.66862E-14	11-4	9.4
11	0	DC	LinStatic	-6.069962083	-290.0530313	0	0	0	-6539.376998	11-1	0
11	9.6	DC	LinStatic	-6.069962083	-290.0530313	0	0	0	-3754.867897	11-1	9.6
11	9.6	DC	LinStatic	-6.069962083	-112.2530313	0	0	0	-3754.867897	11-2	0
11	29.4	DC	LinStatic	-6.069962083	-112.2530313	0	0	0	-1532.257878	11-2	19.8
11	49.2	DC	LinStatic	-6.069962083	-112.2530313	0	0	0	690.3521413	11-2	39.6
11	69	DC	LinStatic	-6.069962083	-112.2530313	0	0	0	2912.962161	11-2	59.4
11	88.8	DC	LinStatic	-6.069962083	-112.2530313	0	0	0	5135.57218	11-2	79.2
11	108.6	DC	LinStatic	-6.069962083	-112.2530313	0	0	0	7358.182199	11-2	99
11	108.6	DC	LinStatic	-6.069962083	65.54696872	0	0	0	7358.182199	11-3	0

11	128.2	DC	LinStatic	-6.069962083	65.54696872	0	0	0	6073.461612	11-3	19.6
11	147.8	DC	LinStatic	-6.069962083	65.54696872	0	0	0	4788.741026	11-3	39.2
11	167.4	DC	LinStatic	-6.069962083	65.54696872	0	0	0	3504.020439	11-3	58.8
11	187	DC	LinStatic	-6.069962083	65.54696872	0	0	0	2219.299852	11-3	78.4
11	206.6	DC	LinStatic	-6.069962083	65.54696872	0	0	0	934.5792648	11-3	98
11	206.6	DC	LinStatic	-6.069962083	224.4769687	0	0	0	934.5792648	11-4	0
11	216	DC	LinStatic	-6.069962083	224.4769687	0	0	0	-1175.504241	11-4	9.4
11	0	DW	LinStatic	-0.855626669	-41.4881625	0	0	0	-947.3490904	11-1	0
11	9.6	DW	LinStatic	-0.855626669	-41.4881625	0	0	0	-549.0627304	11-1	9.6
11	9.6	DW	LinStatic	-0.855626669	-16.1781625	0	0	0	-549.0627304	11-2	0
11	29.4	DW	LinStatic	-0.855626669	-16.1781625	0	0	0	-228.7351128	11-2	19.8
11	49.2	DW	LinStatic	-0.855626669	-16.1781625	0	0	0	91.59250482	11-2	39.6
11	69	DW	LinStatic	-0.855626669	-16.1781625	0	0	0	411.9201224	11-2	59.4
11	88.8	DW	LinStatic	-0.855626669	-16.1781625	0	0	0	732.24774	11-2	79.2
11	108.6	DW	LinStatic	-0.855626669	-16.1781625	0	0	0	1052.575358	11-2	99
11	108.6	DW	LinStatic	-0.855626669	9.131837495	0	0	0	1052.575358	11-3	0
11	128.2	DW	LinStatic	-0.855626669	9.131837495	0	0	0	873.5913427	11-3	19.6
11	147.8	DW	LinStatic	-0.855626669	9.131837495	0	0	0	694.6073278	11-3	39.2
11	167.4	DW	LinStatic	-0.855626669	9.131837495	0	0	0	515.6233129	11-3	58.8
11	187	DW	LinStatic	-0.855626669	9.131837495	0	0	0	336.639298	11-3	78.4
11	206.6	DW	LinStatic	-0.855626669	9.131837495	0	0	0	157.6552831	11-3	98
11	206.6	DW	LinStatic	-0.855626669	34.4418375	0	0	0	157.6552831	11-4	0
11	216	DW	LinStatic	-0.855626669	34.4418375	0	0	0	-166.0979894	11-4	9.4
11	0	WS3	LinStatic	-2.0698195	33.40448647	1.869398286	-1.317197609	-25.42729355	506.1074737	11-1	0
11	9.6	WS3	LinStatic	-2.0698195	33.40448647	1.869398286	-1.317197609	-43.37351709	185.4244036	11-1	9.6
11	9.6	WS3	LinStatic	0.6301805	10.68448647	0.459398286	-39.38719761	-43.37351709	112.5244036	11-2	0
11	29.4	WS3	LinStatic	0.6301805	10.68448647	0.459398286	-39.38719761	-52.46960315	-99.0284285	11-2	19.8
11	49.2	WS3	LinStatic	0.6301805	10.68448647	0.459398286	-39.38719761	-61.56568921	-310.5812606	11-2	39.6
11	69	WS3	LinStatic	0.6301805	10.68448647	0.459398286	-39.38719761	-70.66177528	-522.1340927	11-2	59.4
11	88.8	WS3	LinStatic	0.6301805	10.68448647	0.459398286	-39.38719761	-79.75786134	-733.6869248	11-2	79.2
11	108.6	WS3	LinStatic	0.6301805	10.68448647	0.459398286	-39.38719761	-88.8539474	-945.2397568	11-2	99
11	108.6	WS3	LinStatic	3.3301805	-15.07551353	-0.950601714	-77.45719761	-88.8539474	-1018.139757	11-3	0
11	128.2	WS3	LinStatic	3.3301805	-15.07551353	-0.950601714	-77.45719761	-70.2221538	-722.6596916	11-3	19.6
11	147.8	WS3	LinStatic	3.3301805	-15.07551353	-0.950601714	-77.45719761	-51.59036021	-427.1796264	11-3	39.2
11	167.4	WS3	LinStatic	3.3301805	-15.07551353	-0.950601714	-77.45719761	-32.95856661	-131.6995612	11-3	58.8
11	187	WS3	LinStatic	3.3301805	-15.07551353	-0.950601714	-77.45719761	-14.32677302	163.780504	11-3	78.4
11	206.6	WS3	LinStatic	3.3301805	-15.07551353	-0.950601714	-77.45719761	4.30502058	459.2605692	11-3	98
11	206.6	WS3	LinStatic	6.0301805	-43.86551353	-2.360601714	-115.5271976	4.30502058	386.3605692	11-4	0
11	216	WS3	LinStatic	6.0301805	-43.86551353	-2.360601714	-115.5271976	26.49467669	798.6963964	11-4	9.4
11	0	WL5	LinStatic	-0.738886649	-0.788991641	0.58335833	-0.411040388	-7.93475827	-76.37219824	11-1	0
11	9.6	WL5	LinStatic	-0.738886649	-0.788991641	0.58335833	-0.411040388	-13.53499824	-68.79787849	11-1	9.6
11	9.6	WL5	LinStatic	-0.048886649	-1.138991641	0.14335833	-12.29104039	-13.53499824	-87.42787849	11-2	0

11	29.4	WL5	LinStatic	-0.048886649	-1.138991641	0.14335833	-12.29104039	-16.37349318	-64.87584399	11-2	19.8
11	49.2	WL5	LinStatic	-0.048886649	-1.138991641	0.14335833	-12.29104039	-19.21198812	-42.3238095	11-2	39.6
11	69	WL5	LinStatic	-0.048886649	-1.138991641	0.14335833	-12.29104039	-22.05048306	-19.77177501	11-2	59.4
11	88.8	WL5	LinStatic	-0.048886649	-1.138991641	0.14335833	-12.29104039	-24.88897801	2.780259485	11-2	79.2
11	108.6	WL5	LinStatic	-0.048886649	-1.138991641	0.14335833	-12.29104039	-27.72747295	25.33229398	11-2	99
11	108.6	WL5	LinStatic	0.641113351	-1.588991641	-0.29664167	-24.17104039	-27.72747295	6.702293978	11-3	0
11	128.2	WL5	LinStatic	0.641113351	-1.588991641	-0.29664167	-24.17104039	-21.91329622	37.84653014	11-3	19.6
11	147.8	WL5	LinStatic	0.641113351	-1.588991641	-0.29664167	-24.17104039	-16.0991195	68.99076631	11-3	39.2
11	167.4	WL5	LinStatic	0.641113351	-1.588991641	-0.29664167	-24.17104039	-10.28494277	100.1350025	11-3	58.8
11	187	WL5	LinStatic	0.641113351	-1.588991641	-0.29664167	-24.17104039	-4.470766048	131.2792386	11-3	78.4
11	206.6	WL5	LinStatic	0.641113351	-1.588991641	-0.29664167	-24.17104039	1.343410677	162.4234748	11-3	98
11	206.6	WL5	LinStatic	1.331113351	-2.138991641	-0.73664167	-36.05104039	1.343410677	143.7934748	11-4	0
11	216	WL5	LinStatic	1.331113351	-2.138991641	-0.73664167	-36.05104039	8.267842372	163.8999962	11-4	9.4
11	0	PL	LinStatic	-0.282955165	-13.72010747	0	0	0	-313.2877079	11-1	0
11	9.6	PL	LinStatic	-0.282955165	-13.72010747	0	0	0	-181.5746761	11-1	9.6
11	9.6	PL	LinStatic	-0.282955165	-5.350107474	0	0	0	-181.5746761	11-2	0
11	29.4	PL	LinStatic	-0.282955165	-5.350107474	0	0	0	-75.64254816	11-2	19.8
11	49.2	PL	LinStatic	-0.282955165	-5.350107474	0	0	0	30.28957982	11-2	39.6
11	69	PL	LinStatic	-0.282955165	-5.350107474	0	0	0	136.2217078	11-2	59.4
11	88.8	PL	LinStatic	-0.282955165	-5.350107474	0	0	0	242.1538358	11-2	79.2
11	108.6	PL	LinStatic	-0.282955165	-5.350107474	0	0	0	348.0859638	11-2	99
11	108.6	PL	LinStatic	-0.282955165	3.019892526	0	0	0	348.0859638	11-3	0
11	128.2	PL	LinStatic	-0.282955165	3.019892526	0	0	0	288.8960703	11-3	19.6
11	147.8	PL	LinStatic	-0.282955165	3.019892526	0	0	0	229.7061767	11-3	39.2
11	167.4	PL	LinStatic	-0.282955165	3.019892526	0	0	0	170.5162832	11-3	58.8
11	187	PL	LinStatic	-0.282955165	3.019892526	0	0	0	111.3263897	11-3	78.4
11	206.6	PL	LinStatic	-0.282955165	3.019892526	0	0	0	52.13649621	11-3	98
11	206.6	PL	LinStatic	-0.282955165	11.38989253	0	0	0	52.13649621	11-4	0
11	216	PL	LinStatic	-0.282955165	11.38989253	0	0	0	-54.92849353	11-4	9.4
11	0	LL-1 Lane	LinStatic	0.453848229	14.30793046	0	0	0	261.1867853	11-1	0
11	9.6	LL-1 Lane	LinStatic	0.453848229	14.30793046	0	0	0	123.8306529	11-1	9.6
11	9.6	LL-1 Lane	LinStatic	0.453848229	7.677930458	0	0	0	123.8306529	11-2	0
11	29.4	LL-1 Lane	LinStatic	0.453848229	7.677930458	0	0	0	-28.19237019	11-2	19.8
11	49.2	LL-1 Lane	LinStatic	0.453848229	7.677930458	0	0	0	-180.2153933	11-2	39.6
11	69	LL-1 Lane	LinStatic	0.453848229	7.677930458	0	0	0	-332.2384163	11-2	59.4
11	88.8	LL-1 Lane	LinStatic	0.453848229	7.677930458	0	0	0	-484.2614394	11-2	79.2
11	108.6	LL-1 Lane	LinStatic	0.453848229	7.677930458	0	0	0	-636.2844625	11-2	99
11	108.6	LL-1 Lane	LinStatic	0.453848229	-5.052069542	0	0	0	-636.2844625	11-3	0
11	128.2	LL-1 Lane	LinStatic	0.453848229	-5.052069542	0	0	0	-537.2638995	11-3	19.6
11	147.8	LL-1 Lane	LinStatic	0.453848229	-5.052069542	0	0	0	-438.2433364	11-3	39.2
11	167.4	LL-1 Lane	LinStatic	0.453848229	-5.052069542	0	0	0	-339.2227734	11-3	58.8
11	187	LL-1 Lane	LinStatic	0.453848229	-5.052069542	0	0	0	-240.2022104	11-3	78.4

11	206.6	LL-1 Lane	LinStatic	0.453848229	-5.052069542	0	0	0	-141.1816474	11-3	98
11	206.6	LL-1 Lane	LinStatic	0.453848229	-23.87206954	0	0	0	-141.1816474	11-4	0
11	216	LL-1 Lane	LinStatic	0.453848229	-23.87206954	0	0	0	83.2158063	11-4	9.4
11	0	LL-2 Lane	LinStatic	0.521296198	14.3530749	0	0	0	234.6996951	11-1	0
11	9.6	LL-2 Lane	LinStatic	0.521296198	14.3530749	0	0	0	96.91017607	11-1	9.6
11	9.6	LL-2 Lane	LinStatic	0.521296198	8.573074897	0	0	0	96.91017607	11-2	0
11	29.4	LL-2 Lane	LinStatic	0.521296198	8.573074897	0	0	0	-72.83670689	11-2	19.8
11	49.2	LL-2 Lane	LinStatic	0.521296198	8.573074897	0	0	0	-242.5835899	11-2	39.6
11	69	LL-2 Lane	LinStatic	0.521296198	8.573074897	0	0	0	-412.3304728	11-2	59.4
11	88.8	LL-2 Lane	LinStatic	0.521296198	8.573074897	0	0	0	-582.0773558	11-2	79.2
11	108.6	LL-2 Lane	LinStatic	0.521296198	8.573074897	0	0	0	-751.8242387	11-2	99
11	108.6	LL-2 Lane	LinStatic	0.521296198	-5.856925103	0	0	0	-751.8242387	11-3	0
11	128.2	LL-2 Lane	LinStatic	0.521296198	-5.856925103	0	0	0	-637.0285067	11-3	19.6
11	147.8	LL-2 Lane	LinStatic	0.521296198	-5.856925103	0	0	0	-522.2327747	11-3	39.2
11	167.4	LL-2 Lane	LinStatic	0.521296198	-5.856925103	0	0	0	-407.4370427	11-3	58.8
11	187	LL-2 Lane	LinStatic	0.521296198	-5.856925103	0	0	0	-292.6413107	11-3	78.4
11	206.6	LL-2 Lane	LinStatic	0.521296198	-5.856925103	0	0	0	-177.8455786	11-3	98
11	206.6	LL-2 Lane	LinStatic	0.521296198	-28.9469251	0	0	0	-177.8455786	11-4	0
11	216	LL-2 Lane	LinStatic	0.521296198	-28.9469251	0	0	0	94.25551734	11-4	9.4
11	0	LL-3 Lane	LinStatic	0.365205739	6.20346841	0	0	0	43.67846858	11-1	0
11	9.6	LL-3 Lane	LinStatic	0.365205739	6.20346841	0	0	0	-15.87482816	11-1	9.6
11	9.6	LL-3 Lane	LinStatic	0.365205739	5.55346841	0	0	0	-15.87482816	11-2	0
11	29.4	LL-3 Lane	LinStatic	0.365205739	5.55346841	0	0	0	-125.8335027	11-2	19.8
11	49.2	LL-3 Lane	LinStatic	0.365205739	5.55346841	0	0	0	-235.7921772	11-2	39.6
11	69	LL-3 Lane	LinStatic	0.365205739	5.55346841	0	0	0	-345.7508517	11-2	59.4
11	88.8	LL-3 Lane	LinStatic	0.365205739	5.55346841	0	0	0	-455.7095263	11-2	79.2
11	108.6	LL-3 Lane	LinStatic	0.365205739	5.55346841	0	0	0	-565.6682008	11-2	99
11	108.6	LL-3 Lane	LinStatic	0.365205739	-4.20653159	0	0	0	-565.6682008	11-3	0
11	128.2	LL-3 Lane	LinStatic	0.365205739	-4.20653159	0	0	0	-483.2201816	11-3	19.6
11	147.8	LL-3 Lane	LinStatic	0.365205739	-4.20653159	0	0	0	-400.7721625	11-3	39.2
11	167.4	LL-3 Lane	LinStatic	0.365205739	-4.20653159	0	0	0	-318.3241433	11-3	58.8
11	187	LL-3 Lane	LinStatic	0.365205739	-4.20653159	0	0	0	-235.8761242	11-3	78.4
11	206.6	LL-3 Lane	LinStatic	0.365205739	-4.20653159	0	0	0	-153.428105	11-3	98
11	206.6	LL-3 Lane	LinStatic	0.365205739	-23.08653159	0	0	0	-153.428105	11-4	0
11	216	LL-3 Lane	LinStatic	0.365205739	-23.08653159	0	0	0	63.58529191	11-4	9.4
11	0	LL-7 Lane	LinStatic	-1.485332852	-75.26493989	0	0	0	-1746.199653	11-1	0
11	9.6	LL-7 Lane	LinStatic	-1.485332852	-75.26493989	0	0	0	-1023.65623	11-1	9.6
11	9.6	LL-7 Lane	LinStatic	-1.485332852	-28.46493989	0	0	0	-1023.65623	11-2	0
11	29.4	LL-7 Lane	LinStatic	-1.485332852	-28.46493989	0	0	0	-460.0504199	11-2	19.8
11	49.2	LL-7 Lane	LinStatic	-1.485332852	-28.46493989	0	0	0	103.5553899	11-2	39.6
11	69	LL-7 Lane	LinStatic	-1.485332852	-28.46493989	0	0	0	667.1611998	11-2	59.4
11	88.8	LL-7 Lane	LinStatic	-1.485332852	-28.46493989	0	0	0	1230.76701	11-2	79.2

11	108.6	LL-7 Lane	LinStatic	-1.485332852	-28.46493989	0	0	0	1794.37282	11-2	99
11	108.6	LL-7 Lane	LinStatic	-1.485332852	15.76506011	0	0	0	1794.37282	11-3	0
11	128.2	LL-7 Lane	LinStatic	-1.485332852	15.76506011	0	0	0	1485.377642	11-3	19.6
11	147.8	LL-7 Lane	LinStatic	-1.485332852	15.76506011	0	0	0	1176.382463	11-3	39.2
11	167.4	LL-7 Lane	LinStatic	-1.485332852	15.76506011	0	0	0	867.3872853	11-3	58.8
11	187	LL-7 Lane	LinStatic	-1.485332852	15.76506011	0	0	0	558.3921072	11-3	78.4
11	206.6	LL-7 Lane	LinStatic	-1.485332852	15.76506011	0	0	0	249.3969291	11-3	98
11	206.6	LL-7 Lane	LinStatic	-1.485332852	57.42506011	0	0	0	249.3969291	11-4	0
11	216	LL-7 Lane	LinStatic	-1.485332852	57.42506011	0	0	0	-290.3986359	11-4	9.4
11	0	CE-1 Lane	LinStatic	-2.306732133	-2.213293468	0.901553783	-0.635244237	-12.26280824	-233.7786149	11-1	0
11	9.6	CE-1 Lane	LinStatic	-2.306732133	-2.213293468	0.901553783	-0.635244237	-20.91772456	-212.5309976	11-1	9.6
11	9.6	CE-1 Lane	LinStatic	-0.146732133	-3.453293468	0.221553783	-18.99524424	-20.91772456	-270.8509976	11-2	0
11	29.4	CE-1 Lane	LinStatic	-0.146732133	-3.453293468	0.221553783	-18.99524424	-25.30448946	-202.4757869	11-2	19.8
11	49.2	CE-1 Lane	LinStatic	-0.146732133	-3.453293468	0.221553783	-18.99524424	-29.69125437	-134.1005762	11-2	39.6
11	69	CE-1 Lane	LinStatic	-0.146732133	-3.453293468	0.221553783	-18.99524424	-34.07801928	-65.72536557	11-2	59.4
11	88.8	CE-1 Lane	LinStatic	-0.146732133	-3.453293468	0.221553783	-18.99524424	-38.46478419	2.64984509	11-2	79.2
11	108.6	CE-1 Lane	LinStatic	-0.146732133	-3.453293468	0.221553783	-18.99524424	-42.8515491	71.02505575	11-2	99
11	108.6	CE-1 Lane	LinStatic	2.013267867	-5.043293468	-0.458446217	-37.35524424	-42.8515491	12.70505575	11-3	0
11	128.2	CE-1 Lane	LinStatic	2.013267867	-5.043293468	-0.458446217	-37.35524424	-33.86600325	111.5536077	11-3	19.6
11	147.8	CE-1 Lane	LinStatic	2.013267867	-5.043293468	-0.458446217	-37.35524424	-24.88045741	210.4021597	11-3	39.2
11	167.4	CE-1 Lane	LinStatic	2.013267867	-5.043293468	-0.458446217	-37.35524424	-15.89491156	309.2507117	11-3	58.8
11	187	CE-1 Lane	LinStatic	2.013267867	-5.043293468	-0.458446217	-37.35524424	-6.90936571	408.0992636	11-3	78.4
11	206.6	CE-1 Lane	LinStatic	2.013267867	-5.043293468	-0.458446217	-37.35524424	2.076180138	506.9478156	11-3	98
11	206.6	CE-1 Lane	LinStatic	4.173267867	-6.983293468	-1.138446217	-55.71524424	2.076180138	448.6278156	11-4	0
11	216	CE-1 Lane	LinStatic	4.173267867	-6.983293468	-1.138446217	-55.71524424	12.77757457	514.2707742	11-4	9.4
11	0	CE-2 Lane	LinStatic	-3.844587262	-3.694573747	1.511428401	-1.064968279	-20.55823734	-389.5688055	11-1	0
11	9.6	CE-2 Lane	LinStatic	-3.844587262	-3.694573747	1.511428401	-1.064968279	-35.06794999	-354.1008975	11-1	9.6
11	9.6	CE-2 Lane	LinStatic	-0.244587262	-5.754573747	0.371428401	-31.84496828	-35.06794999	-451.3008975	11-2	0
11	29.4	CE-2 Lane	LinStatic	-0.244587262	-5.754573747	0.371428401	-31.84496828	-42.42223234	-337.3603373	11-2	19.8
11	49.2	CE-2 Lane	LinStatic	-0.244587262	-5.754573747	0.371428401	-31.84496828	-49.77651468	-223.4197771	11-2	39.6
11	69	CE-2 Lane	LinStatic	-0.244587262	-5.754573747	0.371428401	-31.84496828	-57.13079703	-109.4792169	11-2	59.4
11	88.8	CE-2 Lane	LinStatic	-0.244587262	-5.754573747	0.371428401	-31.84496828	-64.48507938	4.461343258	11-2	79.2
11	108.6	CE-2 Lane	LinStatic	-0.244587262	-5.754573747	0.371428401	-31.84496828	-71.83936173	118.4019035	11-2	99
11	108.6	CE-2 Lane	LinStatic	3.355412738	-8.404573747	-0.768571599	-62.62496828	-71.83936173	21.20190345	11-3	0
11	128.2	CE-2 Lane	LinStatic	3.355412738	-8.404573747	-0.768571599	-62.62496828	-56.77535839	185.9315489	11-3	19.6
11	147.8	CE-2 Lane	LinStatic	3.355412738	-8.404573747	-0.768571599	-62.62496828	-41.71135506	350.6611943	11-3	39.2
11	167.4	CE-2 Lane	LinStatic	3.355412738	-8.404573747	-0.768571599	-62.62496828	-26.64735173	515.3908398	11-3	58.8
11	187	CE-2 Lane	LinStatic	3.355412738	-8.404573747	-0.768571599	-62.62496828	-11.5833484	680.1204852	11-3	78.4
11	206.6	CE-2 Lane	LinStatic	3.355412738	-8.404573747	-0.768571599	-62.62496828	3.480654937	844.8501307	11-3	98
11	206.6	CE-2 Lane	LinStatic	6.955412738	-11.64457375	-1.908571599	-93.40496828	3.480654937	747.6501307	11-4	0
11	216	CE-2 Lane	LinStatic	6.955412738	-11.64457375	-1.908571599	-93.40496828	21.42122796	857.1091239	11-4	9.4
11	0	CE-3 Lane	LinStatic	-4.899937695	-5.296552105	1.922430861	-1.354564917	-26.14863521	-545.6179111	11-1	0

11	9.6	CE-3 Lane	LinStatic	-4.899937695	-5.296552105	1.922430861	-1.354564917	-44.60397148	-494.7710109	11-1	9.6
11	9.6	CE-3 Lane	LinStatic	-0.309937695	-7.926552105	0.472430861	-40.50456492	-44.60397148	-618.7010109	11-2	0
11	29.4	CE-3 Lane	LinStatic	-0.309937695	-7.926552105	0.472430861	-40.50456492	-53.95810253	-461.7552793	11-2	19.8
11	49.2	CE-3 Lane	LinStatic	-0.309937695	-7.926552105	0.472430861	-40.50456492	-63.31223359	-304.8095476	11-2	39.6
11	69	CE-3 Lane	LinStatic	-0.309937695	-7.926552105	0.472430861	-40.50456492	-72.66636465	-147.8638159	11-2	59.4
11	88.8	CE-3 Lane	LinStatic	-0.309937695	-7.926552105	0.472430861	-40.50456492	-82.0204957	9.081915793	11-2	79.2
11	108.6	CE-3 Lane	LinStatic	-0.309937695	-7.926552105	0.472430861	-40.50456492	-91.37462676	166.0276475	11-2	99
11	108.6	CE-3 Lane	LinStatic	4.280062305	-11.30655211	-0.977569139	-79.65456492	-91.37462676	42.09764748	11-3	0
11	128.2	CE-3 Lane	LinStatic	4.280062305	-11.30655211	-0.977569139	-79.65456492	-72.21427164	263.7060687	11-3	19.6
11	147.8	CE-3 Lane	LinStatic	4.280062305	-11.30655211	-0.977569139	-79.65456492	-53.05391653	485.31449	11-3	39.2
11	167.4	CE-3 Lane	LinStatic	4.280062305	-11.30655211	-0.977569139	-79.65456492	-33.89356141	706.9229113	11-3	58.8
11	187	CE-3 Lane	LinStatic	4.280062305	-11.30655211	-0.977569139	-79.65456492	-14.73320629	928.5313325	11-3	78.4
11	206.6	CE-3 Lane	LinStatic	4.280062305	-11.30655211	-0.977569139	-79.65456492	4.427148823	1150.139754	11-3	98
11	206.6	CE-3 Lane	LinStatic	8.870062305	-7.176552105	-2.427569139	-118.8045649	4.427148823	1026.209754	11-4	0
11	216	CE-3 Lane	LinStatic	8.870062305	-7.176552105	-2.427569139	-118.8045649	27.24629873	1093.669344	11-4	9.4
11	0	CE-7 Lane	LinStatic	-8.746420143	-8.40130574	3.420601119	-2.410191369	-46.52653713	-886.1836801	11-1	0
11	9.6	CE-7 Lane	LinStatic	-8.746420143	-8.40130574	3.420601119	-2.410191369	-79.36430787	-805.531145	11-1	9.6
11	9.6	CE-7 Lane	LinStatic	-0.556420143	-13.09130574	0.840601119	-72.07019137	-79.36430787	-1026.661145	11-2	0
11	29.4	CE-7 Lane	LinStatic	-0.556420143	-13.09130574	0.840601119	-72.07019137	-96.00821003	-767.4532914	11-2	19.8
11	49.2	CE-7 Lane	LinStatic	-0.556420143	-13.09130574	0.840601119	-72.07019137	-112.6521122	-508.2454377	11-2	39.6
11	69	CE-7 Lane	LinStatic	-0.556420143	-13.09130574	0.840601119	-72.07019137	-129.2960143	-249.037584	11-2	59.4
11	88.8	CE-7 Lane	LinStatic	-0.556420143	-13.09130574	0.840601119	-72.07019137	-145.9399165	10.17026961	11-2	79.2
11	108.6	CE-7 Lane	LinStatic	-0.556420143	-13.09130574	0.840601119	-72.07019137	-162.5838186	269.3781233	11-2	99
11	108.6	CE-7 Lane	LinStatic	7.633579857	-19.12130574	-1.739398881	-141.7301914	-162.5838186	48.24812327	11-3	0
11	128.2	CE-7 Lane	LinStatic	7.633579857	-19.12130574	-1.739398881	-141.7301914	-128.4916006	423.0257158	11-3	19.6
11	147.8	CE-7 Lane	LinStatic	7.633579857	-19.12130574	-1.739398881	-141.7301914	-94.39938251	797.8033083	11-3	39.2
11	167.4	CE-7 Lane	LinStatic	7.633579857	-19.12130574	-1.739398881	-141.7301914	-60.30716444	1172.580901	11-3	58.8
11	187	CE-7 Lane	LinStatic	7.633579857	-19.12130574	-1.739398881	-141.7301914	-26.21494637	1547.358493	11-3	78.4
11	206.6	CE-7 Lane	LinStatic	7.633579857	-19.12130574	-1.739398881	-141.7301914	7.877271699	1922.136086	11-3	98
11	206.6	CE-7 Lane	LinStatic	15.82357986	-26.48130574	-4.319398881	-211.3901914	7.877271699	1701.006086	11-4	0
11	216	CE-7 Lane	LinStatic	15.82357986	-26.48130574	-4.319398881	-211.3901914	48.47962118	1949.93036	11-4	9.4
11	0	BR-1 Lane	LinStatic	-0.798223359	-1.501385122	3.062631234	-2.15796204	-41.65748092	-94.8865014	11-1	0
11	9.6	BR-1 Lane	LinStatic	-0.798223359	-1.501385122	3.062631234	-2.15796204	-71.05874077	-80.47320423	11-1	9.6
11	9.6	BR-1 Lane	LinStatic	-0.068223359	-1.501385122	0.752631234	-64.52796204	-71.05874077	-100.1832042	11-2	0
11	29.4	BR-1 Lane	LinStatic	-0.068223359	-1.501385122	0.752631234	-64.52796204	-85.96083921	-70.45577881	11-2	19.8
11	49.2	BR-1 Lane	LinStatic	-0.068223359	-1.501385122	0.752631234	-64.52796204	-100.8629376	-40.7283534	11-2	39.6
11	69	BR-1 Lane	LinStatic	-0.068223359	-1.501385122	0.752631234	-64.52796204	-115.7650361	-11.00092798	11-2	59.4
11	88.8	BR-1 Lane	LinStatic	-0.068223359	-1.501385122	0.752631234	-64.52796204	-130.6671345	18.72649743	11-2	79.2
11	108.6	BR-1 Lane	LinStatic	-0.068223359	-1.501385122	0.752631234	-64.52796204	-145.569233	48.45392285	11-2	99
11	108.6	BR-1 Lane	LinStatic	0.661776641	-1.501385122	-1.557368766	-126.897962	-145.569233	28.74392285	11-3	0
11	128.2	BR-1 Lane	LinStatic	0.661776641	-1.501385122	-1.557368766	-126.897962	-115.0448052	58.17107124	11-3	19.6
11	147.8	BR-1 Lane	LinStatic	0.661776641	-1.501385122	-1.557368766	-126.897962	-84.52037736	87.59821963	11-3	39.2

11	167.4	BR-1 Lane	LinStatic	0.661776641	-1.501385122	-1.557368766	-126.897962	-53.99594956	117.025368	11-3		58.8
11	187	BR-1 Lane	LinStatic	0.661776641	-1.501385122	-1.557368766	-126.897962	-23.47152175	146.4525164	11-3		78.4
11	206.6	BR-1 Lane	LinStatic	0.661776641	-1.501385122	-1.557368766	-126.897962	7.052906056	175.8796648	11-3		98
11	206.6	BR-1 Lane	LinStatic	1.391776641	-1.501385122	-3.867368766	-189.267962	7.052906056	156.1696648	11-4		0
11	216	BR-1 Lane	LinStatic	1.391776641	-1.501385122	-3.867368766	-189.267962	43.40617245	170.282685	11-4		9.4
11	0	BR-2 Lane	LinStatic	-1.323082554	-2.488597257	5.091127247	-3.587261572	-69.24879945	-157.2776256	11-1		0
11	9.6	BR-2 Lane	LinStatic	-1.323082554	-2.488597257	5.091127247	-3.587261572	-118.123621	-133.3870919	11-1		9.6
11	9.6	BR-2 Lane	LinStatic	-0.113082554	-2.488597257	1.251127247	-107.2672616	-118.123621	-166.0570919	11-2		0
11	29.4	BR-2 Lane	LinStatic	-0.113082554	-2.488597257	1.251127247	-107.2672616	-142.8959405	-116.7828663	11-2		19.8
11	49.2	BR-2 Lane	LinStatic	-0.113082554	-2.488597257	1.251127247	-107.2672616	-167.66826	-67.50864056	11-2		39.6
11	69	BR-2 Lane	LinStatic	-0.113082554	-2.488597257	1.251127247	-107.2672616	-192.4405795	-18.23441487	11-2		59.4
11	88.8	BR-2 Lane	LinStatic	-0.113082554	-2.488597257	1.251127247	-107.2672616	-217.212899	31.03981082	11-2		79.2
11	108.6	BR-2 Lane	LinStatic	-0.113082554	-2.488597257	1.251127247	-107.2672616	-241.9852184	80.31403651	11-2		99
11	108.6	BR-2 Lane	LinStatic	1.096917446	-2.488597257	-2.588872753	-210.9472616	-241.9852184	47.64403651	11-3		0
11	128.2	BR-2 Lane	LinStatic	1.096917446	-2.488597257	-2.588872753	-210.9472616	-191.2433125	96.42054274	11-3		19.6
11	147.8	BR-2 Lane	LinStatic	1.096917446	-2.488597257	-2.588872753	-210.9472616	-140.5014065	145.197049	11-3		39.2
11	167.4	BR-2 Lane	LinStatic	1.096917446	-2.488597257	-2.588872753	-210.9472616	-89.75950056	193.9735552	11-3		58.8
11	187	BR-2 Lane	LinStatic	1.096917446	-2.488597257	-2.588872753	-210.9472616	-39.0175946	242.7500615	11-3		78.4
11	206.6	BR-2 Lane	LinStatic	1.096917446	-2.488597257	-2.588872753	-210.9472616	11.72431137	291.5265677	11-3		98
11	206.6	BR-2 Lane	LinStatic	2.306917446	-2.488597257	-6.428872753	-314.6272616	11.72431137	258.8565677	11-4		0
11	216	BR-2 Lane	LinStatic	2.306917446	-2.488597257	-6.428872753	-314.6272616	72.15571525	282.2493819	11-4		9.4
11	0	BR-3 Lane	LinStatic	-1.694857817	-3.187872519	6.496490497	-4.577495235	-88.36435346	-201.4713386	11-1		0
11	9.6	BR-3 Lane	LinStatic	-1.694857817	-3.187872519	6.496490497	-4.577495235	-150.7306622	-170.8677624	11-1		9.6
11	9.6	BR-3 Lane	LinStatic	-0.144857817	-3.187872519	1.596490497	-136.8774952	-150.7306622	-212.7177624	11-2		0
11	29.4	BR-3 Lane	LinStatic	-0.144857817	-3.187872519	1.596490497	-136.8774952	-182.3411741	-149.5978865	11-2		19.8
11	49.2	BR-3 Lane	LinStatic	-0.144857817	-3.187872519	1.596490497	-136.8774952	-213.9516859	-86.47801064	11-2		39.6
11	69	BR-3 Lane	LinStatic	-0.144857817	-3.187872519	1.596490497	-136.8774952	-245.5621978	-23.35813475	11-2		59.4
11	88.8	BR-3 Lane	LinStatic	-0.144857817	-3.187872519	1.596490497	-136.8774952	-277.1727096	39.76174113	11-2		79.2
11	108.6	BR-3 Lane	LinStatic	-0.144857817	-3.187872519	1.596490497	-136.8774952	-308.7832215	102.881617	11-2		99
11	108.6	BR-3 Lane	LinStatic	1.405142183	-3.187872519	-3.303509503	-269.1774952	-308.7832215	61.03161701	11-3		0
11	128.2	BR-3 Lane	LinStatic	1.405142183	-3.187872519	-3.303509503	-269.1774952	-244.0344352	123.5139184	11-3		19.6
11	147.8	BR-3 Lane	LinStatic	1.405142183	-3.187872519	-3.303509503	-269.1774952	-179.2856489	185.9962198	11-3		39.2
11	167.4	BR-3 Lane	LinStatic	1.405142183	-3.187872519	-3.303509503	-269.1774952	-114.5368627	248.4785211	11-3		58.8
11	187	BR-3 Lane	LinStatic	1.405142183	-3.187872519	-3.303509503	-269.1774952	-49.78807644	310.9608225	11-3		78.4
11	206.6	BR-3 Lane	LinStatic	1.405142183	-3.187872519	-3.303509503	-269.1774952	14.96070982	373.4431239	11-3		98
11	206.6	BR-3 Lane	LinStatic	2.955142183	-3.187872519	-8.203509503	-401.4774952	14.96070982	331.5931239	11-4		0
11	216	BR-3 Lane	LinStatic	2.955142183	-3.187872519	-8.203509503	-401.4774952	92.07369914	361.5591256	11-4		9.4
11	0	BR-7 Lane	LinStatic	-3.017940371	-5.676469776	11.58761774	-8.164756808	-157.6131529	-358.7489642	11-1		0
11	9.6	BR-7 Lane	LinStatic	-3.017940371	-5.676469776	11.58761774	-8.164756808	-268.8542833	-304.2548543	11-1		9.6
11	9.6	BR-7 Lane	LinStatic	-0.257940371	-5.676469776	2.847617744	-244.1447568	-268.8542833	-378.7748543	11-2		0
11	29.4	BR-7 Lane	LinStatic	-0.257940371	-5.676469776	2.847617744	-244.1447568	-325.2371146	-266.3807528	11-2		19.8
11	49.2	BR-7 Lane	LinStatic	-0.257940371	-5.676469776	2.847617744	-244.1447568	-381.6199459	-153.9866512	11-2		39.6

11	69	BR-7 Lane	LinStatic	-0.257940371	-5.676469776	2.847617744	-244.1447568	-438.0027772	-41.59254963	11-2	59.4
11	88.8	BR-7 Lane	LinStatic	-0.257940371	-5.676469776	2.847617744	-244.1447568	-494.3856086	70.80155195	11-2	79.2
11	108.6	BR-7 Lane	LinStatic	-0.257940371	-5.676469776	2.847617744	-244.1447568	-550.7684399	183.1956535	11-2	99
11	108.6	BR-7 Lane	LinStatic	2.502059629	-5.676469776	-5.892382256	-480.1247568	-550.7684399	108.6756535	11-3	0
11	128.2	BR-7 Lane	LinStatic	2.502059629	-5.676469776	-5.892382256	-480.1247568	-435.2777477	219.9344611	11-3	19.6
11	147.8	BR-7 Lane	LinStatic	2.502059629	-5.676469776	-5.892382256	-480.1247568	-319.7870555	331.1932688	11-3	39.2
11	167.4	BR-7 Lane	LinStatic	2.502059629	-5.676469776	-5.892382256	-480.1247568	-204.2963633	442.4520764	11-3	58.8
11	187	BR-7 Lane	LinStatic	2.502059629	-5.676469776	-5.892382256	-480.1247568	-88.80567104	553.710884	11-3	78.4
11	206.6	BR-7 Lane	LinStatic	2.502059629	-5.676469776	-5.892382256	-480.1247568	26.68502118	664.9696916	11-3	98
11	206.6	BR-7 Lane	LinStatic	5.262059629	-5.676469776	-14.63238226	-716.1047568	26.68502118	590.4496916	11-4	0
11	216	BR-7 Lane	LinStatic	5.262059629	-5.676469776	-14.63238226	-716.1047568	164.2294144	643.8085075	11-4	9.4
11	0	WSub3: 45deg	LinStatic	-0.759002814	1.063022703	0	0	0	28.48575058	11-1	0
11	9.6	WSub3: 45deg	LinStatic	-0.759002814	0.967022703	0	0	0	18.74153264	11-1	9.6
11	9.6	WSub3: 45deg	LinStatic	-0.759002814	0.967022703	0	0	0	18.74153264	11-2	0
11	29.4	WSub3: 45deg	LinStatic	-0.759002814	0.769022703	0	0	0	1.55468313	11-2	19.8
11	49.2	WSub3: 45deg	LinStatic	-0.759002814	0.571022703	0	0	0	-11.71176638	11-2	39.6
11	69	WSub3: 45deg	LinStatic	-0.759002814	0.373022703	0	0	0	-21.05781589	11-2	59.4
11	88.8	WSub3: 45deg	LinStatic	-0.759002814	0.175022703	0	0	0	-26.4834654	11-2	79.2
11	108.6	WSub3: 45deg	LinStatic	-0.759002814	-0.022977297	0	0	0	-27.98871491	11-2	99
11	108.6	WSub3: 45deg	LinStatic	-0.759002814	-0.022977297	0	0	0	-27.98871491	11-3	0
11	128.2	WSub3: 45deg	LinStatic	-0.759002814	-0.218977297	0	0	0	-25.61755988	11-3	19.6
11	147.8	WSub3: 45deg	LinStatic	-0.759002814	-0.414977297	0	0	0	-19.40480485	11-3	39.2
11	167.4	WSub3: 45deg	LinStatic	-0.759002814	-0.610977297	0	0	0	-9.350449818	11-3	58.8
11	187	WSub3: 45deg	LinStatic	-0.759002814	-0.806977297	0	0	0	4.545505212	11-3	78.4
11	206.6	WSub3: 45deg	LinStatic	-0.759002814	-1.002977297	0	0	0	22.28306024	11-3	98
11	206.6	WSub3: 45deg	LinStatic	-0.759002814	-1.002977297	0	0	0	22.28306024	11-4	0
11	216	WSub3: 45deg	LinStatic	-0.759002814	-1.096977297	0	0	0	32.15284684	11-4	9.4
11	0	WSub3: 30deg	LinStatic	-0.858540522	0.444854468	0	0	0	7.311864183	11-1	0
11	9.6	WSub3: 30deg	LinStatic	-0.858540522	0.396854468	0	0	0	3.271661289	11-1	9.6
11	9.6	WSub3: 30deg	LinStatic	-0.858540522	0.396854468	0	0	0	3.271661289	11-2	0
11	29.4	WSub3: 30deg	LinStatic	-0.858540522	0.297854468	0	0	0	-3.605957179	11-2	19.8
11	49.2	WSub3: 30deg	LinStatic	-0.858540522	0.198854468	0	0	0	-8.523375647	11-2	39.6
11	69	WSub3: 30deg	LinStatic	-0.858540522	0.099854468	0	0	0	-11.48059412	11-2	59.4
11	88.8	WSub3: 30deg	LinStatic	-0.858540522	0.000854468	0	0	0	-12.47761258	11-2	79.2
11	108.6	WSub3: 30deg	LinStatic	-0.858540522	-0.098145532	0	0	0	-11.51443105	11-2	99
11	108.6	WSub3: 30deg	LinStatic	-0.858540522	-0.098145532	0	0	0	-11.51443105	11-3	0
11	128.2	WSub3: 30deg	LinStatic	-0.858540522	-0.196145532	0	0	0	-8.630378627	11-3	19.6
11	147.8	WSub3: 30deg	LinStatic	-0.858540522	-0.294145532	0	0	0	-3.825526201	11-3	39.2
11	167.4	WSub3: 30deg	LinStatic	-0.858540522	-0.392145532	0	0	0	2.900126224	11-3	58.8
11	187	WSub3: 30deg	LinStatic	-0.858540522	-0.490145532	0	0	0	11.54657865	11-3	78.4
11	206.6	WSub3: 30deg	LinStatic	-0.858540522	-0.588145532	0	0	0	22.11383107	11-3	98
11	206.6	WSub3: 30deg	LinStatic	-0.858540522	-0.588145532	0	0	0	22.11383107	11-4	0

11	216	WSub3: 30deg	LinStatic	-0.858540522	-0.635145532	0	0	0	27.86329907	11-4	9.4
11	0	WSub3: 15deg	LinStatic	-0.888724883	-0.060740911	0	0	0	-9.569625435	11-1	0
11	9.6	WSub3: 15deg	LinStatic	-0.888724883	-0.068740911	0	0	0	-8.948112688	11-1	9.6
11	9.6	WSub3: 15deg	LinStatic	-0.888724883	-0.068740911	0	0	0	-8.948112688	11-2	0
11	29.4	WSub3: 15deg	LinStatic	-0.888724883	-0.085240911	0	0	0	-7.423692647	11-2	19.8
11	49.2	WSub3: 15deg	LinStatic	-0.888724883	-0.101740911	0	0	0	-5.572572606	11-2	39.6
11	69	WSub3: 15deg	LinStatic	-0.888724883	-0.118240911	0	0	0	-3.394752566	11-2	59.4
11	88.8	WSub3: 15deg	LinStatic	-0.888724883	-0.13474091	0	0	0	-0.890232525	11-2	79.2
11	108.6	WSub3: 15deg	LinStatic	-0.888724883	-0.151240911	0	0	0	1.940987516	11-2	99
11	108.6	WSub3: 15deg	LinStatic	-0.888724883	-0.151240911	0	0	0	1.940987516	11-3	0
11	128.2	WSub3: 15deg	LinStatic	-0.888724883	-0.167574244	0	0	0	5.065376041	11-3	19.6
11	147.8	WSub3: 15deg	LinStatic	-0.888724883	-0.183907578	0	0	0	8.509897899	11-3	39.2
11	167.4	WSub3: 15deg	LinStatic	-0.888724883	-0.200240911	0	0	0	12.27455309	11-3	58.8
11	187	WSub3: 15deg	LinStatic	-0.888724883	-0.216574244	0	0	0	16.35934162	11-3	78.4
11	206.6	WSub3: 15deg	LinStatic	-0.888724883	-0.232907578	0	0	0	20.76426347	11-3	98
11	206.6	WSub3: 15deg	LinStatic	-0.888724883	-0.232907578	0	0	0	20.76426347	11-4	0
11	216	WSub3: 15deg	LinStatic	-0.888724883	-0.240740911	0	0	0	22.99041137	11-4	9.4
11	0	WSub3: 0deg	LinStatic	-0.828138324	0.650408187	0	0	0	14.32964654	11-1	0
11	9.6	WSub3: 0deg	LinStatic	-0.828138324	0.586408187	0	0	0	8.392927942	11-1	9.6
11	9.6	WSub3: 0deg	LinStatic	-0.828138324	0.586408187	0	0	0	8.392927942	11-2	0
11	29.4	WSub3: 0deg	LinStatic	-0.828138324	0.454408187	0	0	0	-1.91115417	11-2	19.8
11	49.2	WSub3: 0deg	LinStatic	-0.828138324	0.322408187	0	0	0	-9.601636283	11-2	39.6
11	69	WSub3: 0deg	LinStatic	-0.828138324	0.190408187	0	0	0	-14.67851839	11-2	59.4
11	88.8	WSub3: 0deg	LinStatic	-0.828138324	0.058408187	0	0	0	-17.14180051	11-2	79.2
11	108.6	WSub3: 0deg	LinStatic	-0.828138324	-0.073591813	0	0	0	-16.99148262	11-2	99
11	108.6	WSub3: 0deg	LinStatic	-0.828138324	-0.073591813	0	0	0	-16.99148262	11-3	0
11	128.2	WSub3: 0deg	LinStatic	-0.828138324	-0.204258479	0	0	0	-14.26854976	11-3	19.6
11	147.8	WSub3: 0deg	LinStatic	-0.828138324	-0.334925146	0	0	0	-8.984550236	11-3	39.2
11	167.4	WSub3: 0deg	LinStatic	-0.828138324	-0.465591813	0	0	0	-1.139484044	11-3	58.8
11	187	WSub3: 0deg	LinStatic	-0.828138324	-0.596258479	0	0	0	9.266648814	11-3	78.4
11	206.6	WSub3: 0deg	LinStatic	-0.828138324	-0.726925146	0	0	0	22.23384834	11-3	98
11	206.6	WSub3: 0deg	LinStatic	-0.828138324	-0.726925146	0	0	0	22.23384834	11-4	0
11	216	WSub3: 0deg	LinStatic	-0.828138324	-0.789591813	0	0	0	29.36147804	11-4	9.4
11	0	WSub3: -15deg	LinStatic	-0.711938387	1.271590574	0	0	0	35.74461159	11-1	0
11	9.6	WSub3: -15deg	LinStatic	-0.711938387	1.159590574	0	0	0	24.07494208	11-1	9.6
11	9.6	WSub3: -15deg	LinStatic	-0.711938387	1.159590574	0	0	0	24.07494208	11-2	0
11	29.4	WSub3: -15deg	LinStatic	-0.711938387	0.928590574	0	0	0	3.401948704	11-2	19.8
11	49.2	WSub3: -15deg	LinStatic	-0.711938387	0.697590574	0	0	0	-12.69724467	11-2	39.6
11	69	WSub3: -15deg	LinStatic	-0.711938387	0.466590574	0	0	0	-24.22263804	11-2	59.4
11	88.8	WSub3: -15deg	LinStatic	-0.711938387	0.235590574	0	0	0	-31.17423141	11-2	79.2
11	108.6	WSub3: -15deg	LinStatic	-0.711938387	0.004590574	0	0	0	-33.55202479	11-2	99
11	108.6	WSub3: -15deg	LinStatic	-0.711938387	0.004590574	0	0	0	-33.55202479	11-3	0

11	128.2	WSub3: -15deg	LinStatic	-0.711938387	-0.224076092	0	0	0	-31.40106671	11-3	19.6
11	147.8	WSub3: -15deg	LinStatic	-0.711938387	-0.452742759	0	0	0	-24.76824197	11-3	39.2
11	167.4	WSub3: -15deg	LinStatic	-0.711938387	-0.681409426	0	0	0	-13.65355056	11-3	58.8
11	187	WSub3: -15deg	LinStatic	-0.711938387	-0.910076092	0	0	0	1.943007515	11-3	78.4
11	206.6	WSub3: -15deg	LinStatic	-0.711938387	-1.138742759	0	0	0	22.02143226	11-3	98
11	206.6	WSub3: -15deg	LinStatic	-0.711938387	-1.138742759	0	0	0	22.02143226	11-4	0
11	216	WSub3: -15deg	LinStatic	-0.711938387	-1.248409426	0	0	0	33.24104752	11-4	9.4
11	0	WSub3: -30deg	LinStatic	-0.545751759	1.901815419	0	0	0	57.88281258	11-1	0
11	9.6	WSub3: -30deg	LinStatic	-0.545751759	1.741815419	0	0	0	40.39338456	11-1	9.6
11	9.6	WSub3: -30deg	LinStatic	-0.545751759	1.741815419	0	0	0	40.39338456	11-2	0
11	29.4	WSub3: -30deg	LinStatic	-0.545751759	1.411815419	0	0	0	9.172439272	11-2	19.8
11	49.2	WSub3: -30deg	LinStatic	-0.545751759	1.081815419	0	0	0	-15.51450602	11-2	39.6
11	69	WSub3: -30deg	LinStatic	-0.545751759	0.751815419	0	0	0	-33.66745131	11-2	59.4
11	88.8	WSub3: -30deg	LinStatic	-0.545751759	0.421815419	0	0	0	-45.28639659	11-2	79.2
11	108.6	WSub3: -30deg	LinStatic	-0.545751759	0.091815419	0	0	0	-50.37134188	11-2	99
11	108.6	WSub3: -30deg	LinStatic	-0.545751759	0.091815419	0	0	0	-50.37134188	11-3	0
11	128.2	WSub3: -30deg	LinStatic	-0.545751759	-0.234851248	0	0	0	-48.96959076	11-3	19.6
11	147.8	WSub3: -30deg	LinStatic	-0.545751759	-0.561517915	0	0	0	-41.16517296	11-3	39.2
11	167.4	WSub3: -30deg	LinStatic	-0.545751759	-0.888184581	0	0	0	-26.9580885	11-3	58.8
11	187	WSub3: -30deg	LinStatic	-0.545751759	-1.214851248	0	0	0	-6.348337372	11-3	78.4
11	206.6	WSub3: -30deg	LinStatic	-0.545751759	-1.541517915	0	0	0	20.66408042	11-3	98
11	206.6	WSub3: -30deg	LinStatic	-0.545751759	-1.541517915	0	0	0	20.66408042	11-4	0
11	216	WSub3: -30deg	LinStatic	-0.545751759	-1.698184581	0	0	0	35.89068215	11-4	9.4
11	0	WSub3: -45deg	LinStatic	-0.351649524	2.337036077	0	0	0	73.84700648	11-1	0
11	9.6	WSub3: -45deg	LinStatic	-0.351649524	2.145036077	0	0	0	52.33306014	11-1	9.6
11	9.6	WSub3: -45deg	LinStatic	-0.351649524	2.145036077	0	0	0	52.33306014	11-2	0
11	29.4	WSub3: -45deg	LinStatic	-0.351649524	1.749036077	0	0	0	13.78174581	11-2	19.8
11	49.2	WSub3: -45deg	LinStatic	-0.351649524	1.353036077	0	0	0	-16.92876852	11-2	39.6
11	69	WSub3: -45deg	LinStatic	-0.351649524	0.957036077	0	0	0	-39.79848284	11-2	59.4
11	88.8	WSub3: -45deg	LinStatic	-0.351649524	0.561036077	0	0	0	-54.82739717	11-2	79.2
11	108.6	WSub3: -45deg	LinStatic	-0.351649524	0.165036077	0	0	0	-62.0155115	11-2	99
11	108.6	WSub3: -45deg	LinStatic	-0.351649524	0.165036077	0	0	0	-62.0155115	11-3	0
11	128.2	WSub3: -45deg	LinStatic	-0.351649524	-0.226963923	0	0	0	-61.40861861	11-3	19.6
11	147.8	WSub3: -45deg	LinStatic	-0.351649524	-0.618963923	0	0	0	-53.11852572	11-3	39.2
11	167.4	WSub3: -45deg	LinStatic	-0.351649524	-1.010963923	0	0	0	-37.14523283	11-3	58.8
11	187	WSub3: -45deg	LinStatic	-0.351649524	-1.402963923	0	0	0	-13.48873994	11-3	78.4
11	206.6	WSub3: -45deg	LinStatic	-0.351649524	-1.794963923	0	0	0	17.85095295	11-3	98
11	206.6	WSub3: -45deg	LinStatic	-0.351649524	-1.794963923	0	0	0	17.85095295	11-4	0
11	216	WSub3: -45deg	LinStatic	-0.351649524	-1.982963923	0	0	0	35.60721382	11-4	9.4
11	0	WA	LinStatic	-2.51202E-16	0	0	0	0	2.27374E-13	11-1	0
11	9.6	WA	LinStatic	-2.51202E-16	0	0	0	0	2.27374E-13	11-1	9.6
11	9.6	WA	LinStatic	-2.33653E-16	3.10862E-15	0	0	0	3.41061E-13	11-2	0

11	29.4	WA	LinStatic	-2.33653E-16	3.10862E-15	0	0	0	2.7951E-13	11-2	19.8
11	49.2	WA	LinStatic	-2.33653E-16	3.10862E-15	0	0	0	2.17959E-13	11-2	39.6
11	69	WA	LinStatic	-2.33653E-16	3.10862E-15	0	0	0	1.56408E-13	11-2	59.4
11	88.8	WA	LinStatic	-2.33653E-16	3.10862E-15	0	0	0	9.48575E-14	11-2	79.2
11	108.6	WA	LinStatic	-2.33653E-16	3.10862E-15	0	0	0	3.33067E-14	11-2	99
11	108.6	WA	LinStatic	-2.33653E-16	2.22045E-15	0	0	0	5.68434E-14	11-3	0
11	128.2	WA	LinStatic	-2.33653E-16	2.22045E-15	0	0	0	1.33227E-14	11-3	19.6
11	147.8	WA	LinStatic	-2.33653E-16	2.22045E-15	0	0	0	-3.01981E-14	11-3	39.2
11	167.4	WA	LinStatic	-2.33653E-16	2.22045E-15	0	0	0	-7.37188E-14	11-3	58.8
11	187	WA	LinStatic	-2.33653E-16	2.22045E-15	0	0	0	-1.1724E-13	11-3	78.4
11	206.6	WA	LinStatic	-2.33653E-16	2.22045E-15	0	0	0	-1.6076E-13	11-3	98
11	206.6	WA	LinStatic	-2.33283E-16	-1.42109E-14	0	0	0	-5.68434E-14	11-4	0
11	216	WA	LinStatic	-2.33283E-16	-1.42109E-14	0	0	0	7.67386E-14	11-4	9.4
11	0	WS3: 45deg	Combination	-2.828822314	34.46750917	1.869398286	-1.317197609	-25.42729355	534.5932243	11-1	0
11	9.6	WS3: 45deg	Combination	-2.828822314	34.37150917	1.869398286	-1.317197609	-43.37351709	204.1659362	11-1	9.6
11	9.6	WS3: 45deg	Combination	-0.128822314	11.65150917	0.459398286	-39.38719761	-43.37351709	131.2659362	11-2	0
11	29.4	WS3: 45deg	Combination	-0.128822314	11.45350917	0.459398286	-39.38719761	-52.46960315	-97.47374537	11-2	19.8
11	49.2	WS3: 45deg	Combination	-0.128822314	11.25550917	0.459398286	-39.38719761	-61.56568921	-322.293027	11-2	39.6
11	69	WS3: 45deg	Combination	-0.128822314	11.05750917	0.459398286	-39.38719761	-70.66177528	-543.1919086	11-2	59.4
11	88.8	WS3: 45deg	Combination	-0.128822314	10.85950917	0.459398286	-39.38719761	-79.75786134	-760.1703902	11-2	79.2
11	108.6	WS3: 45deg	Combination	-0.128822314	10.66150917	0.459398286	-39.38719761	-88.8539474	-973.2284717	11-2	99
11	108.6	WS3: 45deg	Combination	2.571177686	-15.09849083	-0.950601714	-77.45719761	-88.8539474	-1046.128472	11-3	0
11	128.2	WS3: 45deg	Combination	2.571177686	-15.29449083	-0.950601714	-77.45719761	-70.2221538	-748.2772515	11-3	19.6
11	147.8	WS3: 45deg	Combination	2.571177686	-15.49049083	-0.950601714	-77.45719761	-51.59036021	-446.5844313	11-3	39.2
11	167.4	WS3: 45deg	Combination	2.571177686	-15.68649083	-0.950601714	-77.45719761	-32.95856661	-141.050011	11-3	58.8
11	187	WS3: 45deg	Combination	2.571177686	-15.88249083	-0.950601714	-77.45719761	-14.32677302	168.3260092	11-3	78.4
11	206.6	WS3: 45deg	Combination	2.571177686	-16.07849083	-0.950601714	-77.45719761	4.30502058	481.5436295	11-3	98
11	206.6	WS3: 45deg	Combination	5.271177686	-44.86849083	-2.360601714	-115.5271976	4.30502058	408.6436295	11-4	0
11	216	WS3: 45deg	Combination	5.271177686	-44.96249083	-2.360601714	-115.5271976	26.49467669	830.8492432	11-4	9.4
11	0	WS3: 30deg	Combination	-2.928360022	33.84934094	1.869398286	-1.317197609	-25.42729355	513.4193379	11-1	0
11	9.6	WS3: 30deg	Combination	-2.928360022	33.80134094	1.869398286	-1.317197609	-43.37351709	188.6960649	11-1	9.6
11	9.6	WS3: 30deg	Combination	-0.228360022	11.08134094	0.459398286	-39.38719761	-43.37351709	115.7960649	11-2	0
11	29.4	WS3: 30deg	Combination	-0.228360022	10.98234094	0.459398286	-39.38719761	-52.46960315	-102.6343857	11-2	19.8
11	49.2	WS3: 30deg	Combination	-0.228360022	10.88334094	0.459398286	-39.38719761	-61.56568921	-319.1046362	11-2	39.6
11	69	WS3: 30deg	Combination	-0.228360022	10.78434094	0.459398286	-39.38719761	-70.66177528	-533.6146868	11-2	59.4
11	88.8	WS3: 30deg	Combination	-0.228360022	10.68534094	0.459398286	-39.38719761	-79.75786134	-746.1645373	11-2	79.2
11	108.6	WS3: 30deg	Combination	-0.228360022	10.58634094	0.459398286	-39.38719761	-88.8539474	-956.7541879	11-2	99
11	108.6	WS3: 30deg	Combination	2.471639978	-15.17365906	-0.950601714	-77.45719761	-88.8539474	-1029.654188	11-3	0
11	128.2	WS3: 30deg	Combination	2.471639978	-15.27165906	-0.950601714	-77.45719761	-70.2221538	-731.2900703	11-3	19.6
11	147.8	WS3: 30deg	Combination	2.471639978	-15.36965906	-0.950601714	-77.45719761	-51.59036021	-431.0051526	11-3	39.2
11	167.4	WS3: 30deg	Combination	2.471639978	-15.46765906	-0.950601714	-77.45719761	-32.95856661	-128.799435	11-3	58.8
11	187	WS3: 30deg	Combination	2.471639978	-15.56565906	-0.950601714	-77.45719761	-14.32677302	175.3270826	11-3	78.4

11	206.6	WS3: 30deg	Combination	2.471639978	-15.66365906	-0.950601714	-77.45719761	4.30502058	481.3744003	11-3	98
11	206.6	WS3: 30deg	Combination	5.171639978	-44.45365906	-2.360601714	-115.5271976	4.30502058	408.4744003	11-4	0
11	216	WS3: 30deg	Combination	5.171639978	-44.50065906	-2.360601714	-115.5271976	26.49467669	826.5596955	11-4	9.4
11	0	WS3: 15deg	Combination	-2.958544383	33.34374556	1.869398286	-1.317197609	-25.42729355	496.5378482	11-1	0
11	9.6	WS3: 15deg	Combination	-2.958544383	33.33574556	1.869398286	-1.317197609	-43.37351709	176.4762909	11-1	9.6
11	9.6	WS3: 15deg	Combination	-0.258544383	10.61574556	0.459398286	-39.38719761	-43.37351709	103.5762909	11-2	0
11	29.4	WS3: 15deg	Combination	-0.258544383	10.59924556	0.459398286	-39.38719761	-52.46960315	-106.4521211	11-2	19.8
11	49.2	WS3: 15deg	Combination	-0.258544383	10.58274556	0.459398286	-39.38719761	-61.56568921	-316.1538332	11-2	39.6
11	69	WS3: 15deg	Combination	-0.258544383	10.56624556	0.459398286	-39.38719761	-70.66177528	-525.5288452	11-2	59.4
11	88.8	WS3: 15deg	Combination	-0.258544383	10.54974556	0.459398286	-39.38719761	-79.75786134	-734.5771573	11-2	79.2
11	108.6	WS3: 15deg	Combination	-0.258544383	10.53324556	0.459398286	-39.38719761	-88.8539474	-943.2987693	11-2	99
11	108.6	WS3: 15deg	Combination	2.441455617	-15.22675444	-0.950601714	-77.45719761	-88.8539474	-1016.198769	11-3	0
11	128.2	WS3: 15deg	Combination	2.441455617	-15.24308778	-0.950601714	-77.45719761	-70.2221538	-717.5943156	11-3	19.6
11	147.8	WS3: 15deg	Combination	2.441455617	-15.25942111	-0.950601714	-77.45719761	-51.5903602	-418.6697285	11-3	39.2
11	167.4	WS3: 15deg	Combination	2.441455617	-15.27575444	-0.950601714	-77.45719761	-32.9585666	-119.4250081	11-3	58.8
11	187	WS3: 15deg	Combination	2.441455617	-15.29208778	-0.950601714	-77.45719761	-14.32677302	180.1398456	11-3	78.4
11	206.6	WS3: 15deg	Combination	2.441455617	-15.30842111	-0.950601714	-77.45719761	4.30502058	480.0248327	11-3	98
11	206.6	WS3: 15deg	Combination	5.141455617	-44.09842111	-2.360601714	-115.5271976	4.30502058	407.1248327	11-4	0
11	216	WS3: 15deg	Combination	5.141455617	-44.10625444	-2.360601714	-115.5271976	26.49467669	821.6868078	11-4	9.4
11	0	WS3: 0deg	Combination	-2.897957824	34.05489466	1.869398286	-1.317197609	-25.42729355	520.4371202	11-1	0
11	9.6	WS3: 0deg	Combination	-2.897957824	33.99089466	1.869398286	-1.317197609	-43.37351709	193.8173315	11-1	9.6
11	9.6	WS3: 0deg	Combination	-0.197957824	11.27089466	0.459398286	-39.38719761	-43.37351709	120.9173315	11-2	0
11	29.4	WS3: 0deg	Combination	-0.197957824	11.13889466	0.459398286	-39.38719761	-52.46960315	-100.9395827	11-2	19.8
11	49.2	WS3: 0deg	Combination	-0.197957824	11.00689466	0.459398286	-39.38719761	-61.56568921	-320.1828969	11-2	39.6
11	69	WS3: 0deg	Combination	-0.197957824	10.87489466	0.459398286	-39.38719761	-70.66177528	-536.8126111	11-2	59.4
11	88.8	WS3: 0deg	Combination	-0.197957824	10.74289466	0.459398286	-39.38719761	-79.75786134	-750.8287253	11-2	79.2
11	108.6	WS3: 0deg	Combination	-0.197957824	10.61089466	0.459398286	-39.38719761	-88.8539474	-962.2312395	11-2	99
11	108.6	WS3: 0deg	Combination	2.502042176	-15.14910534	-0.950601714	-77.45719761	-88.8539474	-1035.131239	11-3	0
11	128.2	WS3: 0deg	Combination	2.502042176	-15.27977201	-0.950601714	-77.45719761	-70.2221538	-736.9282414	11-3	19.6
11	147.8	WS3: 0deg	Combination	2.502042176	-15.41043868	-0.950601714	-77.45719761	-51.5903602	-436.1641767	11-3	39.2
11	167.4	WS3: 0deg	Combination	2.502042176	-15.54110534	-0.950601714	-77.45719761	-32.9585666	-132.8390453	11-3	58.8
11	187	WS3: 0deg	Combination	2.502042176	-15.67177201	-0.950601714	-77.45719761	-14.32677302	173.0471528	11-3	78.4
11	206.6	WS3: 0deg	Combination	2.502042176	-15.80243868	-0.950601714	-77.45719761	4.30502058	481.4944175	11-3	98
11	206.6	WS3: 0deg	Combination	5.202042176	-44.59243868	-2.360601714	-115.5271976	4.30502058	408.5944175	11-4	0
11	216	WS3: 0deg	Combination	5.202042176	-44.65510534	-2.360601714	-115.5271976	26.49467669	828.0578744	11-4	9.4
11	0	WS3: -15deg	Combination	-2.781757887	34.67607704	1.869398286	-1.317197609	-25.42729355	541.8520853	11-1	0
11	9.6	WS3: -15deg	Combination	-2.781757887	34.56407704	1.869398286	-1.317197609	-43.37351709	209.4993457	11-1	9.6
11	9.6	WS3: -15deg	Combination	-0.081757887	11.84407704	0.459398286	-39.38719761	-43.37351709	136.5993457	11-2	0
11	29.4	WS3: -15deg	Combination	-0.081757887	11.61307704	0.459398286	-39.38719761	-52.46960315	-95.6264798	11-2	19.8
11	49.2	WS3: -15deg	Combination	-0.081757887	11.38207704	0.459398286	-39.38719761	-61.56568921	-323.2785053	11-2	39.6
11	69	WS3: -15deg	Combination	-0.081757887	11.15107704	0.459398286	-39.38719761	-70.66177528	-546.3567307	11-2	59.4
11	88.8	WS3: -15deg	Combination	-0.081757887	10.92007704	0.459398286	-39.38719761	-79.75786134	-764.8611562	11-2	79.2

11	108.6	WS3: -15deg	Combination	-0.081757887	10.68907704	0.459398286	-39.38719761	-88.8539474	-978.7917816	11-2	99
11	108.6	WS3: -15deg	Combination	2.618242113	-15.07092296	-0.950601714	-77.45719761	-88.8539474	-1051.691782	11-3	0
11	128.2	WS3: -15deg	Combination	2.618242113	-15.29958962	-0.950601714	-77.45719761	-70.2221538	-754.0607583	11-3	19.6
11	147.8	WS3: -15deg	Combination	2.618242113	-15.52825629	-0.950601714	-77.45719761	-51.59036021	-451.9478684	11-3	39.2
11	167.4	WS3: -15deg	Combination	2.618242113	-15.75692296	-0.950601714	-77.45719761	-32.95856661	-145.3531118	11-3	58.8
11	187	WS3: -15deg	Combination	2.618242113	-15.98558962	-0.950601714	-77.45719761	-14.32677302	165.7235115	11-3	78.4
11	206.6	WS3: -15deg	Combination	2.618242113	-16.21425629	-0.950601714	-77.45719761	4.30502058	481.2820015	11-3	98
11	206.6	WS3: -15deg	Combination	5.318242113	-45.00425629	-2.360601714	-115.5271976	4.30502058	408.3820015	11-4	0
11	216	WS3: -15deg	Combination	5.318242113	-45.11392296	-2.360601714	-115.5271976	26.49467669	831.9374439	11-4	9.4
11	0	WS3: -30deg	Combination	-2.615571259	35.30630189	1.869398286	-1.317197609	-25.42729355	563.9902863	11-1	0
11	9.6	WS3: -30deg	Combination	-2.615571259	35.14630189	1.869398286	-1.317197609	-43.37351709	225.8177881	11-1	9.6
11	9.6	WS3: -30deg	Combination	0.084428741	12.42630189	0.459398286	-39.38719761	-43.37351709	152.9177881	11-2	0
11	29.4	WS3: -30deg	Combination	0.084428741	12.09630189	0.459398286	-39.38719761	-52.46960315	-89.85598923	11-2	19.8
11	49.2	WS3: -30deg	Combination	0.084428741	11.76630189	0.459398286	-39.38719761	-61.56568921	-326.0957666	11-2	39.6
11	69	WS3: -30deg	Combination	0.084428741	11.43630189	0.459398286	-39.38719761	-70.66177528	-555.801544	11-2	59.4
11	88.8	WS3: -30deg	Combination	0.084428741	11.10630189	0.459398286	-39.38719761	-79.75786134	-778.9733213	11-2	79.2
11	108.6	WS3: -30deg	Combination	0.084428741	10.77630189	0.459398286	-39.38719761	-88.8539474	-995.6110987	11-2	99
11	108.6	WS3: -30deg	Combination	2.784428741	-14.98369811	-0.950601714	-77.45719761	-88.8539474	-1068.511099	11-3	0
11	128.2	WS3: -30deg	Combination	2.784428741	-15.31036478	-0.950601714	-77.45719761	-70.2221538	-771.6292824	11-3	19.6
11	147.8	WS3: -30deg	Combination	2.784428741	-15.63703145	-0.950601714	-77.45719761	-51.59036021	-468.3447994	11-3	39.2
11	167.4	WS3: -30deg	Combination	2.784428741	-15.96369811	-0.950601714	-77.45719761	-32.95856661	-158.6576497	11-3	58.8
11	187	WS3: -30deg	Combination	2.784428741	-16.29036478	-0.950601714	-77.45719761	-14.32677302	157.4321666	11-3	78.4
11	206.6	WS3: -30deg	Combination	2.784428741	-16.61703145	-0.950601714	-77.45719761	4.30502058	479.9246496	11-3	98
11	206.6	WS3: -30deg	Combination	5.484428741	-45.40703145	-2.360601714	-115.5271976	4.30502058	407.0246496	11-4	0
11	216	WS3: -30deg	Combination	5.484428741	-45.56369811	-2.360601714	-115.5271976	26.49467669	834.5870786	11-4	9.4
11	0	WServ1: -45deg	Combination	-0.967761366	13.0633317	0.691677366	-0.487363115	-9.408098612	208.6764059	11-1	0
11	9.6	WServ1: -45deg	Combination	-0.967761366	13.0041317	0.691677366	-0.487363115	-16.04820132	83.55258161	11-1	9.6
11	9.6	WServ1: -45deg	Combination	0.031238634	4.597731698	0.169977366	-14.57326312	-16.04820132	56.57958161	11-2	0
11	29.4	WServ1: -45deg	Combination	0.031238634	4.475631698	0.169977366	-14.57326312	-19.41375317	-33.24671601	11-2	19.8
11	49.2	WServ1: -45deg	Combination	0.031238634	4.353531698	0.169977366	-14.57326312	-22.77930501	-120.6554336	11-2	39.6
11	69	WServ1: -45deg	Combination	0.031238634	4.231431698	0.169977366	-14.57326312	-26.14485685	-205.6465713	11-2	59.4
11	88.8	WServ1: -45deg	Combination	0.031238634	4.109331698	0.169977366	-14.57326312	-29.51040869	-288.2201289	11-2	79.2
11	108.6	WServ1: -45deg	Combination	0.031238634	3.987231698	0.169977366	-14.57326312	-32.87596054	-368.3761065	11-2	99
11	108.6	WServ1: -45deg	Combination	1.030238634	-5.543968302	-0.351722634	-28.65916312	-32.87596054	-395.3491065	11-3	0
11	128.2	WServ1: -45deg	Combination	1.030238634	-5.664834968	-0.351722634	-28.65916312	-25.98219691	-285.5028345	11-3	19.6
11	147.8	WServ1: -45deg	Combination	1.030238634	-5.785701635	-0.351722634	-28.65916312	-19.08843328	-173.2875758	11-3	39.2
11	167.4	WServ1: -45deg	Combination	1.030238634	-5.906568302	-0.351722634	-28.65916312	-12.19466965	-58.70333039	11-3	58.8
11	187	WServ1: -45deg	Combination	1.030238634	-6.027434968	-0.351722634	-28.65916312	-5.300906016	58.24990165	11-3	78.4
11	206.6	WServ1: -45deg	Combination	1.030238634	-6.148301635	-0.351722634	-28.65916312	1.592857614	177.5721204	11-3	98
11	206.6	WServ1: -45deg	Combination	2.029238634	-16.80060163	-0.873422634	-42.74506312	1.592857614	150.5991204	11-4	0
11	216	WServ1: -45deg	Combination	2.029238634	-16.8585683	-0.873422634	-42.74506312	9.803030376	308.7972191	11-4	9.4
11	0	WS5: 45deg	Combination	-2.10803665	15.8932828	1.488147101	-1.048564031	-20.24156835	182.3709223	11-1	0

11	9.6	WS5: 45deg	Combination	-2.10803665	15.8468188	1.488147101	-1.048564031	-34.52778051	30.01843465	11-1	9.6
11	9.6	WS5: 45deg	Combination	-0.11123665	4.500338798	0.365707101	-31.35444403	-34.52778051	-23.89516535	11-2	0
11	29.4	WS5: 45deg	Combination	-0.11123665	4.404506798	0.365707101	-31.35444403	-41.76878111	-112.0531368	11-2	19.8
11	49.2	WS5: 45deg	Combination	-0.11123665	4.308674798	0.365707101	-31.35444403	-49.0097817	-198.3136346	11-2	39.6
11	69	WS5: 45deg	Combination	-0.11123665	4.212842798	0.365707101	-31.35444403	-56.2507823	-282.6766588	11-2	59.4
11	88.8	WS5: 45deg	Combination	-0.11123665	4.117010798	0.365707101	-31.35444403	-63.49178289	-365.1422093	11-2	79.2
11	108.6	WS5: 45deg	Combination	-0.11123665	4.021178798	0.365707101	-31.35444403	-70.73278349	-445.7102863	11-2	99
11	108.6	WS5: 45deg	Combination	1.88556335	-8.896661202	-0.756732899	-61.66032403	-70.73278349	-499.6238863	11-3	0
11	128.2	WS5: 45deg	Combination	1.88556335	-8.991525202	-0.756732899	-61.66032403	-55.90081866	-324.3196596	11-3	19.6
11	147.8	WS5: 45deg	Combination	1.88556335	-9.086389202	-0.756732899	-61.66032403	-41.06885384	-147.1560984	11-3	39.2
11	167.4	WS5: 45deg	Combination	1.88556335	-9.181253202	-0.756732899	-61.66032403	-26.23688901	31.86679713	11-3	58.8
11	187	WS5: 45deg	Combination	1.88556335	-9.276117202	-0.756732899	-61.66032403	-11.40492419	212.7490271	11-3	78.4
11	206.6	WS5: 45deg	Combination	1.88556335	-9.370981202	-0.756732899	-61.66032403	3.427040638	395.4905915	11-3	98
11	206.6	WS5: 45deg	Combination	3.88236335	-23.8553412	-1.879172899	-91.96620403	3.427040638	341.5769915	11-4	0
11	216	WS5: 45deg	Combination	3.88236335	-23.9008372	-1.879172899	-91.96620403	21.09126589	566.03103	11-4	9.4
11	0	WS5: 30deg	Combination	-2.1562129	15.59408937	1.488147101	-1.048564031	-20.24156835	172.1227613	11-1	0
11	9.6	WS5: 30deg	Combination	-2.1562129	15.57085737	1.488147101	-1.048564031	-34.52778051	22.53101691	11-1	9.6
11	9.6	WS5: 30deg	Combination	-0.1594129	4.224377372	0.365707101	-31.35444403	-34.52778051	-31.38258309	11-2	0
11	29.4	WS5: 30deg	Combination	-0.1594129	4.176461372	0.365707101	-31.35444403	-41.76878111	-114.5508867	11-2	19.8
11	49.2	WS5: 30deg	Combination	-0.1594129	4.128545372	0.365707101	-31.35444403	-49.0097817	-196.7704534	11-2	39.6
11	69	WS5: 30deg	Combination	-0.1594129	4.080629372	0.365707101	-31.35444403	-56.2507823	-278.0412834	11-2	59.4
11	88.8	WS5: 30deg	Combination	-0.1594129	4.032713372	0.365707101	-31.35444403	-63.49178289	-358.3633766	11-2	79.2
11	108.6	WS5: 30deg	Combination	-0.1594129	3.984797372	0.365707101	-31.35444403	-70.73278349	-437.736733	11-2	99
11	108.6	WS5: 30deg	Combination	1.8373871	-8.933042628	-0.756732899	-61.66032403	-70.73278349	-491.650333	11-3	0
11	128.2	WS5: 30deg	Combination	1.8373871	-8.980474628	-0.756732899	-61.66032403	-55.90081866	-316.0978639	11-3	19.6
11	147.8	WS5: 30deg	Combination	1.8373871	-9.027906628	-0.756732899	-61.66032403	-41.06885384	-139.6157276	11-3	39.2
11	167.4	WS5: 30deg	Combination	1.8373871	-9.075338628	-0.756732899	-61.66032403	-26.23688901	37.79607594	11-3	58.8
11	187	WS5: 30deg	Combination	1.8373871	-9.122770628	-0.756732899	-61.66032403	-11.40492419	216.1375466	11-3	78.4
11	206.6	WS5: 30deg	Combination	1.8373871	-9.170202628	-0.756732899	-61.66032403	3.427040638	395.4086845	11-3	98
11	206.6	WS5: 30deg	Combination	3.8341871	-23.65456263	-1.879172899	-91.96620403	3.427040638	341.4950845	11-4	0
11	216	WS5: 30deg	Combination	3.8341871	-23.67731063	-1.879172899	-91.96620403	21.09126589	563.9548888	11-4	9.4
11	0	WS5: 15deg	Combination	-2.170822131	15.34938121	1.488147101	-1.048564031	-20.24156835	163.9521203	11-1	0
11	9.6	WS5: 15deg	Combination	-2.170822131	15.34550921	1.488147101	-1.048564031	-34.52778051	16.61664631	11-1	9.6
11	9.6	WS5: 15deg	Combination	-0.174022131	3.999029209	0.365707101	-31.35444403	-34.52778051	-37.29695369	11-2	0
11	29.4	WS5: 15deg	Combination	-0.174022131	3.991043209	0.365707101	-31.35444403	-41.76878111	-116.3986706	11-2	19.8
11	49.2	WS5: 15deg	Combination	-0.174022131	3.983057209	0.365707101	-31.35444403	-49.0097817	-195.3422648	11-2	39.6
11	69	WS5: 15deg	Combination	-0.174022131	3.975071209	0.365707101	-31.35444403	-56.2507823	-274.1277361	11-2	59.4
11	88.8	WS5: 15deg	Combination	-0.174022131	3.967085209	0.365707101	-31.35444403	-63.49178289	-352.7550846	11-2	79.2
11	108.6	WS5: 15deg	Combination	-0.174022131	3.959099209	0.365707101	-31.35444403	-70.73278349	-431.2243104	11-2	99
11	108.6	WS5: 15deg	Combination	1.822777869	-8.958740791	-0.756732899	-61.66032403	-70.73278349	-485.1379104	11-3	0
11	128.2	WS5: 15deg	Combination	1.822777869	-8.966646124	-0.756732899	-61.66032403	-55.90081866	-309.4691186	11-3	19.6
11	147.8	WS5: 15deg	Combination	1.822777869	-8.974551458	-0.756732899	-61.66032403	-41.06885384	-133.6453823	11-3	39.2

11	167.4	WS5: 15deg	Combination	1.822777869	-8.982456791	-0.756732899	-61.66032403	-26.23688901	42.33329854	11-3	58.8
11	187	WS5: 15deg	Combination	1.822777869	-8.990362124	-0.756732899	-61.66032403	-11.40492419	218.4669239	11-3	78.4
11	206.6	WS5: 15deg	Combination	1.822777869	-8.998267458	-0.756732899	-61.66032403	3.427040638	394.7554938	11-3	98
11	206.6	WS5: 15deg	Combination	3.819577869	-23.48262746	-1.879172899	-91.96620403	3.427040638	340.8418938	11-4	0
11	216	WS5: 15deg	Combination	3.819577869	-23.48641879	-1.879172899	-91.96620403	21.09126589	561.5964112	11-4	9.4
11	0	WS5: 0deg	Combination	-2.141498236	15.69357737	1.488147101	-1.048564031	-20.24156835	175.5193679	11-1	0
11	9.6	WS5: 0deg	Combination	-2.141498236	15.66260137	1.488147101	-1.048564031	-34.52778051	25.00970997	11-1	9.6
11	9.6	WS5: 0deg	Combination	-0.144698236	4.316121373	0.365707101	-31.35444403	-34.52778051	-28.90389003	11-2	0
11	29.4	WS5: 0deg	Combination	-0.144698236	4.252233373	0.365707101	-31.35444403	-41.76878111	-113.730602	11-2	19.8
11	49.2	WS5: 0deg	Combination	-0.144698236	4.188345373	0.365707101	-31.35444403	-49.0097817	-197.2923316	11-2	39.6
11	69	WS5: 0deg	Combination	-0.144698236	4.124457373	0.365707101	-31.35444403	-56.2507823	-279.5890788	11-2	59.4
11	88.8	WS5: 0deg	Combination	-0.144698236	4.060569373	0.365707101	-31.35444403	-63.49178289	-360.6208435	11-2	79.2
11	108.6	WS5: 0deg	Combination	-0.144698236	3.996681373	0.365707101	-31.35444403	-70.73278349	-440.3876259	11-2	99
11	108.6	WS5: 0deg	Combination	1.852101764	-8.921158627	-0.756732899	-61.66032403	-70.73278349	-494.3012259	11-3	0
11	128.2	WS5: 0deg	Combination	1.852101764	-8.984401294	-0.756732899	-61.66032403	-55.90081866	-318.8267387	11-3	19.6
11	147.8	WS5: 0deg	Combination	1.852101764	-9.047643961	-0.756732899	-61.66032403	-41.06885384	-142.1126952	11-3	39.2
11	167.4	WS5: 0deg	Combination	1.852101764	-9.110886627	-0.756732899	-61.66032403	-26.23688901	35.84090457	11-3	58.8
11	187	WS5: 0deg	Combination	1.852101764	-9.174129294	-0.756732899	-61.66032403	-11.40492419	215.0340606	11-3	78.4
11	206.6	WS5: 0deg	Combination	1.852101764	-9.237371961	-0.756732899	-61.66032403	3.427040638	395.4667729	11-3	98
11	206.6	WS5: 0deg	Combination	3.848901764	-23.72173196	-1.879172899	-91.96620403	3.427040638	341.5531729	11-4	0
11	216	WS5: 0deg	Combination	3.848901764	-23.75206263	-1.879172899	-91.96620403	21.09126589	564.6800075	11-4	9.4
11	0	WS5: -15deg	Combination	-2.085257467	15.99422965	1.488147101	-1.048564031	-20.24156835	185.884211	11-1	0
11	9.6	WS5: -15deg	Combination	-2.085257467	15.94002165	1.488147101	-1.048564031	-34.52778051	32.59980481	11-1	9.6
11	9.6	WS5: -15deg	Combination	-0.088457467	4.593541648	0.365707101	-31.35444403	-34.52778051	-21.31379519	11-2	0
11	29.4	WS5: -15deg	Combination	-0.088457467	4.481737648	0.365707101	-31.35444403	-41.76878111	-111.1590602	11-2	19.8
11	49.2	WS5: -15deg	Combination	-0.088457467	4.369933648	0.365707101	-31.35444403	-49.0097817	-198.790606	11-2	39.6
11	69	WS5: -15deg	Combination	-0.088457467	4.258129648	0.365707101	-31.35444403	-56.2507823	-284.2084327	11-2	59.4
11	88.8	WS5: -15deg	Combination	-0.088457467	4.146325648	0.365707101	-31.35444403	-63.49178289	-367.4125401	11-2	79.2
11	108.6	WS5: -15deg	Combination	-0.088457467	4.034521648	0.365707101	-31.35444403	-70.73278349	-448.4029283	11-2	99
11	108.6	WS5: -15deg	Combination	1.908342533	-8.883318352	-0.756732899	-61.66032403	-70.73278349	-502.3165283	11-3	0
11	128.2	WS5: -15deg	Combination	1.908342533	-8.993993019	-0.756732899	-61.66032403	-55.90081866	-327.1188769	11-3	19.6
11	147.8	WS5: -15deg	Combination	1.908342533	-9.104667685	-0.756732899	-61.66032403	-41.06885384	-149.752002	11-3	39.2
11	167.4	WS5: -15deg	Combination	1.908342533	-9.215342352	-0.756732899	-61.66032403	-26.23688901	29.78409638	11-3	58.8
11	187	WS5: -15deg	Combination	1.908342533	-9.326017019	-0.756732899	-61.66032403	-11.40492419	211.4894182	11-3	78.4
11	206.6	WS5: -15deg	Combination	1.908342533	-9.436691685	-0.756732899	-61.66032403	3.427040638	395.3639635	11-3	98
11	206.6	WS5: -15deg	Combination	3.905142533	-23.92105169	-1.879172899	-91.96620403	3.427040638	341.4503635	11-4	0
11	216	WS5: -15deg	Combination	3.905142533	-23.97413035	-1.879172899	-91.96620403	21.09126589	566.5577191	11-4	9.4
11	0	WS5: -30deg	Combination	-2.004823139	16.29925847	1.488147101	-1.048564031	-20.24156835	196.5991003	11-1	0
11	9.6	WS5: -30deg	Combination	-2.004823139	16.22181847	1.488147101	-1.048564031	-34.52778051	40.49793098	11-1	9.6
11	9.6	WS5: -30deg	Combination	-0.008023139	4.875338473	0.365707101	-31.35444403	-34.52778051	-13.41566902	11-2	0
11	29.4	WS5: -30deg	Combination	-0.008023139	4.715618473	0.365707101	-31.35444403	-41.76878111	-108.3661428	11-2	19.8
11	49.2	WS5: -30deg	Combination	-0.008023139	4.555898473	0.365707101	-31.35444403	-49.0097817	-200.1541605	11-2	39.6

11	69	WS5: -30deg	Combination	-0.008023139	4.396178473	0.365707101	-31.35444403	-56.2507823	-288.7797223	11-2	59.4
11	88.8	WS5: -30deg	Combination	-0.008023139	4.236458473	0.365707101	-31.35444403	-63.49178289	-374.242828	11-2	79.2
11	108.6	WS5: -30deg	Combination	-0.008023139	4.076738473	0.365707101	-31.35444403	-70.73278349	-456.5434778	11-2	99
11	108.6	WS5: -30deg	Combination	1.988776861	-8.841101527	-0.756732899	-61.66032403	-70.73278349	-510.4570778	11-3	0
11	128.2	WS5: -30deg	Combination	1.988776861	-8.999208194	-0.756732899	-61.66032403	-55.90081866	-335.6220425	11-3	19.6
11	147.8	WS5: -30deg	Combination	1.988776861	-9.157314861	-0.756732899	-61.66032403	-41.06885384	-157.6881166	11-3	39.2
11	167.4	WS5: -30deg	Combination	1.988776861	-9.315421527	-0.756732899	-61.66032403	-26.23688901	23.34470001	11-3	58.8
11	187	WS5: -30deg	Combination	1.988776861	-9.473528194	-0.756732899	-61.66032403	-11.40492419	207.4764073	11-3	78.4
11	206.6	WS5: -30deg	Combination	1.988776861	-9.63163486 1	-0.756732899	-61.66032403	3.427040638	394.7070052	11-3	98
11	206.6	WS5: -30deg	Combination	3.985576861	-24.11599486	-1.879172899	-91.96620403	3.427040638	340.7934052	11-4	0
11	216	WS5: -30deg	Combination	3.985576861	-24.19182153	-1.879172899	-91.96620403	21.09126589	567.8401422	11-4	9.4
11	0	WS5: -45deg	Combination	-1.910877657	16.50990527	1.488147101	-1.048564031	-20.24156835	204.3257702	11-1	0
11	9.6	WS5: -45deg	Combination	-1.910877657	16.41697727	1.488147101	-1.048564031	-34.52778051	46.27673395	11-1	9.6
11	9.6	WS5: -45deg	Combination	0.085922343	5.070497271	0.365707101	-31.35444403	-34.52778051	-7.636866046	11-2	0
11	29.4	WS5: -45deg	Combination	0.085922343	4.878833271	0.365707101	-31.35444403	-41.76878111	-106.1352384	11-2	19.8
11	49.2	WS5: -45deg	Combination	0.085922343	4.687169271	0.365707101	-31.35444403	-49.0097817	-200.8386636	11-2	39.6
11	69	WS5: -45deg	Combination	0.085922343	4.495505271	0.365707101	-31.35444403	-56.2507823	-291.7471416	11-2	59.4
11	88.8	WS5: -45deg	Combination	0.085922343	4.303841271	0.365707101	-31.35444403	-63.49178289	-378.8606723	11-2	79.2
11	108.6	WS5: -45deg	Combination	0.085922343	4.112177271	0.365707101	-31.35444403	-70.73278349	-462.1792559	11-2	99
11	108.6	WS5: -45deg	Combination	2.082722343	-8.805662729	-0.756732899	-61.66032403	-70.73278349	-516.0928559	11-3	0
11	128.2	WS5: -45deg	Combination	2.082722343	-8.995390729	-0.756732899	-61.66032403	-55.90081866	-341.642532	11-3	19.6
11	147.8	WS5: -45deg	Combination	2.082722343	-9.185118729	-0.756732899	-61.66032403	-41.06885384	-163.4735393	11-3	39.2
11	167.4	WS5: -45deg	Combination	2.082722343	-9.374846729	-0.756732899	-61.66032403	-26.23688901	18.41412216	11-3	58.8
11	187	WS5: -45deg	Combination	2.082722343	-9.564574729	-0.756732899	-61.66032403	-11.40492419	204.0204524	11-3	78.4
11	206.6	WS5: -45deg	Combination	2.082722343	-9.754302729	-0.756732899	-61.66032403	3.427040638	393.3454515	11-3	98
11	206.6	WS5: -45deg	Combination	4.079522343	-24.23866273	-1.879172899	-91.96620403	3.427040638	339.4318515	11-4	0
11	216	WS5: -45deg	Combination	4.079522343	-24.32965473	-1.879172899	-91.96620403	21.09126589	567.7029436	11-4	9.4
11	0	LL - 1 Lane	Combination	-2.934062428	-3.126855606	3.964185018	-2.793206276	-53.92028915	-380.7660389	11-1	0
11	9.6	LL - 1 Lane	Combination	-2.934062428	-3.126855606	3.964185018	-2.793206276	-91.97646532	-350.7482251	11-1	9.6
11	9.6	LL - 1 Lane	Combination	-0.044062428	-2.626855606	0.974185018	-83.52320628	-91.97646532	-428.7782251	11-2	0
11	29.4	LL - 1 Lane	Combination	-0.044062428	-2.626855606	0.974185018	-83.52320628	-111.2653287	-376.7664841	11-2	19.8
11	49.2	LL - 1 Lane	Combination	-0.044062428	-2.626855606	0.974185018	-83.52320628	-130.554192	-324.7547431	11-2	39.6
11	69	LL - 1 Lane	Combination	-0.044062428	-2.626855606	0.974185018	-83.52320628	-149.8430554	-272.7430021	11-2	59.4
11	88.8	LL - 1 Lane	Combination	-0.044062428	-2.626855606	0.974185018	-83.52320628	-169.1319187	-220.7312611	11-2	79.2
11	108.6	LL - 1 Lane	Combination	-0.044062428	-2.626855606	0.974185018	-83.52320628	-188.4207821	-168.7195201	11-2	99
11	108.6	LL - 1 Lane	Combination	2.845937572	-8.576855606	-2.015814982	-164.2532063	-188.4207821	-246.7495201	11-3	0
11	128.2	LL - 1 Lane	Combination	2.845937572	-8.576855606	-2.015814982	-164.2532063	-148.9108084	-78.64315024	11-3	19.6
11	147.8	LL - 1 Lane	Combination	2.845937572	-8.576855606	-2.015814982	-164.2532063	-109.4008348	89.46321963	11-3	39.2
11	167.4	LL - 1 Lane	Combination	2.845937572	-8.576855606	-2.015814982	-164.2532063	-69.89086111	257.5695895	11-3	58.8
11	187	LL - 1 Lane	Combination	2.845937572	-8.576855606	-2.015814982	-164.2532063	-30.38088746	425.6759594	11-3	78.4
11	206.6	LL - 1 Lane	Combination	2.845937572	-8.576855606	-2.015814982	-164.2532063	9.129086194	593.7823292	11-3	98
11	206.6	LL - 1 Lane	Combination	5.735937572	-20.96685561	-5.005814982	-244.9832063	9.129086194	515.7523292	11-4	0

11	216	LL - 1 Lane	Combination	5.735937572	-20.96685561	-5.005814982	-244.9832063	56.18374703	712.8407719	11-4	9.4
11	0	WS5 + WA	Combination	-1.740679287	15.37877981	1.488147101	-1.048564031	-20.24156835	168.583819	11-1	0
11	9.6	WS5 + WA	Combination	-1.740679287	15.37877981	1.488147101	-1.048564031	-34.52778051	20.94753285	11-1	9.6
11	9.6	WS5 + WA	Combination	0.256120713	4.03229981	0.365707101	-31.35444403	-34.52778051	-32.96606715	11-2	0
11	29.4	WS5 + WA	Combination	0.256120713	4.03229981	0.365707101	-31.35444403	-41.76878111	-112.8056034	11-2	19.8
11	49.2	WS5 + WA	Combination	0.256120713	4.03229981	0.365707101	-31.35444403	-49.0097817	-192.6451396	11-2	39.6
11	69	WS5 + WA	Combination	0.256120713	4.03229981	0.365707101	-31.35444403	-56.2507823	-272.4846759	11-2	59.4
11	88.8	WS5 + WA	Combination	0.256120713	4.03229981	0.365707101	-31.35444403	-63.49178289	-352.3242121	11-2	79.2
11	108.6	WS5 + WA	Combination	0.256120713	4.03229981	0.365707101	-31.35444403	-70.73278349	-432.1637483	11-2	99
11	108.6	WS5 + WA	Combination	2.252920713	-8.88554019	-0.756732899	-61.66032403	-70.73278349	-486.0773483	11-3	0
11	128.2	WS5 + WA	Combination	2.252920713	-8.88554019	-0.756732899	-61.66032403	-55.90081866	-311.9207606	11-3	19.6
11	147.8	WS5 + WA	Combination	2.252920713	-8.88554019	-0.756732899	-61.66032403	-41.06885384	-137.7641729	11-3	39.2
11	167.4	WS5 + WA	Combination	2.252920713	-8.88554019	-0.756732899	-61.66032403	-26.23688901	36.39241485	11-3	58.8
11	187	WS5 + WA	Combination	2.252920713	-8.88554019	-0.756732899	-61.66032403	-11.40492419	210.5490026	11-3	78.4
11	206.6	WS5 + WA	Combination	2.252920713	-8.88554019	-0.756732899	-61.66032403	3.427040638	384.7055903	11-3	98
11	206.6	WS5 + WA	Combination	4.249720713	-23.36990019	-1.879172899	-91.96620403	3.427040638	330.7919903	11-4	0
11	216	WS5 + WA	Combination	4.249720713	-23.36990019	-1.879172899	-91.96620403	21.09126589	550.4690521	11-4	9.4
11	0	LL - 2 Lane	Combination	-4.929328782	-5.550203581	6.602555648	-4.652229852	-89.80703678	-625.4344439	11-1	0
11	9.6	LL - 2 Lane	Combination	-4.929328782	-5.550203581	6.602555648	-4.652229852	-153.191571	-572.1524895	11-1	9.6
11	9.6	LL - 2 Lane	Combination	-0.119328782	-5.020203581	1.622555648	-139.1122299	-153.191571	-702.0224895	11-2	0
11	29.4	LL - 2 Lane	Combination	-0.119328782	-5.020203581	1.622555648	-139.1122299	-185.3181728	-602.6224586	11-2	19.8
11	49.2	LL - 2 Lane	Combination	-0.119328782	-5.020203581	1.622555648	-139.1122299	-217.4447747	-503.2224277	11-2	39.6
11	69	LL - 2 Lane	Combination	-0.119328782	-5.020203581	1.622555648	-139.1122299	-249.5713765	-403.8223968	11-2	59.4
11	88.8	LL - 2 Lane	Combination	-0.119328782	-5.020203581	1.622555648	-139.1122299	-281.6979783	-304.4223659	11-2	79.2
11	108.6	LL - 2 Lane	Combination	-0.119328782	-5.020203581	1.622555648	-139.1122299	-313.8245802	-205.022335	11-2	99
11	108.6	LL - 2 Lane	Combination	4.690671218	-13.73020358	-3.357444352	-273.5722299	-313.8245802	-334.892335	11-3	0
11	128.2	LL - 2 Lane	Combination	4.690671218	-13.73020358	-3.357444352	-273.5722299	-248.0186709	-65.78034481	11-3	19.6
11	147.8	LL - 2 Lane	Combination	4.690671218	-13.73020358	-3.357444352	-273.5722299	-182.2127616	203.3316454	11-3	39.2
11	167.4	LL - 2 Lane	Combination	4.690671218	-13.73020358	-3.357444352	-273.5722299	-116.4068523	472.4436356	11-3	58.8
11	187	LL - 2 Lane	Combination	4.690671218	-13.73020358	-3.357444352	-273.5722299	-50.60094299	741.5556258	11-3	78.4
11	206.6	LL - 2 Lane	Combination	4.690671218	-13.73020358	-3.357444352	-273.5722299	15.2049663	1010.667616	11-3	98
11	206.6	LL - 2 Lane	Combination	9.500671218	-31.69020358	-8.337444352	-408.0322299	15.2049663	880.797616	11-4	0
11	216	LL - 2 Lane	Combination	9.500671218	-31.69020358	-8.337444352	-408.0322299	93.57694321	1178.68553	11-4	9.4
11	0	LL - 3 Lane	Combination	-6.512544938	-16.00106369	8.418921359	-5.932060152	-114.5129887	-1016.698489	11-1	0
11	9.6	LL - 3 Lane	Combination	-6.512544938	-16.00106369	8.418921359	-5.932060152	-195.3346337	-863.0882776	11-1	9.6
11	9.6	LL - 3 Lane	Combination	-0.372544938	-10.91106369	2.068921359	-177.3820602	-195.3346337	-1028.868278	11-2	0
11	29.4	LL - 3 Lane	Combination	-0.372544938	-10.91106369	2.068921359	-177.3820602	-236.2992766	-812.8292166	11-2	19.8
11	49.2	LL - 3 Lane	Combination	-0.372544938	-10.91106369	2.068921359	-177.3820602	-277.2639195	-596.7901556	11-2	39.6
11	69	LL - 3 Lane	Combination	-0.372544938	-10.91106369	2.068921359	-177.3820602	-318.2285624	-380.7510946	11-2	59.4
11	88.8	LL - 3 Lane	Combination	-0.372544938	-10.91106369	2.068921359	-177.3820602	-359.1932053	-164.7120336	11-2	79.2
11	108.6	LL - 3 Lane	Combination	-0.372544938	-10.91106369	2.068921359	-177.3820602	-400.1578482	51.32702746	11-2	99
11	108.6	LL - 3 Lane	Combination	5.767455062	-15.68106369	-4.281078641	-348.8320602	-400.1578482	-114.4529725	11-3	0

11	128.2	LL - 3 Lane	Combination	5.767455062	-15.68106369	-4.281078641	-348.8320602	-316.2487068	192.8958757	11-3		19.6
11	147.8	LL - 3 Lane	Combination	5.767455062	-15.68106369	-4.281078641	-348.8320602	-232.3395655	500.244724	11-3		39.2
11	167.4	LL - 3 Lane	Combination	5.767455062	-15.68106369	-4.281078641	-348.8320602	-148.4304241	807.5935723	11-3		58.8
11	187	LL - 3 Lane	Combination	5.767455062	-15.68106369	-4.281078641	-348.8320602	-64.52128273	1114.942421	11-3		78.4
11	206.6	LL - 3 Lane	Combination	5.767455062	-15.68106369	-4.281078641	-348.8320602	19.38785864	1422.291269	11-3		98
11	206.6	LL - 3 Lane	Combination	11.90745506	-22.06106369	-10.63107864	-520.2820602	19.38785864	1256.511269	11-4		0
11	216	LL - 3 Lane	Combination	11.90745506	-22.06106369	-10.63107864	-520.2820602	119.3199979	1463.885268	11-4		9.4
11	0	LL - 7 Lane	Combination	-13.53264853	-103.0628229	15.00821886	-10.57494818	-204.13969	-3304.420005	11-1		0
11	9.6	LL - 7 Lane	Combination	-13.53264853	-103.0628229	15.00821886	-10.57494818	-348.2185911	-2315.016905	11-1		9.6
11	9.6	LL - 7 Lane	Combination	-2.582648531	-52.58282288	3.688218863	-316.2149482	-348.2185911	-2610.666905	11-2		0
11	29.4	LL - 7 Lane	Combination	-2.582648531	-52.58282288	3.688218863	-316.2149482	-421.2453246	-1569.527012	11-2		19.8
11	49.2	LL - 7 Lane	Combination	-2.582648531	-52.58282288	3.688218863	-316.2149482	-494.2720581	-528.3871191	11-2		39.6
11	69	LL - 7 Lane	Combination	-2.582648531	-52.58282288	3.688218863	-316.2149482	-567.2987916	512.752774	11-2		59.4
11	88.8	LL - 7 Lane	Combination	-2.582648531	-52.58282288	3.688218863	-316.2149482	-640.3255251	1553.892667	11-2		79.2
11	108.6	LL - 7 Lane	Combination	-2.582648531	-52.58282288	3.688218863	-316.2149482	-713.3522586	2595.03256	11-2		99
11	108.6	LL - 7 Lane	Combination	8.367351469	-6.012822884	-7.631781137	-621.8549482	-713.3522586	2299.38256	11-3		0
11	128.2	LL - 7 Lane	Combination	8.367351469	-6.012822884	-7.631781137	-621.8549482	-563.7693483	2417.233889	11-3		19.6
11	147.8	LL - 7 Lane	Combination	8.367351469	-6.012822884	-7.631781137	-621.8549482	-414.186438	2535.085217	11-3		39.2
11	167.4	LL - 7 Lane	Combination	8.367351469	-6.012822884	-7.631781137	-621.8549482	-264.6035277	2652.936546	11-3		58.8
11	187	LL - 7 Lane	Combination	8.367351469	-6.012822884	-7.631781137	-621.8549482	-115.0206174	2770.787874	11-3		78.4
11	206.6	LL - 7 Lane	Combination	8.367351469	-6.012822884	-7.631781137	-621.8549482	34.56229288	2888.639203	11-3		98
11	206.6	LL - 7 Lane	Combination	19.31735147	36.65717712	-18.95178114	-927.4949482	34.56229288	2592.989203	11-4		0
11	216	LL - 7 Lane	Combination	19.31735147	36.65717712	-18.95178114	-927.4949482	212.7090356	2248.411738	11-4		9.4
11	0	LL Envelope	Combination Max	-2.934062428	-3.126855606	15.00821886	-2.793206276	-53.92028915	-380.7660389	11-1		0
11	9.6	LL Envelope	Combination Max	-2.934062428	-3.126855606	15.00821886	-2.793206276	-91.97646532	-350.7482251	11-1		9.6
11	9.6	LL Envelope	Combination Max	-0.044062428	-2.626855606	3.688218863	-83.52320628	-91.97646532	-428.7782251	11-2		0
11	29.4	LL Envelope	Combination Max	-0.044062428	-2.626855606	3.688218863	-83.52320628	-111.2653287	-376.7664841	11-2		19.8
11	49.2	LL Envelope	Combination Max	-0.044062428	-2.626855606	3.688218863	-83.52320628	-130.554192	-324.7547431	11-2		39.6
11	69	LL Envelope	Combination Max	-0.044062428	-2.626855606	3.688218863	-83.52320628	-149.8430554	512.752774	11-2		59.4
11	88.8	LL Envelope	Combination Max	-0.044062428	-2.626855606	3.688218863	-83.52320628	-169.1319187	1553.892667	11-2		79.2
11	108.6	LL Envelope	Combination Max	-0.044062428	-2.626855606	3.688218863	-83.52320628	-188.4207821	2595.03256	11-2		99
11	108.6	LL Envelope	Combination Max	8.367351469	-6.012822884	-2.015814982	-164.2532063	-188.4207821	2299.38256	11-3		0
11	128.2	LL Envelope	Combination Max	8.367351469	-6.012822884	-2.015814982	-164.2532063	-148.9108084	2417.233889	11-3		19.6
11	147.8	LL Envelope	Combination Max	8.367351469	-6.012822884	-2.015814982	-164.2532063	-109.4008348	2535.085217	11-3		39.2
11	167.4	LL Envelope	Combination Max	8.367351469	-6.012822884	-2.015814982	-164.2532063	-69.89086111	2652.936546	11-3		58.8
11	187	LL Envelope	Combination Max	8.367351469	-6.012822884	-2.015814982	-164.2532063	-30.38088746	2770.787874	11-3		78.4
11	206.6	LL Envelope	Combination Max	8.367351469	-6.012822884	-2.015814982	-164.2532063	34.56229288	2888.639203	11-3		98
11	206.6	LL Envelope	Combination Max	19.31735147	36.65717712	-5.005814982	-244.9832063	34.56229288	2592.989203	11-4		0
11	216	LL Envelope	Combination Max	19.31735147	36.65717712	-5.005814982	-244.9832063	212.7090356	2248.411738	11-4		9.4
11	0	LL Envelope	Combination Min	-13.53264853	-103.0628229	3.964185018	-10.57494818	-204.13969	-3304.420005	11-1		0
11	9.6	LL Envelope	Combination Min	-13.53264853	-103.0628229	3.964185018	-10.57494818	-348.2185911	-2315.016905	11-1		9.6
11	9.6	LL Envelope	Combination Min	-2.582648531	-52.58282288	0.974185018	-316.2149482	-348.2185911	-2610.666905	11-2		0

11	29.4	LL Envelope	Combination Min	-2.582648531	-52.58282288	0.974185018	-316.2149482	-421.2453246	-1569.527012	11-2	19.8
11	49.2	LL Envelope	Combination Min	-2.582648531	-52.58282288	0.974185018	-316.2149482	-494.2720581	-596.7901556	11-2	39.6
11	69	LL Envelope	Combination Min	-2.582648531	-52.58282288	0.974185018	-316.2149482	-567.2987916	-403.8223968	11-2	59.4
11	88.8	LL Envelope	Combination Min	-2.582648531	-52.58282288	0.974185018	-316.2149482	-640.3255251	-304.4223659	11-2	79.2
11	108.6	LL Envelope	Combination Min	-2.582648531	-52.58282288	0.974185018	-316.2149482	-713.3522586	-205.022335	11-2	99
11	108.6	LL Envelope	Combination Min	2.845937572	-15.68106369	-7.631781137	-621.8549482	-713.3522586	-334.892335	11-3	0
11	128.2	LL Envelope	Combination Min	2.845937572	-15.68106369	-7.631781137	-621.8549482	-563.7693483	-78.64315024	11-3	19.6
11	147.8	LL Envelope	Combination Min	2.845937572	-15.68106369	-7.631781137	-621.8549482	-414.186438	89.46321963	11-3	39.2
11	167.4	LL Envelope	Combination Min	2.845937572	-15.68106369	-7.631781137	-621.8549482	-264.6035277	257.5695895	11-3	58.8
11	187	LL Envelope	Combination Min	2.845937572	-15.68106369	-7.631781137	-621.8549482	-115.0206174	425.6759594	11-3	78.4
11	206.6	LL Envelope	Combination Min	2.845937572	-15.68106369	-7.631781137	-621.8549482	9.129086194	593.7823292	11-3	98
11	206.6	LL Envelope	Combination Min	5.735937572	-31.69020358	-18.95178114	-927.4949482	9.129086194	515.7523292	11-4	0
11	216	LL Envelope	Combination Min	5.735937572	-31.69020358	-18.95178114	-927.4949482	56.18374703	712.8407719	11-4	9.4
11	0	WS3 & WA envelope	Combination Max	-0.967761366	35.30630189	1.869398286	-0.487363115	-9.408098612	563.9902863	11-1	0
11	9.6	WS3 & WA envelope	Combination Max	-0.967761366	35.14630189	1.869398286	-0.487363115	-16.04820132	225.8177881	11-1	9.6
11	9.6	WS3 & WA envelope	Combination Max	0.6301805	12.42630189	0.459398286	-14.57326312	-16.04820132	152.9177881	11-2	0
11	29.4	WS3 & WA envelope	Combination Max	0.6301805	12.09630189	0.459398286	-14.57326312	-19.41375317	-33.24671601	11-2	19.8
11	49.2	WS3 & WA envelope	Combination Max	0.6301805	11.76630189	0.459398286	-14.57326312	-22.77930501	-120.6554336	11-2	39.6
11	69	WS3 & WA envelope	Combination Max	0.6301805	11.43630189	0.459398286	-14.57326312	-26.14485685	-205.6465713	11-2	59.4
11	88.8	WS3 & WA envelope	Combination Max	0.6301805	11.10630189	0.459398286	-14.57326312	-29.51040869	-288.2201289	11-2	79.2
11	108.6	WS3 & WA envelope	Combination Max	0.6301805	10.77630189	0.459398286	-14.57326312	-32.87596054	-368.3761065	11-2	99
11	108.6	WS3 & WA envelope	Combination Max	3.3301805	-5.543968302	-0.351722634	-28.65916312	-32.87596054	-395.3491065	11-3	0
11	128.2	WS3 & WA envelope	Combination Max	3.3301805	-5.664834968	-0.351722634	-28.65916312	-25.98219691	-285.5028345	11-3	19.6
11	147.8	WS3 & WA envelope	Combination Max	3.3301805	-5.785701635	-0.351722634	-28.65916312	-19.08843328	-173.2875758	11-3	39.2
11	167.4	WS3 & WA envelope	Combination Max	3.3301805	-5.906568302	-0.351722634	-28.65916312	-12.19466965	-58.70333039	11-3	58.8
11	187	WS3 & WA envelope	Combination Max	3.3301805	-6.027434968	-0.351722634	-28.65916312	-5.300906016	180.1398456	11-3	78.4
11	206.6	WS3 & WA envelope	Combination Max	3.3301805	-6.148301635	-0.351722634	-28.65916312	4.30502058	481.5436295	11-3	98
11	206.6	WS3 & WA envelope	Combination Max	6.0301805	-16.80060163	-0.873422634	-42.74506312	4.30502058	408.6436295	11-4	0
11	216	WS3 & WA envelope	Combination Max	6.0301805	-16.8585683	-0.873422634	-42.74506312	26.49467669	834.5870786	11-4	9.4
11	0	WS3 & WA envelope	Combination Min	-2.958544383	13.0633317	0.691677366	-1.317197609	-25.42729355	208.6764059	11-1	0
11	9.6	WS3 & WA envelope	Combination Min	-2.958544383	13.0041317	0.691677366	-1.317197609	-43.37351709	83.55258161	11-1	9.6
11	9.6	WS3 & WA envelope	Combination Min	-0.258544383	4.597731698	0.169977366	-39.38719761	-43.37351709	56.57958161	11-2	0
11	29.4	WS3 & WA envelope	Combination Min	-0.258544383	4.475631698	0.169977366	-39.38719761	-52.46960315	-106.4521211	11-2	19.8
11	49.2	WS3 & WA envelope	Combination Min	-0.258544383	4.353531698	0.169977366	-39.38719761	-61.56568921	-326.0957666	11-2	39.6
11	69	WS3 & WA envelope	Combination Min	-0.258544383	4.231431698	0.169977366	-39.38719761	-70.66177528	-555.801544	11-2	59.4
11	88.8	WS3 & WA envelope	Combination Min	-0.258544383	4.109331698	0.169977366	-39.38719761	-79.75786134	-778.9733213	11-2	79.2
11	108.6	WS3 & WA envelope	Combination Min	-0.258544383	3.987231698	0.169977366	-39.38719761	-88.8539474	-995.6110987	11-2	99
11	108.6	WS3 & WA envelope	Combination Min	1.030238634	-15.22675444	-0.950601714	-77.45719761	-88.8539474	-1068.511099	11-3	0
11	128.2	WS3 & WA envelope	Combination Min	1.030238634	-15.31036478	-0.950601714	-77.45719761	-70.2221538	-771.6292824	11-3	19.6
11	147.8	WS3 & WA envelope	Combination Min	1.030238634	-15.63703145	-0.950601714	-77.45719761	-51.59036021	-468.3447994	11-3	39.2
11	167.4	WS3 & WA envelope	Combination Min	1.030238634	-15.96369811	-0.950601714	-77.45719761	-32.95856661	-158.6576497	11-3	58.8
11	187	WS3 & WA envelope	Combination Min	1.030238634	-16.29036478	-0.950601714	-77.45719761	-14.32677302	58.24990165	11-3	78.4

11	206.6	WS3 & WA envelope	Combination	Min	1.030238634	-16.61703145	-0.950601714	-77.45719761	1.592857614	177.5721204	11-3	98
11	206.6	WS3 & WA envelope	Combination	Min	2.029238634	-45.40703145	-2.360601714	-115.5271976	1.592857614	150.5991204	11-4	0
11	216	WS3 & WA envelope	Combination	Min	2.029238634	-45.56369811	-2.360601714	-115.5271976	9.803030376	308.7972191	11-4	9.4
11	0	WS3 + WA	Combination		-2.0698195	33.40448647	1.869398286	-1.317197609	-25.42729355	506.1074737	11-1	0
11	9.6	WS3 + WA	Combination		-2.0698195	33.40448647	1.869398286	-1.317197609	-43.37351709	185.4244036	11-1	9.6
11	9.6	WS3 + WA	Combination		0.6301805	10.68448647	0.459398286	-39.38719761	-43.37351709	112.5244036	11-2	0
11	29.4	WS3 + WA	Combination		0.6301805	10.68448647	0.459398286	-39.38719761	-52.46960315	-99.0284285	11-2	19.8
11	49.2	WS3 + WA	Combination		0.6301805	10.68448647	0.459398286	-39.38719761	-61.56568921	-310.5812606	11-2	39.6
11	69	WS3 + WA	Combination		0.6301805	10.68448647	0.459398286	-39.38719761	-70.66177528	-522.1340927	11-2	59.4
11	88.8	WS3 + WA	Combination		0.6301805	10.68448647	0.459398286	-39.38719761	-79.75786134	-733.6869248	11-2	79.2
11	108.6	WS3 + WA	Combination		0.6301805	10.68448647	0.459398286	-39.38719761	-88.8539474	-945.2397568	11-2	99
11	108.6	WS3 + WA	Combination		3.3301805	-15.07551353	-0.950601714	-77.45719761	-88.8539474	-1018.139757	11-3	0
11	128.2	WS3 + WA	Combination		3.3301805	-15.07551353	-0.950601714	-77.45719761	-70.2221538	-722.6596916	11-3	19.6
11	147.8	WS3 + WA	Combination		3.3301805	-15.07551353	-0.950601714	-77.45719761	-51.59036021	-427.1796264	11-3	39.2
11	167.4	WS3 + WA	Combination		3.3301805	-15.07551353	-0.950601714	-77.45719761	-32.95856661	-131.6995612	11-3	58.8
11	187	WS3 + WA	Combination		3.3301805	-15.07551353	-0.950601714	-77.45719761	-14.32677302	163.780504	11-3	78.4
11	206.6	WS3 + WA	Combination		3.3301805	-15.07551353	-0.950601714	-77.45719761	4.30502058	459.2605692	11-3	98
11	206.6	WS3 + WA	Combination		6.0301805	-43.86551353	-2.360601714	-115.5271976	4.30502058	386.3605692	11-4	0
11	216	WS3 + WA	Combination		6.0301805	-43.86551353	-2.360601714	-115.5271976	26.49467669	798.6963964	11-4	9.4
11	0	WS5 & WA envelope	Combination	Max	-1.740679287	16.50990527	1.488147101	-1.048564031	-20.24156835	204.3257702	11-1	0
11	9.6	WS5 & WA envelope	Combination	Max	-1.740679287	16.41697727	1.488147101	-1.048564031	-34.52778051	46.27673395	11-1	9.6
11	9.6	WS5 & WA envelope	Combination	Max	0.256120713	5.070497271	0.365707101	-31.35444403	-34.52778051	-7.636866046	11-2	0
11	29.4	WS5 & WA envelope	Combination	Max	0.256120713	4.878833271	0.365707101	-31.35444403	-41.76878111	-106.1352384	11-2	19.8
11	49.2	WS5 & WA envelope	Combination	Max	0.256120713	4.68716927	0.365707101	-31.35444403	-49.0097817	-192.6451396	11-2	39.6
11	69	WS5 & WA envelope	Combination	Max	0.256120713	4.495505271	0.365707101	-31.35444403	-56.2507823	-272.4846759	11-2	59.4
11	88.8	WS5 & WA envelope	Combination	Max	0.256120713	4.303841271	0.365707101	-31.35444403	-63.49178289	-352.3242121	11-2	79.2
11	108.6	WS5 & WA envelope	Combination	Max	0.256120713	4.112177271	0.365707101	-31.35444403	-70.73278349	-431.2243104	11-2	99
11	108.6	WS5 & WA envelope	Combination	Max	2.252920713	-8.805662729	-0.756732899	-61.66032403	-70.73278349	-485.1379104	11-3	0
11	128.2	WS5 & WA envelope	Combination	Max	2.252920713	-8.88554019	-0.756732899	-61.66032403	-55.90081866	-309.4691186	11-3	19.6
11	147.8	WS5 & WA envelope	Combination	Max	2.252920713	-8.88554019	-0.756732899	-61.66032403	-41.06885384	-133.6453823	11-3	39.2
11	167.4	WS5 & WA envelope	Combination	Max	2.252920713	-8.88554019	-0.756732899	-61.66032403	-26.23688901	42.33329854	11-3	58.8
11	187	WS5 & WA envelope	Combination	Max	2.252920713	-8.88554019	-0.756732899	-61.66032403	-11.40492419	218.4669239	11-3	78.4
11	206.6	WS5 & WA envelope	Combination	Max	2.252920713	-8.88554019	-0.756732899	-61.66032403	3.427040638	395.4905915	11-3	98
11	206.6	WS5 & WA envelope	Combination	Max	4.249720713	-23.36990019	-1.879172899	-91.96620403	3.427040638	341.5769915	11-4	0
11	216	WS5 & WA envelope	Combination	Max	4.249720713	-23.36990019	-1.879172899	-91.96620403	21.09126589	567.8401422	11-4	9.4
11	0	WS5 & WA envelope	Combination	Min	-2.170822131	15.34938121	1.488147101	-1.048564031	-20.24156835	163.9521203	11-1	0
11	9.6	WS5 & WA envelope	Combination	Min	-2.170822131	15.34550921	1.488147101	-1.048564031	-34.52778051	16.61664631	11-1	9.6
11	9.6	WS5 & WA envelope	Combination	Min	-0.174022131	3.999029209	0.365707101	-31.35444403	-34.52778051	-37.29695369	11-2	0
11	29.4	WS5 & WA envelope	Combination	Min	-0.174022131	3.991043209	0.365707101	-31.35444403	-41.76878111	-116.3986706	11-2	19.8
11	49.2	WS5 & WA envelope	Combination	Min	-0.174022131	3.983057209	0.365707101	-31.35444403	-49.0097817	-200.8386636	11-2	39.6
11	69	WS5 & WA envelope	Combination	Min	-0.174022131	3.975071209	0.365707101	-31.35444403	-56.2507823	-291.7471416	11-2	59.4
11	88.8	WS5 & WA envelope	Combination	Min	-0.174022131	3.967085209	0.365707101	-31.35444403	-63.49178289	-378.8606723	11-2	79.2

11	108.6	WS5 & WA envelope	Combination	Min	-0.174022131	3.959099209	0.365707101	-31.35444403	-70.73278349	-462.1792559	11-2	99
11	108.6	WS5 & WA envelope	Combination	Min	1.822777869	-8.958740791	-0.756732899	-61.66032403	-70.73278349	-516.0928559	11-3	0
11	128.2	WS5 & WA envelope	Combination	Min	1.822777869	-8.999208194	-0.756732899	-61.66032403	-55.90081866	-341.642532	11-3	19.6
11	147.8	WS5 & WA envelope	Combination	Min	1.822777869	-9.185118729	-0.756732899	-61.66032403	-41.06885384	-163.4735393	11-3	39.2
11	167.4	WS5 & WA envelope	Combination	Min	1.822777869	-9.374846729	-0.756732899	-61.66032403	-26.23688901	18.41412216	11-3	58.8
11	187	WS5 & WA envelope	Combination	Min	1.822777869	-9.564574729	-0.756732899	-61.66032403	-11.40492419	204.0204524	11-3	78.4
11	206.6	WS5 & WA envelope	Combination	Min	1.822777869	-9.754302729	-0.756732899	-61.66032403	3.427040638	384.7055903	11-3	98
11	206.6	WS5 & WA envelope	Combination	Min	3.819577869	-24.23866273	-1.879172899	-91.96620403	3.427040638	330.7919903	11-4	0
11	216	WS5 & WA envelope	Combination	Min	3.819577869	-24.32965473	-1.879172899	-91.96620403	21.09126589	550.4690521	11-4	9.4
11	0	Strength 1 - Max	Combination	Max	-14.91824569	-464.194763	26.26438301	-4.888110984	-94.36050602	-11384.81319	11-1	0
11	9.6	Strength 1 - Max	Combination	Max	-14.91824569	-461.494763	26.26438301	-4.888110984	-160.9588143	-6941.503467	11-1	9.6
11	9.6	Strength 1 - Max	Combination	Max	-9.860745693	-200.404763	6.45438301	-146.165611	-160.9588143	-7078.055967	11-2	0
11	29.4	Strength 1 - Max	Combination	Max	-9.860745693	-194.836013	6.45438301	-146.165611	-194.7143252	-3165.172285	11-2	19.8
11	49.2	Strength 1 - Max	Combination	Max	-9.860745693	-189.267263	6.45438301	-146.165611	-228.469836	637.4501471	11-2	39.6
11	69	Strength 1 - Max	Combination	Max	-9.860745693	-183.698513	6.45438301	-146.165611	-262.2253469	5704.428937	11-2	59.4
11	88.8	Strength 1 - Max	Combination	Max	-9.860745693	-178.129763	6.45438301	-146.165611	-295.9808578	11017.50314	11-2	79.2
11	108.6	Strength 1 - Max	Combination	Max	-9.860745693	-172.561013	6.45438301	-146.165611	-329.7363686	16220.31608	11-2	99
11	108.6	Strength 1 - Max	Combination	Max	4.859228627	81.72854429	-3.527676219	-287.443111	-329.7363686	15702.92858	11-3	0
11	128.2	Strength 1 - Max	Combination	Max	4.859228627	87.24104429	-3.527676219	-287.443111	-260.5939147	14047.02662	11-3	19.6
11	147.8	Strength 1 - Max	Combination	Max	4.859228627	92.75354429	-3.527676219	-287.443111	-191.4514608	12283.07965	11-3	39.2
11	167.4	Strength 1 - Max	Combination	Max	4.859228627	98.26604429	-3.527676219	-287.443111	-122.3090069	10411.08768	11-3	58.8
11	187	Strength 1 - Max	Combination	Max	4.859228627	103.7785443	-3.527676219	-287.443111	-53.16655305	8431.050711	11-3	78.4
11	206.6	Strength 1 - Max	Combination	Max	4.859228627	109.2910443	-3.527676219	-287.443111	60.48401254	6342.968743	11-3	98
11	206.6	Strength 1 - Max	Combination	Max	24.02172863	420.5910443	-8.760176219	-428.720611	60.48401254	5825.581243	11-4	0
11	216	Strength 1 - Max	Combination	Max	24.02172863	423.2347943	-8.760176219	-428.720611	372.2408122	1859.599802	11-4	9.4
11	0	Strength 1 - Max	Combination	Min	-33.46577137	-639.0827057	6.937323781	-18.50615931	-357.2444576	-16501.20763	11-1	0
11	9.6	Strength 1 - Max	Combination	Min	-33.46577137	-636.3827057	6.937323781	-18.50615931	-609.3825345	-10378.97366	11-1	9.6
11	9.6	Strength 1 - Max	Combination	Min	-14.30327137	-287.8277057	1.704823781	-553.3761593	-609.3825345	-10896.36116	11-2	0
11	29.4	Strength 1 - Max	Combination	Min	-14.30327137	-282.2589557	1.704823781	-553.3761593	-737.1793181	-5252.503209	11-2	19.8
11	49.2	Strength 1 - Max	Combination	Min	-14.30327137	-276.6902057	1.704823781	-553.3761593	-864.9761017	161.3881752	11-2	39.6
11	69	Strength 1 - Max	Combination	Min	-14.30327137	-271.1214557	1.704823781	-553.3761593	-992.7728853	4100.422388	11-2	59.4
11	88.8	Strength 1 - Max	Combination	Min	-14.30327137	-265.5527057	1.704823781	-553.3761593	-1120.569669	7765.451828	11-2	79.2
11	108.6	Strength 1 - Max	Combination	Min	-14.30327137	-259.9839557	1.704823781	-553.3761593	-1248.366452	11320.22002	11-2	99
11	108.6	Strength 1 - Max	Combination	Min	-4.803245693	64.80912288	-13.35561699	-1088.246159	-1248.366452	11092.94752	11-3	0
11	128.2	Strength 1 - Max	Combination	Min	-4.803245693	70.32162288	-13.35561699	-1088.246159	-986.5963595	9679.241797	11-3	19.6
11	147.8	Strength 1 - Max	Combination	Min	-4.803245693	75.83412288	-13.35561699	-1088.246159	-724.8262665	8003.241151	11-3	39.2
11	167.4	Strength 1 - Max	Combination	Min	-4.803245693	81.34662288	-13.35561699	-1088.246159	-463.0561735	6219.195506	11-3	58.8
11	187	Strength 1 - Max	Combination	Min	-4.803245693	86.85912288	-13.35561699	-1088.246159	-201.2860805	4327.10486	11-3	78.4
11	206.6	Strength 1 - Max	Combination	Min	-4.803245693	92.37162288	-13.35561699	-1088.246159	15.97590084	2326.969214	11-3	98
11	206.6	Strength 1 - Max	Combination	Min	0.254254307	300.9831281	-33.16561699	-1623.116159	15.97590084	2190.416714	11-4	0
11	216	Strength 1 - Max	Combination	Min	0.254254307	303.6268781	-33.16561699	-1623.116159	98.3215573	-827.6493888	11-4	9.4
11	0	Strength 1 - Min	Combination	Max	-11.81090802	-317.9124787	26.26438301	-4.888110984	-94.36050602	-7976.280748	11-1	0

11	9.6	Strength 1 - Min	Combination Max	-11.81090802	-315.9684787	26.26438301	-4.888110984	-160.9588143	-4933.652152	11-1	9.6
11	9.6	Strength 1 - Min	Combination Max	-6.753408021	-138.6219787	6.45438301	-146.165611	-160.9588143	-5070.204652	11-2	0
11	29.4	Strength 1 - Min	Combination Max	-6.753408021	-134.6124787	6.45438301	-146.165611	-194.7143252	-2365.183524	11-2	19.8
11	49.2	Strength 1 - Min	Combination Max	-6.753408021	-130.6029787	6.45438301	-146.165611	-228.469836	260.4495047	11-2	39.6
11	69	Strength 1 - Min	Combination Max	-6.753408021	-126.5934787	6.45438301	-146.165611	-262.2253469	4181.312041	11-2	59.4
11	88.8	Strength 1 - Min	Combination Max	-6.753408021	-122.5839787	6.45438301	-146.165611	-295.9808578	8379.143136	11-2	79.2
11	108.6	Strength 1 - Min	Combination Max	-6.753408021	-118.5744787	6.45438301	-146.165611	-329.7363686	12497.58613	11-2	99
11	108.6	Strength 1 - Min	Combination Max	7.966566299	51.97157855	-3.527676219	-287.443111	-329.7363686	11980.19863	11-3	0
11	128.2	Strength 1 - Min	Combination Max	7.966566299	55.94057855	-3.527676219	-287.443111	-260.5939147	10922.65949	11-3	19.6
11	147.8	Strength 1 - Min	Combination Max	7.966566299	59.90957855	-3.527676219	-287.443111	-191.4514608	9787.327951	11-3	39.2
11	167.4	Strength 1 - Min	Combination Max	7.966566299	63.87857855	-3.527676219	-287.443111	-122.3090069	8574.204012	11-3	58.8
11	187	Strength 1 - Min	Combination Max	7.966566299	67.84757855	-3.527676219	-287.443111	-53.16655305	7283.287672	11-3	78.4
11	206.6	Strength 1 - Min	Combination Max	7.966566299	71.81657855	-3.527676219	-287.443111	60.48401254	5914.578933	11-3	98
11	206.6	Strength 1 - Min	Combination Max	27.1290663	305.9775786	-8.760176219	-428.720611	60.48401254	5397.191433	11-4	0
11	216	Strength 1 - Min	Combination Max	27.1290663	307.8810786	-8.760176219	-428.720611	372.2408122	2512.055744	11-4	9.4
11	0	Strength 1 - Min	Combination Min	-30.3584337	-492.8004214	6.937323781	-18.50615931	-357.2444576	-13092.67519	11-1	0
11	9.6	Strength 1 - Min	Combination Min	-30.3584337	-490.8564214	6.937323781	-18.50615931	-609.3825345	-8371.122343	11-1	9.6
11	9.6	Strength 1 - Min	Combination Min	-11.1959337	-226.0449214	1.704823781	-553.3761593	-609.3825345	-8888.509843	11-2	0
11	29.4	Strength 1 - Min	Combination Min	-11.1959337	-222.0354214	1.704823781	-553.3761593	-737.1793181	-4452.514448	11-2	19.8
11	49.2	Strength 1 - Min	Combination Min	-11.1959337	-218.0259214	1.704823781	-553.3761593	-864.9761017	-215.6124672	11-2	39.6
11	69	Strength 1 - Min	Combination Min	-11.1959337	-214.0164214	1.704823781	-553.3761593	-992.7728853	2577.305492	11-2	59.4
11	88.8	Strength 1 - Min	Combination Min	-11.1959337	-210.0069214	1.704823781	-553.3761593	-1120.569669	5127.091828	11-2	79.2
11	108.6	Strength 1 - Min	Combination Min	-11.1959337	-205.9974214	1.704823781	-553.3761593	-1248.366452	7597.490064	11-2	99
11	108.6	Strength 1 - Min	Combination Min	-1.695908021	35.05215714	-13.35561699	-1088.246159	-1248.366452	7370.217564	11-3	0
11	128.2	Strength 1 - Min	Combination Min	-1.695908021	39.02115714	-13.35561699	-1088.246159	-986.5963595	6554.874673	11-3	19.6
11	147.8	Strength 1 - Min	Combination Min	-1.695908021	42.99015714	-13.35561699	-1088.246159	-724.8262665	5507.489456	11-3	39.2
11	167.4	Strength 1 - Min	Combination Min	-1.695908021	46.95915715	-13.35561699	-1088.246159	-463.0561735	4382.311838	11-3	58.8
11	187	Strength 1 - Min	Combination Min	-1.695908021	50.92815715	-13.35561699	-1088.246159	-201.2860805	3179.341821	11-3	78.4
11	206.6	Strength 1 - Min	Combination Min	-1.695908021	54.89715715	-13.35561699	-1088.246159	15.97590084	1898.579404	11-3	98
11	206.6	Strength 1 - Min	Combination Min	3.361591979	186.3696623	-33.16561699	-1623.116159	15.97590084	1762.026904	11-4	0
11	216	Strength 1 - Min	Combination Min	3.361591979	188.2731623	-33.16561699	-1623.116159	98.3215573	-175.1934462	11-4	9.4
11	0	Strength 3 - Max	Combination Max	-10.75139781	-423.4164638	1.869398286	-0.487363115	-9.408098612	-10154.48234	11-1	0
11	9.6	Strength 3 - Max	Combination Max	-10.75139781	-420.8764638	1.869398286	-0.487363115	-16.04820132	-6101.876285	11-1	9.6
11	9.6	Strength 3 - Max	Combination Max	-9.153455944	-183.3814638	0.459398286	-14.57326312	-16.04820132	-6174.776285	11-2	0
11	29.4	Strength 3 - Max	Combination Max	-9.153455944	-178.1427138	0.459398286	-14.57326312	-19.41375317	-2539.077654	11-2	19.8
11	49.2	Strength 3 - Max	Combination Max	-9.153455944	-172.9039638	0.459398286	-14.57326312	-22.77930501	1085.115514	11-2	39.6
11	69	Strength 3 - Max	Combination Max	-9.153455944	-167.6652138	0.459398286	-14.57326312	-26.14485685	4601.465011	11-2	59.4
11	88.8	Strength 3 - Max	Combination Max	-9.153455944	-162.4264638	0.459398286	-14.57326312	-29.51040869	8009.970839	11-2	79.2
11	108.6	Strength 3 - Max	Combination Max	-9.153455944	-157.1877138	0.459398286	-14.57326312	-32.87596054	11310.633	11-2	99
11	108.6	Strength 3 - Max	Combination Max	-6.453455944	86.70701603	-0.351722634	-28.65916312	-32.87596054	11283.66	11-3	0
11	128.2	Strength 3 - Max	Combination Max	-6.453455944	92.09864937	-0.351722634	-28.65916312	-25.98219691	9531.364476	11-3	19.6
11	147.8	Strength 3 - Max	Combination Max	-6.453455944	97.4902827	-0.351722634	-28.65916312	-19.08843328	7673.392941	11-3	39.2

11	167.4	Strength 3 - Max	Combination Max	-6.453455944	102.881916	-0.351722634	-28.65916312	-12.19466965	5709.745394	11-3	58.8
11	187	Strength 3 - Max	Combination Max	-6.453455944	108.2735494	-0.351722634	-28.65916312	-5.300906016	3762.311777	11-3	78.4
11	206.6	Strength 3 - Max	Combination Max	-6.453455944	113.6651827	-0.351722634	-28.65916312	4.30502058	1769.393768	11-3	98
11	206.6	Strength 3 - Max	Combination Max	-3.753455944	339.6403827	-0.873422634	-42.74506312	4.30502058	1696.493768	11-4	0
11	216	Strength 3 - Max	Combination Max	-3.753455944	342.226166	-0.873422634	-42.74506312	26.49467669	-1240.533661	11-4	9.4
11	0	Strength 3 - Max	Combination Min	-12.74218083	-445.659434	0.691677366	-1.317197609	-25.42729355	-10509.79622	11-1	0
11	9.6	Strength 3 - Max	Combination Min	-12.74218083	-443.018634	0.691677366	-1.317197609	-43.37351709	-6244.141491	11-1	9.6
11	9.6	Strength 3 - Max	Combination Min	-10.04218083	-191.210034	0.169977366	-39.38719761	-43.37351709	-6271.114491	11-2	0
11	29.4	Strength 3 - Max	Combination Min	-10.04218083	-185.763384	0.169977366	-39.38719761	-52.46960315	-2612.283059	11-2	19.8
11	49.2	Strength 3 - Max	Combination Min	-10.04218083	-180.316734	0.169977366	-39.38719761	-61.56568921	879.6751809	11-2	39.6
11	69	Strength 3 - Max	Combination Min	-10.04218083	-174.870084	0.169977366	-39.38719761	-70.66177528	4251.310039	11-2	59.4
11	88.8	Strength 3 - Max	Combination Min	-10.04218083	-169.423434	0.169977366	-39.38719761	-79.75786134	7519.217647	11-2	79.2
11	108.6	Strength 3 - Max	Combination Min	-10.04218083	-163.976784	0.169977366	-39.38719761	-88.8539474	10683.398	11-2	99
11	108.6	Strength 3 - Max	Combination Min	-8.75339781	77.02422989	-0.950601714	-77.45719761	-88.8539474	10610.498	11-3	0
11	128.2	Strength 3 - Max	Combination Min	-8.75339781	82.45311956	-0.950601714	-77.45719761	-70.2221538	9045.238028	11-3	19.6
11	147.8	Strength 3 - Max	Combination Min	-8.75339781	87.63895289	-0.950601714	-77.45719761	-51.59036021	7378.335718	11-3	39.2
11	167.4	Strength 3 - Max	Combination Min	-8.75339781	92.82478622	-0.950601714	-77.45719761	-32.95856661	5609.791074	11-3	58.8
11	187	Strength 3 - Max	Combination Min	-8.75339781	98.01061956	-0.950601714	-77.45719761	-14.32677302	3640.421833	11-3	78.4
11	206.6	Strength 3 - Max	Combination Min	-8.75339781	103.1964529	-0.950601714	-77.45719761	1.592857614	1465.422258	11-3	98
11	206.6	Strength 3 - Max	Combination Min	-7.75439781	311.0339529	-2.360601714	-115.5271976	1.592857614	1438.449258	11-4	0
11	216	Strength 3 - Max	Combination Min	-7.75439781	313.5210362	-2.360601714	-115.5271976	9.803030376	-1766.323521	11-4	9.4
11	0	Strength 3 - Min	Combination Max	-7.644060138	-277.1341795	1.869398286	-0.487363115	-9.408098612	-6745.949894	11-1	0
11	9.6	Strength 3 - Min	Combination Max	-7.644060138	-275.3501795	1.869398286	-0.487363115	-16.04820132	-4094.02497	11-1	9.6
11	9.6	Strength 3 - Min	Combination Max	-6.046118272	-121.5986795	0.459398286	-14.57326312	-16.04820132	-4166.92497	11-2	0
11	29.4	Strength 3 - Min	Combination Max	-6.046118272	-117.9191795	0.459398286	-14.57326312	-19.41375317	-1739.088893	11-2	19.8
11	49.2	Strength 3 - Min	Combination Max	-6.046118272	-114.2396795	0.459398286	-14.57326312	-22.77930501	708.1148715	11-2	39.6
11	69	Strength 3 - Min	Combination Max	-6.046118272	-110.5601795	0.459398286	-14.57326312	-26.14485685	3078.348116	11-2	59.4
11	88.8	Strength 3 - Min	Combination Max	-6.046118272	-106.8806795	0.459398286	-14.57326312	-29.51040869	5371.61084	11-2	79.2
11	108.6	Strength 3 - Min	Combination Max	-6.046118272	-103.2011795	0.459398286	-14.57326312	-32.87596054	7587.903044	11-2	99
11	108.6	Strength 3 - Min	Combination Max	-3.346118272	56.9500503	-0.351722634	-28.65916312	-32.87596054	7560.930044	11-3	0
11	128.2	Strength 3 - Min	Combination Max	-3.346118272	60.79818363	-0.351722634	-28.65916312	-25.98219691	6406.997351	11-3	19.6
11	147.8	Strength 3 - Min	Combination Max	-3.346118272	64.64631696	-0.351722634	-28.65916312	-19.08843328	5177.641246	11-3	39.2
11	167.4	Strength 3 - Min	Combination Max	-3.346118272	68.4944503	-0.351722634	-28.65916312	-12.19466965	3872.861726	11-3	58.8
11	187	Strength 3 - Min	Combination Max	-3.346118272	72.34258363	-0.351722634	-28.65916312	-5.300906016	2614.548738	11-3	78.4
11	206.6	Strength 3 - Min	Combination Max	-3.346118272	76.19071696	-0.351722634	-28.65916312	4.30502058	1341.003957	11-3	98
11	206.6	Strength 3 - Min	Combination Max	-0.646118272	225.026917	-0.873422634	-42.74506312	4.30502058	1268.103957	11-4	0
11	216	Strength 3 - Min	Combination Max	-0.646118272	226.8724503	-0.873422634	-42.74506312	26.49467669	-588.0777186	11-4	9.4
11	0	Strength 3 - Min	Combination Min	-9.634843155	-299.3771497	0.691677366	-1.317197609	-25.42729355	-7101.263774	11-1	0
11	9.6	Strength 3 - Min	Combination Min	-9.634843155	-297.4923497	0.691677366	-1.317197609	-43.37351709	-4236.290177	11-1	9.6
11	9.6	Strength 3 - Min	Combination Min	-6.934843155	-129.4272497	0.169977366	-39.38719761	-43.37351709	-4263.263177	11-2	0
11	29.4	Strength 3 - Min	Combination Min	-6.934843155	-125.5398497	0.169977366	-39.38719761	-52.46960315	-1812.294298	11-2	19.8
11	49.2	Strength 3 - Min	Combination Min	-6.934843155	-121.6524497	0.169977366	-39.38719761	-61.56568921	502.6745385	11-2	39.6

11	69	Strength 3 - Min	Combination Min	-6.934843155	-117.7650497	0.169977366	-39.38719761	-70.66177528	2728.193143	11-2		59.4
11	88.8	Strength 3 - Min	Combination Min	-6.934843155	-113.8776497	0.169977366	-39.38719761	-79.75786134	4880.857647	11-2		79.2
11	108.6	Strength 3 - Min	Combination Min	-6.934843155	-109.9902497	0.169977366	-39.38719761	-88.8539474	6960.668052	11-2		99
11	108.6	Strength 3 - Min	Combination Min	-5.646060138	47.26726416	-0.950601714	-77.45719761	-88.8539474	6887.768052	11-3		0
11	128.2	Strength 3 - Min	Combination Min	-5.646060138	51.15265382	-0.950601714	-77.45719761	-70.2221538	5920.870903	11-3		19.6
11	147.8	Strength 3 - Min	Combination Min	-5.646060138	54.79498715	-0.950601714	-77.45719761	-51.59036021	4882.584022	11-3		39.2
11	167.4	Strength 3 - Min	Combination Min	-5.646060138	58.43732049	-0.950601714	-77.45719761	-32.95856661	3772.907407	11-3		58.8
11	187	Strength 3 - Min	Combination Min	-5.646060138	62.07965382	-0.950601714	-77.45719761	-14.32677302	2492.658794	11-3		78.4
11	206.6	Strength 3 - Min	Combination Min	-5.646060138	65.72198715	-0.950601714	-77.45719761	1.592857614	1037.032448	11-3		98
11	206.6	Strength 3 - Min	Combination Min	-4.647060138	196.4204872	-2.360601714	-115.5271976	1.592857614	1010.059448	11-4		0
11	216	Strength 3 - Min	Combination Min	-4.647060138	198.1673205	-2.360601714	-115.5271976	9.803030376	-1113.867578	11-4		9.4
11	0	Strength 5 - Max	Combination Max	-15.48530001	-446.4341155	21.74924257	-4.819392504	-93.0339587	-11028.18101	11-1		0
11	9.6	Strength 5 - Max	Combination Max	-15.48530001	-443.8270435	21.74924257	-4.819392504	-158.6960087	-6754.927443	11-1		9.6
11	9.6	Strength 5 - Max	Combination Max	-9.587000009	-194.2835235	5.344802566	-144.1107725	-158.6960087	-6914.181543	11-2		0
11	29.4	Strength 5 - Max	Combination Max	-9.587000009	-188.9064375	5.344802566	-144.1107725	-191.9769748	-3120.60093	11-2		19.8
11	49.2	Strength 5 - Max	Combination Max	-9.587000009	-183.5293515	5.344802566	-144.1107725	-225.2579409	574.7069047	11-2		39.6
11	69	Strength 5 - Max	Combination Max	-9.587000009	-178.1522655	5.344802566	-144.1107725	-258.5389071	5226.843152	11-2		59.4
11	88.8	Strength 5 - Max	Combination Max	-9.587000009	-172.7751795	5.344802566	-144.1107725	-291.8198732	10043.62186	11-2		79.2
11	108.6	Strength 5 - Max	Combination Max	-9.587000009	-167.3980935	5.344802566	-144.1107725	-325.1008393	14751.07875	11-2		99
11	108.6	Strength 5 - Max	Combination Max	3.765208752	75.32801071	-3.478083125	-283.4021525	-325.1008393	14298.03765	11-3		0
11	128.2	Strength 5 - Max	Combination Max	3.765208752	80.76063325	-3.478083125	-283.4021525	-256.93041	12770.66394	11-3		19.6
11	147.8	Strength 5 - Max	Combination Max	3.765208752	86.27313325	-3.478083125	-283.4021525	-188.7599808	11135.40018	11-3		39.2
11	167.4	Strength 5 - Max	Combination Max	3.765208752	91.78563325	-3.478083125	-283.4021525	-120.5895515	9392.246359	11-3		58.8
11	187	Strength 5 - Max	Combination Max	3.765208752	97.29813325	-3.478083125	-283.4021525	-52.41912226	7541.202485	11-3		78.4
11	206.6	Strength 5 - Max	Combination Max	3.765208752	102.8106333	-3.478083125	-283.4021525	50.08613603	5583.003653	11-3		98
11	206.6	Strength 5 - Max	Combination Max	20.54450875	382.5582733	-8.637023125	-422.6935325	50.08613603	5129.962553	11-4		0
11	216	Strength 5 - Max	Combination Max	20.54450875	385.2020233	-8.637023125	-422.6935325	308.2484639	1528.075249	11-4		9.4
11	0	Strength 5 - Max	Combination Min	-30.22353409	-582.5081954	6.839796875	-15.32474407	-295.8301499	-15015.48751	11-1		0
11	9.6	Strength 5 - Max	Combination Min	-30.22353409	-579.8120674	6.839796875	-15.32474407	-504.6228785	-9436.350249	11-1		9.6
11	9.6	Strength 5 - Max	Combination Min	-13.44423409	-262.7955474	1.680856875	-458.2446241	-504.6228785	-9889.391349	11-2		0
11	29.4	Strength 5 - Max	Combination Min	-13.44423409	-257.2347833	1.680856875	-458.2446241	-610.4499693	-4741.091075	11-2		19.8
11	49.2	Strength 5 - Max	Combination Min	-13.44423409	-251.6740193	1.680856875	-458.2446241	-716.2770601	199.2655739	11-2		39.6
11	69	Strength 5 - Max	Combination Min	-13.44423409	-246.1132553	1.680856875	-458.2446241	-822.1041509	3970.204205	11-2		59.4
11	88.8	Strength 5 - Max	Combination Min	-13.44423409	-240.5524913	1.680856875	-458.2446241	-927.9312417	7508.360102	11-2		79.2
11	108.6	Strength 5 - Max	Combination Min	-13.44423409	-234.9917273	1.680856875	-458.2446241	-1033.758333	10940.04969	11-2		99
11	108.6	Strength 5 - Max	Combination Min	-4.118842852	62.12280757	-11.05963743	-901.1645041	-1033.758333	10710.81159	11-3		0
11	128.2	Strength 5 - Max	Combination Min	-4.118842852	67.59484016	-11.05963743	-901.1645041	-816.9894388	9369.056525	11-3		19.6
11	147.8	Strength 5 - Max	Combination Min	-4.118842852	72.92142963	-11.05963743	-901.1645041	-600.2205451	7803.982324	11-3		39.2
11	167.4	Strength 5 - Max	Combination Min	-4.118842852	78.24420163	-11.05963743	-901.1645041	-383.4516514	6134.581792	11-3		58.8
11	187	Strength 5 - Max	Combination Min	-4.118842852	83.56697363	-11.05963743	-901.1645041	-166.6827577	4360.854929	11-3		78.4
11	206.6	Strength 5 - Max	Combination Min	-4.118842852	88.88974563	-11.05963743	-901.1645041	15.751307	2474.161873	11-3		98
11	206.6	Strength 5 - Max	Combination Min	1.779457148	289.4205468	-27.46407743	-1344.084384	15.751307	2314.907773	11-4		0

11	216	Strength 5 - Max	Combination	Min	1.779457148	291.9733048	-27.46407743	-1344.084384	96.93932438	-562.3166455	11-4	9.4
11	0	Strength 5 - Min	Combination	Max	-12.37796234	-300.1518312	21.74924257	-4.819392504	-93.0339587	-7619.648562	11-1	0
11	9.6	Strength 5 - Min	Combination	Max	-12.37796234	-298.3007592	21.74924257	-4.819392504	-158.6960087	-4747.076128	11-1	9.6
11	9.6	Strength 5 - Min	Combination	Max	-6.479662337	-132.5007392	5.344802566	-144.1107725	-158.6960087	-4906.330228	11-2	0
11	29.4	Strength 5 - Min	Combination	Max	-6.479662337	-128.6829032	5.344802566	-144.1107725	-191.9769748	-2320.612169	11-2	19.8
11	49.2	Strength 5 - Min	Combination	Max	-6.479662337	-124.8650672	5.344802566	-144.1107725	-225.2579409	197.7062624	11-2	39.6
11	69	Strength 5 - Min	Combination	Max	-6.479662337	-121.0472312	5.344802566	-144.1107725	-258.5389071	3703.726256	11-2	59.4
11	88.8	Strength 5 - Min	Combination	Max	-6.479662337	-117.2293952	5.344802566	-144.1107725	-291.8198732	7405.261857	11-2	79.2
11	108.6	Strength 5 - Min	Combination	Max	-6.479662337	-113.4115592	5.344802566	-144.1107725	-325.1008393	11028.3488	11-2	99
11	108.6	Strength 5 - Min	Combination	Max	6.872546424	45.57104498	-3.478083125	-283.4021525	-325.1008393	10575.3077	11-3	0
11	128.2	Strength 5 - Min	Combination	Max	6.872546424	49.46016752	-3.478083125	-283.4021525	-256.93041	9646.296817	11-3	19.6
11	147.8	Strength 5 - Min	Combination	Max	6.872546424	53.42916752	-3.478083125	-283.4021525	-188.7599808	8639.648482	11-3	39.2
11	167.4	Strength 5 - Min	Combination	Max	6.872546424	57.39816752	-3.478083125	-283.4021525	-120.5895515	7555.362692	11-3	58.8
11	187	Strength 5 - Min	Combination	Max	6.872546424	61.36716752	-3.478083125	-283.4021525	-52.41912226	6393.439446	11-3	78.4
11	206.6	Strength 5 - Min	Combination	Max	6.872546424	65.33616752	-3.478083125	-283.4021525	50.08613603	5154.613843	11-3	98
11	206.6	Strength 5 - Min	Combination	Max	23.65184642	267.9448075	-8.637023125	-422.6935325	50.08613603	4701.572743	11-4	0
11	216	Strength 5 - Min	Combination	Max	23.65184642	269.8483075	-8.637023125	-422.6935325	308.2484639	2180.531191	11-4	9.4
11	0	Strength 5 - Min	Combination	Min	-27.11619642	-436.2259111	6.839796875	-15.32474407	-295.8301499	-11606.95507	11-1	0
11	9.6	Strength 5 - Min	Combination	Min	-27.11619642	-434.2857831	6.839796875	-15.32474407	-504.6228785	-7428.498934	11-1	9.6
11	9.6	Strength 5 - Min	Combination	Min	-10.33689642	-201.0127631	1.680856875	-458.2446241	-504.6228785	-7881.540034	11-2	0
11	29.4	Strength 5 - Min	Combination	Min	-10.33689642	-197.0112491	1.680856875	-458.2446241	-610.4499693	-3941.102314	11-2	19.8
11	49.2	Strength 5 - Min	Combination	Min	-10.33689642	-193.0097351	1.680856875	-458.2446241	-716.2770601	-177.7350685	11-2	39.6
11	69	Strength 5 - Min	Combination	Min	-10.33689642	-189.0082211	1.680856875	-458.2446241	-822.1041509	2447.08731	11-2	59.4
11	88.8	Strength 5 - Min	Combination	Min	-10.33689642	-185.0067071	1.680856875	-458.2446241	-927.9312417	4870.000102	11-2	79.2
11	108.6	Strength 5 - Min	Combination	Min	-10.33689642	-181.0051931	1.680856875	-458.2446241	-1033.758333	7217.319742	11-2	99
11	108.6	Strength 5 - Min	Combination	Min	-1.01150518	32.36584183	-11.05963743	-901.1645041	-1033.758333	6988.081642	11-3	0
11	128.2	Strength 5 - Min	Combination	Min	-1.01150518	36.29437443	-11.05963743	-901.1645041	-816.9894388	6244.689401	11-3	19.6
11	147.8	Strength 5 - Min	Combination	Min	-1.01150518	40.07746389	-11.05963743	-901.1645041	-600.2205451	5308.230629	11-3	39.2
11	167.4	Strength 5 - Min	Combination	Min	-1.01150518	43.85673589	-11.05963743	-901.1645041	-383.4516514	4297.698125	11-3	58.8
11	187	Strength 5 - Min	Combination	Min	-1.01150518	47.63600789	-11.05963743	-901.1645041	-166.6827577	3213.09189	11-3	78.4
11	206.6	Strength 5 - Min	Combination	Min	-1.01150518	51.41527989	-11.05963743	-901.1645041	15.751307	2045.772062	11-3	98
11	206.6	Strength 5 - Min	Combination	Min	4.88679482	174.807081	-27.46407743	-1344.084384	15.751307	1886.517962	11-4	0
11	216	Strength 5 - Min	Combination	Min	4.88679482	176.619589	-27.46407743	-1344.084384	96.93932438	90.13929708	11-4	9.4
11	0	Service 1	Combination	Max	-11.35567946	-348.7441039	15.69989623	-3.280569392	-63.32838777	-8557.397913	11-1	0
11	9.6	Service 1	Combination	Max	-11.35567946	-346.6433039	15.69989623	-3.280569392	-108.0246666	-5219.538356	11-1	9.6
11	9.6	Service 1	Combination	Max	-7.466679464	-151.4397039	3.858196229	-98.09646939	-108.0246666	-5324.541356	11-2	0
11	29.4	Service 1	Combination	Max	-7.466679464	-147.1068039	3.858196229	-98.09646939	-130.6790818	-2368.930928	11-2	19.8
11	49.2	Service 1	Combination	Max	-7.466679464	-142.7739039	3.858196229	-98.09646939	-153.333497	506.6284475	11-2	39.6
11	69	Service 1	Combination	Max	-7.466679464	-138.4410039	3.858196229	-98.09646939	-175.9879122	4082.868401	11-2	59.4
11	88.8	Service 1	Combination	Max	-7.466679464	-134.1081039	3.858196229	-98.09646939	-198.6423274	7774.531731	11-2	79.2
11	108.6	Service 1	Combination	Max	-7.466679464	-129.7752039	3.858196229	-98.09646939	-221.2967426	11378.70423	11-2	99
11	108.6	Service 1	Combination	Max	1.943734433	60.41762878	-2.367537617	-192.9123694	-221.2967426	11056.08123	11-3	0

11	128.2	Service 1	Combination Max	1.943734433	64.79365708	-2.367537617	-192.9123694	-174.8930053	9830.499571	11-3		19.6
11	147.8	Service 1	Combination Max	1.943734433	69.20365708	-2.367537617	-192.9123694	-128.489268	8518.600366	11-3		39.2
11	167.4	Service 1	Combination Max	1.943734433	73.61365708	-2.367537617	-192.9123694	-82.08553076	7120.383609	11-3		58.8
11	187	Service 1	Combination Max	1.943734433	78.02365708	-2.367537617	-192.9123694	-35.68179348	5635.849302	11-3		78.4
11	206.6	Service 1	Combination Max	1.943734433	82.43365708	-2.367537617	-192.9123694	36.1551505	4065.5594	11-3		98
11	206.6	Service 1	Combination Max	13.89273443	298.6913571	-5.879237617	-287.7282694	36.1551505	3742.9364	11-4		0
11	216	Service 1	Combination Max	13.89273443	300.8063571	-5.879237617	-287.7282694	222.5120659	930.3319631	11-4		9.4
11	0	Service 1	Combination Min	-22.28309377	-449.4062171	4.655862383	-11.06231129	-213.5477887	-11506.00928	11-1		0
11	9.6	Service 1	Combination Min	-22.28309377	-447.2491771	4.655862383	-11.06231129	-364.2667924	-7202.06339	11-1		9.6
11	9.6	Service 1	Combination Min	-10.33409377	-202.0655771	1.144162383	-330.7882113	-364.2667924	-7524.68639	11-2		0
11	29.4	Service 1	Combination Min	-10.33409377	-197.6166821	1.144162383	-330.7882113	-440.6590778	-3567.832025	11-2		19.8
11	49.2	Service 1	Combination Min	-10.33409377	-193.1677871	1.144162383	-330.7882113	-517.0513631	228.8526678	11-2		39.6
11	69	Service 1	Combination Min	-10.33409377	-188.7188921	1.144162383	-330.7882113	-593.4436484	3153.836274	11-2		59.4
11	88.8	Service 1	Combination Min	-10.33409377	-184.2699971	1.144162383	-330.7882113	-669.8359338	5899.460731	11-2		79.2
11	108.6	Service 1	Combination Min	-10.33409377	-179.8211021	1.144162383	-330.7882113	-746.2282191	8559.293769	11-2		99
11	108.6	Service 1	Combination Min	-3.906507671	50.65945714	-7.983503771	-650.5141113	-746.2282191	8402.450769	11-3		0
11	128.2	Service 1	Combination Min	-3.906507671	55.03852131	-7.983503771	-650.5141113	-589.7515452	7314.629595	11-3		19.6
11	147.8	Service 1	Combination Min	-3.906507671	59.32765465	-7.983503771	-650.5141113	-433.2748713	6054.598592	11-3		39.2
11	167.4	Service 1	Combination Min	-3.906507671	63.61678798	-7.983503771	-650.5141113	-276.7981973	4710.500576	11-3		58.8
11	187	Service 1	Combination Min	-3.906507671	67.90592131	-7.983503771	-650.5141113	-120.3215234	3282.335546	11-3		78.4
11	206.6	Service 1	Combination Min	-3.906507671	72.19505465	-7.983503771	-650.5141113	10.72194381	1762.457794	11-3		98
11	206.6	Service 1	Combination Min	-0.017507671	229.7736148	-19.82520377	-970.2400113	10.72194381	1657.454794	11-4		0
11	216	Service 1	Combination Min	-0.017507671	231.8306481	-19.82520377	-970.2400113	65.9867774	-618.5185552	11-4		9.4
11	0	WServ1: 45deg	Combination	-1.046664256	12.75297839	0.691677366	-0.487363115	-9.408098612	197.799493	11-1		0
11	9.6	WServ1: 45deg	Combination	-1.046664256	12.71745839	0.691677366	-0.487363115	-16.04820132	75.5413964	11-1		9.6
11	9.6	WServ1: 45deg	Combination	-0.047664256	4.311058393	0.169977366	-14.57326312	-16.04820132	48.5683964	11-2		0
11	29.4	WServ1: 45deg	Combination	-0.047664256	4.237798393	0.169977366	-14.57326312	-19.41375317	-36.06528579	11-2		19.8
11	49.2	WServ1: 45deg	Combination	-0.047664256	4.164538393	0.169977366	-14.57326312	-22.77930501	-119.24842	11-2		39.6
11	69	WServ1: 45deg	Combination	-0.047664256	4.091278393	0.169977366	-14.57326312	-26.14485685	-200.9810062	11-2		59.4
11	88.8	WServ1: 45deg	Combination	-0.047664256	4.018018393	0.169977366	-14.57326312	-29.51040869	-281.2630444	11-2		79.2
11	108.6	WServ1: 45deg	Combination	-0.047664256	3.944758393	0.169977366	-14.57326312	-32.87596054	-360.0945345	11-2		99
11	108.6	WServ1: 45deg	Combination	0.951335744	-5.586441607	-0.351722634	-28.65916312	-32.87596054	-387.0675345	11-3		0
11	128.2	WServ1: 45deg	Combination	0.951335744	-5.658961607	-0.351722634	-28.65916312	-25.98219691	-276.8625831	11-3		19.6
11	147.8	WServ1: 45deg	Combination	0.951335744	-5.731481607	-0.351722634	-28.65916312	-19.08843328	-165.2362396	11-3		39.2
11	167.4	WServ1: 45deg	Combination	0.951335744	-5.804001607	-0.351722634	-28.65916312	-12.19466965	-52.18850408	11-3		58.8
11	187	WServ1: 45deg	Combination	0.951335744	-5.876521607	-0.351722634	-28.65916312	-5.300906016	62.28062341	11-3		78.4
11	206.6	WServ1: 45deg	Combination	0.951335744	-5.949041607	-0.351722634	-28.65916312	1.592857614	178.1711429	11-3		98
11	206.6	WServ1: 45deg	Combination	1.950335744	-16.60134161	-0.873422634	-42.74506312	1.592857614	151.1981429	11-4		0
11	216	WServ1: 45deg	Combination	1.950335744	-16.63612161	-0.873422634	-42.74506312	9.803030376	307.41422	11-4		9.4
11	0	WServ1: 30deg	Combination	-1.083493208	12.52425615	0.691677366	-0.487363115	-9.408098612	189.965155	11-1		0
11	9.6	WServ1: 30deg	Combination	-1.083493208	12.50649615	0.691677366	-0.487363115	-16.04820132	69.817544	11-1		9.6
11	9.6	WServ1: 30deg	Combination	-0.084493208	4.100096147	0.169977366	-14.57326312	-16.04820132	42.844544	11-2		0

11	29.4	WServ1: 30deg	Combination	-0.084493208	4.063466147	0.169977366	-14.57326312	-19.41375317	-37.9747227	11-2	19.8
11	49.2	WServ1: 30deg	Combination	-0.084493208	4.026836147	0.169977366	-14.57326312	-22.77930501	-118.0687154	11-2	39.6
11	69	WServ1: 30deg	Combination	-0.084493208	3.990206147	0.169977366	-14.57326312	-26.14485685	-197.4374341	11-2	59.4
11	88.8	WServ1: 30deg	Combination	-0.084493208	3.953576147	0.169977366	-14.57326312	-29.51040869	-276.0808788	11-2	79.2
11	108.6	WServ1: 30deg	Combination	-0.084493208	3.916946147	0.169977366	-14.57326312	-32.87596054	-353.9990495	11-2	99
11	108.6	WServ1: 30deg	Combination	0.914506792	-5.614253853	-0.351722634	-28.65916312	-32.87596054	-380.9720495	11-3	0
11	128.2	WServ1: 30deg	Combination	0.914506792	-5.650513853	-0.351722634	-28.65916312	-25.98219691	-270.577326	11-3	19.6
11	147.8	WServ1: 30deg	Combination	0.914506792	-5.686773853	-0.351722634	-28.65916312	-19.08843328	-159.4719065	11-3	39.2
11	167.4	WServ1: 30deg	Combination	0.914506792	-5.723033853	-0.351722634	-28.65916312	-12.19466965	-47.65579095	11-3	58.8
11	187	WServ1: 30deg	Combination	0.914506792	-5.759293853	-0.351722634	-28.65916312	-5.300906016	64.87102058	11-3	78.4
11	206.6	WServ1: 30deg	Combination	0.914506792	-5.795553853	-0.351722634	-28.65916312	1.592857614	178.1085281	11-3	98
11	206.6	WServ1: 30deg	Combination	1.913506792	-16.44785385	-0.873422634	-42.74506312	1.592857614	151.1355281	11-4	0
11	216	WServ1: 30deg	Combination	1.913506792	-16.46524385	-0.873422634	-42.74506312	9.803030376	305.8270873	11-4	9.4
11	0	WServ1: 15deg	Combination	-1.094661422	12.33718586	0.691677366	-0.487363115	-9.408098612	183.7190039	11-1	0
11	9.6	WServ1: 15deg	Combination	-1.094661422	12.33422586	0.691677366	-0.487363115	-16.04820132	65.29622763	11-1	9.6
11	9.6	WServ1: 15deg	Combination	-0.095661422	3.927825856	0.169977366	-14.57326312	-16.04820132	38.32322763	11-2	0
11	29.4	WServ1: 15deg	Combination	-0.095661422	3.921720856	0.169977366	-14.57326312	-19.41375317	-39.38728483	11-2	19.8
11	49.2	WServ1: 15deg	Combination	-0.095661422	3.915615856	0.169977366	-14.57326312	-22.77930501	-116.9769183	11-2	39.6
11	69	WServ1: 15deg	Combination	-0.095661422	3.909510856	0.169977366	-14.57326312	-26.14485685	-194.4456727	11-2	59.4
11	88.8	WServ1: 15deg	Combination	-0.095661422	3.903405856	0.169977366	-14.57326312	-29.51040869	-271.7935482	11-2	79.2
11	108.6	WServ1: 15deg	Combination	-0.095661422	3.897300856	0.169977366	-14.57326312	-32.87596054	-349.0205446	11-2	99
11	108.6	WServ1: 15deg	Combination	0.903338578	-5.633899144	-0.351722634	-28.65916312	-32.87596054	-375.9935446	11-3	0
11	128.2	WServ1: 15deg	Combination	0.903338578	-5.639942477	-0.351722634	-28.65916312	-25.98219691	-265.5098968	11-3	19.6
11	147.8	WServ1: 15deg	Combination	0.903338578	-5.64598581	-0.351722634	-28.65916312	-19.08843328	-154.9077996	11-3	39.2
11	167.4	WServ1: 15deg	Combination	0.903338578	-5.652029144	-0.351722634	-28.65916312	-12.19466965	-44.187253	11-3	58.8
11	187	WServ1: 15deg	Combination	0.903338578	-5.658072477	-0.351722634	-28.65916312	-5.300906016	66.65174288	11-3	78.4
11	206.6	WServ1: 15deg	Combination	0.903338578	-5.66411581	-0.351722634	-28.65916312	1.592857614	177.6091881	11-3	98
11	206.6	WServ1: 15deg	Combination	1.902338578	-16.31641581	-0.873422634	-42.74506312	1.592857614	150.6361881	11-4	0
11	216	WServ1: 15deg	Combination	1.902338578	-16.31931414	-0.873422634	-42.74506312	9.803030376	304.0241189	11-4	9.4
11	0	WServ1: 0deg	Combination	-1.072244395	12.60031102	0.691677366	-0.487363115	-9.408098612	192.5617345	11-1	0
11	9.6	WServ1: 0deg	Combination	-1.072244395	12.57663102	0.691677366	-0.487363115	-16.04820132	71.71241266	11-1	9.6
11	9.6	WServ1: 0deg	Combination	-0.073244395	4.170231023	0.169977366	-14.57326312	-16.04820132	44.73941266	11-2	0
11	29.4	WServ1: 0deg	Combination	-0.073244395	4.121391023	0.169977366	-14.57326312	-19.41375317	-37.34764559	11-2	19.8
11	49.2	WServ1: 0deg	Combination	-0.073244395	4.072551023	0.169977366	-14.57326312	-22.77930501	-118.4676718	11-2	39.6
11	69	WServ1: 0deg	Combination	-0.073244395	4.023711023	0.169977366	-14.57326312	-26.14485685	-198.6206661	11-2	59.4
11	88.8	WServ1: 0deg	Combination	-0.073244395	3.974871023	0.169977366	-14.57326312	-29.51040869	-277.8066283	11-2	79.2
11	108.6	WServ1: 0deg	Combination	-0.073244395	3.926031023	0.169977366	-14.57326312	-32.87596054	-356.0255586	11-2	99
11	108.6	WServ1: 0deg	Combination	0.925755605	-5.605168977	-0.351722634	-28.65916312	-32.87596054	-382.9985586	11-3	0
11	128.2	WServ1: 0deg	Combination	0.925755605	-5.653515644	-0.351722634	-28.65916312	-25.98219691	-272.6634493	11-3	19.6
11	147.8	WServ1: 0deg	Combination	0.925755605	-5.70186231	-0.351722634	-28.65916312	-19.08843328	-161.3807454	11-3	39.2
11	167.4	WServ1: 0deg	Combination	0.925755605	-5.750208977	-0.351722634	-28.65916312	-12.19466965	-49.15044674	11-3	58.8
11	187	WServ1: 0deg	Combination	0.925755605	-5.798555644	-0.351722634	-28.65916312	-5.300906016	64.02744654	11-3	78.4

11	206.6	WServ1: 0deg	Combination	0.925755605	-5.84690231	-0.351722634	-28.65916312	1.592857614	178.1529345	11-3	98
11	206.6	WServ1: 0deg	Combination	1.924755605	-16.49920231	-0.873422634	-42.74506312	1.592857614	151.1799345	11-4	0
11	216	WServ1: 0deg	Combination	1.924755605	-16.52238898	-0.873422634	-42.74506312	9.803030376	306.3814135	11-4	9.4
11	0	WServ1: -15deg	Combination	-1.029250418	12.83014851	0.691677366	-0.487363115	-9.408098612	200.4852716	11-1	0
11	9.6	WServ1: -15deg	Combination	-1.029250418	12.78870851	0.691677366	-0.487363115	-16.04820132	77.51475789	11-1	9.6
11	9.6	WServ1: -15deg	Combination	-0.030250418	4.382308506	0.169977366	-14.57326312	-16.04820132	50.54175789	11-2	0
11	29.4	WServ1: -15deg	Combination	-0.030250418	4.296838506	0.169977366	-14.57326312	-19.41375317	-35.38179753	11-2	19.8
11	49.2	WServ1: -15deg	Combination	-0.030250418	4.211368506	0.169977366	-14.57326312	-22.77930501	-119.6130469	11-2	39.6
11	69	WServ1: -15deg	Combination	-0.030250418	4.125898506	0.169977366	-14.57326312	-26.14485685	-202.1519904	11-2	59.4
11	88.8	WServ1: -15deg	Combination	-0.030250418	4.040428506	0.169977366	-14.57326312	-29.51040869	-282.9986278	11-2	79.2
11	108.6	WServ1: -15deg	Combination	-0.030250418	3.954958506	0.169977366	-14.57326312	-32.87596054	-362.1529592	11-2	99
11	108.6	WServ1: -15deg	Combination	0.968749582	-5.576241494	-0.351722634	-28.65916312	-32.87596054	-389.1259592	11-3	0
11	128.2	WServ1: -15deg	Combination	0.968749582	-5.660848161	-0.351722634	-28.65916312	-25.98219691	-279.0024806	11-3	19.6
11	147.8	WServ1: -15deg	Combination	0.968749582	-5.745454827	-0.351722634	-28.65916312	-19.08843328	-167.2207113	11-3	39.2
11	167.4	WServ1: -15deg	Combination	0.968749582	-5.830061494	-0.351722634	-28.65916312	-12.19466965	-53.78065136	11-3	58.8
11	187	WServ1: -15deg	Combination	0.968749582	-5.914668161	-0.351722634	-28.65916312	-5.300906016	61.31769926	11-3	78.4
11	206.6	WServ1: -15deg	Combination	0.968749582	-5.999274827	-0.351722634	-28.65916312	1.592857614	178.0743405	11-3	98
11	206.6	WServ1: -15deg	Combination	1.967749582	-16.65157483	-0.873422634	-42.74506312	1.592857614	151.1013405	11-4	0
11	216	WServ1: -15deg	Combination	1.967749582	-16.69215149	-0.873422634	-42.74506312	9.803030376	307.8168543	11-4	9.4
11	0	WServ1: -30deg	Combination	-0.967761366	13.0633317	0.691677366	-0.487363115	-9.408098612	208.6764059	11-1	0
11	9.6	WServ1: -30deg	Combination	-0.967761366	13.0041317	0.691677366	-0.487363115	-16.04820132	83.55258161	11-1	9.6
11	9.6	WServ1: -30deg	Combination	0.031238634	4.597731698	0.169977366	-14.57326312	-16.04820132	56.57958161	11-2	0
11	29.4	WServ1: -30deg	Combination	0.031238634	4.475631698	0.169977366	-14.57326312	-19.41375317	-33.24671601	11-2	19.8
11	49.2	WServ1: -30deg	Combination	0.031238634	4.353531698	0.169977366	-14.57326312	-22.77930501	-120.6554336	11-2	39.6
11	69	WServ1: -30deg	Combination	0.031238634	4.231431698	0.169977366	-14.57326312	-26.14485685	-205.6465713	11-2	59.4
11	88.8	WServ1: -30deg	Combination	0.031238634	4.109331698	0.169977366	-14.57326312	-29.51040869	-288.2201289	11-2	79.2
11	108.6	WServ1: -30deg	Combination	0.031238634	3.987231698	0.169977366	-14.57326312	-32.87596054	-368.3761065	11-2	99
11	108.6	WServ1: -30deg	Combination	1.030238634	-5.543968302	-0.351722634	-28.65916312	-32.87596054	-395.3491065	11-3	0
11	128.2	WServ1: -30deg	Combination	1.030238634	-5.664834968	-0.351722634	-28.65916312	-25.98219691	-285.5028345	11-3	19.6
11	147.8	WServ1: -30deg	Combination	1.030238634	-5.785701635	-0.351722634	-28.65916312	-19.08843328	-173.2875758	11-3	39.2
11	167.4	WServ1: -30deg	Combination	1.030238634	-5.906568302	-0.351722634	-28.65916312	-12.19466965	-58.70333039	11-3	58.8
11	187	WServ1: -30deg	Combination	1.030238634	-6.027434968	-0.351722634	-28.65916312	-5.300906016	58.24990165	11-3	78.4
11	206.6	WServ1: -30deg	Combination	1.030238634	-6.148301635	-0.351722634	-28.65916312	1.592857614	177.5721204	11-3	98
11	206.6	WServ1: -30deg	Combination	2.029238634	-16.80060163	-0.873422634	-42.74506312	1.592857614	150.5991204	11-4	0
11	216	WServ1: -30deg	Combination	2.029238634	-16.8585683	-0.873422634	-42.74506312	9.803030376	308.7972191	11-4	9.4
11	0	WServ1 + WA	Combination	-0.765833215	12.35965999	0.691677366	-0.487363115	-9.408098612	187.2597653	11-1	0
11	9.6	WServ1 + WA	Combination	-0.765833215	12.35965999	0.691677366	-0.487363115	-16.04820132	68.60702933	11-1	9.6
11	9.6	WServ1 + WA	Combination	0.233166785	3.953259993	0.169977366	-14.57326312	-16.04820132	41.63402933	11-2	0
11	29.4	WServ1 + WA	Combination	0.233166785	3.953259993	0.169977366	-14.57326312	-19.41375317	-36.64051855	11-2	19.8
11	49.2	WServ1 + WA	Combination	0.233166785	3.953259993	0.169977366	-14.57326312	-22.77930501	-114.9150664	11-2	39.6
11	69	WServ1 + WA	Combination	0.233166785	3.953259993	0.169977366	-14.57326312	-26.14485685	-193.1896143	11-2	59.4
11	88.8	WServ1 + WA	Combination	0.233166785	3.953259993	0.169977366	-14.57326312	-29.51040869	-271.4641622	11-2	79.2

11	108.6	WServ1 + WA	Combination		0.233166785	3.953259993	0.169977366	-14.57326312	-32.87596054	-349.73871	11-2		99
11	108.6	WServ1 + WA	Combination		1.232166785	-5.577940007	-0.351722634	-28.65916312	-32.87596054	-376.71171	11-3		0
11	128.2	WServ1 + WA	Combination		1.232166785	-5.577940007	-0.351722634	-28.65916312	-25.98219691	-267.3840859	11-3		19.6
11	147.8	WServ1 + WA	Combination		1.232166785	-5.577940007	-0.351722634	-28.65916312	-19.08843328	-158.0564618	11-3		39.2
11	167.4	WServ1 + WA	Combination		1.232166785	-5.577940007	-0.351722634	-28.65916312	-12.19466965	-48.72883765	11-3		58.8
11	187	WServ1 + WA	Combination		1.232166785	-5.577940007	-0.351722634	-28.65916312	-5.300906016	60.59878648	11-3		78.4
11	206.6	WServ1 + WA	Combination		1.232166785	-5.577940007	-0.351722634	-28.65916312	1.592857614	169.9264106	11-3		98
11	206.6	WServ1 + WA	Combination		2.231166785	-16.23024001	-0.873422634	-42.74506312	1.592857614	142.9534106	11-4		0
11	216	WServ1 + WA	Combination		2.231166785	-16.23024001	-0.873422634	-42.74506312	9.803030376	295.5176667	11-4		9.4
11	0	WServ1 & WA envelope	Combination	Max	-0.765833215	13.0633317	0.691677366	-0.487363115	-9.408098612	208.6764059	11-1		0
11	9.6	WServ1 & WA envelope	Combination	Max	-0.765833215	13.0041317	0.691677366	-0.487363115	-16.04820132	83.55258161	11-1		9.6
11	9.6	WServ1 & WA envelope	Combination	Max	0.233166785	4.597731698	0.169977366	-14.57326312	-16.04820132	56.57958161	11-2		0
11	29.4	WServ1 & WA envelope	Combination	Max	0.233166785	4.475631698	0.169977366	-14.57326312	-19.41375317	-33.24671601	11-2		19.8
11	49.2	WServ1 & WA envelope	Combination	Max	0.233166785	4.353531698	0.169977366	-14.57326312	-22.77930501	-114.9150664	11-2		39.6
11	69	WServ1 & WA envelope	Combination	Max	0.233166785	4.231431698	0.169977366	-14.57326312	-26.14485685	-193.1896143	11-2		59.4
11	88.8	WServ1 & WA envelope	Combination	Max	0.233166785	4.109331698	0.169977366	-14.57326312	-29.51040869	-271.4641622	11-2		79.2
11	108.6	WServ1 & WA envelope	Combination	Max	0.233166785	3.987231698	0.169977366	-14.57326312	-32.87596054	-349.0205446	11-2		99
11	108.6	WServ1 & WA envelope	Combination	Max	1.232166785	-5.543968302	-0.351722634	-28.65916312	-32.87596054	-375.9935446	11-3		0
11	128.2	WServ1 & WA envelope	Combination	Max	1.232166785	-5.577940007	-0.351722634	-28.65916312	-25.98219691	-265.5098968	11-3		19.6
11	147.8	WServ1 & WA envelope	Combination	Max	1.232166785	-5.577940007	-0.351722634	-28.65916312	-19.08843328	-154.9077996	11-3		39.2
11	167.4	WServ1 & WA envelope	Combination	Max	1.232166785	-5.577940007	-0.351722634	-28.65916312	-12.19466965	-44.187253	11-3		58.8
11	187	WServ1 & WA envelope	Combination	Max	1.232166785	-5.577940007	-0.351722634	-28.65916312	-5.300906016	66.65174288	11-3		78.4
11	206.6	WServ1 & WA envelope	Combination	Max	1.232166785	-5.577940007	-0.351722634	-28.65916312	1.592857614	178.1711429	11-3		98
11	206.6	WServ1 & WA envelope	Combination	Max	2.231166785	-16.23024001	-0.873422634	-42.74506312	1.592857614	151.1981429	11-4		0
11	216	WServ1 & WA envelope	Combination	Max	2.231166785	-16.23024001	-0.873422634	-42.74506312	9.803030376	308.7972191	11-4		9.4
11	0	WServ1 & WA envelope	Combination	Min	-1.094661422	12.33718586	0.691677366	-0.487363115	-9.408098612	183.7190039	11-1		0
11	9.6	WServ1 & WA envelope	Combination	Min	-1.094661422	12.33422586	0.691677366	-0.487363115	-16.04820132	65.29622763	11-1		9.6
11	9.6	WServ1 & WA envelope	Combination	Min	-0.095661422	3.927825856	0.169977366	-14.57326312	-16.04820132	38.32322763	11-2		0
11	29.4	WServ1 & WA envelope	Combination	Min	-0.095661422	3.921720856	0.169977366	-14.57326312	-19.41375317	-39.38728483	11-2		19.8
11	49.2	WServ1 & WA envelope	Combination	Min	-0.095661422	3.915615856	0.169977366	-14.57326312	-22.77930501	-120.6554336	11-2		39.6
11	69	WServ1 & WA envelope	Combination	Min	-0.095661422	3.909510856	0.169977366	-14.57326312	-26.14485685	-205.6465713	11-2		59.4
11	88.8	WServ1 & WA envelope	Combination	Min	-0.095661422	3.903405856	0.169977366	-14.57326312	-29.51040869	-288.2201289	11-2		79.2
11	108.6	WServ1 & WA envelope	Combination	Min	-0.095661422	3.897300856	0.169977366	-14.57326312	-32.87596054	-368.3761065	11-2		99
11	108.6	WServ1 & WA envelope	Combination	Min	0.903338578	-5.633899144	-0.351722634	-28.65916312	-32.87596054	-395.3491065	11-3		0
11	128.2	WServ1 & WA envelope	Combination	Min	0.903338578	-5.664834968	-0.351722634	-28.65916312	-25.98219691	-285.5028345	11-3		19.6
11	147.8	WServ1 & WA envelope	Combination	Min	0.903338578	-5.785701635	-0.351722634	-28.65916312	-19.08843328	-173.2875758	11-3		39.2
11	167.4	WServ1 & WA envelope	Combination	Min	0.903338578	-5.906568302	-0.351722634	-28.65916312	-12.19466965	-58.70333039	11-3		58.8
11	187	WServ1 & WA envelope	Combination	Min	0.903338578	-6.027434968	-0.351722634	-28.65916312	-5.300906016	58.24990165	11-3		78.4
11	206.6	WServ1 & WA envelope	Combination	Min	0.903338578	-6.148301635	-0.351722634	-28.65916312	1.592857614	169.9264106	11-3		98
11	206.6	WServ1 & WA envelope	Combination	Min	1.902338578	-16.80060163	-0.873422634	-42.74506312	1.592857614	142.9534106	11-4		0
11	216	WServ1 & WA envelope	Combination	Min	1.902338578	-16.8585683	-0.873422634	-42.74506312	9.803030376	295.5176667	11-4		9.4
11	0	Strength Envelope	Combination	Max	-7.644060138	-277.1341795	26.26438301	-0.487363115	-9.408098612	-6745.949894	11-1		0

11	9.6	Strength Envelope	Combination Max	-7.644060138	-275.3501795	26.26438301	-0.487363115	-16.04820132	-4094.02497	11-1	9.6
11	9.6	Strength Envelope	Combination Max	-6.046118272	-121.5986795	6.45438301	-14.57326312	-16.04820132	-4166.92497	11-2	0
11	29.4	Strength Envelope	Combination Max	-6.046118272	-117.9191795	6.45438301	-14.57326312	-19.41375317	-1739.088893	11-2	19.8
11	49.2	Strength Envelope	Combination Max	-6.046118272	-114.2396795	6.45438301	-14.57326312	-22.77930501	1085.115514	11-2	39.6
11	69	Strength Envelope	Combination Max	-6.046118272	-110.5601795	6.45438301	-14.57326312	-26.14485685	5704.428937	11-2	59.4
11	88.8	Strength Envelope	Combination Max	-6.046118272	-106.8806795	6.45438301	-14.57326312	-29.51040869	11017.50314	11-2	79.2
11	108.6	Strength Envelope	Combination Max	-6.046118272	-103.2011795	6.45438301	-14.57326312	-32.87596054	16220.31608	11-2	99
11	108.6	Strength Envelope	Combination Max	7.966566299	86.70701603	-0.351722634	-28.65916312	-32.87596054	15702.92858	11-3	0
11	128.2	Strength Envelope	Combination Max	7.966566299	92.09864937	-0.351722634	-28.65916312	-25.98219691	14047.02662	11-3	19.6
11	147.8	Strength Envelope	Combination Max	7.966566299	97.4902827	-0.351722634	-28.65916312	-19.08843328	12283.07965	11-3	39.2
11	167.4	Strength Envelope	Combination Max	7.966566299	102.881916	-0.351722634	-28.65916312	-12.19466965	10411.08768	11-3	58.8
11	187	Strength Envelope	Combination Max	7.966566299	108.2735494	-0.351722634	-28.65916312	-5.300906016	8431.050711	11-3	78.4
11	206.6	Strength Envelope	Combination Max	7.966566299	113.6651827	-0.351722634	-28.65916312	60.48401254	6342.968743	11-3	98
11	206.6	Strength Envelope	Combination Max	27.1290663	420.5910443	-0.873422634	-42.74506312	60.48401254	5825.581243	11-4	0
11	216	Strength Envelope	Combination Max	27.1290663	423.2347943	-0.873422634	-42.74506312	372.2408122	2512.055744	11-4	9.4
11	0	Strength Envelope	Combination Min	-33.46577137	-639.0827057	0.691677366	-18.50615931	-357.2444576	-16501.20763	11-1	0
11	9.6	Strength Envelope	Combination Min	-33.46577137	-636.3827057	0.691677366	-18.50615931	-609.3825345	-10378.97366	11-1	9.6
11	9.6	Strength Envelope	Combination Min	-14.30327137	-287.8277057	0.169977366	-553.3761593	-609.3825345	-10896.36116	11-2	0
11	29.4	Strength Envelope	Combination Min	-14.30327137	-282.2589557	0.169977366	-553.3761593	-737.1793181	-5252.503209	11-2	19.8
11	49.2	Strength Envelope	Combination Min	-14.30327137	-276.6902057	0.169977366	-553.3761593	-864.9761017	-215.6124672	11-2	39.6
11	69	Strength Envelope	Combination Min	-14.30327137	-271.1214557	0.169977366	-553.3761593	-992.7728853	2447.08731	11-2	59.4
11	88.8	Strength Envelope	Combination Min	-14.30327137	-265.5527057	0.169977366	-553.3761593	-1120.569669	4870.000102	11-2	79.2
11	108.6	Strength Envelope	Combination Min	-14.30327137	-259.9839557	0.169977366	-553.3761593	-1248.366452	6960.668052	11-2	99
11	108.6	Strength Envelope	Combination Min	-8.75339781	32.36584183	-13.35561699	-1088.246159	-1248.366452	6887.768052	11-3	0
11	128.2	Strength Envelope	Combination Min	-8.75339781	36.29437443	-13.35561699	-1088.246159	-986.5963595	5920.870903	11-3	19.6
11	147.8	Strength Envelope	Combination Min	-8.75339781	40.07746389	-13.35561699	-1088.246159	-724.8262665	4882.584022	11-3	39.2
11	167.4	Strength Envelope	Combination Min	-8.75339781	43.85673589	-13.35561699	-1088.246159	-463.0561735	3772.907407	11-3	58.8
11	187	Strength Envelope	Combination Min	-8.75339781	47.63600789	-13.35561699	-1088.246159	-201.2860805	2492.658794	11-3	78.4
11	206.6	Strength Envelope	Combination Min	-8.75339781	51.41527989	-13.35561699	-1088.246159	1.592857614	1037.032448	11-3	98
11	206.6	Strength Envelope	Combination Min	-7.75439781	174.807081	-33.16561699	-1623.116159	1.592857614	1010.059448	11-4	0
11	216	Strength Envelope	Combination Min	-7.75439781	176.619589	-33.16561699	-1623.116159	9.803030376	-1766.323521	11-4	9.4
12	0	DEAD	LinStatic	0	0	0	0	0	-9.09495E-13	12-1	0
12	12.2	DEAD	LinStatic	0	2.745	0	0	0	-16.7445	12-1	12.2
12	24.4	DEAD	LinStatic	0	5.49	0	0	0	-66.978	12-1	24.4
12	24.4	DEAD	LinStatic	0	5.49	0	0	0	-66.978	12-2	0
12	36	DEAD	LinStatic	0	8.1	0	0	0	-145.8	12-2	11.6
12	0	R01_Z	LinStatic	0	-1.77636E-15	0	0	0	-1.42109E-14	12-1	0
12	12.2	R01_Z	LinStatic	0	-1.77636E-15	0	0	0	7.4607E-15	12-1	12.2
12	24.4	R01_Z	LinStatic	0	-1.77636E-15	0	0	0	2.91323E-14	12-1	24.4
12	24.4	R01_Z	LinStatic	-3.55271E-15	-1	0	0	0	-3.37508E-14	12-2	0
12	36	R01_Z	LinStatic	-3.55271E-15	-1	0	0	0	11.6	12-2	11.6
12	0	R02_Z	LinStatic	0	2.22045E-16	0	0	0	1.42109E-14	12-1	0

12	12.2	R02_Z	LinStatic	0	2.22045E-16	0	0	0	1.15019E-14	12-1	12.2
12	24.4	R02_Z	LinStatic	0	2.22045E-16	0	0	0	8.79297E-15	12-1	24.4
12	24.4	R02_Z	LinStatic	1.77636E-15	8.88178E-16	0	0	0	2.84217E-14	12-2	0
12	36	R02_Z	LinStatic	1.77636E-15	8.88178E-16	0	0	0	1.81188E-14	12-2	11.6
12	0	R03_Z	LinStatic	0	0	0	0	0	7.10543E-15	12-1	0
12	12.2	R03_Z	LinStatic	0	0	0	0	0	7.10543E-15	12-1	12.2
12	24.4	R03_Z	LinStatic	0	0	0	0	0	7.10543E-15	12-1	24.4
12	24.4	R03_Z	LinStatic	4.44089E-16	2.22045E-16	0	0	0	2.84217E-14	12-2	0
12	36	R03_Z	LinStatic	4.44089E-16	2.22045E-16	0	0	0	2.5846E-14	12-2	11.6
12	0	R04_Z	LinStatic	0	1.11022E-16	0	0	0	2.33147E-15	12-1	0
12	12.2	R04_Z	LinStatic	0	1.11022E-16	0	0	0	9.76996E-16	12-1	12.2
12	24.4	R04_Z	LinStatic	0	1.11022E-16	0	0	0	-3.77476E-16	12-1	24.4
12	24.4	R04_Z	LinStatic	8.88178E-16	1.11022E-16	0	0	0	3.55271E-15	12-2	0
12	36	R04_Z	LinStatic	8.88178E-16	1.11022E-16	0	0	0	2.26485E-15	12-2	11.6
12	0	R05_Z	LinStatic	0	2.77556E-17	0	0	0	-8.88178E-16	12-1	0
12	12.2	R05_Z	LinStatic	0	2.77556E-17	0	0	0	-1.2268E-15	12-1	12.2
12	24.4	R05_Z	LinStatic	0	2.77556E-17	0	0	0	-1.56541E-15	12-1	24.4
12	24.4	R05_Z	LinStatic	-4.44089E-16	0	0	0	0	-3.55271E-15	12-2	0
12	36	R05_Z	LinStatic	-4.44089E-16	0	0	0	0	-3.55271E-15	12-2	11.6
12	0	R06_Z	LinStatic	0	3.46945E-18	0	0	0	0	12-1	0
12	12.2	R06_Z	LinStatic	0	3.46945E-18	0	0	0	-4.23273E-17	12-1	12.2
12	24.4	R06_Z	LinStatic	0	3.46945E-18	0	0	0	-8.46545E-17	12-1	24.4
12	24.4	R06_Z	LinStatic	4.44089E-16	-2.77556E-17	0	0	0	-8.88178E-16	12-2	0
12	36	R06_Z	LinStatic	4.44089E-16	-2.77556E-17	0	0	0	-5.66214E-16	12-2	11.6
12	0	R07_Z	LinStatic	0	-6.93889E-18	0	0	0	-1.11022E-16	12-1	0
12	12.2	R07_Z	LinStatic	0	-6.93889E-18	0	0	0	-2.63678E-17	12-1	12.2
12	24.4	R07_Z	LinStatic	0	-6.93889E-18	0	0	0	5.82867E-17	12-1	24.4
12	24.4	R07_Z	LinStatic	-4.44089E-16	-6.93889E-18	0	0	0	-4.44089E-16	12-2	0
12	36	R07_Z	LinStatic	-4.44089E-16	-6.93889E-18	0	0	0	-3.63598E-16	12-2	11.6
12	0	R08_Z	LinStatic	0	2.1684E-19	0	0	0	2.77556E-17	12-1	0
12	12.2	R08_Z	LinStatic	0	2.1684E-19	0	0	0	2.51101E-17	12-1	12.2
12	24.4	R08_Z	LinStatic	0	2.1684E-19	0	0	0	2.24647E-17	12-1	24.4
12	24.4	R08_Z	LinStatic	4.44089E-16	0	0	0	0	5.55112E-17	12-2	0
12	36	R08_Z	LinStatic	4.44089E-16	0	0	0	0	5.55112E-17	12-2	11.6
12	0	R09_Z	LinStatic	0	1.73472E-18	0	0	0	2.77556E-17	12-1	0
12	12.2	R09_Z	LinStatic	0	1.73472E-18	0	0	0	6.59195E-18	12-1	12.2
12	24.4	R09_Z	LinStatic	0	1.73472E-18	0	0	0	-1.45717E-17	12-1	24.4
12	24.4	R09_Z	LinStatic	-2.22045E-16	-3.46945E-18	0	0	0	0	12-2	0
12	36	R09_Z	LinStatic	-2.22045E-16	-3.46945E-18	0	0	0	4.02456E-17	12-2	11.6
12	0	R10_Z	LinStatic	0	-8.67362E-19	0	0	0	-2.86229E-17	12-1	0
12	12.2	R10_Z	LinStatic	0	-8.67362E-19	0	0	0	-1.80411E-17	12-1	12.2
12	24.4	R10_Z	LinStatic	0	-8.67362E-19	0	0	0	-7.45931E-18	12-1	24.4

12	24.4	R10_Z	LinStatic	-4.44089E-16	0	0	0	0	-2.77556E-17	12-2	0
12	36	R10_Z	LinStatic	-4.44089E-16	0	0	0	0	-2.77556E-17	12-2	11.6
12	0	R11_Z	LinStatic	0	0	0	0	0	-1.11022E-16	12-1	0
12	12.2	R11_Z	LinStatic	0	0	0	0	0	-1.11022E-16	12-1	12.2
12	24.4	R11_Z	LinStatic	0	0	0	0	0	-1.11022E-16	12-1	24.4
12	24.4	R11_Z	LinStatic	-1.77636E-15	0	0	0	0	-2.22045E-16	12-2	0
12	36	R11_Z	LinStatic	-1.77636E-15	0	0	0	0	-2.22045E-16	12-2	11.6
12	0	R12_Z	LinStatic	0	0	0	0	0	6.93889E-17	12-1	0
12	12.2	R12_Z	LinStatic	0	0	0	0	0	6.93889E-17	12-1	12.2
12	24.4	R12_Z	LinStatic	0	0	0	0	0	6.93889E-17	12-1	24.4
12	24.4	R12_Z	LinStatic	4.44089E-16	-3.46945E-18	0	0	0	1.11022E-16	12-2	0
12	36	R12_Z	LinStatic	4.44089E-16	-3.46945E-18	0	0	0	1.51268E-16	12-2	11.6
12	0	R_X	LinStatic	0	0	0	0	0	-1.7053E-13	12-1	0
12	12.2	R_X	LinStatic	0	0	0	0	0	-1.7053E-13	12-1	12.2
12	24.4	R_X	LinStatic	0	0	0	0	0	-1.7053E-13	12-1	24.4
12	24.4	R_X	LinStatic	-1	0	0	0	0	27	12-2	0
12	36	R_X	LinStatic	-1	0	0	0	0	27	12-2	11.6
12	0	R_Y	LinStatic	0	0	0	-1.81899E-12	0	0	12-1	0
12	12.2	R_Y	LinStatic	0	0	0	-1.81899E-12	0	0	12-1	12.2
12	24.4	R_Y	LinStatic	0	0	0	-1.81899E-12	0	0	12-1	24.4
12	24.4	R_Y	LinStatic	0	0	1	27	1.45519E-11	0	12-2	0
12	36	R_Y	LinStatic	0	0	1	27	-11.6	0	12-2	11.6
12	0	Cap_R_X	LinStatic	0	0	0	0	0	-1.42109E-14	12-1	0
12	12.2	Cap_R_X	LinStatic	0	0	0	0	0	-1.42109E-14	12-1	12.2
12	24.4	Cap_R_X	LinStatic	0	0	0	0	0	-1.42109E-14	12-1	24.4
12	24.4	Cap_R_X	LinStatic	-2.27374E-13	-4.44089E-16	0	0	0	-1.42109E-14	12-2	0
12	36	Cap_R_X	LinStatic	-2.27374E-13	-4.44089E-16	0	0	0	-9.05942E-15	12-2	11.6
12	0	Cap_w_Y	LinStatic	0	7.10543E-15	0	0	0	0	12-1	0
12	12.2	Cap_w_Y	LinStatic	0	1.016666667	0	0	0	-6.201666667	12-1	12.2
12	24.4	Cap_w_Y	LinStatic	0	2.033333333	0	0	0	-24.80666667	12-1	24.4
12	24.4	Cap_w_Y	LinStatic	-3.55271E-15	2.033333333	0	0	0	-24.80666667	12-2	0
12	36	Cap_w_Y	LinStatic	-3.55271E-15	3	0	0	0	-54	12-2	11.6
12	0	Cap_w_Z	LinStatic	0	7.10543E-15	0	0	0	0	12-1	0
12	12.2	Cap_w_Z	LinStatic	0	1.016666667	0	0	0	-6.201666667	12-1	12.2
12	24.4	Cap_w_Z	LinStatic	0	2.033333333	0	0	0	-24.80666667	12-1	24.4
12	24.4	Cap_w_Z	LinStatic	-3.55271E-15	2.033333333	0	0	0	-24.80666667	12-2	0
12	36	Cap_w_Z	LinStatic	-3.55271E-15	3	0	0	0	-54	12-2	11.6
12	0	Col_w_X	LinStatic	0	0	0	0	0	0	12-1	0
12	12.2	Col_w_X	LinStatic	0	0	0	0	0	0	12-1	12.2
12	24.4	Col_w_X	LinStatic	0	0	0	0	0	0	12-1	24.4
12	24.4	Col_w_X	LinStatic	-5.04871E-29	0	0	0	0	0	12-2	0
12	36	Col_w_X	LinStatic	-5.04871E-29	0	0	0	0	0	12-2	11.6

12	0	Col_w_Y	LinStatic	0	0	0	0	0	0	12-1	0
12	12.2	Col_w_Y	LinStatic	0	0	0	0	0	0	12-1	12.2
12	24.4	Col_w_Y	LinStatic	0	0	0	0	0	0	12-1	24.4
12	24.4	Col_w_Y	LinStatic	-5.04871E-29	0	0	0	0	0	12-2	0
12	36	Col_w_Y	LinStatic	-5.04871E-29	0	0	0	0	0	12-2	11.6
12	0	Cais_w_X	LinStatic	0	0	0	0	0	2.84217E-14	12-1	0
12	12.2	Cais_w_X	LinStatic	0	0	0	0	0	2.84217E-14	12-1	12.2
12	24.4	Cais_w_X	LinStatic	0	0	0	0	0	2.84217E-14	12-1	24.4
12	24.4	Cais_w_X	LinStatic	-6.31089E-30	7.10543E-15	0	0	0	0	12-2	0
12	36	Cais_w_X	LinStatic	-6.31089E-30	7.10543E-15	0	0	0	-8.2423E-14	12-2	11.6
12	0	Cais_w_Y	LinStatic	0	0	0	0	0	2.84217E-14	12-1	0
12	12.2	Cais_w_Y	LinStatic	0	0	0	0	0	2.84217E-14	12-1	12.2
12	24.4	Cais_w_Y	LinStatic	0	0	0	0	0	2.84217E-14	12-1	24.4
12	24.4	Cais_w_Y	LinStatic	-6.31089E-30	7.10543E-15	0	0	0	0	12-2	0
12	36	Cais_w_Y	LinStatic	-6.31089E-30	7.10543E-15	0	0	0	-8.2423E-14	12-2	11.6
12	0	DC	LinStatic	0	-2.27374E-13	0	0	0	-7.27596E-12	12-1	0
12	12.2	DC	LinStatic	0	-2.27374E-13	0	0	0	-4.502E-12	12-1	12.2
12	24.4	DC	LinStatic	0	-2.27374E-13	0	0	0	-1.72804E-12	12-1	24.4
12	24.4	DC	LinStatic	2.27374E-13	158.93	0	0	0	-7.27596E-12	12-2	0
12	36	DC	LinStatic	2.27374E-13	158.93	0	0	0	-1843.588	12-2	11.6
12	0	DW	LinStatic	0	-5.68434E-14	0	0	0	-9.09495E-13	12-1	0
12	12.2	DW	LinStatic	0	-5.68434E-14	0	0	0	-2.16005E-13	12-1	12.2
12	24.4	DW	LinStatic	0	-5.68434E-14	0	0	0	4.77485E-13	12-1	24.4
12	24.4	DW	LinStatic	2.84217E-14	25.31	0	0	0	-1.81899E-12	12-2	0
12	36	DW	LinStatic	2.84217E-14	25.31	0	0	0	-293.596	12-2	11.6
12	0	WS3	LinStatic	0	0	0	3.63798E-12	0	6.53699E-13	12-1	0
12	12.2	WS3	LinStatic	0	0	0	3.63798E-12	0	6.53699E-13	12-1	12.2
12	24.4	WS3	LinStatic	0	0	0	3.63798E-12	0	6.53699E-13	12-1	24.4
12	24.4	WS3	LinStatic	2.7	4.59	-1.41	-38.07	0	-72.9	12-2	0
12	36	WS3	LinStatic	2.7	4.59	-1.41	-38.07	16.356	-126.144	12-2	11.6
12	0	WL5	LinStatic	0	0	0	9.09495E-13	0	1.77636E-13	12-1	0
12	12.2	WL5	LinStatic	0	0	0	9.09495E-13	0	1.77636E-13	12-1	12.2
12	24.4	WL5	LinStatic	0	0	0	9.09495E-13	0	1.77636E-13	12-1	24.4
12	24.4	WL5	LinStatic	0.69	0.55	-0.44	-11.88	0	-18.63	12-2	0
12	36	WL5	LinStatic	0.69	0.55	-0.44	-11.88	5.104	-25.01	12-2	11.6
12	0	PL	LinStatic	0	1.42109E-14	0	0	0	0	12-1	0
12	12.2	PL	LinStatic	0	1.42109E-14	0	0	0	-1.73372E-13	12-1	12.2
12	24.4	PL	LinStatic	0	1.42109E-14	0	0	0	-3.46745E-13	12-1	24.4
12	24.4	PL	LinStatic	7.10543E-15	8.37	0	0	0	-4.54747E-13	12-2	0
12	36	PL	LinStatic	7.10543E-15	8.37	0	0	0	-97.092	12-2	11.6
12	0	LL-1 Lane	LinStatic	0	0	0	0	0	-1.81899E-12	12-1	0
12	12.2	LL-1 Lane	LinStatic	0	0	0	0	0	-1.81899E-12	12-1	12.2

12	24.4	LL-1 Lane	LinStatic	0	0	0	0	0	-1.81899E-12	12-1	24.4
12	24.4	LL-1 Lane	LinStatic	5.68434E-14	48.25	0	0	0	0	12-2	0
12	36	LL-1 Lane	LinStatic	5.68434E-14	48.25	0	0	0	-559.7	12-2	11.6
12	0	LL-2 Lane	LinStatic	0	1.13687E-13	0	0	0	-1.81899E-12	12-1	0
12	12.2	LL-2 Lane	LinStatic	0	1.13687E-13	0	0	0	-3.20597E-12	12-1	12.2
12	24.4	LL-2 Lane	LinStatic	0	1.13687E-13	0	0	0	-4.59295E-12	12-1	24.4
12	24.4	LL-2 Lane	LinStatic	5.68434E-14	72.14	0	0	0	-7.27596E-12	12-2	0
12	36	LL-2 Lane	LinStatic	5.68434E-14	72.14	0	0	0	-836.824	12-2	11.6
12	0	LL-3 Lane	LinStatic	0	1.13687E-13	0	0	0	-1.81899E-12	12-1	0
12	12.2	LL-3 Lane	LinStatic	0	1.13687E-13	0	0	0	-3.20597E-12	12-1	12.2
12	24.4	LL-3 Lane	LinStatic	0	1.13687E-13	0	0	0	-4.59295E-12	12-1	24.4
12	24.4	LL-3 Lane	LinStatic	0	81.42	0	0	0	-3.63798E-12	12-2	0
12	36	LL-3 Lane	LinStatic	0	81.42	0	0	0	-944.472	12-2	11.6
12	0	LL-7 Lane	LinStatic	0	2.27374E-13	0	0	0	0	12-1	0
12	12.2	LL-7 Lane	LinStatic	0	2.27374E-13	0	0	0	-2.77396E-12	12-1	12.2
12	24.4	LL-7 Lane	LinStatic	0	2.27374E-13	0	0	0	-5.54792E-12	12-1	24.4
12	24.4	LL-7 Lane	LinStatic	1.13687E-13	69.92	0	0	0	-3.63798E-12	12-2	0
12	36	LL-7 Lane	LinStatic	1.13687E-13	69.92	0	0	0	-811.072	12-2	11.6
12	0	CE-1 Lane	LinStatic	0	-1.42109E-14	0	0	0	1.13687E-13	12-1	0
12	12.2	CE-1 Lane	LinStatic	0	-1.42109E-14	0	0	0	2.87059E-13	12-1	12.2
12	24.4	CE-1 Lane	LinStatic	0	-1.42109E-14	0	0	0	4.60432E-13	12-1	24.4
12	24.4	CE-1 Lane	LinStatic	2.16	1.94	-0.68	-18.36	-7.27596E-12	-58.32	12-2	0
12	36	CE-1 Lane	LinStatic	2.16	1.94	-0.68	-18.36	7.888	-80.824	12-2	11.6
12	0	CE-2 Lane	LinStatic	0	-2.84217E-14	9.09495E-13	1.81899E-12	0	8.52651E-14	12-1	0
12	12.2	CE-2 Lane	LinStatic	0	-2.84217E-14	9.09495E-13	1.81899E-12	-1.10958E-11	4.3201E-13	12-1	12.2
12	24.4	CE-2 Lane	LinStatic	0	-2.84217E-14	9.09495E-13	1.81899E-12	-2.21917E-11	7.78755E-13	12-1	24.4
12	24.4	CE-2 Lane	LinStatic	3.6	3.24	-1.14	-30.78	-1.45519E-11	-97.2	12-2	0
12	36	CE-2 Lane	LinStatic	3.6	3.24	-1.14	-30.78	13.224	-134.784	12-2	11.6
12	0	CE-3 Lane	LinStatic	0	-2.84217E-14	0	3.63798E-12	-1.45519E-11	1.42109E-13	12-1	0
12	12.2	CE-3 Lane	LinStatic	0	-2.84217E-14	0	3.63798E-12	-1.45519E-11	4.88853E-13	12-1	12.2
12	24.4	CE-3 Lane	LinStatic	0	-2.84217E-14	0	3.63798E-12	-1.45519E-11	8.35598E-13	12-1	24.4
12	24.4	CE-3 Lane	LinStatic	4.59	4.13	-1.45	-39.15	0	-123.93	12-2	0
12	36	CE-3 Lane	LinStatic	4.59	4.13	-1.45	-39.15	16.82	-171.838	12-2	11.6
12	0	CE-7 Lane	LinStatic	0	-5.68434E-14	1.81899E-12	3.63798E-12	2.91038E-11	6.82121E-13	12-1	0
12	12.2	CE-7 Lane	LinStatic	0	-5.68434E-14	1.81899E-12	3.63798E-12	6.91216E-12	1.37561E-12	12-1	12.2
12	24.4	CE-7 Lane	LinStatic	0	-5.68434E-14	1.81899E-12	3.63798E-12	-1.52795E-11	2.0691E-12	12-1	24.4
12	24.4	CE-7 Lane	LinStatic	8.19	7.36	-2.58	-69.66	0	-221.13	12-2	0
12	36	CE-7 Lane	LinStatic	8.19	7.36	-2.58	-69.66	29.928	-306.506	12-2	11.6
12	0	BR-1 Lane	LinStatic	0	0	0	3.63798E-12	1.45519E-11	1.13687E-13	12-1	0
12	12.2	BR-1 Lane	LinStatic	0	0	0	3.63798E-12	1.45519E-11	1.13687E-13	12-1	12.2
12	24.4	BR-1 Lane	LinStatic	0	0	0	3.63798E-12	1.45519E-11	1.13687E-13	12-1	24.4
12	24.4	BR-1 Lane	LinStatic	0.73	0	-2.31	-62.37	0	-19.71	12-2	0

12	36	BR-1 Lane	LinStatic	0.73	0	-2.31	-62.37	26.796	-19.71	12-2	11.6
12	0	BR-2 Lane	LinStatic	0	-7.10543E-15	1.81899E-12	7.27596E-12	-2.91038E-11	1.7053E-13	12-1	0
12	12.2	BR-2 Lane	LinStatic	0	-7.10543E-15	1.81899E-12	7.27596E-12	-5.12955E-11	2.57216E-13	12-1	12.2
12	24.4	BR-2 Lane	LinStatic	0	-7.10543E-15	1.81899E-12	7.27596E-12	-7.34872E-11	3.43903E-13	12-1	24.4
12	24.4	BR-2 Lane	LinStatic	1.21	7.10543E-15	-3.84	-103.68	0	-32.67	12-2	0
12	36	BR-2 Lane	LinStatic	1.21	7.10543E-15	-3.84	-103.68	44.544	-32.67	12-2	11.6
12	0	BR-3 Lane	LinStatic	0	-7.10543E-15	0	7.27596E-12	2.91038E-11	1.13687E-13	12-1	0
12	12.2	BR-3 Lane	LinStatic	0	-7.10543E-15	0	7.27596E-12	2.91038E-11	2.00373E-13	12-1	12.2
12	24.4	BR-3 Lane	LinStatic	0	-7.10543E-15	0	7.27596E-12	2.91038E-11	2.87059E-13	12-1	24.4
12	24.4	BR-3 Lane	LinStatic	1.55	1.42109E-14	-4.9	-132.3	-2.91038E-11	-41.85	12-2	0
12	36	BR-3 Lane	LinStatic	1.55	1.42109E-14	-4.9	-132.3	56.84	-41.85	12-2	11.6
12	0	BR-7 Lane	LinStatic	0	-2.84217E-14	3.63798E-12	1.45519E-11	0	3.41061E-13	12-1	0
12	12.2	BR-7 Lane	LinStatic	0	-2.84217E-14	3.63798E-12	1.45519E-11	-4.43833E-11	6.87805E-13	12-1	12.2
12	24.4	BR-7 Lane	LinStatic	0	-2.84217E-14	3.63798E-12	1.45519E-11	-8.87667E-11	1.03455E-12	12-1	24.4
12	24.4	BR-7 Lane	LinStatic	2.76	0	-8.74	-235.98	-5.82077E-11	-74.52	12-2	0
12	36	BR-7 Lane	LinStatic	2.76	0	-8.74	-235.98	101.384	-74.52	12-2	11.6
12	0	WSub3: 45deg	LinStatic	0	3.55271E-15	0	0	0	0	12-1	0
12	12.2	WSub3: 45deg	LinStatic	0	-0.122	0	0	0	0.7442	12-1	12.2
12	24.4	WSub3: 45deg	LinStatic	0	-0.244	0	0	0	2.9768	12-1	24.4
12	24.4	WSub3: 45deg	LinStatic	1.13687E-13	-0.244	0	0	0	2.9768	12-2	0
12	36	WSub3: 45deg	LinStatic	1.13687E-13	-0.36	0	0	0	6.48	12-2	11.6
12	0	WSub3: 30deg	LinStatic	0	-3.55271E-15	0	0	0	5.68434E-14	12-1	0
12	12.2	WSub3: 30deg	LinStatic	0	-0.061	0	0	0	0.3721	12-1	12.2
12	24.4	WSub3: 30deg	LinStatic	0	-0.122	0	0	0	1.4884	12-1	24.4
12	24.4	WSub3: 30deg	LinStatic	2.27374E-13	-0.122	0	0	0	1.4884	12-2	0
12	36	WSub3: 30deg	LinStatic	2.27374E-13	-0.18	0	0	0	3.24	12-2	11.6
12	0	WSub3: 15deg	LinStatic	0	0	0	0	0	0	12-1	0
12	12.2	WSub3: 15deg	LinStatic	0	-0.010166667	0	0	0	0.062016667	12-1	12.2
12	24.4	WSub3: 15deg	LinStatic	0	-0.020333333	0	0	0	0.248066667	12-1	24.4
12	24.4	WSub3: 15deg	LinStatic	1.13687E-13	-0.020333333	0	0	0	0.248066667	12-2	0
12	36	WSub3: 15deg	LinStatic	1.13687E-13	-0.03	0	0	0	0.54	12-2	11.6
12	0	WSub3: 0deg	LinStatic	0	1.77636E-15	0	0	0	5.68434E-14	12-1	0
12	12.2	WSub3: 0deg	LinStatic	0	-0.081333333	0	0	0	0.496133333	12-1	12.2
12	24.4	WSub3: 0deg	LinStatic	0	-0.162666667	0	0	0	1.984533333	12-1	24.4
12	24.4	WSub3: 0deg	LinStatic	2.27374E-13	-0.162666667	0	0	0	1.984533333	12-2	0
12	36	WSub3: 0deg	LinStatic	2.27374E-13	-0.24	0	0	0	4.32	12-2	11.6
12	0	WSub3: -15deg	LinStatic	0	-1.77636E-15	0	0	0	0	12-1	0
12	12.2	WSub3: -15deg	LinStatic	0	-0.142333333	0	0	0	0.868233333	12-1	12.2
12	24.4	WSub3: -15deg	LinStatic	0	-0.284666667	0	0	0	3.472933333	12-1	24.4
12	24.4	WSub3: -15deg	LinStatic	1.13687E-13	-0.284666667	0	0	0	3.472933333	12-2	0
12	36	WSub3: -15deg	LinStatic	1.13687E-13	-0.42	0	0	0	7.56	12-2	11.6
12	0	WSub3: -30deg	LinStatic	0	1.77636E-15	0	0	0	5.68434E-14	12-1	0

12	12.2	WSub3: -30deg	LinStatic	0	-0.203333333	0	0	0	1.240333333	12-1	12.2
12	24.4	WSub3: -30deg	LinStatic	0	-0.406666667	0	0	0	4.961333333	12-1	24.4
12	24.4	WSub3: -30deg	LinStatic	5.68434E-14	-0.406666667	0	0	0	4.961333333	12-2	0
12	36	WSub3: -30deg	LinStatic	5.68434E-14	-0.6	0	0	0	10.8	12-2	11.6
12	0	WSub3: -45deg	LinStatic	0	0	0	0	0	5.68434E-14	12-1	0
12	12.2	WSub3: -45deg	LinStatic	0	-0.244	0	0	0	1.4884	12-1	12.2
12	24.4	WSub3: -45deg	LinStatic	0	-0.488	0	0	0	5.9536	12-1	24.4
12	24.4	WSub3: -45deg	LinStatic	1.13687E-13	-0.488	0	0	0	5.9536	12-2	0
12	36	WSub3: -45deg	LinStatic	1.13687E-13	-0.72	0	0	0	12.96	12-2	11.6
12	0	WA	LinStatic	0	0	0	0	0	0	12-1	0
12	12.2	WA	LinStatic	0	0	0	0	0	0	12-1	12.2
12	24.4	WA	LinStatic	0	0	0	0	0	0	12-1	24.4
12	24.4	WA	LinStatic	1.26218E-29	-7.10543E-15	0	0	0	0	12-2	0
12	36	WA	LinStatic	1.26218E-29	-7.10543E-15	0	0	0	8.2423E-14	12-2	11.6
12	0	WS3: 45deg	Combination	0	3.55271E-15	0	3.63798E-12	0	6.53699E-13	12-1	0
12	12.2	WS3: 45deg	Combination	0	-0.122	0	3.63798E-12	0	0.7442	12-1	12.2
12	24.4	WS3: 45deg	Combination	0	-0.244	0	3.63798E-12	0	2.9768	12-1	24.4
12	24.4	WS3: 45deg	Combination	2.7	4.346	-1.41	-38.07	0	-69.9232	12-2	0
12	36	WS3: 45deg	Combination	2.7	4.23	-1.41	-38.07	16.356	-119.664	12-2	11.6
12	0	WS3: 30deg	Combination	0	-3.55271E-15	0	3.63798E-12	0	7.10543E-13	12-1	0
12	12.2	WS3: 30deg	Combination	0	-0.061	0	3.63798E-12	0	0.3721	12-1	12.2
12	24.4	WS3: 30deg	Combination	0	-0.122	0	3.63798E-12	0	1.4884	12-1	24.4
12	24.4	WS3: 30deg	Combination	2.7	4.468	-1.41	-38.07	0	-71.4116	12-2	0
12	36	WS3: 30deg	Combination	2.7	4.41	-1.41	-38.07	16.356	-122.904	12-2	11.6
12	0	WS3: 15deg	Combination	0	0	0	3.63798E-12	0	6.53699E-13	12-1	0
12	12.2	WS3: 15deg	Combination	0	-0.010166667	0	3.63798E-12	0	0.062016667	12-1	12.2
12	24.4	WS3: 15deg	Combination	0	-0.020333333	0	3.63798E-12	0	0.248066667	12-1	24.4
12	24.4	WS3: 15deg	Combination	2.7	4.569666667	-1.41	-38.07	0	-72.65193333	12-2	0
12	36	WS3: 15deg	Combination	2.7	4.56	-1.41	-38.07	16.356	-125.604	12-2	11.6
12	0	WS3: 0deg	Combination	0	1.77636E-15	0	3.63798E-12	0	7.10543E-13	12-1	0
12	12.2	WS3: 0deg	Combination	0	-0.081333333	0	3.63798E-12	0	0.496133333	12-1	12.2
12	24.4	WS3: 0deg	Combination	0	-0.162666667	0	3.63798E-12	0	1.984533333	12-1	24.4
12	24.4	WS3: 0deg	Combination	2.7	4.427333333	-1.41	-38.07	0	-70.91546667	12-2	0
12	36	WS3: 0deg	Combination	2.7	4.35	-1.41	-38.07	16.356	-121.824	12-2	11.6
12	0	WS3: -15deg	Combination	0	-1.77636E-15	0	3.63798E-12	0	6.53699E-13	12-1	0
12	12.2	WS3: -15deg	Combination	0	-0.142333333	0	3.63798E-12	0	0.868233333	12-1	12.2
12	24.4	WS3: -15deg	Combination	0	-0.284666667	0	3.63798E-12	0	3.472933333	12-1	24.4
12	24.4	WS3: -15deg	Combination	2.7	4.305333333	-1.41	-38.07	0	-69.42706667	12-2	0
12	36	WS3: -15deg	Combination	2.7	4.17	-1.41	-38.07	16.356	-118.584	12-2	11.6
12	0	WS3: -30deg	Combination	0	1.77636E-15	0	3.63798E-12	0	7.10543E-13	12-1	0
12	12.2	WS3: -30deg	Combination	0	-0.203333333	0	3.63798E-12	0	1.240333333	12-1	12.2
12	24.4	WS3: -30deg	Combination	0	-0.406666667	0	3.63798E-12	0	4.961333333	12-1	24.4

12	24.4	WS3: -30deg	Combination	2.7	4.183333333	-1.41	-38.07	0	-67.93866667	12-2	0
12	36	WS3: -30deg	Combination	2.7	3.99	-1.41	-38.07	16.356	-115.344	12-2	11.6
12	0	WServ1: -45deg	Combination	0	6.57252E-16	0	1.34605E-12	0	2.62901E-13	12-1	0
12	12.2	WServ1: -45deg	Combination	0	-0.075233333	0	1.34605E-12	0	0.458923333	12-1	12.2
12	24.4	WServ1: -45deg	Combination	0	-0.150466667	0	1.34605E-12	0	1.835693333	12-1	24.4
12	24.4	WServ1: -45deg	Combination	0.999	1.547833333	-0.5217	-14.0859	0	-25.13730667	12-2	0
12	36	WServ1: -45deg	Combination	0.999	1.4763	-0.5217	-14.0859	6.05172	-42.67728	12-2	11.6
12	0	WS5: 45deg	Combination	0	1.71951E-15	0	2.67028E-12	0	4.94026E-13	12-1	0
12	12.2	WS5: 45deg	Combination	0	-0.059048	0	2.67028E-12	0	0.3601928	12-1	12.2
12	24.4	WS5: 45deg	Combination	0	-0.118096	0	2.67028E-12	0	1.4407712	12-1	24.4
12	24.4	WS5: 45deg	Combination	1.9968	2.653464	-1.12244	-30.30588	0	-52.4728288	12-2	0
12	36	WS5: 45deg	Combination	1.9968	2.59732	-1.12244	-30.30588	13.020304	-82.927376	12-2	11.6
12	0	WS5: 30deg	Combination	0	-1.71951E-15	0	2.67028E-12	0	5.21538E-13	12-1	0
12	12.2	WS5: 30deg	Combination	0	-0.029524	0	2.67028E-12	0	0.1800964	12-1	12.2
12	24.4	WS5: 30deg	Combination	0	-0.059048	0	2.67028E-12	0	0.7203856	12-1	24.4
12	24.4	WS5: 30deg	Combination	1.9968	2.712512	-1.12244	-30.30588	0	-53.1932144	12-2	0
12	36	WS5: 30deg	Combination	1.9968	2.68444	-1.12244	-30.30588	13.020304	-84.495536	12-2	11.6
12	0	WS5: 15deg	Combination	0	0	0	2.67028E-12	0	4.94026E-13	12-1	0
12	12.2	WS5: 15deg	Combination	0	-0.004920667	0	2.67028E-12	0	0.030016067	12-1	12.2
12	24.4	WS5: 15deg	Combination	0	-0.009841333	0	2.67028E-12	0	0.120064267	12-1	24.4
12	24.4	WS5: 15deg	Combination	1.9968	2.761718667	-1.12244	-30.30588	0	-53.79353573	12-2	0
12	36	WS5: 15deg	Combination	1.9968	2.75704	-1.12244	-30.30588	13.020304	-85.802336	12-2	11.6
12	0	WS5: 0deg	Combination	0	8.59757E-16	0	2.67028E-12	0	5.21538E-13	12-1	0
12	12.2	WS5: 0deg	Combination	0	-0.039365333	0	2.67028E-12	0	0.240128533	12-1	12.2
12	24.4	WS5: 0deg	Combination	0	-0.078730667	0	2.67028E-12	0	0.960514133	12-1	24.4
12	24.4	WS5: 0deg	Combination	1.9968	2.692829333	-1.12244	-30.30588	0	-52.95308587	12-2	0
12	36	WS5: 0deg	Combination	1.9968	2.6554	-1.12244	-30.30588	13.020304	-83.972816	12-2	11.6
12	0	WS5: -15deg	Combination	0	-8.59757E-16	0	2.67028E-12	0	4.94026E-13	12-1	0
12	12.2	WS5: -15deg	Combination	0	-0.068889333	0	2.67028E-12	0	0.420224933	12-1	12.2
12	24.4	WS5: -15deg	Combination	0	-0.137778667	0	2.67028E-12	0	1.680899733	12-1	24.4
12	24.4	WS5: -15deg	Combination	1.9968	2.633781333	-1.12244	-30.30588	0	-52.23270027	12-2	0
12	36	WS5: -15deg	Combination	1.9968	2.56828	-1.12244	-30.30588	13.020304	-82.404656	12-2	11.6
12	0	WS5: -30deg	Combination	0	8.59757E-16	0	2.67028E-12	0	5.21538E-13	12-1	0
12	12.2	WS5: -30deg	Combination	0	-0.098413333	0	2.67028E-12	0	0.600321333	12-1	12.2
12	24.4	WS5: -30deg	Combination	0	-0.196826667	0	2.67028E-12	0	2.401285333	12-1	24.4
12	24.4	WS5: -30deg	Combination	1.9968	2.574733333	-1.12244	-30.30588	0	-51.51231467	12-2	0
12	36	WS5: -30deg	Combination	1.9968	2.48116	-1.12244	-30.30588	13.020304	-80.836496	12-2	11.6
12	0	WS5: -45deg	Combination	0	0	0	2.67028E-12	0	5.21538E-13	12-1	0
12	12.2	WS5: -45deg	Combination	0	-0.118096	0	2.67028E-12	0	0.7203856	12-1	12.2
12	24.4	WS5: -45deg	Combination	0	-0.236192	0	2.67028E-12	0	2.8815424	12-1	24.4
12	24.4	WS5: -45deg	Combination	1.9968	2.535368	-1.12244	-30.30588	0	-51.0320576	12-2	0
12	36	WS5: -45deg	Combination	1.9968	2.42308	-1.12244	-30.30588	13.020304	-79.791056	12-2	11.6

12	0	LL - 1 Lane	Combination	0	0	0	3.63798E-12	1.45519E-11	-1.59162E-12	12-1	0
12	12.2	LL - 1 Lane	Combination	0	0	0	3.63798E-12	1.45519E-11	-1.59162E-12	12-1	12.2
12	24.4	LL - 1 Lane	Combination	0	0	0	3.63798E-12	1.45519E-11	-1.59162E-12	12-1	24.4
12	24.4	LL - 1 Lane	Combination	2.89	58.56	-2.99	-80.73	-7.27596E-12	-78.03	12-2	0
12	36	LL - 1 Lane	Combination	2.89	58.56	-2.99	-80.73	34.684	-757.326	12-2	11.6
12	0	WS5 + WA	Combination	0	0	0	2.67028E-12	0	4.94026E-13	12-1	0
12	12.2	WS5 + WA	Combination	0	0	0	2.67028E-12	0	4.94026E-13	12-1	12.2
12	24.4	WS5 + WA	Combination	0	0	0	2.67028E-12	0	4.94026E-13	12-1	24.4
12	24.4	WS5 + WA	Combination	1.9968	2.77156	-1.12244	-30.30588	0	-53.9136	12-2	0
12	36	WS5 + WA	Combination	1.9968	2.77156	-1.12244	-30.30588	13.020304	-86.063696	12-2	11.6
12	0	LL - 2 Lane	Combination	0	9.23706E-14	2.72848E-12	9.09495E-12	-2.91038E-11	-1.56319E-12	12-1	0
12	12.2	LL - 2 Lane	Combination	0	9.23706E-14	2.72848E-12	9.09495E-12	-6.23913E-11	-2.69011E-12	12-1	12.2
12	24.4	LL - 2 Lane	Combination	0	9.23706E-14	2.72848E-12	9.09495E-12	-9.56788E-11	-3.81704E-12	12-1	24.4
12	24.4	LL - 2 Lane	Combination	4.81	83.75	-4.98	-134.46	-1.45519E-11	-129.87	12-2	0
12	36	LL - 2 Lane	Combination	4.81	83.75	-4.98	-134.46	57.768	-1101.37	12-2	11.6
12	0	LL - 3 Lane	Combination	0	9.23706E-14	0	1.09139E-11	1.45519E-11	-1.56319E-12	12-1	0
12	12.2	LL - 3 Lane	Combination	0	9.23706E-14	0	1.09139E-11	1.45519E-11	-2.69011E-12	12-1	12.2
12	24.4	LL - 3 Lane	Combination	0	9.23706E-14	0	1.09139E-11	1.45519E-11	-3.81704E-12	12-1	24.4
12	24.4	LL - 3 Lane	Combination	6.14	93.92	-6.35	-171.45	-2.91038E-11	-165.78	12-2	0
12	36	LL - 3 Lane	Combination	6.14	93.92	-6.35	-171.45	73.66	-1255.252	12-2	11.6
12	0	LL - 7 Lane	Combination	0	1.56319E-13	5.45697E-12	1.81899E-11	2.91038E-11	1.02318E-12	12-1	0
12	12.2	LL - 7 Lane	Combination	0	1.56319E-13	5.45697E-12	1.81899E-11	-3.74712E-11	-8.83915E-13	12-1	12.2
12	24.4	LL - 7 Lane	Combination	0	1.56319E-13	5.45697E-12	1.81899E-11	-1.04046E-10	-2.79101E-12	12-1	24.4
12	24.4	LL - 7 Lane	Combination	10.95	85.65	-11.32	-305.64	-5.82077E-11	-295.65	12-2	0
12	36	LL - 7 Lane	Combination	10.95	85.65	-11.32	-305.64	131.312	-1289.19	12-2	11.6
12	0	LL Envelope	Combination Max	0	1.56319E-13	5.45697E-12	1.81899E-11	2.91038E-11	1.02318E-12	12-1	0
12	12.2	LL Envelope	Combination Max	0	1.56319E-13	5.45697E-12	1.81899E-11	1.45519E-11	-8.83915E-13	12-1	12.2
12	24.4	LL Envelope	Combination Max	0	1.56319E-13	5.45697E-12	1.81899E-11	1.45519E-11	-1.59162E-12	12-1	24.4
12	24.4	LL Envelope	Combination Max	10.95	93.92	-2.99	-80.73	-7.27596E-12	-78.03	12-2	0
12	36	LL Envelope	Combination Max	10.95	93.92	-2.99	-80.73	131.312	-757.326	12-2	11.6
12	0	LL Envelope	Combination Min	0	0	0	3.63798E-12	-2.91038E-11	-1.59162E-12	12-1	0
12	12.2	LL Envelope	Combination Min	0	0	0	3.63798E-12	-6.23913E-11	-2.69011E-12	12-1	12.2
12	24.4	LL Envelope	Combination Min	0	0	0	3.63798E-12	-1.04046E-10	-3.81704E-12	12-1	24.4
12	24.4	LL Envelope	Combination Min	2.89	58.56	-11.32	-305.64	-5.82077E-11	-295.65	12-2	0
12	36	LL Envelope	Combination Min	2.89	58.56	-11.32	-305.64	34.684	-1289.19	12-2	11.6
12	0	WS3 & WA envelope	Combination Max	0	3.55271E-15	0	3.63798E-12	0	7.10543E-13	12-1	0
12	12.2	WS3 & WA envelope	Combination Max	0	0	0	3.63798E-12	0	1.240333333	12-1	12.2
12	24.4	WS3 & WA envelope	Combination Max	0	0	0	3.63798E-12	0	4.961333333	12-1	24.4
12	24.4	WS3 & WA envelope	Combination Max	2.7	4.59	-0.5217	-14.0859	0	-25.13730667	12-2	0
12	36	WS3 & WA envelope	Combination Max	2.7	4.59	-0.5217	-14.0859	16.356	-42.67728	12-2	11.6
12	0	WS3 & WA envelope	Combination Min	0	-3.55271E-15	0	1.34605E-12	0	2.62901E-13	12-1	0
12	12.2	WS3 & WA envelope	Combination Min	0	-0.203333333	0	1.34605E-12	0	6.53699E-13	12-1	12.2

12	24.4	WS3 & WA envelope	Combination	Min	0	-0.406666667	0	1.34605E-12	0	6.53699E-13	12-1	24.4
12	24.4	WS3 & WA envelope	Combination	Min	0.999	1.547833333	-1.41	-38.07	0	-72.9	12-2	0
12	36	WS3 & WA envelope	Combination	Min	0.999	1.4763	-1.41	-38.07	6.05172	-126.144	12-2	11.6
12	0	WS3 + WA	Combination		0	0	0	3.63798E-12	0	6.53699E-13	12-1	0
12	12.2	WS3 + WA	Combination		0	0	0	3.63798E-12	0	6.53699E-13	12-1	12.2
12	24.4	WS3 + WA	Combination		0	0	0	3.63798E-12	0	6.53699E-13	12-1	24.4
12	24.4	WS3 + WA	Combination		2.7	4.59	-1.41	-38.07	0	-72.9	12-2	0
12	36	WS3 + WA	Combination		2.7	4.59	-1.41	-38.07	16.356	-126.144	12-2	11.6
12	0	WS5 & WA envelope	Combination	Max	0	1.71951E-15	0	2.67028E-12	0	5.21538E-13	12-1	0
12	12.2	WS5 & WA envelope	Combination	Max	0	0	0	2.67028E-12	0	0.7203856	12-1	12.2
12	24.4	WS5 & WA envelope	Combination	Max	0	0	0	2.67028E-12	0	2.8815424	12-1	24.4
12	24.4	WS5 & WA envelope	Combination	Max	1.9968	2.77156	-1.12244	-30.30588	0	-51.0320576	12-2	0
12	36	WS5 & WA envelope	Combination	Max	1.9968	2.77156	-1.12244	-30.30588	13.020304	-79.791056	12-2	11.6
12	0	WS5 & WA envelope	Combination	Min	0	-1.71951E-15	0	2.67028E-12	0	4.94026E-13	12-1	0
12	12.2	WS5 & WA envelope	Combination	Min	0	-0.118096	0	2.67028E-12	0	4.94026E-13	12-1	12.2
12	24.4	WS5 & WA envelope	Combination	Min	0	-0.236192	0	2.67028E-12	0	4.94026E-13	12-1	24.4
12	24.4	WS5 & WA envelope	Combination	Min	1.9968	2.535368	-1.12244	-30.30588	0	-53.9136	12-2	0
12	36	WS5 & WA envelope	Combination	Min	1.9968	2.42308	-1.12244	-30.30588	13.020304	-86.063696	12-2	11.6
12	0	Strength 1 - Max	Combination	Max	0	-9.59233E-14	9.54969E-12	3.18323E-11	5.09317E-11	-9.80549E-12	12-1	0
12	12.2	Strength 1 - Max	Combination	Max	0	3.43125	9.54969E-12	3.18323E-11	2.54659E-11	-20.930625	12-1	12.2
12	24.4	Strength 1 - Max	Combination	Max	0	6.8625	9.54969E-12	3.18323E-11	2.54659E-11	-83.7225	12-1	24.4
12	24.4	Strength 1 - Max	Combination	Max	19.1625	407.85	-5.2325	-141.2775	-1.27329E-11	-220.275	12-2	0
12	36	Strength 1 - Max	Combination	Max	19.1625	411.1125	-5.2325	-141.2775	229.796	-4252.4495	12-2	11.6
12	0	Strength 1 - Max	Combination	Min	0	-3.69482E-13	0	6.36646E-12	-5.09317E-11	-1.43814E-11	12-1	0
12	12.2	Strength 1 - Max	Combination	Min	0	3.43125	0	6.36646E-12	-1.09185E-10	-20.930625	12-1	12.2
12	24.4	Strength 1 - Max	Combination	Min	0	6.8625	0	6.36646E-12	-1.82081E-10	-83.7225	12-1	24.4
12	24.4	Strength 1 - Max	Combination	Min	5.0575	345.97	-19.81	-534.87	-1.01863E-10	-601.11	12-2	0
12	36	Strength 1 - Max	Combination	Min	5.0575	349.2325	-19.81	-534.87	60.697	-5183.2115	12-2	11.6
12	0	Strength 1 - Min	Combination	Max	0	3.19744E-14	9.54969E-12	3.18323E-11	5.09317E-11	-6.16751E-12	12-1	0
12	12.2	Strength 1 - Min	Combination	Max	0	2.4705	9.54969E-12	3.18323E-11	2.54659E-11	-15.07005	12-1	12.2
12	24.4	Strength 1 - Min	Combination	Max	0	4.941	9.54969E-12	3.18323E-11	2.54659E-11	-60.2802	12-1	24.4
12	24.4	Strength 1 - Min	Combination	Max	19.1625	328.7895	-5.2325	-141.2775	-1.27329E-11	-196.8327	12-2	0
12	36	Strength 1 - Min	Combination	Max	19.1625	331.1385	-5.2325	-141.2775	229.796	-3306.6071	12-2	11.6
12	0	Strength 1 - Min	Combination	Min	0	-2.41585E-13	0	6.36646E-12	-5.09317E-11	-1.07434E-11	12-1	0
12	12.2	Strength 1 - Min	Combination	Min	0	2.4705	0	6.36646E-12	-1.09185E-10	-15.07005	12-1	12.2
12	24.4	Strength 1 - Min	Combination	Min	0	4.941	0	6.36646E-12	-1.82081E-10	-60.2802	12-1	24.4
12	24.4	Strength 1 - Min	Combination	Min	5.0575	266.9095	-19.81	-534.87	-1.01863E-10	-577.6677	12-2	0
12	36	Strength 1 - Min	Combination	Min	5.0575	269.2585	-19.81	-534.87	60.697	-4237.3691	12-2	11.6
12	0	Strength 3 - Max	Combination	Max	0	-3.6593E-13	0	3.63798E-12	0	-1.08855E-11	12-1	0
12	12.2	Strength 3 - Max	Combination	Max	0	3.43125	0	3.63798E-12	0	-19.69029167	12-1	12.2
12	24.4	Strength 3 - Max	Combination	Max	0	6.8625	0	3.63798E-12	0	-78.76116667	12-1	24.4
12	24.4	Strength 3 - Max	Combination	Max	2.7	248.08	-0.5217	-14.0859	0	-108.8598067	12-2	0

12	36	Strength 3 - Max	Combination Max	2.7	251.3425	-0.5217	-14.0859	16.356	-2969.80628	12-2	11.6
12	0	Strength 3 - Max	Combination Min	0	-3.73035E-13	0	1.34605E-12	0	-1.13332E-11	12-1	0
12	12.2	Strength 3 - Max	Combination Min	0	3.227916667	0	1.34605E-12	0	-20.930625	12-1	12.2
12	24.4	Strength 3 - Max	Combination Min	0	6.455833334	0	1.34605E-12	0	-83.7225	12-1	24.4
12	24.4	Strength 3 - Max	Combination Min	0.999	245.0378333	-1.41	-38.07	0	-156.6225	12-2	0
12	36	Strength 3 - Max	Combination Min	0.999	248.2288	-1.41	-38.07	6.05172	-3053.273	12-2	11.6
12	0	Strength 3 - Min	Combination Max	0	-2.38032E-13	0	3.63798E-12	0	-7.24754E-12	12-1	0
12	12.2	Strength 3 - Min	Combination Max	0	2.4705	0	3.63798E-12	0	-13.82971667	12-1	12.2
12	24.4	Strength 3 - Min	Combination Max	0	4.941	0	3.63798E-12	0	-55.31886667	12-1	24.4
12	24.4	Strength 3 - Min	Combination Max	2.7	169.0195	-0.5217	-14.0859	0	-85.41750667	12-2	0
12	36	Strength 3 - Min	Combination Max	2.7	171.3685	-0.5217	-14.0859	16.356	-2023.96388	12-2	11.6
12	0	Strength 3 - Min	Combination Min	0	-2.45137E-13	0	1.34605E-12	0	-7.69518E-12	12-1	0
12	12.2	Strength 3 - Min	Combination Min	0	2.267166667	0	1.34605E-12	0	-15.07005	12-1	12.2
12	24.4	Strength 3 - Min	Combination Min	0	4.534333334	0	1.34605E-12	0	-60.2802	12-1	24.4
12	24.4	Strength 3 - Min	Combination Min	0.999	165.9773333	-1.41	-38.07	0	-133.1802	12-2	0
12	36	Strength 3 - Min	Combination Min	0.999	168.2548	-1.41	-38.07	6.05172	-2107.4306	12-2	11.6
12	0	Strength 5 - Max	Combination Max	0	-1.56732E-13	7.36691E-12	2.72266E-11	3.92902E-11	-9.69322E-12	12-1	0
12	12.2	Strength 5 - Max	Combination Max	0	3.43125	7.36691E-12	2.72266E-11	1.96451E-11	-20.2102394	12-1	12.2
12	24.4	Strength 5 - Max	Combination Max	0	6.8625	7.36691E-12	2.72266E-11	1.96451E-11	-80.8409576	12-1	24.4
12	24.4	Strength 5 - Max	Combination Max	16.7793	373.05356	-5.15894	-139.29138	-9.82254E-12	-240.0950576	12-2	0
12	36	Strength 5 - Max	Combination Max	16.7793	376.31606	-5.15894	-139.29138	190.291504	-4029.310156	12-2	11.6
12	0	Strength 5 - Max	Combination Min	0	-3.71202E-13	0	7.58155E-12	-3.92902E-11	-1.32507E-11	12-1	0
12	12.2	Strength 5 - Max	Combination Min	0	3.313154	0	7.58155E-12	-8.42283E-11	-20.930625	12-1	12.2
12	24.4	Strength 5 - Max	Combination Min	0	6.626308	0	7.58155E-12	-1.40462E-10	-83.7225	12-1	24.4
12	24.4	Strength 5 - Max	Combination Min	5.8983	325.081368	-16.40444	-442.91988	-7.85803E-11	-536.7636	12-2	0
12	36	Strength 5 - Max	Combination Min	5.8983	328.23158	-16.40444	-442.91988	59.843704	-4753.599196	12-2	11.6
12	0	Strength 5 - Min	Combination Max	0	-2.88338E-14	7.36691E-12	2.72266E-11	3.92902E-11	-6.05525E-12	12-1	0
12	12.2	Strength 5 - Min	Combination Max	0	2.4705	7.36691E-12	2.72266E-11	1.96451E-11	-14.3496644	12-1	12.2
12	24.4	Strength 5 - Min	Combination Max	0	4.941	7.36691E-12	2.72266E-11	1.96451E-11	-57.3986576	12-1	24.4
12	24.4	Strength 5 - Min	Combination Max	16.7793	293.99306	-5.15894	-139.29138	-9.82254E-12	-216.6527576	12-2	0
12	36	Strength 5 - Min	Combination Max	16.7793	296.34206	-5.15894	-139.29138	190.291504	-3083.467756	12-2	11.6
12	0	Strength 5 - Min	Combination Min	0	-2.43304E-13	0	7.58155E-12	-3.92902E-11	-9.61273E-12	12-1	0
12	12.2	Strength 5 - Min	Combination Min	0	2.352404	0	7.58155E-12	-8.42283E-11	-15.07005	12-1	12.2
12	24.4	Strength 5 - Min	Combination Min	0	4.704808	0	7.58155E-12	-1.40462E-10	-60.2802	12-1	24.4
12	24.4	Strength 5 - Min	Combination Min	5.8983	246.020868	-16.40444	-442.91988	-7.85803E-11	-513.3213	12-2	0
12	36	Strength 5 - Min	Combination Min	5.8983	248.25758	-16.40444	-442.91988	59.843704	-3807.756796	12-2	11.6
12	0	Service 1	Combination Max	0	-1.26583E-13	5.45697E-12	1.95359E-11	2.91038E-11	-7.80886E-12	12-1	0
12	12.2	Service 1	Combination Max	0	2.745	5.45697E-12	1.95359E-11	1.45519E-11	-16.28557667	12-1	12.2
12	24.4	Service 1	Combination Max	0	5.49	5.45697E-12	1.95359E-11	1.45519E-11	-65.14230667	12-1	24.4
12	24.4	Service 1	Combination Max	11.949	285.3483	-3.5117	-94.8159	-7.27596E-12	-170.1453067	12-2	0
12	36	Service 1	Combination Max	11.949	287.9583	-3.5117	-94.8159	137.36372	-3082.98728	12-2	11.6
12	0	Service 1	Combination Min	0	-2.85532E-13	0	4.98403E-12	-2.91038E-11	-1.04447E-11	12-1	0

12	12.2	Service I	Combination	Min	0	2.669766667	0	4.98403E-12	-6.23913E-11	-16.7445	12-1	12.2
12	24.4	Service I	Combination	Min	0	5.339533334	0	4.98403E-12	-1.04046E-10	-66.978	12-1	24.4
12	24.4	Service I	Combination	Min	3.889	249.8378333	-11.8417	-319.7259	-5.82077E-11	-389.601	12-2	0
12	36	Service I	Combination	Min	3.889	252.3763	-11.8417	-319.7259	40.73572	-3618.84728	12-2	11.6
12	0	WServ1: 45deg	Combination		0	1.3145E-15	0	1.34605E-12	0	2.41869E-13	12-1	0
12	12.2	WServ1: 45deg	Combination		0	-0.04514	0	1.34605E-12	0	0.275354	12-1	12.2
12	24.4	WServ1: 45deg	Combination		0	-0.09028	0	1.34605E-12	0	1.101416	12-1	24.4
12	24.4	WServ1: 45deg	Combination		0.999	1.60802	-0.5217	-14.0859	0	-25.871584	12-2	0
12	36	WServ1: 45deg	Combination		0.999	1.5651	-0.5217	-14.0859	6.05172	-44.27568	12-2	11.6
12	0	WServ1: 30deg	Combination		0	-1.3145E-15	0	1.34605E-12	0	2.62901E-13	12-1	0
12	12.2	WServ1: 30deg	Combination		0	-0.02257	0	1.34605E-12	0	0.137677	12-1	12.2
12	24.4	WServ1: 30deg	Combination		0	-0.04514	0	1.34605E-12	0	0.550708	12-1	24.4
12	24.4	WServ1: 30deg	Combination		0.999	1.65316	-0.5217	-14.0859	0	-26.422292	12-2	0
12	36	WServ1: 30deg	Combination		0.999	1.6317	-0.5217	-14.0859	6.05172	-45.47448	12-2	11.6
12	0	WServ1: 15deg	Combination		0	0	0	1.34605E-12	0	2.41869E-13	12-1	0
12	12.2	WServ1: 15deg	Combination		0	-0.003761667	0	1.34605E-12	0	0.022946167	12-1	12.2
12	24.4	WServ1: 15deg	Combination		0	-0.007523333	0	1.34605E-12	0	0.091784667	12-1	24.4
12	24.4	WServ1: 15deg	Combination		0.999	1.690776667	-0.5217	-14.0859	0	-26.88121533	12-2	0
12	36	WServ1: 15deg	Combination		0.999	1.6872	-0.5217	-14.0859	6.05172	-46.47348	12-2	11.6
12	0	WServ1: 0deg	Combination		0	6.57252E-16	0	1.34605E-12	0	2.62901E-13	12-1	0
12	12.2	WServ1: 0deg	Combination		0	-0.030093333	0	1.34605E-12	0	0.183569333	12-1	12.2
12	24.4	WServ1: 0deg	Combination		0	-0.060186667	0	1.34605E-12	0	0.734277333	12-1	24.4
12	24.4	WServ1: 0deg	Combination		0.999	1.638113333	-0.5217	-14.0859	0	-26.23872267	12-2	0
12	36	WServ1: 0deg	Combination		0.999	1.6095	-0.5217	-14.0859	6.05172	-45.07488	12-2	11.6
12	0	WServ1: -15deg	Combination		0	-6.57252E-16	0	1.34605E-12	0	2.41869E-13	12-1	0
12	12.2	WServ1: -15deg	Combination		0	-0.052663333	0	1.34605E-12	0	0.321246333	12-1	12.2
12	24.4	WServ1: -15deg	Combination		0	-0.105326667	0	1.34605E-12	0	1.284985333	12-1	24.4
12	24.4	WServ1: -15deg	Combination		0.999	1.592973333	-0.5217	-14.0859	0	-25.68801467	12-2	0
12	36	WServ1: -15deg	Combination		0.999	1.5429	-0.5217	-14.0859	6.05172	-43.87608	12-2	11.6
12	0	WServ1: -30deg	Combination		0	6.57252E-16	0	1.34605E-12	0	2.62901E-13	12-1	0
12	12.2	WServ1: -30deg	Combination		0	-0.075233333	0	1.34605E-12	0	0.458923333	12-1	12.2
12	24.4	WServ1: -30deg	Combination		0	-0.150466667	0	1.34605E-12	0	1.835693333	12-1	24.4
12	24.4	WServ1: -30deg	Combination		0.999	1.547833333	-0.5217	-14.0859	0	-25.13730667	12-2	0
12	36	WServ1: -30deg	Combination		0.999	1.4763	-0.5217	-14.0859	6.05172	-42.67728	12-2	11.6
12	0	WServ1 + WA	Combination		0	0	0	1.34605E-12	0	2.41869E-13	12-1	0
12	12.2	WServ1 + WA	Combination		0	0	0	1.34605E-12	0	2.41869E-13	12-1	12.2
12	24.4	WServ1 + WA	Combination		0	0	0	1.34605E-12	0	2.41869E-13	12-1	24.4
12	24.4	WServ1 + WA	Combination		0.999	1.6983	-0.5217	-14.0859	0	-26.973	12-2	0
12	36	WServ1 + WA	Combination		0.999	1.6983	-0.5217	-14.0859	6.05172	-46.67328	12-2	11.6
12	0	WServ1 & WA envelope	Combination	Max	0	1.3145E-15	0	1.34605E-12	0	2.62901E-13	12-1	0
12	12.2	WServ1 & WA envelope	Combination	Max	0	0	0	1.34605E-12	0	0.458923333	12-1	12.2
12	24.4	WServ1 & WA envelope	Combination	Max	0	0	0	1.34605E-12	0	1.835693333	12-1	24.4

12	24.4	WServ1 & WA envelope	Combination	Max	0.999	1.6983	-0.5217	-14.0859	0	-25.13730667	12-2	0
12	36	WServ1 & WA envelope	Combination	Max	0.999	1.6983	-0.5217	-14.0859	6.05172	-42.67728	12-2	11.6
12	0	WServ1 & WA envelope	Combination	Min	0	-1.3145E-15	0	1.34605E-12	0	2.41869E-13	12-1	0
12	12.2	WServ1 & WA envelope	Combination	Min	0	-0.075233333	0	1.34605E-12	0	2.41869E-13	12-1	12.2
12	24.4	WServ1 & WA envelope	Combination	Min	0	-0.150466667	0	1.34605E-12	0	2.41869E-13	12-1	24.4
12	24.4	WServ1 & WA envelope	Combination	Min	0.999	1.547833333	-0.5217	-14.0859	0	-26.973	12-2	0
12	36	WServ1 & WA envelope	Combination	Min	0.999	1.4763	-0.5217	-14.0859	6.05172	-46.67328	12-2	11.6
12	0	Strength Envelope	Combination	Max	0	3.19744E-14	9.54969E-12	3.18323E-11	5.09317E-11	-6.05525E-12	12-1	0
12	12.2	Strength Envelope	Combination	Max	0	3.43125	9.54969E-12	3.18323E-11	2.54659E-11	-13.82971667	12-1	12.2
12	24.4	Strength Envelope	Combination	Max	0	6.8625	9.54969E-12	3.18323E-11	2.54659E-11	-55.31886667	12-1	24.4
12	24.4	Strength Envelope	Combination	Max	19.1625	407.85	-0.5217	-14.0859	0	-85.41750667	12-2	0
12	36	Strength Envelope	Combination	Max	19.1625	411.1125	-0.5217	-14.0859	229.796	-2023.96388	12-2	11.6
12	0	Strength Envelope	Combination	Min	0	-3.73035E-13	0	1.34605E-12	-5.09317E-11	-1.43814E-11	12-1	0
12	12.2	Strength Envelope	Combination	Min	0	2.267166667	0	1.34605E-12	-1.09185E-10	-20.930625	12-1	12.2
12	24.4	Strength Envelope	Combination	Min	0	4.534333334	0	1.34605E-12	-1.82081E-10	-83.7225	12-1	24.4
12	24.4	Strength Envelope	Combination	Min	0.999	165.9773333	-19.81	-534.87	-1.01863E-10	-601.11	12-2	0
12	36	Strength Envelope	Combination	Min	0.999	168.2548	-19.81	-534.87	6.05172	-5183.2115	12-2	11.6
13	0	DEAD	LinStatic		0	-8.1	0	0	0	-145.8	13-1	0
13	18	DEAD	LinStatic		0	-4.05	0	0	0	-36.45	13-1	18
13	36	DEAD	LinStatic		0	-3.4972E-15	0	0	0	1.77636E-15	13-1	36
13	0	R01_Z	LinStatic		0	3.46945E-18	0	0	0	0	13-1	0
13	18	R01_Z	LinStatic		0	3.46945E-18	0	0	0	-6.245E-17	13-1	18
13	36	R01_Z	LinStatic		0	3.46945E-18	0	0	0	-1.249E-16	13-1	36
13	0	R02_Z	LinStatic		0	0	0	0	0	-1.11022E-16	13-1	0
13	18	R02_Z	LinStatic		0	0	0	0	0	-1.11022E-16	13-1	18
13	36	R02_Z	LinStatic		0	0	0	0	0	-1.11022E-16	13-1	36
13	0	R03_Z	LinStatic		0	4.33681E-19	0	0	0	1.38778E-17	13-1	0
13	18	R03_Z	LinStatic		0	4.33681E-19	0	0	0	6.07153E-18	13-1	18
13	36	R03_Z	LinStatic		0	4.33681E-19	0	0	0	-1.73472E-18	13-1	36
13	0	R04_Z	LinStatic		0	0	0	0	0	0	13-1	0
13	18	R04_Z	LinStatic		0	0	0	0	0	0	13-1	18
13	36	R04_Z	LinStatic		0	0	0	0	0	0	13-1	36
13	0	R05_Z	LinStatic		0	-3.25261E-19	0	0	0	-2.77556E-17	13-1	0
13	18	R05_Z	LinStatic		0	-3.25261E-19	0	0	0	-2.19009E-17	13-1	18
13	36	R05_Z	LinStatic		0	-3.25261E-19	0	0	0	-1.60462E-17	13-1	36
13	0	R06_Z	LinStatic		0	0	0	0	0	0	13-1	0
13	18	R06_Z	LinStatic		0	0	0	0	0	0	13-1	18
13	36	R06_Z	LinStatic		0	0	0	0	0	0	13-1	36
13	0	R07_Z	LinStatic		0	4.33681E-18	0	0	0	0	13-1	0
13	18	R07_Z	LinStatic		0	4.33681E-18	0	0	0	-7.80626E-17	13-1	18
13	36	R07_Z	LinStatic		0	4.33681E-18	0	0	0	-1.56125E-16	13-1	36
13	0	R08_Z	LinStatic		0	0	0	0	0	-8.32667E-17	13-1	0

13	18	R08_Z	LinStatic	0	0	0	0	0	-8.32667E-17	13-1	18
13	36	R08_Z	LinStatic	0	0	0	0	0	-8.32667E-17	13-1	36
13	0	R09_Z	LinStatic	0	0	0	0	0	-8.88178E-16	13-1	0
13	18	R09_Z	LinStatic	0	0	0	0	0	-8.88178E-16	13-1	18
13	36	R09_Z	LinStatic	0	0	0	0	0	-8.88178E-16	13-1	36
13	0	R10_Z	LinStatic	0	-2.77556E-17	0	0	0	0	13-1	0
13	18	R10_Z	LinStatic	0	-2.77556E-17	0	0	0	4.996E-16	13-1	18
13	36	R10_Z	LinStatic	0	-2.77556E-17	0	0	0	9.99201E-16	13-1	36
13	0	R11_Z	LinStatic	0	-4.44089E-16	0	0	0	7.10543E-15	13-1	0
13	18	R11_Z	LinStatic	0	-4.44089E-16	0	0	0	1.5099E-14	13-1	18
13	36	R11_Z	LinStatic	0	-4.44089E-16	0	0	0	2.30926E-14	13-1	36
13	0	R12_Z	LinStatic	0	0	0	0	0	0	13-1	0
13	18	R12_Z	LinStatic	0	0	0	0	0	0	13-1	18
13	36	R12_Z	LinStatic	0	0	0	0	0	0	13-1	36
13	0	R_X	LinStatic	0	0	0	0	0	0	13-1	0
13	18	R_X	LinStatic	0	0	0	0	0	0	13-1	18
13	36	R_X	LinStatic	0	0	0	0	0	0	13-1	36
13	0	R_Y	LinStatic	0	0	0	1.81899E-12	0	0	13-1	0
13	18	R_Y	LinStatic	0	0	0	1.81899E-12	0	0	13-1	18
13	36	R_Y	LinStatic	0	0	0	1.81899E-12	0	0	13-1	36
13	0	Cap_R_X	LinStatic	1	0	0	0	0	0	13-1	0
13	18	Cap_R_X	LinStatic	1	0	0	0	0	0	13-1	18
13	36	Cap_R_X	LinStatic	1	0	0	0	0	0	13-1	36
13	0	Cap_w_Y	LinStatic	0	-3	0	0	0	-54	13-1	0
13	18	Cap_w_Y	LinStatic	0	-1.5	0	0	0	-13.5	13-1	18
13	36	Cap_w_Y	LinStatic	0	-7.18869E-15	0	0	0	1.98952E-13	13-1	36
13	0	Cap_w_Z	LinStatic	0	-3	0	0	0	-54	13-1	0
13	18	Cap_w_Z	LinStatic	0	-1.5	0	0	0	-13.5	13-1	18
13	36	Cap_w_Z	LinStatic	0	-7.18869E-15	0	0	0	1.98952E-13	13-1	36
13	0	Col_w_X	LinStatic	0	0	0	0	0	0	13-1	0
13	18	Col_w_X	LinStatic	0	0	0	0	0	0	13-1	18
13	36	Col_w_X	LinStatic	0	0	0	0	0	0	13-1	36
13	0	Col_w_Y	LinStatic	0	0	0	0	0	0	13-1	0
13	18	Col_w_Y	LinStatic	0	0	0	0	0	0	13-1	18
13	36	Col_w_Y	LinStatic	0	0	0	0	0	0	13-1	36
13	0	Cais_w_X	LinStatic	0	0	0	0	0	2.84217E-14	13-1	0
13	18	Cais_w_X	LinStatic	0	0	0	0	0	2.84217E-14	13-1	18
13	36	Cais_w_X	LinStatic	0	0	0	0	0	2.84217E-14	13-1	36
13	0	Cais_w_Y	LinStatic	0	0	0	0	0	2.84217E-14	13-1	0
13	18	Cais_w_Y	LinStatic	0	0	0	0	0	2.84217E-14	13-1	18
13	36	Cais_w_Y	LinStatic	0	0	0	0	0	2.84217E-14	13-1	36
13	0	DC	LinStatic	0	0	0	0	0	-1.33404E-12	13-1	0

13	18	DC	LinStatic	0	0	0	0	0	-1.33404E-12	13-1	18
13	36	DC	LinStatic	0	0	0	0	0	-1.33404E-12	13-1	36
13	0	DW	LinStatic	0	0	0	0	0	-3.97904E-13	13-1	0
13	18	DW	LinStatic	0	0	0	0	0	-3.97904E-13	13-1	18
13	36	DW	LinStatic	0	0	0	0	0	-3.97904E-13	13-1	36
13	0	WS3	LinStatic	0	0	4.54747E-13	-1.81899E-12	-7.27596E-12	-4.54747E-13	13-1	0
13	18	WS3	LinStatic	0	0	4.54747E-13	-1.81899E-12	-1.54614E-11	-4.54747E-13	13-1	18
13	36	WS3	LinStatic	0	0	4.54747E-13	-1.81899E-12	-2.36469E-11	-4.54747E-13	13-1	36
13	0	WL5	LinStatic	0	3.55271E-15	-1.13687E-13	-9.09495E-13	-3.63798E-12	-1.13687E-13	13-1	0
13	18	WL5	LinStatic	0	3.55271E-15	-1.13687E-13	-9.09495E-13	-1.59162E-12	-1.77636E-13	13-1	18
13	36	WL5	LinStatic	0	3.55271E-15	-1.13687E-13	-9.09495E-13	4.54747E-13	-2.41585E-13	13-1	36
13	0	PL	LinStatic	0	0	0	0	0	-8.52651E-14	13-1	0
13	18	PL	LinStatic	0	0	0	0	0	-8.52651E-14	13-1	18
13	36	PL	LinStatic	0	0	0	0	0	-8.52651E-14	13-1	36
13	0	LL-1 Lane	LinStatic	0	0	0	0	0	-2.27374E-13	13-1	0
13	18	LL-1 Lane	LinStatic	0	0	0	0	0	-2.27374E-13	13-1	18
13	36	LL-1 Lane	LinStatic	0	0	0	0	0	-2.27374E-13	13-1	36
13	0	LL-2 Lane	LinStatic	0	0	0	0	0	-2.27374E-13	13-1	0
13	18	LL-2 Lane	LinStatic	0	0	0	0	0	-2.27374E-13	13-1	18
13	36	LL-2 Lane	LinStatic	0	0	0	0	0	-2.27374E-13	13-1	36
13	0	LL-3 Lane	LinStatic	0	0	0	0	0	2.27374E-13	13-1	0
13	18	LL-3 Lane	LinStatic	0	0	0	0	0	2.27374E-13	13-1	18
13	36	LL-3 Lane	LinStatic	0	0	0	0	0	2.27374E-13	13-1	36
13	0	LL-7 Lane	LinStatic	0	0	0	0	0	-5.96856E-13	13-1	0
13	18	LL-7 Lane	LinStatic	0	0	0	0	0	-5.96856E-13	13-1	18
13	36	LL-7 Lane	LinStatic	0	0	0	0	0	-5.96856E-13	13-1	36
13	0	CE-1 Lane	LinStatic	0	0	0	-9.09495E-13	-3.63798E-12	0	13-1	0
13	18	CE-1 Lane	LinStatic	0	0	0	-9.09495E-13	-3.63798E-12	0	13-1	18
13	36	CE-1 Lane	LinStatic	0	0	0	-9.09495E-13	-3.63798E-12	0	13-1	36
13	0	CE-2 Lane	LinStatic	0	0	4.54747E-13	-1.81899E-12	0	4.54747E-13	13-1	0
13	18	CE-2 Lane	LinStatic	0	0	4.54747E-13	-1.81899E-12	-8.18545E-12	4.54747E-13	13-1	18
13	36	CE-2 Lane	LinStatic	0	0	4.54747E-13	-1.81899E-12	-1.63709E-11	4.54747E-13	13-1	36
13	0	CE-3 Lane	LinStatic	0	0	0	-1.81899E-12	-7.27596E-12	0	13-1	0
13	18	CE-3 Lane	LinStatic	0	0	0	-1.81899E-12	-7.27596E-12	0	13-1	18
13	36	CE-3 Lane	LinStatic	0	0	0	-1.81899E-12	-7.27596E-12	0	13-1	36
13	0	CE-7 Lane	LinStatic	0	0	0	0	-1.45519E-11	0	13-1	0
13	18	CE-7 Lane	LinStatic	0	0	0	0	-1.45519E-11	0	13-1	18
13	36	CE-7 Lane	LinStatic	0	0	0	0	-1.45519E-11	0	13-1	36
13	0	BR-1 Lane	LinStatic	0	3.55271E-15	0	-1.81899E-12	0	1.13687E-13	13-1	0
13	18	BR-1 Lane	LinStatic	0	3.55271E-15	0	-1.81899E-12	0	4.9738E-14	13-1	18
13	36	BR-1 Lane	LinStatic	0	3.55271E-15	0	-1.81899E-12	0	-1.42109E-14	13-1	36
13	0	BR-2 Lane	LinStatic	0	-3.55271E-15	0	-3.63798E-12	2.91038E-11	-1.13687E-13	13-1	0

13	18	BR-2 Lane	LinStatic	0	-3.55271E-15	0	-3.63798E-12	2.91038E-11	-4.9738E-14	13-1	18
13	36	BR-2 Lane	LinStatic	0	-3.55271E-15	0	-3.63798E-12	2.91038E-11	1.42109E-14	13-1	36
13	0	BR-3 Lane	LinStatic	0	0	-1.81899E-12	-3.63798E-12	0	-2.27374E-13	13-1	0
13	18	BR-3 Lane	LinStatic	0	0	-1.81899E-12	-3.63798E-12	3.27418E-11	-2.27374E-13	13-1	18
13	36	BR-3 Lane	LinStatic	0	0	-1.81899E-12	-3.63798E-12	6.54836E-11	-2.27374E-13	13-1	36
13	0	BR-7 Lane	LinStatic	0	-1.42109E-14	0	-1.45519E-11	0	0	13-1	0
13	18	BR-7 Lane	LinStatic	0	-1.42109E-14	0	-1.45519E-11	0	2.55795E-13	13-1	18
13	36	BR-7 Lane	LinStatic	0	-1.42109E-14	0	-1.45519E-11	0	5.11591E-13	13-1	36
13	0	WSub3: 45deg	LinStatic	-0.95	0.36	0	0	0	6.48	13-1	0
13	18	WSub3: 45deg	LinStatic	-0.95	0.18	0	0	0	1.62	13-1	18
13	36	WSub3: 45deg	LinStatic	-0.95	3.04617E-15	0	0	0	-9.05664E-14	13-1	36
13	0	WSub3: 30deg	LinStatic	-1.05	0.18	0	0	0	3.24	13-1	0
13	18	WSub3: 30deg	LinStatic	-1.05	0.09	0	0	0	0.81	13-1	18
13	36	WSub3: 30deg	LinStatic	-1.05	-2.5327E-16	0	0	0	-3.81778E-14	13-1	36
13	0	WSub3: 15deg	LinStatic	-1.07	0.03	0	0	0	0.54	13-1	0
13	18	WSub3: 15deg	LinStatic	-1.07	0.015	0	0	0	0.135	13-1	18
13	36	WSub3: 15deg	LinStatic	-1.07	-2.4143E-15	0	0	0	5.05845E-14	13-1	36
13	0	WSub3: 0deg	LinStatic	-1.02	0.24	0	0	0	4.32	13-1	0
13	18	WSub3: 0deg	LinStatic	-1.02	0.12	0	0	0	1.08	13-1	18
13	36	WSub3: 0deg	LinStatic	-1.02	-3.3272E-15	0	0	0	8.49321E-14	13-1	36
13	0	WSub3: -15deg	LinStatic	-0.9	0.42	0	0	0	7.56	13-1	0
13	18	WSub3: -15deg	LinStatic	-0.9	0.21	0	0	0	1.89	13-1	18
13	36	WSub3: -15deg	LinStatic	-0.9	1.67574E-15	0	0	0	-5.85643E-14	13-1	36
13	0	WSub3: -30deg	LinStatic	-0.72	0.6	0	0	0	10.8	13-1	0
13	18	WSub3: -30deg	LinStatic	-0.72	0.3	0	0	0	2.7	13-1	18
13	36	WSub3: -30deg	LinStatic	-0.72	-3.40006E-16	0	0	0	2.37033E-14	13-1	36
13	0	WSub3: -45deg	LinStatic	-0.5	0.72	0	0	0	12.96	13-1	0
13	18	WSub3: -45deg	LinStatic	-0.5	0.36	0	0	0	3.24	13-1	18
13	36	WSub3: -45deg	LinStatic	-0.5	7.63278E-16	0	0	0	5.38458E-15	13-1	36
13	0	WA	LinStatic	0	0	0	0	0	0	13-1	0
13	18	WA	LinStatic	0	0	0	0	0	0	13-1	18
13	36	WA	LinStatic	0	0	0	0	0	0	13-1	36
13	0	WS3: 45deg	Combination	-0.95	0.36	4.54747E-13	-1.81899E-12	-7.27596E-12	6.48	13-1	0
13	18	WS3: 45deg	Combination	-0.95	0.18	4.54747E-13	-1.81899E-12	-1.54614E-11	1.62	13-1	18
13	36	WS3: 45deg	Combination	-0.95	3.04617E-15	4.54747E-13	-1.81899E-12	-2.36469E-11	-5.45314E-13	13-1	36
13	0	WS3: 30deg	Combination	-1.05	0.18	4.54747E-13	-1.81899E-12	-7.27596E-12	3.24	13-1	0
13	18	WS3: 30deg	Combination	-1.05	0.09	4.54747E-13	-1.81899E-12	-1.54614E-11	0.81	13-1	18
13	36	WS3: 30deg	Combination	-1.05	-2.5327E-16	4.54747E-13	-1.81899E-12	-2.36469E-11	-4.92925E-13	13-1	36
13	0	WS3: 15deg	Combination	-1.07	0.03	4.54747E-13	-1.81899E-12	-7.27596E-12	0.54	13-1	0
13	18	WS3: 15deg	Combination	-1.07	0.015	4.54747E-13	-1.81899E-12	-1.54614E-11	0.135	13-1	18
13	36	WS3: 15deg	Combination	-1.07	-2.4143E-15	4.54747E-13	-1.81899E-12	-2.36469E-11	-4.04163E-13	13-1	36
13	0	WS3: 0deg	Combination	-1.02	0.24	4.54747E-13	-1.81899E-12	-7.27596E-12	4.32	13-1	0

13	18	WS3: 0deg	Combination	-1.02	0.12	4.54747E-13	-1.81899E-12	-1.54614E-11	1.08	13-1	18
13	36	WS3: 0deg	Combination	-1.02	-3.3272E-15	4.54747E-13	-1.81899E-12	-2.36469E-11	-3.69815E-13	13-1	36
13	0	WS3: -15deg	Combination	-0.9	0.42	4.54747E-13	-1.81899E-12	-7.27596E-12	7.56	13-1	0
13	18	WS3: -15deg	Combination	-0.9	0.21	4.54747E-13	-1.81899E-12	-1.54614E-11	1.89	13-1	18
13	36	WS3: -15deg	Combination	-0.9	1.67574E-15	4.54747E-13	-1.81899E-12	-2.36469E-11	-5.13312E-13	13-1	36
13	0	WS3: -30deg	Combination	-0.72	0.6	4.54747E-13	-1.81899E-12	-7.27596E-12	10.8	13-1	0
13	18	WS3: -30deg	Combination	-0.72	0.3	4.54747E-13	-1.81899E-12	-1.54614E-11	2.7	13-1	18
13	36	WS3: -30deg	Combination	-0.72	-3.40006E-16	4.54747E-13	-1.81899E-12	-2.36469E-11	-4.31044E-13	13-1	36
13	0	WServ1: -45deg	Combination	-0.2664	0.222	1.68257E-13	-6.73026E-13	-2.6921E-12	3.996	13-1	0
13	18	WServ1: -45deg	Combination	-0.2664	0.111	1.68257E-13	-6.73026E-13	-5.72072E-12	0.999	13-1	18
13	36	WServ1: -45deg	Combination	-0.2664	-1.25802E-16	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.59486E-13	13-1	36
13	0	WS5: 45deg	Combination	-0.4598	0.17424	1.06411E-13	-1.78989E-12	-7.15954E-12	3.13632	13-1	0
13	18	WS5: 45deg	Combination	-0.4598	0.08712	1.06411E-13	-1.78989E-12	-9.07494E-12	0.78408	13-1	18
13	36	WS5: 45deg	Combination	-0.4598	5.02706E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-5.05516E-13	13-1	36
13	0	WS5: 30deg	Combination	-0.5082	0.08712	1.06411E-13	-1.78989E-12	-7.15954E-12	1.56816	13-1	0
13	18	WS5: 30deg	Combination	-0.5082	0.04356	1.06411E-13	-1.78989E-12	-9.07494E-12	0.39204	13-1	18
13	36	WS5: 30deg	Combination	-0.5082	3.43013E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.8016E-13	13-1	36
13	0	WS5: 15deg	Combination	-0.51788	0.01452	1.06411E-13	-1.78989E-12	-7.15954E-12	0.26136	13-1	0
13	18	WS5: 15deg	Combination	-0.51788	0.00726	1.06411E-13	-1.78989E-12	-9.07494E-12	0.06534	13-1	18
13	36	WS5: 15deg	Combination	-0.51788	2.38419E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.37199E-13	13-1	36
13	0	WS5: 0deg	Combination	-0.49368	0.11616	1.06411E-13	-1.78989E-12	-7.15954E-12	2.09088	13-1	0
13	18	WS5: 0deg	Combination	-0.49368	0.05808	1.06411E-13	-1.78989E-12	-9.07494E-12	0.52272	13-1	18
13	36	WS5: 0deg	Combination	-0.49368	1.94235E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.20575E-13	13-1	36
13	0	WS5: -15deg	Combination	-0.4356	0.20328	1.06411E-13	-1.78989E-12	-7.15954E-12	3.65904	13-1	0
13	18	WS5: -15deg	Combination	-0.4356	0.10164	1.06411E-13	-1.78989E-12	-9.07494E-12	0.91476	13-1	18
13	36	WS5: -15deg	Combination	-0.4356	4.36377E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.90027E-13	13-1	36
13	0	WS5: -30deg	Combination	-0.34848	0.2904	1.06411E-13	-1.78989E-12	-7.15954E-12	5.2272	13-1	0
13	18	WS5: -30deg	Combination	-0.34848	0.1452	1.06411E-13	-1.78989E-12	-9.07494E-12	1.3068	13-1	18
13	36	WS5: -30deg	Combination	-0.34848	3.38815E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.5021E-13	13-1	36
13	0	WS5: -45deg	Combination	-0.242	0.34848	1.06411E-13	-1.78989E-12	-7.15954E-12	6.27264	13-1	0
13	18	WS5: -45deg	Combination	-0.242	0.17424	1.06411E-13	-1.78989E-12	-9.07494E-12	1.56816	13-1	18
13	36	WS5: -45deg	Combination	-0.242	3.92214E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.59076E-13	13-1	36
13	0	LL - 1 Lane	Combination	0	3.55271E-15	0	-2.72848E-12	-3.63798E-12	-1.98952E-13	13-1	0
13	18	LL - 1 Lane	Combination	0	3.55271E-15	0	-2.72848E-12	-3.63798E-12	-2.62901E-13	13-1	18
13	36	LL - 1 Lane	Combination	0	3.55271E-15	0	-2.72848E-12	-3.63798E-12	-3.2685E-13	13-1	36
13	0	WS5 + WA	Combination	0	3.55271E-15	1.06411E-13	-1.78989E-12	-7.15954E-12	-3.33785E-13	13-1	0
13	18	WS5 + WA	Combination	0	3.55271E-15	1.06411E-13	-1.78989E-12	-9.07494E-12	-3.97733E-13	13-1	18
13	36	WS5 + WA	Combination	0	3.55271E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.61682E-13	13-1	36
13	0	LL - 2 Lane	Combination	0	-3.55271E-15	4.54747E-13	-5.45697E-12	2.91038E-11	2.84217E-14	13-1	0
13	18	LL - 2 Lane	Combination	0	-3.55271E-15	4.54747E-13	-5.45697E-12	2.09184E-11	9.23706E-14	13-1	18
13	36	LL - 2 Lane	Combination	0	-3.55271E-15	4.54747E-13	-5.45697E-12	1.27329E-11	1.56319E-13	13-1	36
13	0	LL - 3 Lane	Combination	0	0	-1.81899E-12	-5.45697E-12	-7.27596E-12	-8.52651E-14	13-1	0

13	18	LL - 3 Lane	Combination	0	0	-1.81899E-12	-5.45697E-12	2.54659E-11	-8.52651E-14	13-1		18
13	36	LL - 3 Lane	Combination	0	0	-1.81899E-12	-5.45697E-12	5.82077E-11	-8.52651E-14	13-1		36
13	0	LL - 7 Lane	Combination	0	-1.42109E-14	0	-1.45519E-11	-1.45519E-11	-6.82121E-13	13-1		0
13	18	LL - 7 Lane	Combination	0	-1.42109E-14	0	-1.45519E-11	-1.45519E-11	-4.26326E-13	13-1		18
13	36	LL - 7 Lane	Combination	0	-1.42109E-14	0	-1.45519E-11	-1.45519E-11	-1.7053E-13	13-1		36
13	0	LL Envelope	Combination Max	0	3.55271E-15	4.54747E-13	-2.72848E-12	2.91038E-11	2.84217E-14	13-1		0
13	18	LL Envelope	Combination Max	0	3.55271E-15	4.54747E-13	-2.72848E-12	2.54659E-11	9.23706E-14	13-1		18
13	36	LL Envelope	Combination Max	0	3.55271E-15	4.54747E-13	-2.72848E-12	5.82077E-11	1.56319E-13	13-1		36
13	0	LL Envelope	Combination Min	0	-1.42109E-14	-1.81899E-12	-1.45519E-11	-1.45519E-11	-6.82121E-13	13-1		0
13	18	LL Envelope	Combination Min	0	-1.42109E-14	-1.81899E-12	-1.45519E-11	-1.45519E-11	-4.26326E-13	13-1		18
13	36	LL Envelope	Combination Min	0	-1.42109E-14	-1.81899E-12	-1.45519E-11	-1.45519E-11	-3.2685E-13	13-1		36
13	0	WS3 & WA envelope	Combination Max	0	0.6	4.54747E-13	-6.73026E-13	-2.6921E-12	10.8	13-1		0
13	18	WS3 & WA envelope	Combination Max	0	0.3	4.54747E-13	-6.73026E-13	-5.72072E-12	2.7	13-1		18
13	36	WS3 & WA envelope	Combination Max	0	3.04617E-15	4.54747E-13	-6.73026E-13	-8.74934E-12	-1.59486E-13	13-1		36
13	0	WS3 & WA envelope	Combination Min	-1.07	0	1.68257E-13	-1.81899E-12	-7.27596E-12	-4.54747E-13	13-1		0
13	18	WS3 & WA envelope	Combination Min	-1.07	0	1.68257E-13	-1.81899E-12	-1.54614E-11	-4.54747E-13	13-1		18
13	36	WS3 & WA envelope	Combination Min	-1.07	-3.3272E-15	1.68257E-13	-1.81899E-12	-2.36469E-11	-5.45314E-13	13-1		36
13	0	WS3 + WA	Combination	0	0	4.54747E-13	-1.81899E-12	-7.27596E-12	-4.54747E-13	13-1		0
13	18	WS3 + WA	Combination	0	0	4.54747E-13	-1.81899E-12	-1.54614E-11	-4.54747E-13	13-1		18
13	36	WS3 + WA	Combination	0	0	4.54747E-13	-1.81899E-12	-2.36469E-11	-4.54747E-13	13-1		36
13	0	WS5 & WA envelope	Combination Max	0	0.34848	1.06411E-13	-1.78989E-12	-7.15954E-12	6.27264	13-1		0
13	18	WS5 & WA envelope	Combination Max	0	0.17424	1.06411E-13	-1.78989E-12	-9.07494E-12	1.56816	13-1		18
13	36	WS5 & WA envelope	Combination Max	0	5.02706E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-4.20575E-13	13-1		36
13	0	WS5 & WA envelope	Combination Min	-0.51788	3.55271E-15	1.06411E-13	-1.78989E-12	-7.15954E-12	-3.33785E-13	13-1		0
13	18	WS5 & WA envelope	Combination Min	-0.51788	3.55271E-15	1.06411E-13	-1.78989E-12	-9.07494E-12	-3.97733E-13	13-1		18
13	36	WS5 & WA envelope	Combination Min	-0.51788	1.94235E-15	1.06411E-13	-1.78989E-12	-1.09903E-11	-5.05516E-13	13-1		36
13	0	Strength 1 - Max	Combination Max	0	-10.125	7.95808E-13	-4.77485E-12	5.09317E-11	-182.25	13-1		0
13	18	Strength 1 - Max	Combination Max	0	-5.0625	7.95808E-13	-4.77485E-12	4.45652E-11	-45.5625	13-1		18
13	36	Strength 1 - Max	Combination Max	0	1.84575E-15	7.95808E-13	-4.77485E-12	1.01863E-10	-1.98863E-12	13-1		36
13	0	Strength 1 - Max	Combination Min	0	-10.125	-3.18323E-12	-2.54659E-11	-2.54659E-11	-182.25	13-1		0
13	18	Strength 1 - Max	Combination Min	0	-5.0625	-3.18323E-12	-2.54659E-11	-2.54659E-11	-45.5625	13-1		18
13	36	Strength 1 - Max	Combination Min	0	-2.92405E-14	-3.18323E-12	-2.54659E-11	-2.54659E-11	-2.83418E-12	13-1		36
13	0	Strength 1 - Min	Combination Max	0	-7.29	7.95808E-13	-4.77485E-12	5.09317E-11	-131.22	13-1		0
13	18	Strength 1 - Min	Combination Max	0	-3.645	7.95808E-13	-4.77485E-12	4.45652E-11	-32.805	13-1		18
13	36	Strength 1 - Min	Combination Max	0	3.06977E-15	7.95808E-13	-4.77485E-12	1.01863E-10	-1.18412E-12	13-1		36
13	0	Strength 1 - Min	Combination Min	0	-7.29	-3.18323E-12	-2.54659E-11	-2.54659E-11	-131.22	13-1		0
13	18	Strength 1 - Min	Combination Min	0	-3.645	-3.18323E-12	-2.54659E-11	-2.54659E-11	-32.805	13-1		18
13	36	Strength 1 - Min	Combination Min	0	-2.80165E-14	-3.18323E-12	-2.54659E-11	-2.54659E-11	-2.02967E-12	13-1		36
13	0	Strength 3 - Max	Combination Max	0	-9.525000001	4.54747E-13	-6.73026E-13	-2.6921E-12	-171.45	13-1		0
13	18	Strength 3 - Max	Combination Max	0	-4.7625	4.54747E-13	-6.73026E-13	-5.72072E-12	-42.8625	13-1		18
13	36	Strength 3 - Max	Combination Max	0	-1.32533E-15	4.54747E-13	-6.73026E-13	-8.74934E-12	-2.42168E-12	13-1		36
13	0	Strength 3 - Max	Combination Min	-1.07	-10.125	1.68257E-13	-1.81899E-12	-7.27596E-12	-182.25	13-1		0

13	18	Strength 3 - Max	Combination	Min	-1.07	-5.0625	1.68257E-13	-1.81899E-12	-1.54614E-11	-45.5625	13-1	18
13	36	Strength 3 - Max	Combination	Min	-1.07	-7.6987E-15	1.68257E-13	-1.81899E-12	-2.36469E-11	-2.8075E-12	13-1	36
13	0	Strength 3 - Min	Combination	Max	0	-6.69	4.54747E-13	-6.73026E-13	-2.6921E-12	-120.42	13-1	0
13	18	Strength 3 - Min	Combination	Max	0	-3.345	4.54747E-13	-6.73026E-13	-5.72072E-12	-30.105	13-1	18
13	36	Strength 3 - Min	Combination	Max	0	-1.01308E-16	4.54747E-13	-6.73026E-13	-8.74934E-12	-1.61716E-12	13-1	36
13	0	Strength 3 - Min	Combination	Min	-1.07	-7.29	1.68257E-13	-1.81899E-12	-7.27596E-12	-131.22	13-1	0
13	18	Strength 3 - Min	Combination	Min	-1.07	-3.645	1.68257E-13	-1.81899E-12	-1.54614E-11	-32.805	13-1	18
13	36	Strength 3 - Min	Combination	Min	-1.07	-6.47468E-15	1.68257E-13	-1.81899E-12	-2.36469E-11	-2.00299E-12	13-1	36
13	0	Strength 5 - Max	Combination	Max	0	-9.776520001	7.2032E-13	-5.47334E-12	3.21306E-11	-175.97736	13-1	0
13	18	Strength 5 - Max	Combination	Max	0	-4.88826	7.2032E-13	-5.47334E-12	2.5304E-11	-43.99434	13-1	18
13	36	Strength 5 - Max	Combination	Max	0	5.45172E-15	7.2032E-13	-5.47334E-12	6.759E-11	-2.47173E-12	13-1	36
13	0	Strength 5 - Max	Combination	Min	-0.51788	-10.125	-2.34922E-12	-2.1435E-11	-2.68046E-11	-182.25	13-1	0
13	18	Strength 5 - Max	Combination	Min	-0.51788	-5.0625	-2.34922E-12	-2.1435E-11	-2.872E-11	-45.5625	13-1	18
13	36	Strength 5 - Max	Combination	Min	-0.51788	-2.16138E-14	-2.34922E-12	-2.1435E-11	-3.06354E-11	-3.20895E-12	13-1	36
13	0	Strength 5 - Min	Combination	Max	0	-6.94152	7.2032E-13	-5.47334E-12	3.21306E-11	-124.94736	13-1	0
13	18	Strength 5 - Min	Combination	Max	0	-3.47076	7.2032E-13	-5.47334E-12	2.5304E-11	-31.23684	13-1	18
13	36	Strength 5 - Min	Combination	Max	0	6.67574E-15	7.2032E-13	-5.47334E-12	6.759E-11	-1.66722E-12	13-1	36
13	0	Strength 5 - Min	Combination	Min	-0.51788	-7.29	-2.34922E-12	-2.1435E-11	-2.68046E-11	-131.22	13-1	0
13	18	Strength 5 - Min	Combination	Min	-0.51788	-3.645	-2.34922E-12	-2.1435E-11	-2.872E-11	-32.805	13-1	18
13	36	Strength 5 - Min	Combination	Min	-0.51788	-2.03898E-14	-2.34922E-12	-2.1435E-11	-3.06354E-11	-2.40444E-12	13-1	36
13	0	Service 1	Combination	Max	0	-7.878	6.23004E-13	-3.40151E-12	2.64117E-11	-141.804	13-1	0
13	18	Service 1	Combination	Max	0	-3.939	6.23004E-13	-3.40151E-12	1.97451E-11	-35.451	13-1	18
13	36	Service 1	Combination	Max	0	1.1826E-15	6.23004E-13	-3.40151E-12	4.94583E-11	-1.71068E-12	13-1	36
13	0	Service 1	Combination	Min	-0.3959	-8.1	-1.65073E-12	-1.52249E-11	-1.7244E-11	-145.8	13-1	0
13	18	Service 1	Combination	Min	-0.3959	-4.05	-1.65073E-12	-1.52249E-11	-2.02726E-11	-36.45	13-1	18
13	36	Service 1	Combination	Min	-0.3959	-1.89391E-14	-1.65073E-12	-1.52249E-11	-2.33013E-11	-2.25879E-12	13-1	36
13	0	WServ1: 45deg	Combination		-0.3515	0.1332	1.68257E-13	-6.73026E-13	-2.6921E-12	2.3976	13-1	0
13	18	WServ1: 45deg	Combination		-0.3515	0.0666	1.68257E-13	-6.73026E-13	-5.72072E-12	0.5994	13-1	18
13	36	WServ1: 45deg	Combination		-0.3515	1.12708E-15	1.68257E-13	-6.73026E-13	-8.74934E-12	-2.01766E-13	13-1	36
13	0	WServ1: 30deg	Combination		-0.3885	0.0666	1.68257E-13	-6.73026E-13	-2.6921E-12	1.1988	13-1	0
13	18	WServ1: 30deg	Combination		-0.3885	0.0333	1.68257E-13	-6.73026E-13	-5.72072E-12	0.2997	13-1	18
13	36	WServ1: 30deg	Combination		-0.3885	-9.37098E-17	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.82382E-13	13-1	36
13	0	WServ1: 15deg	Combination		-0.3959	0.0111	1.68257E-13	-6.73026E-13	-2.6921E-12	0.1998	13-1	0
13	18	WServ1: 15deg	Combination		-0.3959	0.00555	1.68257E-13	-6.73026E-13	-5.72072E-12	0.04995	13-1	18
13	36	WServ1: 15deg	Combination		-0.3959	-8.93292E-16	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.4954E-13	13-1	36
13	0	WServ1: 0deg	Combination		-0.3774	0.0888	1.68257E-13	-6.73026E-13	-2.6921E-12	1.5984	13-1	0
13	18	WServ1: 0deg	Combination		-0.3774	0.0444	1.68257E-13	-6.73026E-13	-5.72072E-12	0.3996	13-1	18
13	36	WServ1: 0deg	Combination		-0.3774	-1.23106E-15	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.36832E-13	13-1	36
13	0	WServ1: -15deg	Combination		-0.333	0.1554	1.68257E-13	-6.73026E-13	-2.6921E-12	2.7972	13-1	0
13	18	WServ1: -15deg	Combination		-0.333	0.0777	1.68257E-13	-6.73026E-13	-5.72072E-12	0.6993	13-1	18
13	36	WServ1: -15deg	Combination		-0.333	6.20025E-16	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.89925E-13	13-1	36
13	0	WServ1: -30deg	Combination		-0.2664	0.222	1.68257E-13	-6.73026E-13	-2.6921E-12	3.996	13-1	0

13	18	WServ1: -30deg	Combination	-0.2664	0.111	1.68257E-13	-6.73026E-13	-5.72072E-12	0.999	13-1	18
13	36	WServ1: -30deg	Combination	-0.2664	-1.25802E-16	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.59486E-13	13-1	36
13	0	WServ1 + WA	Combination	0	0	1.68257E-13	-6.73026E-13	-2.6921E-12	-1.68257E-13	13-1	0
13	18	WServ1 + WA	Combination	0	0	1.68257E-13	-6.73026E-13	-5.72072E-12	-1.68257E-13	13-1	18
13	36	WServ1 + WA	Combination	0	0	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.68257E-13	13-1	36
13	0	WServ1 & WA envelope	Combination Max	0	0.222	1.68257E-13	-6.73026E-13	-2.6921E-12	3.996	13-1	0
13	18	WServ1 & WA envelope	Combination Max	0	0.111	1.68257E-13	-6.73026E-13	-5.72072E-12	0.999	13-1	18
13	36	WServ1 & WA envelope	Combination Max	0	1.12708E-15	1.68257E-13	-6.73026E-13	-8.74934E-12	-1.36832E-13	13-1	36
13	0	WServ1 & WA envelope	Combination Min	-0.3959	0	1.68257E-13	-6.73026E-13	-2.6921E-12	-1.68257E-13	13-1	0
13	18	WServ1 & WA envelope	Combination Min	-0.3959	0	1.68257E-13	-6.73026E-13	-5.72072E-12	-1.68257E-13	13-1	18
13	36	WServ1 & WA envelope	Combination Min	-0.3959	-1.23106E-15	1.68257E-13	-6.73026E-13	-8.74934E-12	-2.01766E-13	13-1	36
13	0	Strength Envelope	Combination Max	0	-6.69	7.95808E-13	-6.73026E-13	5.09317E-11	-120.42	13-1	0
13	18	Strength Envelope	Combination Max	0	-3.345	7.95808E-13	-6.73026E-13	4.45652E-11	-30.105	13-1	18
13	36	Strength Envelope	Combination Max	0	6.67574E-15	7.95808E-13	-6.73026E-13	1.01863E-10	-1.18412E-12	13-1	36
13	0	Strength Envelope	Combination Min	-1.07	-10.125	-3.18323E-12	-2.54659E-11	-2.68046E-11	-182.25	13-1	0
13	18	Strength Envelope	Combination Min	-1.07	-5.0625	-3.18323E-12	-2.54659E-11	-2.872E-11	-45.5625	13-1	18
13	36	Strength Envelope	Combination Min	-1.07	-2.92405E-14	-3.18323E-12	-2.54659E-11	-3.06354E-11	-3.20895E-12	13-1	36
14	0	DEAD	LinStatic	-71.49535335	-0.73019507	0	0	0	-94.91785412	14-1	0
14	81	DEAD	LinStatic	-58.7719031	-0.73019507	0	0	0	-35.77205348	14-1	81
14	162	DEAD	LinStatic	-46.04845286	-0.73019507	0	0	0	23.37374717	14-1	162
14	0	R01_Z	LinStatic	1.02723902	-0.014497623	0	0	0	-1.676375593	14-1	0
14	81	R01_Z	LinStatic	1.02723902	-0.014497623	0	0	0	-0.502068148	14-1	81
14	162	R01_Z	LinStatic	1.02723902	-0.014497623	0	0	0	0.672239298	14-1	162
14	0	R02_Z	LinStatic	0.553723387	0.024556494	0	0	0	3.088648751	14-1	0
14	81	R02_Z	LinStatic	0.553723387	0.024556494	0	0	0	1.099572777	14-1	81
14	162	R02_Z	LinStatic	0.553723387	0.024556494	0	0	0	-0.889503197	14-1	162
14	0	R03_Z	LinStatic	0.139064099	0.015123384	0	0	0	1.9503118	14-1	0
14	81	R03_Z	LinStatic	0.139064099	0.015123384	0	0	0	0.72531773	14-1	81
14	162	R03_Z	LinStatic	0.139064099	0.015123384	0	0	0	-0.49967634	14-1	162
14	0	R04_Z	LinStatic	-0.041756523	0.001254725	0	0	0	0.103433761	14-1	0
14	81	R04_Z	LinStatic	-0.041756523	0.001254725	0	0	0	0.001801035	14-1	81
14	162	R04_Z	LinStatic	-0.041756523	0.001254725	0	0	0	-0.09983169	14-1	162
14	0	R05_Z	LinStatic	-0.042625236	-0.000201686	0	0	0	0.020719207	14-1	0
14	81	R05_Z	LinStatic	-0.042625236	-0.000201686	0	0	0	0.037055763	14-1	81
14	162	R05_Z	LinStatic	-0.042625236	-0.000201686	0	0	0	0.053392319	14-1	162
14	0	R06_Z	LinStatic	-0.010464357	-0.001408682	0	0	0	-0.233263517	14-1	0
14	81	R06_Z	LinStatic	-0.010464357	-0.001408682	0	0	0	-0.119160241	14-1	81
14	162	R06_Z	LinStatic	-0.010464357	-0.001408682	0	0	0	-0.005056965	14-1	162
14	0	R07_Z	LinStatic	0.000968615	0.000223072	0	0	0	0.06466696	14-1	0
14	81	R07_Z	LinStatic	0.000968615	0.000223072	0	0	0	0.046598113	14-1	81
14	162	R07_Z	LinStatic	0.000968615	0.000223072	0	0	0	0.028529266	14-1	162
14	0	R08_Z	LinStatic	0.000861448	-0.00067627	0	0	0	-0.133058481	14-1	0

14	81	R08_Z	LinStatic	0.000861448	-0.00067627	0	0	0	-0.078280584	14-1	81
14	162	R08_Z	LinStatic	0.000861448	-0.00067627	0	0	0	-0.023502687	14-1	162
14	0	R09_Z	LinStatic	0.001312685	0.000457633	0	0	0	0.087519735	14-1	0
14	81	R09_Z	LinStatic	0.001312685	0.000457633	0	0	0	0.050451478	14-1	81
14	162	R09_Z	LinStatic	0.001312685	0.000457633	0	0	0	0.01338322	14-1	162
14	0	R10_Z	LinStatic	0.000527655	0.000431035	0	0	0	0.084198663	14-1	0
14	81	R10_Z	LinStatic	0.000527655	0.000431035	0	0	0	0.049284846	14-1	81
14	162	R10_Z	LinStatic	0.000527655	0.000431035	0	0	0	0.014371028	14-1	162
14	0	R11_Z	LinStatic	0.001208558	0.001434184	0	0	0	0.283952215	14-1	0
14	81	R11_Z	LinStatic	0.001208558	0.001434184	0	0	0	0.167783275	14-1	81
14	162	R11_Z	LinStatic	0.001208558	0.001434184	0	0	0	0.051614335	14-1	162
14	0	R12_Z	LinStatic	-0.000906465	-0.000943739	0	0	0	-0.186908653	14-1	0
14	81	R12_Z	LinStatic	-0.000906465	-0.000943739	0	0	0	-0.110465782	14-1	81
14	162	R12_Z	LinStatic	-0.000906465	-0.000943739	0	0	0	-0.034022911	14-1	162
14	0	R_X	LinStatic	2.088025355	1.904527349	0	0	0	378.6572749	14-1	0
14	81	R_X	LinStatic	2.088025355	1.904527349	0	0	0	224.3905597	14-1	81
14	162	R_X	LinStatic	2.088025355	1.904527349	0	0	0	70.12384439	14-1	162
14	0	R_Y	LinStatic	0	0	1.854644284	12.31136316	666.3646929	0	14-1	0
14	81	R_Y	LinStatic	0	0	1.854644284	12.31136316	516.1385058	0	14-1	81
14	162	R_Y	LinStatic	0	0	1.854644284	12.31136316	365.9123188	0	14-1	162
14	0	Cap_R_X	LinStatic	0.141178594	0.155308982	0	0	0	30.77177033	14-1	0
14	81	Cap_R_X	LinStatic	0.141178594	0.155308982	0	0	0	18.19174277	14-1	81
14	162	Cap_R_X	LinStatic	0.141178594	0.155308982	0	0	0	5.611715213	14-1	162
14	0	Cap_w_Y	LinStatic	-10.94837546	-0.270442618	0	0	0	-35.15476078	14-1	0
14	81	Cap_w_Y	LinStatic	-10.94837546	-0.270442618	0	0	0	-13.24890869	14-1	81
14	162	Cap_w_Y	LinStatic	-10.94837546	-0.270442618	0	0	0	8.656943394	14-1	162
14	0	Cap_w_Z	LinStatic	-10.94837546	-0.270442618	0	0	0	-35.15476078	14-1	0
14	81	Cap_w_Z	LinStatic	-10.94837546	-0.270442618	0	0	0	-13.24890869	14-1	81
14	162	Cap_w_Z	LinStatic	-10.94837546	-0.270442618	0	0	0	8.656943394	14-1	162
14	0	Col_w_X	LinStatic	-13.25	6.09213E-16	0	0	0	8.2773E-14	14-1	0
14	81	Col_w_X	LinStatic	-13.25	6.09213E-16	0	0	0	3.34267E-14	14-1	81
14	162	Col_w_X	LinStatic	-13.25	6.09213E-16	0	0	0	-1.59195E-14	14-1	162
14	0	Col_w_Y	LinStatic	-13.25	6.09213E-16	0	0	0	8.2773E-14	14-1	0
14	81	Col_w_Y	LinStatic	-13.25	6.09213E-16	0	0	0	3.34267E-14	14-1	81
14	162	Col_w_Y	LinStatic	-13.25	6.09213E-16	0	0	0	-1.59195E-14	14-1	162
14	0	Cais_w_X	LinStatic	-13.5	1.86101E-16	0	0	0	2.52634E-14	14-1	0
14	81	Cais_w_X	LinStatic	-6.75	1.86101E-16	0	0	0	1.01892E-14	14-1	81
14	162	Cais_w_X	LinStatic	-7.48013E-15	1.86101E-16	0	0	0	-4.88495E-15	14-1	162
14	0	Cais_w_Y	LinStatic	-13.5	1.86101E-16	0	0	0	2.52634E-14	14-1	0
14	81	Cais_w_Y	LinStatic	-6.75	1.86101E-16	0	0	0	1.01892E-14	14-1	81
14	162	Cais_w_Y	LinStatic	-7.48013E-15	1.86101E-16	0	0	0	-4.88495E-15	14-1	162
14	0	DC	LinStatic	-270.2964878	-4.870177581	0	0	0	-649.2537877	14-1	0

14	81	DC	LinStatic	-270.2964878	-4.870177581	0	0	0	-254.7694037	14-1	81
14	162	DC	LinStatic	-270.2964878	-4.870177581	0	0	0	139.7149803	14-1	162
14	0	DW	LinStatic	-41.23385955	-0.651796427	0	0	0	-87.41681311	14-1	0
14	81	DW	LinStatic	-41.23385955	-0.651796427	0	0	0	-34.62130251	14-1	81
14	162	DW	LinStatic	-41.23385955	-0.651796427	0	0	0	18.17420808	14-1	162
14	0	WS3	LinStatic	-11.55612345	-5.081772445	-2.615048441	-17.35902205	-939.5742169	-1014.192226	14-1	0
14	81	WS3	LinStatic	-11.55612345	-5.081772445	-2.615048441	-17.35902205	-727.7552932	-602.5686579	14-1	81
14	162	WS3	LinStatic	-11.55612345	-5.081772445	-2.615048441	-17.35902205	-515.9363695	-190.9450899	14-1	162
14	0	WL5	LinStatic	-2.285474987	-1.322405469	-0.816043485	-5.416999788	-293.2004649	-262.3817145	14-1	0
14	81	WL5	LinStatic	-2.285474987	-1.322405469	-0.816043485	-5.416999788	-227.1009426	-155.2668716	14-1	81
14	162	WL5	LinStatic	-2.285474987	-1.322405469	-0.816043485	-5.416999788	-161.0014203	-48.15202859	14-1	162
14	0	PL	LinStatic	-13.63600966	-0.215548641	0	0	0	-28.90868138	14-1	0
14	81	PL	LinStatic	-13.63600966	-0.215548641	0	0	0	-11.44924149	14-1	81
14	162	PL	LinStatic	-13.63600966	-0.215548641	0	0	0	6.010198405	14-1	162
14	0	LL-1 Lane	LinStatic	-75.48358425	-0.884141939	0	0	0	-118.4228424	14-1	0
14	81	LL-1 Lane	LinStatic	-75.48358425	-0.884141939	0	0	0	-46.80734537	14-1	81
14	162	LL-1 Lane	LinStatic	-75.48358425	-0.884141939	0	0	0	24.80815167	14-1	162
14	0	LL-2 Lane	LinStatic	-113.0853287	-1.348551906	0	0	0	-180.6468018	14-1	0
14	81	LL-2 Lane	LinStatic	-113.0853287	-1.348551906	0	0	0	-71.41409738	14-1	81
14	162	LL-2 Lane	LinStatic	-113.0853287	-1.348551906	0	0	0	37.81860699	14-1	162
14	0	LL-3 Lane	LinStatic	-127.9664728	-1.560316313	0	0	0	-209.036444	14-1	0
14	81	LL-3 Lane	LinStatic	-127.9664728	-1.560316313	0	0	0	-82.65082263	14-1	81
14	162	LL-3 Lane	LinStatic	-127.9664728	-1.560316313	0	0	0	43.73479874	14-1	162
14	0	LL-7 Lane	LinStatic	-112.5925292	-1.649598659	0	0	0	-221.1737584	14-1	0
14	81	LL-7 Lane	LinStatic	-112.5925292	-1.649598659	0	0	0	-87.55626707	14-1	81
14	162	LL-7 Lane	LinStatic	-112.5925292	-1.649598659	0	0	0	46.06122428	14-1	162
14	0	CE-1 Lane	LinStatic	-7.492013997	-4.143126778	-1.261158113	-8.371726946	-453.1279911	-821.8254748	14-1	0
14	81	CE-1 Lane	LinStatic	-7.492013997	-4.143126778	-1.261158113	-8.371726946	-350.974184	-486.2322057	14-1	81
14	162	CE-1 Lane	LinStatic	-7.492013997	-4.143126778	-1.261158113	-8.371726946	-248.8203768	-150.6389367	14-1	162
14	0	CE-2 Lane	LinStatic	-12.49273644	-6.905040382	-2.114294484	-14.034954	-759.6557499	-1369.689274	14-1	0
14	81	CE-2 Lane	LinStatic	-12.49273644	-6.905040382	-2.114294484	-14.034954	-588.3978966	-810.3810029	14-1	81
14	162	CE-2 Lane	LinStatic	-12.49273644	-6.905040382	-2.114294484	-14.034954	-417.1400434	-251.072732	14-1	162
14	0	CE-3 Lane	LinStatic	-16.26012898	-8.822289814	-2.689234212	-17.85147658	-966.2288046	-1748.291884	14-1	0
14	81	CE-3 Lane	LinStatic	-16.26012898	-8.822289814	-2.689234212	-17.85147658	-748.4008335	-1033.686409	14-1	81
14	162	CE-3 Lane	LinStatic	-16.26012898	-8.822289814	-2.689234212	-17.85147658	-530.5728623	-319.0809342	14-1	162
14	0	CE-7 Lane	LinStatic	-28.4101286	-15.70918794	-4.784982253	-31.76331694	-1719.220908	-3116.067787	14-1	0
14	81	CE-7 Lane	LinStatic	-28.4101286	-15.70918794	-4.784982253	-31.76331694	-1331.637345	-1843.623564	14-1	81
14	162	CE-7 Lane	LinStatic	-28.4101286	-15.70918794	-4.784982253	-31.76331694	-944.0537825	-571.1793408	14-1	162
14	0	BR-1 Lane	LinStatic	-1.524258509	-1.390304965	-4.284228296	-28.43924889	-1539.30244	-276.4198107	14-1	0
14	81	BR-1 Lane	LinStatic	-1.524258509	-1.390304965	-4.284228296	-28.43924889	-1192.279948	-163.8051085	14-1	81
14	162	BR-1 Lane	LinStatic	-1.524258509	-1.390304965	-4.284228296	-28.43924889	-845.2574565	-51.1904064	14-1	162
14	0	BR-2 Lane	LinStatic	-2.52651068	-2.304478092	-7.121834051	-47.27563452	-2558.840421	-458.1753026	14-1	0

14	81	BR-2 Lane	LinStatic	-2.52651068	-2.304478092	-7.121834051	-47.27563452	-1981.971862	-271.5125772	14-1	81
14	162	BR-2 Lane	LinStatic	-2.52651068	-2.304478092	-7.121834051	-47.27563452	-1405.103304	-84.84985171	14-1	162
14	0	BR-3 Lane	LinStatic	-3.236439301	-2.952017391	-9.087756992	-60.32567946	-3265.186995	-586.9187761	14-1	0
14	81	BR-3 Lane	LinStatic	-3.236439301	-2.952017391	-9.087756992	-60.32567946	-2529.078679	-347.8053675	14-1	81
14	162	BR-3 Lane	LinStatic	-3.236439301	-2.952017391	-9.087756992	-60.32567946	-1792.970362	-108.6919588	14-1	162
14	0	BR-7 Lane	LinStatic	-5.762949981	-5.256495483	-16.20959104	-107.601314	-5824.027416	-1045.094079	14-1	0
14	81	BR-7 Lane	LinStatic	-5.762949981	-5.256495483	-16.20959104	-107.601314	-4511.050541	-619.3179446	14-1	81
14	162	BR-7 Lane	LinStatic	-5.762949981	-5.256495483	-16.20959104	-107.601314	-3198.073666	-193.5418105	14-1	162
14	0	WSub3: 45deg	LinStatic	8.539685392	-0.115090419	0	0	0	-25.01461052	14-1	0
14	81	WSub3: 45deg	LinStatic	6.582185392	-0.115090419	0	0	0	-15.69228659	14-1	81
14	162	WSub3: 45deg	LinStatic	4.624685392	-0.115090419	0	0	0	-6.36996266	14-1	162
14	0	WSub3: 30deg	LinStatic	7.066165004	-0.146847874	0	0	0	-30.2010732	14-1	0
14	81	WSub3: 30deg	LinStatic	5.311165004	-0.146847874	0	0	0	-18.30639539	14-1	81
14	162	WSub3: 30deg	LinStatic	3.556165004	-0.146847874	0	0	0	-6.411717577	14-1	162
14	0	WSub3: 15deg	LinStatic	5.178422659	-0.163476185	0	0	0	-32.57424664	14-1	0
14	81	WSub3: 15deg	LinStatic	3.760922659	-0.163476185	0	0	0	-19.33267568	14-1	81
14	162	WSub3: 15deg	LinStatic	2.343422659	-0.163476185	0	0	0	-6.091104712	14-1	162
14	0	WSub3: 0deg	LinStatic	4.211867872	-0.136779752	0	0	0	-28.57482487	14-1	0
14	81	WSub3: 0deg	LinStatic	3.266867872	-0.136779752	0	0	0	-17.49566493	14-1	81
14	162	WSub3: 0deg	LinStatic	2.321867872	-0.136779752	0	0	0	-6.416504989	14-1	162
14	0	WSub3: -15deg	LinStatic	3.010711831	-0.101916117	0	0	0	-22.77292679	14-1	0
14	81	WSub3: -15deg	LinStatic	2.605711831	-0.101916117	0	0	0	-14.51772128	14-1	81
14	162	WSub3: -15deg	LinStatic	2.200711831	-0.101916117	0	0	0	-6.262515767	14-1	162
14	0	WSub3: -30deg	LinStatic	1.820526505	-0.057733944	0	0	0	-15.12472248	14-1	0
14	81	WSub3: -30deg	LinStatic	1.888026505	-0.057733944	0	0	0	-10.44827306	14-1	81
14	162	WSub3: -30deg	LinStatic	1.955526505	-0.057733944	0	0	0	-5.771823632	14-1	162
14	0	WSub3: -45deg	LinStatic	0.282020815	-0.012748263	0	0	0	-6.948742576	14-1	0
14	81	WSub3: -45deg	LinStatic	0.889520815	-0.012748263	0	0	0	-5.916133299	14-1	81
14	162	WSub3: -45deg	LinStatic	1.497020815	-0.012748263	0	0	0	-4.883524021	14-1	162
14	0	WA	LinStatic	7.495	-2.11712E-16	0	0	0	-2.8873E-14	14-1	0
14	81	WA	LinStatic	5.47	-2.11712E-16	0	0	0	-1.17243E-14	14-1	81
14	162	WA	LinStatic	3.445	-2.11712E-16	0	0	0	5.42437E-15	14-1	162
14	0	WS3: 45deg	Combination	-3.016438055	-5.196862864	-2.615048441	-17.35902205	-939.5742169	-1039.206837	14-1	0
14	81	WS3: 45deg	Combination	-4.973938055	-5.196862864	-2.615048441	-17.35902205	-727.7552932	-618.2609445	14-1	81
14	162	WS3: 45deg	Combination	-6.931438055	-5.196862864	-2.615048441	-17.35902205	-515.9363695	-197.3150525	14-1	162
14	0	WS3: 30deg	Combination	-4.489958442	-5.228620319	-2.615048441	-17.35902205	-939.5742169	-1044.393299	14-1	0
14	81	WS3: 30deg	Combination	-6.244958442	-5.228620319	-2.615048441	-17.35902205	-727.7552932	-620.8750533	14-1	81
14	162	WS3: 30deg	Combination	-7.999958442	-5.228620319	-2.615048441	-17.35902205	-515.9363695	-197.3568074	14-1	162
14	0	WS3: 15deg	Combination	-6.377700787	-5.24524863	-2.615048441	-17.35902205	-939.5742169	-1046.766473	14-1	0
14	81	WS3: 15deg	Combination	-7.795200787	-5.24524863	-2.615048441	-17.35902205	-727.7552932	-621.9013336	14-1	81
14	162	WS3: 15deg	Combination	-9.212700787	-5.24524863	-2.615048441	-17.35902205	-515.9363695	-197.0361946	14-1	162
14	0	WS3: 0deg	Combination	-7.344255575	-5.218552198	-2.615048441	-17.35902205	-939.5742169	-1042.767051	14-1	0

14	81	WS3: 0deg	Combination	-8.289255575	-5.218552198	-2.615048441	-17.35902205	-727.7552932	-620.0643229	14-1	81
14	162	WS3: 0deg	Combination	-9.234255575	-5.218552198	-2.615048441	-17.35902205	-515.9363695	-197.3615949	14-1	162
14	0	WS3: -15deg	Combination	-8.545411616	-5.183688563	-2.615048441	-17.35902205	-939.5742169	-1036.965153	14-1	0
14	81	WS3: -15deg	Combination	-8.950411616	-5.183688563	-2.615048441	-17.35902205	-727.7552932	-617.0863792	14-1	81
14	162	WS3: -15deg	Combination	-9.355411616	-5.183688563	-2.615048441	-17.35902205	-515.9363695	-197.2076056	14-1	162
14	0	WS3: -30deg	Combination	-9.735596941	-5.139506389	-2.615048441	-17.35902205	-939.5742169	-1029.316948	14-1	0
14	81	WS3: -30deg	Combination	-9.668096941	-5.139506389	-2.615048441	-17.35902205	-727.7552932	-613.016931	14-1	81
14	162	WS3: -30deg	Combination	-9.600596941	-5.139506389	-2.615048441	-17.35902205	-515.9363695	-196.7169135	14-1	162
14	0	WServ1: -45deg	Combination	-3.602170868	-1.901617364	-0.967567923	-6.422838158	-347.6424603	-380.8472709	14-1	0
14	81	WServ1: -45deg	Combination	-3.577195868	-1.901617364	-0.967567923	-6.422838158	-269.2694585	-226.8162645	14-1	81
14	162	WServ1: -45deg	Combination	-3.552220868	-1.901617364	-0.967567923	-6.422838158	-190.8964567	-72.785258	14-1	162
14	0	WS5: 45deg	Combination	-3.745431006	-3.837687095	-2.08172693	-13.81876646	-747.9543858	-765.3578234	14-1	0
14	81	WS5: 45deg	Combination	-4.692861006	-3.837687095	-2.08172693	-13.81876646	-579.3345045	-454.5051687	14-1	81
14	162	WS5: 45deg	Combination	-5.640291006	-3.837687095	-2.08172693	-13.81876646	-410.7146231	-143.652514	14-1	162
14	0	WS5: 30deg	Combination	-4.458614873	-3.853057703	-2.08172693	-13.81876646	-747.9543858	-767.8680714	14-1	0
14	81	WS5: 30deg	Combination	-5.308034873	-3.853057703	-2.08172693	-13.81876646	-579.3345045	-455.7703974	14-1	81
14	162	WS5: 30deg	Combination	-6.157454873	-3.853057703	-2.08172693	-13.81876646	-410.7146231	-143.6727234	14-1	162
14	0	WS5: 15deg	Combination	-5.372282168	-3.861105806	-2.08172693	-13.81876646	-747.9543858	-769.0166873	14-1	0
14	81	WS5: 15deg	Combination	-6.058352168	-3.861105806	-2.08172693	-13.81876646	-579.3345045	-456.267117	14-1	81
14	162	WS5: 15deg	Combination	-6.744422168	-3.861105806	-2.08172693	-13.81876646	-410.7146231	-143.5175468	14-1	162
14	0	WS5: 0deg	Combination	-5.840094686	-3.848184732	-2.08172693	-13.81876646	-747.9543858	-767.0809672	14-1	0
14	81	WS5: 0deg	Combination	-6.297474686	-3.848184732	-2.08172693	-13.81876646	-579.3345045	-455.3780038	14-1	81
14	162	WS5: 0deg	Combination	-6.754854686	-3.848184732	-2.08172693	-13.81876646	-410.7146231	-143.6750405	14-1	162
14	0	WS5: -15deg	Combination	-6.421454209	-3.831310733	-2.08172693	-13.81876646	-747.9543858	-764.2728485	14-1	0
14	81	WS5: -15deg	Combination	-6.617474209	-3.831310733	-2.08172693	-13.81876646	-579.3345045	-453.9366791	14-1	81
14	162	WS5: -15deg	Combination	-6.813494209	-3.831310733	-2.08172693	-13.81876646	-410.7146231	-143.6005097	14-1	162
14	0	WS5: -30deg	Combination	-6.997503907	-3.809926561	-2.08172693	-13.81876646	-747.9543858	-760.5711176	14-1	0
14	81	WS5: -30deg	Combination	-6.964833907	-3.809926561	-2.08172693	-13.81876646	-579.3345045	-451.9670662	14-1	81
14	162	WS5: -30deg	Combination	-6.932163907	-3.809926561	-2.08172693	-13.81876646	-410.7146231	-143.3630147	14-1	162
14	0	WS5: -45deg	Combination	-7.742140661	-3.788153491	-2.08172693	-13.81876646	-747.9543858	-756.6139433	14-1	0
14	81	WS5: -45deg	Combination	-7.448110661	-3.788153491	-2.08172693	-13.81876646	-579.3345045	-449.7735105	14-1	81
14	162	WS5: -45deg	Combination	-7.154080661	-3.788153491	-2.08172693	-13.81876646	-410.7146231	-142.9330777	14-1	162
14	0	LL - 1 Lane	Combination	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1992.430432	-1245.576809	14-1	0
14	81	LL - 1 Lane	Combination	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1543.254132	-708.2939011	14-1	81
14	162	LL - 1 Lane	Combination	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1094.077833	-171.010993	14-1	162
14	0	WS5 + WA	Combination	-0.383638735	-3.781983332	-2.08172693	-13.81876646	-747.9543858	-753.2507519	14-1	0
14	81	WS5 + WA	Combination	-2.408638735	-3.781983332	-2.08172693	-13.81876646	-579.3345045	-446.910102	14-1	81
14	162	WS5 + WA	Combination	-4.433638735	-3.781983332	-2.08172693	-13.81876646	-410.7146231	-140.5694521	14-1	162
14	0	LL - 2 Lane	Combination	-141.7405855	-10.77361902	-9.236128535	-61.31058851	-3318.49617	-2037.42006	14-1	0
14	81	LL - 2 Lane	Combination	-141.7405855	-10.77361902	-9.236128535	-61.31058851	-2570.369759	-1164.756919	14-1	81
14	162	LL - 2 Lane	Combination	-141.7405855	-10.77361902	-9.236128535	-61.31058851	-1822.243348	-292.0937783	14-1	162
14	0	LL - 3 Lane	Combination	-161.0990507	-13.55017216	-11.7769912	-78.17715604	-4231.4158	-2573.155786	14-1	0

14	81	LL - 3 Lane	Combination	-161.0990507	-13.55017216	-11.7769912	-78.17715604	-3277.479512	-1475.591841	14-1		81
14	162	LL - 3 Lane	Combination	-161.0990507	-13.55017216	-11.7769912	-78.17715604	-2323.543224	-378.0278959	14-1		162
14	0	LL - 7 Lane	Combination	-160.4016174	-22.83083072	-20.9945733	-139.3646309	-7543.248323	-4411.244306	14-1		0
14	81	LL - 7 Lane	Combination	-160.4016174	-22.83083072	-20.9945733	-139.3646309	-5842.687886	-2561.947017	14-1		81
14	162	LL - 7 Lane	Combination	-160.4016174	-22.83083072	-20.9945733	-139.3646309	-4142.127449	-712.6497286	14-1		162
14	0	LL Envelope	Combination Max	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1992.430432	-1245.576809	14-1		0
14	81	LL Envelope	Combination Max	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1543.254132	-708.2939011	14-1		81
14	162	LL Envelope	Combination Max	-98.13586641	-6.633122323	-5.54538641	-36.81097583	-1094.077833	-171.010993	14-1		162
14	0	LL Envelope	Combination Min	-161.0990507	-22.83083072	-20.9945733	-139.3646309	-7543.248323	-4411.244306	14-1		0
14	81	LL Envelope	Combination Min	-161.0990507	-22.83083072	-20.9945733	-139.3646309	-5842.687886	-2561.947017	14-1		81
14	162	LL Envelope	Combination Min	-161.0990507	-22.83083072	-20.9945733	-139.3646309	-4142.127449	-712.6497286	14-1		162
14	0	WS3 & WA envelope	Combination Max	-3.016438055	-1.901617364	-0.967567923	-6.422838158	-347.6424603	-380.8472709	14-1		0
14	81	WS3 & WA envelope	Combination Max	-3.577195868	-1.901617364	-0.967567923	-6.422838158	-269.2694585	-226.8162645	14-1		81
14	162	WS3 & WA envelope	Combination Max	-3.552220868	-1.901617364	-0.967567923	-6.422838158	-190.8964567	-72.785258	14-1		162
14	0	WS3 & WA envelope	Combination Min	-9.735596941	-5.24524863	-2.615048441	-17.35902205	-939.5742169	-1046.766473	14-1		0
14	81	WS3 & WA envelope	Combination Min	-9.668096941	-5.24524863	-2.615048441	-17.35902205	-727.7552932	-621.9013336	14-1		81
14	162	WS3 & WA envelope	Combination Min	-9.600596941	-5.24524863	-2.615048441	-17.35902205	-515.9363695	-197.3615949	14-1		162
14	0	WS3 + WA	Combination	-4.061123446	-5.081772445	-2.615048441	-17.35902205	-939.5742169	-1014.192226	14-1		0
14	81	WS3 + WA	Combination	-6.086123446	-5.081772445	-2.615048441	-17.35902205	-727.7552932	-602.5686579	14-1		81
14	162	WS3 + WA	Combination	-8.111123446	-5.081772445	-2.615048441	-17.35902205	-515.9363695	-190.9450899	14-1		162
14	0	WS5 & WA envelope	Combination Max	-0.383638735	-3.781983332	-2.08172693	-13.81876646	-747.9543858	-753.2507519	14-1		0
14	81	WS5 & WA envelope	Combination Max	-2.408638735	-3.781983332	-2.08172693	-13.81876646	-579.3345045	-446.910102	14-1		81
14	162	WS5 & WA envelope	Combination Max	-4.433638735	-3.781983332	-2.08172693	-13.81876646	-410.7146231	-140.5694521	14-1		162
14	0	WS5 & WA envelope	Combination Min	-7.742140661	-3.861105806	-2.08172693	-13.81876646	-747.9543858	-769.0166873	14-1		0
14	81	WS5 & WA envelope	Combination Min	-7.448110661	-3.861105806	-2.08172693	-13.81876646	-579.3345045	-456.267117	14-1		81
14	162	WS5 & WA envelope	Combination Min	-7.154080661	-3.861105806	-2.08172693	-13.81876646	-410.7146231	-143.6750405	14-1		162
14	0	Strength 1 - Max	Combination Max	-653.333357	-19.58612452	-9.704426217	-64.41920771	-3486.753255	-3241.099188	14-1		0
14	81	Strength 1 - Max	Combination Max	-639.4540442	-19.58612452	-9.704426217	-64.41920771	-2700.694732	-1654.623102	14-1		81
14	162	Strength 1 - Max	Combination Max	-625.5747314	-19.58612452	-9.704426217	-64.41920771	-1914.636208	-68.14701627	14-1		162
14	0	Strength 1 - Max	Combination Min	-763.5189296	-47.93211422	-36.74050327	-243.8881041	-13200.68457	-8781.017307	14-1		0
14	81	Strength 1 - Max	Combination Min	-749.6396167	-47.93211422	-36.74050327	-243.8881041	-10224.7038	-4898.516055	14-1		81
14	162	Strength 1 - Max	Combination Min	-735.7603039	-47.93211422	-36.74050327	-243.8881041	-7248.723036	-1016.014804	14-1		162
14	0	Strength 1 - Min	Combination Max	-498.657432	-17.07196713	-9.704426217	-64.41920771	-3486.753255	-2906.334822	14-1		0
14	81	Strength 1 - Min	Combination Max	-489.2313268	-17.07196713	-9.704426217	-64.41920771	-2700.694732	-1523.505485	14-1		81
14	162	Strength 1 - Min	Combination Max	-479.8052215	-17.07196713	-9.704426217	-64.41920771	-1914.636208	-140.6761478	14-1		162
14	0	Strength 1 - Min	Combination Min	-608.8430045	-45.41795683	-36.74050327	-243.8881041	-13200.68457	-8446.252941	14-1		0
14	81	Strength 1 - Min	Combination Min	-599.4168993	-45.41795683	-36.74050327	-243.8881041	-10224.7038	-4767.398438	14-1		81
14	162	Strength 1 - Min	Combination Min	-589.9907941	-45.41795683	-36.74050327	-243.8881041	-7248.723036	-1088.543935	14-1		162
14	0	Strength 3 - Max	Combination Max	-492.1070288	-9.879777817	-0.967567923	-6.422838158	-347.6424603	-1442.187043	14-1		0
14	81	Strength 3 - Max	Combination Max	-476.7634738	-9.879777817	-0.967567923	-6.422838158	-269.2694585	-641.9250397	14-1		81
14	162	Strength 3 - Max	Combination Max	-460.834186	-9.879777817	-0.967567923	-6.422838158	-190.8964567	158.3369635	14-1		162
14	0	Strength 3 - Max	Combination Min	-498.8261877	-13.22340908	-2.615048441	-17.35902205	-939.5742169	-2108.106245	14-1		0

14	81	Strength 3 - Max	Combination	Min	-482.8543749	-13.22340908	-2.615048441	-17.35902205	-727.7552932	-1037.010109	14-1	81
14	162	Strength 3 - Max	Combination	Min	-466.8825621	-13.22340908	-2.615048441	-17.35902205	-515.9363695	33.7606266	14-1	162
14	0	Strength 3 - Min	Combination	Max	-337.4311038	-7.365620427	-0.967567923	-6.422838158	-347.6424603	-1107.422677	14-1	0
14	81	Strength 3 - Min	Combination	Max	-326.5407564	-7.365620427	-0.967567923	-6.422838158	-269.2694585	-510.8074226	14-1	81
14	162	Strength 3 - Min	Combination	Max	-315.0646762	-7.365620427	-0.967567923	-6.422838158	-190.8964567	85.80783198	14-1	162
14	0	Strength 3 - Min	Combination	Min	-344.1502627	-10.70925169	-2.615048441	-17.35902205	-939.5742169	-1773.341879	14-1	0
14	81	Strength 3 - Min	Combination	Min	-332.6316575	-10.70925169	-2.615048441	-17.35902205	-727.7552932	-905.8924917	14-1	81
14	162	Strength 3 - Min	Combination	Min	-321.1130523	-10.70925169	-2.615048441	-17.35902205	-515.9363695	-38.76850488	14-1	162
14	0	Strength 5 - Max	Combination	Max	-621.9576492	-20.71485892	-9.567998583	-63.51358384	-3437.735469	-3496.119216	14-1	0
14	81	Strength 5 - Max	Combination	Max	-608.0783364	-20.71485892	-9.567998583	-63.51358384	-2662.727583	-1818.215644	14-1	81
14	162	Strength 5 - Max	Combination	Max	-594.1990236	-20.71485892	-9.567998583	-63.51358384	-1887.719698	-140.3120712	14-1	162
14	0	Strength 5 - Max	Combination	Min	-714.3164499	-42.66088774	-30.42440088	-201.9610182	-10931.33962	-7785.536272	14-1	0
14	81	Strength 5 - Max	Combination	Min	-698.1181071	-42.66088774	-30.42440088	-201.9610182	-8466.963151	-4330.004366	14-1	81
14	162	Strength 5 - Max	Combination	Min	-681.9197643	-42.66088774	-30.42440088	-201.9610182	-6002.586679	-874.6299526	14-1	162
14	0	Strength 5 - Min	Combination	Max	-467.2817241	-18.20070153	-9.567998583	-63.51358384	-3437.735469	-3161.354851	14-1	0
14	81	Strength 5 - Min	Combination	Max	-457.8556189	-18.20070153	-9.567998583	-63.51358384	-2662.727583	-1687.098027	14-1	81
14	162	Strength 5 - Min	Combination	Max	-448.4295137	-18.20070153	-9.567998583	-63.51358384	-1887.719698	-212.8412026	14-1	162
14	0	Strength 5 - Min	Combination	Min	-559.6405249	-40.14673035	-30.42440088	-201.9610182	-10931.33962	-7450.771906	14-1	0
14	81	Strength 5 - Min	Combination	Min	-547.8953897	-40.14673035	-30.42440088	-201.9610182	-8466.963151	-4198.886748	14-1	81
14	162	Strength 5 - Min	Combination	Min	-536.1502545	-40.14673035	-30.42440088	-201.9610182	-6002.586679	-947.1590841	14-1	162
14	0	Service 1	Combination	Max	-477.9423328	-14.7655472	-6.512954333	-43.23381399	-2340.072892	-2452.416388	14-1	0
14	81	Service 1	Combination	Max	-467.2438826	-14.7655472	-6.512954333	-43.23381399	-1812.523591	-1256.407064	14-1	81
14	162	Service 1	Combination	Max	-456.5454323	-14.7655472	-6.512954333	-43.23381399	-1284.97429	-60.39774069	14-1	162
14	0	Service 1	Combination	Min	-547.7269223	-31.02374179	-21.96214122	-145.7874691	-7890.890783	-5630.136356	14-1	0
14	81	Service 1	Combination	Min	-534.9784971	-31.02374179	-21.96214122	-145.7874691	-6111.957345	-3117.21327	14-1	81
14	162	Service 1	Combination	Min	-522.2300718	-31.02374179	-21.96214122	-145.7874691	-4333.023906	-604.4105831	14-1	162
14	0	WServ1: 45deg	Combination		-1.11608208	-1.92283926	-0.967567923	-6.422838158	-347.6424603	-384.5065295	14-1	0
14	81	WServ1: 45deg	Combination		-1.84035708	-1.92283926	-0.967567923	-6.422838158	-269.2694585	-228.7565495	14-1	81
14	162	WServ1: 45deg	Combination		-2.56463208	-1.92283926	-0.967567923	-6.422838158	-190.8964567	-73.00656944	14-1	162
14	0	WServ1: 30deg	Combination		-1.661284623	-1.934589518	-0.967567923	-6.422838158	-347.6424603	-386.4255207	14-1	0
14	81	WServ1: 30deg	Combination		-2.310634623	-1.934589518	-0.967567923	-6.422838158	-269.2694585	-229.7237697	14-1	81
14	162	WServ1: 30deg	Combination		-2.959984623	-1.934589518	-0.967567923	-6.422838158	-190.8964567	-73.02201876	14-1	162
14	0	WServ1: 15deg	Combination		-2.359749291	-1.940741993	-0.967567923	-6.422838158	-347.6424603	-387.3035949	14-1	0
14	81	WServ1: 15deg	Combination		-2.884224291	-1.940741993	-0.967567923	-6.422838158	-269.2694585	-230.1034934	14-1	81
14	162	WServ1: 15deg	Combination		-3.40869929	-1.940741993	-0.967567923	-6.422838158	-190.8964567	-72.903392	14-1	162
14	0	WServ1: 0deg	Combination		-2.717374563	-1.930864313	-0.967567923	-6.422838158	-347.6424603	-385.8238088	14-1	0
14	81	WServ1: 0deg	Combination		-3.067024563	-1.930864313	-0.967567923	-6.422838158	-269.2694585	-229.4237995	14-1	81
14	162	WServ1: 0deg	Combination		-3.416674563	-1.930864313	-0.967567923	-6.422838158	-190.8964567	-73.0237901	14-1	162
14	0	WServ1: -15deg	Combination		-3.161802298	-1.917964768	-0.967567923	-6.422838158	-347.6424603	-383.6771065	14-1	0
14	81	WServ1: -15deg	Combination		-3.311652298	-1.917964768	-0.967567923	-6.422838158	-269.2694585	-228.3219603	14-1	81
14	162	WServ1: -15deg	Combination		-3.461502298	-1.917964768	-0.967567923	-6.422838158	-190.8964567	-72.96681409	14-1	162
14	0	WServ1: -30deg	Combination		-3.602170868	-1.901617364	-0.967567923	-6.422838158	-347.6424603	-380.8472709	14-1	0

14	81	WServ1: -30deg	Combination	-3.577195868	-1.901617364	-0.967567923	-6.422838158	-269.2694585	-226.8162645	14-1	81
14	162	WServ1: -30deg	Combination	-3.552220868	-1.901617364	-0.967567923	-6.422838158	-190.8964567	-72.785258	14-1	162
14	0	WServ1 + WA	Combination	3.219234325	-1.880255805	-0.967567923	-6.422838158	-347.6424603	-375.2511236	14-1	0
14	81	WServ1 + WA	Combination	1.194234325	-1.880255805	-0.967567923	-6.422838158	-269.2694585	-222.9504034	14-1	81
14	162	WServ1 + WA	Combination	-0.830765675	-1.880255805	-0.967567923	-6.422838158	-190.8964567	-70.64968325	14-1	162
14	0	WServ1 & WA envelope	Combination Max	3.219234325	-1.880255805	-0.967567923	-6.422838158	-347.6424603	-375.2511236	14-1	0
14	81	WServ1 & WA envelope	Combination Max	1.194234325	-1.880255805	-0.967567923	-6.422838158	-269.2694585	-222.9504034	14-1	81
14	162	WServ1 & WA envelope	Combination Max	-0.830765675	-1.880255805	-0.967567923	-6.422838158	-190.8964567	-70.64968325	14-1	162
14	0	WServ1 & WA envelope	Combination Min	-3.602170868	-1.940741993	-0.967567923	-6.422838158	-347.6424603	-387.3035949	14-1	0
14	81	WServ1 & WA envelope	Combination Min	-3.577195868	-1.940741993	-0.967567923	-6.422838158	-269.2694585	-230.1034934	14-1	81
14	162	WServ1 & WA envelope	Combination Min	-3.552220868	-1.940741993	-0.967567923	-6.422838158	-190.8964567	-73.0237901	14-1	162
14	0	Strength Envelope	Combination Max	-337.4311038	-7.365620427	-0.967567923	-6.422838158	-347.6424603	-1107.422677	14-1	0
14	81	Strength Envelope	Combination Max	-326.5407564	-7.365620427	-0.967567923	-6.422838158	-269.2694585	-510.8074226	14-1	81
14	162	Strength Envelope	Combination Max	-315.0646762	-7.365620427	-0.967567923	-6.422838158	-190.8964567	158.3369635	14-1	162
14	0	Strength Envelope	Combination Min	-763.5189296	-47.93211422	-36.74050327	-243.8881041	-13200.68457	-8781.017307	14-1	0
14	81	Strength Envelope	Combination Min	-749.6396167	-47.93211422	-36.74050327	-243.8881041	-10224.7038	-4898.516055	14-1	81
14	162	Strength Envelope	Combination Min	-735.7603039	-47.93211422	-36.74050327	-243.8881041	-7248.723036	-1088.543935	14-1	162
15	0	DEAD	LinStatic	-93.40335298	0.047534588	0	0	0	6.541198374	15-1	0
15	81	DEAD	LinStatic	-80.67990273	0.047534588	0	0	0	2.690896744	15-1	81
15	162	DEAD	LinStatic	-67.95645248	0.047534588	0	0	0	-1.159404885	15-1	162
15	0	R01_Z	LinStatic	-0.011249881	0.001122159	0	0	0	0.361363195	15-1	0
15	81	R01_Z	LinStatic	-0.011249881	0.001122159	0	0	0	0.270468344	15-1	81
15	162	R01_Z	LinStatic	-0.011249881	0.001122159	0	0	0	0.179573494	15-1	162
15	0	R02_Z	LinStatic	0.502975772	-0.018378218	0	0	0	-2.517456557	15-1	0
15	81	R02_Z	LinStatic	0.502975772	-0.018378218	0	0	0	-1.028820921	15-1	81
15	162	R02_Z	LinStatic	0.502975772	-0.018378218	0	0	0	0.459814716	15-1	162
15	0	R03_Z	LinStatic	0.859829853	-0.011596464	0	0	0	-1.53862426	15-1	0
15	81	R03_Z	LinStatic	0.859829853	-0.011596464	0	0	0	-0.599310691	15-1	81
15	162	R03_Z	LinStatic	0.859829853	-0.011596464	0	0	0	0.340002878	15-1	162
15	0	R04_Z	LinStatic	0.733238858	0.014547957	0	0	0	1.842001669	15-1	0
15	81	R04_Z	LinStatic	0.733238858	0.014547957	0	0	0	0.663617123	15-1	81
15	162	R04_Z	LinStatic	0.733238858	0.014547957	0	0	0	-0.514767424	15-1	162
15	0	R05_Z	LinStatic	0.291117844	0.012280042	0	0	0	1.652712404	15-1	0
15	81	R05_Z	LinStatic	0.291117844	0.012280042	0	0	0	0.65802898	15-1	81
15	162	R05_Z	LinStatic	0.291117844	0.012280042	0	0	0	-0.336654444	15-1	162
15	0	R06_Z	LinStatic	-0.006209507	0.00110157	0	0	0	0.094515799	15-1	0
15	81	R06_Z	LinStatic	-0.006209507	0.00110157	0	0	0	0.005288639	15-1	81
15	162	R06_Z	LinStatic	-0.006209507	0.00110157	0	0	0	-0.083938521	15-1	162
15	0	R07_Z	LinStatic	-0.051207726	-4.56172E-05	0	0	0	0.029605631	15-1	0
15	81	R07_Z	LinStatic	-0.051207726	-4.56172E-05	0	0	0	0.033300626	15-1	81
15	162	R07_Z	LinStatic	-0.051207726	-4.56172E-05	0	0	0	0.03699562	15-1	162
15	0	R08_Z	LinStatic	-0.016396845	-0.001168988	0	0	0	-0.197700451	15-1	0

15	81	R08_Z	LinStatic	-0.016396845	-0.001168988	0	0	0	-0.103012435	15-1	81
15	162	R08_Z	LinStatic	-0.016396845	-0.001168988	0	0	0	-0.00832442	15-1	162
15	0	R09_Z	LinStatic	-0.002306525	0.000232387	0	0	0	0.058213873	15-1	0
15	81	R09_Z	LinStatic	-0.002306525	0.000232387	0	0	0	0.039390565	15-1	81
15	162	R09_Z	LinStatic	-0.002306525	0.000232387	0	0	0	0.020567257	15-1	162
15	0	R10_Z	LinStatic	0.001086836	0.000425481	0	0	0	0.083610292	15-1	0
15	81	R10_Z	LinStatic	0.001086836	0.000425481	0	0	0	0.049146368	15-1	81
15	162	R10_Z	LinStatic	0.001086836	0.000425481	0	0	0	0.014682443	15-1	162
15	0	R11_Z	LinStatic	0.000951497	0.001568463	0	0	0	0.30196872	15-1	0
15	81	R11_Z	LinStatic	0.000951497	0.001568463	0	0	0	0.174923185	15-1	81
15	162	R11_Z	LinStatic	0.000951497	0.001568463	0	0	0	0.04787765	15-1	162
15	0	R12_Z	LinStatic	0.000600366	-0.000998756	0	0	0	-0.194404365	15-1	0
15	81	R12_Z	LinStatic	0.000600366	-0.000998756	0	0	0	-0.11350509	15-1	81
15	162	R12_Z	LinStatic	0.000600366	-0.000998756	0	0	0	-0.032605814	15-1	162
15	0	R_X	LinStatic	-0.655183403	2.05599753	0	0	0	398.5111166	15-1	0
15	81	R_X	LinStatic	-0.655183403	2.05599753	0	0	0	231.9753167	15-1	81
15	162	R_X	LinStatic	-0.655183403	2.05599753	0	0	0	65.43951678	15-1	162
15	0	R_Y	LinStatic	0	0	2.090662959	7.561179421	718.2148073	0	15-1	0
15	81	R_Y	LinStatic	0	0	2.090662959	7.561179421	548.8711076	0	15-1	81
15	162	R_Y	LinStatic	0	0	2.090662959	7.561179421	379.5274079	0	15-1	162
15	0	Cap_R_X	LinStatic	-0.046540669	0.166714116	0	0	0	32.3127367	15-1	0
15	81	Cap_R_X	LinStatic	-0.046540669	0.166714116	0	0	0	18.80889327	15-1	81
15	162	Cap_R_X	LinStatic	-0.046540669	0.166714116	0	0	0	5.30504984	15-1	162
15	0	Cap_w_Y	LinStatic	-19.0624494	0.017605403	0	0	0	2.422666064	15-1	0
15	81	Cap_w_Y	LinStatic	-19.0624494	0.017605403	0	0	0	0.996628424	15-1	81
15	162	Cap_w_Y	LinStatic	-19.0624494	0.017605403	0	0	0	-0.429409217	15-1	162
15	0	Cap_w_Z	LinStatic	-19.0624494	0.017605403	0	0	0	2.422666064	15-1	0
15	81	Cap_w_Z	LinStatic	-19.0624494	0.017605403	0	0	0	0.996628424	15-1	81
15	162	Cap_w_Z	LinStatic	-19.0624494	0.017605403	0	0	0	-0.429409217	15-1	162
15	0	Col_w_X	LinStatic	-13.25	-9.596E-17	0	0	0	-9.23831E-15	15-1	0
15	81	Col_w_X	LinStatic	-13.25	-9.596E-17	0	0	0	-1.46556E-15	15-1	81
15	162	Col_w_X	LinStatic	-13.25	-9.596E-17	0	0	0	6.3072E-15	15-1	162
15	0	Col_w_Y	LinStatic	-13.25	-9.596E-17	0	0	0	-9.23831E-15	15-1	0
15	81	Col_w_Y	LinStatic	-13.25	-9.596E-17	0	0	0	-1.46556E-15	15-1	81
15	162	Col_w_Y	LinStatic	-13.25	-9.596E-17	0	0	0	6.3072E-15	15-1	162
15	0	Cais_w_X	LinStatic	-13.5	-2.76849E-17	0	0	0	-2.63538E-15	15-1	0
15	81	Cais_w_X	LinStatic	-6.75	-2.76849E-17	0	0	0	-3.92911E-16	15-1	81
15	162	Cais_w_X	LinStatic	1.40166E-15	-2.76849E-17	0	0	0	1.84956E-15	15-1	162
15	0	Cais_w_Y	LinStatic	-13.5	-2.76849E-17	0	0	0	-2.63538E-15	15-1	0
15	81	Cais_w_Y	LinStatic	-6.75	-2.76849E-17	0	0	0	-3.92911E-16	15-1	81
15	162	Cais_w_Y	LinStatic	1.40166E-15	-2.76849E-17	0	0	0	1.84956E-15	15-1	162
15	0	DC	LinStatic	-409.5731069	0.16412384	0	0	0	7.452215309	15-1	0

15	81	DC	LinStatic	-409.5731069	0.16412384	0	0	0	-5.841815697	15-1	81
15	162	DC	LinStatic	-409.5731069	0.16412384	0	0	0	-19.1358467	15-1	162
15	0	DW	LinStatic	-58.27451705	0.023031707	0	0	0	0.61235142	15-1	0
15	81	DW	LinStatic	-58.27451705	0.023031707	0	0	0	-1.253216865	15-1	81
15	162	DW	LinStatic	-58.27451705	0.023031707	0	0	0	-3.11878515	15-1	162
15	0	WS3	LinStatic	6.810604393	-5.369076784	-2.947834773	-10.66126298	-1012.682878	-1051.869844	15-1	0
15	81	WS3	LinStatic	6.810604393	-5.369076784	-2.947834773	-10.66126298	-773.9082617	-616.9746244	15-1	81
15	162	WS3	LinStatic	6.810604393	-5.369076784	-2.947834773	-10.66126298	-535.1336451	-182.0794049	15-1	162
15	0	WL5	LinStatic	-0.300140256	-1.412274719	-0.919891702	-3.326918945	-316.0145152	-274.1685735	15-1	0
15	81	WL5	LinStatic	-0.300140256	-1.412274719	-0.919891702	-3.326918945	-241.5032873	-159.7743213	15-1	81
15	162	WL5	LinStatic	-0.300140256	-1.412274719	-0.919891702	-3.326918945	-166.9920595	-45.38006915	15-1	162
15	0	PL	LinStatic	-19.27134365	0.00761657	0	0	0	0.202504203	15-1	0
15	81	PL	LinStatic	-19.27134365	0.00761657	0	0	0	-0.414437976	15-1	81
15	162	PL	LinStatic	-19.27134365	0.00761657	0	0	0	-1.031380154	15-1	162
15	0	LL-1 Lane	LinStatic	-79.75342415	0.401585156	0	0	0	49.41055163	15-1	0
15	81	LL-1 Lane	LinStatic	-79.75342415	0.401585156	0	0	0	16.88215399	15-1	81
15	162	LL-1 Lane	LinStatic	-79.75342415	0.401585156	0	0	0	-15.64624366	15-1	162
15	0	LL-2 Lane	LinStatic	-121.5919977	0.573220212	0	0	0	70.20458229	15-1	0
15	81	LL-2 Lane	LinStatic	-121.5919977	0.573220212	0	0	0	23.77374515	15-1	81
15	162	LL-2 Lane	LinStatic	-121.5919977	0.573220212	0	0	0	-22.65709199	15-1	162
15	0	LL-3 Lane	LinStatic	-140.5856756	0.608519227	0	0	0	74.05216468	15-1	0
15	81	LL-3 Lane	LinStatic	-140.5856756	0.608519227	0	0	0	24.76210732	15-1	81
15	162	LL-3 Lane	LinStatic	-140.5856756	0.608519227	0	0	0	-24.52795004	15-1	162
15	0	LL-7 Lane	LinStatic	-147.7911668	0.214143956	0	0	0	21.99363708	15-1	0
15	81	LL-7 Lane	LinStatic	-147.7911668	0.214143956	0	0	0	4.647976665	15-1	81
15	162	LL-7 Lane	LinStatic	-147.7911668	0.214143956	0	0	0	-12.69768375	15-1	162
15	0	CE-1 Lane	LinStatic	-1.243236712	-4.418378988	-1.421650812	-5.141602006	-488.386069	-857.9298798	15-1	0
15	81	CE-1 Lane	LinStatic	-1.243236712	-4.418378988	-1.421650812	-5.141602006	-373.2323532	-500.0411818	15-1	81
15	162	CE-1 Lane	LinStatic	-1.243236712	-4.418378988	-1.421650812	-5.141602006	-258.0786374	-142.1524838	15-1	162
15	0	CE-2 Lane	LinStatic	-2.067234018	-7.364050682	-2.383355774	-8.61974454	-818.7648803	-1429.896782	15-1	0
15	81	CE-2 Lane	LinStatic	-2.067234018	-7.364050682	-2.383355774	-8.61974454	-625.7130626	-833.4086766	15-1	81
15	162	CE-2 Lane	LinStatic	-2.067234018	-7.364050682	-2.383355774	-8.61974454	-432.661245	-236.9205714	15-1	162
15	0	CE-3 Lane	LinStatic	-2.88946918	-9.331895914	-3.031461291	-10.96371016	-1041.411471	-1815.173008	15-1	0
15	81	CE-3 Lane	LinStatic	-2.88946918	-9.331895914	-3.031461291	-10.96371016	-795.863106	-1059.289439	15-1	81
15	162	CE-3 Lane	LinStatic	-2.88946918	-9.331895914	-3.031461291	-10.96371016	-550.3147414	-303.4058696	15-1	162
15	0	CE-7 Lane	LinStatic	-4.71387161	-16.75332663	-5.393910435	-19.50784291	-1852.994203	-3253.025589	15-1	0
15	81	CE-7 Lane	LinStatic	-4.71387161	-16.75332663	-5.393910435	-19.50784291	-1416.087458	-1896.006132	15-1	81
15	162	CE-7 Lane	LinStatic	-4.71387161	-16.75332663	-5.393910435	-19.50784291	-979.1807123	-538.9866751	15-1	162
15	0	BR-1 Lane	LinStatic	0.478283885	-1.500878197	-4.829431436	-17.46632446	-1659.076205	-290.9131151	15-1	0
15	81	BR-1 Lane	LinStatic	0.478283885	-1.500878197	-4.829431436	-17.46632446	-1267.892259	-169.3419812	15-1	81
15	162	BR-1 Lane	LinStatic	0.478283885	-1.500878197	-4.829431436	-17.46632446	-876.7083122	-47.77084725	15-1	162
15	0	BR-2 Lane	LinStatic	0.792771918	-2.487757011	-8.028145764	-29.03492898	-2757.94486	-482.1984511	15-1	0

15	81	BR-2 Lane	LinStatic	0.792771918	-2.48775701	-8.028145764	-29.03492898	-2107.665053	-280.6901332	15-1	81
15	162	BR-2 Lane	LinStatic	0.792771918	-2.48775701	-8.028145764	-29.03492898	-1457.385246	-79.1818153	15-1	162
15	0	BR-3 Lane	LinStatic	1.015534275	-3.186796171	-10.2442485	-37.04977916	-3519.252556	-617.6922308	15-1	0
15	81	BR-3 Lane	LinStatic	1.015534275	-3.186796171	-10.2442485	-37.04977916	-2689.468427	-359.5617409	15-1	81
15	162	BR-3 Lane	LinStatic	1.015534275	-3.186796171	-10.2442485	-37.04977916	-1859.684299	-101.431251	15-1	162
15	0	BR-7 Lane	LinStatic	1.808306194	-5.674553183	-18.27239427	-66.08470814	-6277.197416	-1099.890682	15-1	0
15	81	BR-7 Lane	LinStatic	1.808306194	-5.674553183	-18.27239427	-66.08470814	-4797.13348	-640.2518741	15-1	81
15	162	BR-7 Lane	LinStatic	1.808306194	-5.674553183	-18.27239427	-66.08470814	-3317.069545	-180.6130663	15-1	162
15	0	WSub3: 45deg	LinStatic	9.691707563	-0.160491059	0	0	0	-30.98781979	15-1	0
15	81	WSub3: 45deg	LinStatic	7.734207563	-0.160491059	0	0	0	-17.98804402	15-1	81
15	162	WSub3: 45deg	LinStatic	5.776707563	-0.160491059	0	0	0	-4.988268242	15-1	162
15	0	WSub3: 30deg	LinStatic	7.750114666	-0.176106146	0	0	0	-34.0737335	15-1	0
15	81	WSub3: 30deg	LinStatic	5.995114666	-0.176106146	0	0	0	-19.80913564	15-1	81
15	162	WSub3: 30deg	LinStatic	4.240114666	-0.176106146	0	0	0	-5.544537779	15-1	162
15	0	WSub3: 15deg	LinStatic	5.46042301	-0.178560159	0	0	0	-34.59885493	15-1	0
15	81	WSub3: 15deg	LinStatic	4.04292301	-0.178560159	0	0	0	-20.13548208	15-1	81
15	162	WSub3: 15deg	LinStatic	2.62542301	-0.178560159	0	0	0	-5.672109236	15-1	162
15	0	WSub3: 0deg	LinStatic	5.052467434	-0.171456831	0	0	0	-33.15280472	15-1	0
15	81	WSub3: 0deg	LinStatic	4.107467434	-0.171456831	0	0	0	-19.26480141	15-1	81
15	162	WSub3: 0deg	LinStatic	3.162467434	-0.171456831	0	0	0	-5.376798099	15-1	162
15	0	WSub3: -15deg	LinStatic	4.315629518	-0.152507461	0	0	0	-29.42063628	15-1	0
15	81	WSub3: -15deg	LinStatic	3.910629518	-0.152507461	0	0	0	-17.06753192	15-1	81
15	162	WSub3: -15deg	LinStatic	3.505629518	-0.152507461	0	0	0	-4.714427566	15-1	162
15	0	WSub3: -30deg	LinStatic	3.578499162	-0.123555244	0	0	0	-23.74970363	15-1	0
15	81	WSub3: -30deg	LinStatic	3.645999162	-0.123555244	0	0	0	-13.74172884	15-1	81
15	162	WSub3: -30deg	LinStatic	3.713499162	-0.123555244	0	0	0	-3.733754041	15-1	162
15	0	WSub3: -45deg	LinStatic	2.32325819	-0.087582355	0	0	0	-16.7378082	15-1	0
15	81	WSub3: -45deg	LinStatic	2.93075819	-0.087582355	0	0	0	-9.643637456	15-1	81
15	162	WSub3: -45deg	LinStatic	3.53825819	-0.087582355	0	0	0	-2.549466708	15-1	162
15	0	WA	LinStatic	7.495	3.56863E-17	0	0	0	3.40617E-15	15-1	0
15	81	WA	LinStatic	5.47	3.56863E-17	0	0	0	5.15583E-16	15-1	81
15	162	WA	LinStatic	3.445	3.56863E-17	0	0	0	-2.37501E-15	15-1	162
15	0	WS3: 45deg	Combination	16.50231196	-5.529567843	-2.947834773	-10.66126298	-1012.682878	-1082.857664	15-1	0
15	81	WS3: 45deg	Combination	14.54481196	-5.529567843	-2.947834773	-10.66126298	-773.9082617	-634.9626684	15-1	81
15	162	WS3: 45deg	Combination	12.58731196	-5.529567843	-2.947834773	-10.66126298	-535.1336451	-187.0676731	15-1	162
15	0	WS3: 30deg	Combination	14.56071906	-5.545182931	-2.947834773	-10.66126298	-1012.682878	-1085.943577	15-1	0
15	81	WS3: 30deg	Combination	12.80571906	-5.545182931	-2.947834773	-10.66126298	-773.9082617	-636.7837601	15-1	81
15	162	WS3: 30deg	Combination	11.05071906	-5.545182931	-2.947834773	-10.66126298	-535.1336451	-187.6239427	15-1	162
15	0	WS3: 15deg	Combination	12.2710274	-5.547636943	-2.947834773	-10.66126298	-1012.682878	-1086.468699	15-1	0
15	81	WS3: 15deg	Combination	10.8535274	-5.547636943	-2.947834773	-10.66126298	-773.9082617	-637.1101065	15-1	81
15	162	WS3: 15deg	Combination	9.436027403	-5.547636943	-2.947834773	-10.66126298	-535.1336451	-187.7515141	15-1	162
15	0	WS3: 0deg	Combination	11.86307183	-5.540533615	-2.947834773	-10.66126298	-1012.682878	-1085.022649	15-1	0

15	81	WS3: 0deg	Combination	10.91807183	-5.540533615	-2.947834773	-10.66126298	-773.9082617	-636.2394258	15-1	81
15	162	WS3: 0deg	Combination	9.973071828	-5.540533615	-2.947834773	-10.66126298	-535.1336451	-187.456203	15-1	162
15	0	WS3: -15deg	Combination	11.12623391	-5.521584245	-2.947834773	-10.66126298	-1012.682878	-1081.29048	15-1	0
15	81	WS3: -15deg	Combination	10.72123391	-5.521584245	-2.947834773	-10.66126298	-773.9082617	-634.0421563	15-1	81
15	162	WS3: -15deg	Combination	10.31623391	-5.521584245	-2.947834773	-10.66126298	-535.1336451	-186.7938325	15-1	162
15	0	WS3: -30deg	Combination	10.38910355	-5.492632029	-2.947834773	-10.66126298	-1012.682878	-1075.619548	15-1	0
15	81	WS3: -30deg	Combination	10.45660355	-5.492632029	-2.947834773	-10.66126298	-773.9082617	-630.7163533	15-1	81
15	162	WS3: -30deg	Combination	10.52410355	-5.492632029	-2.947834773	-10.66126298	-535.1336451	-185.8131589	15-1	162
15	0	WServ1: -45deg	Combination	3.843968315	-2.032273851	-1.090698866	-3.944667304	-374.692665	-397.9792326	15-1	0
15	81	WServ1: -45deg	Combination	3.868943315	-2.032273851	-1.090698866	-3.944667304	-286.3460568	-233.3650507	15-1	81
15	162	WServ1: -45deg	Combination	3.893918315	-2.032273851	-1.090698866	-3.944667304	-197.9994487	-68.75086881	15-1	162
15	0	WS5: 45deg	Combination	7.686978731	-4.088585555	-2.346643732	-8.486970229	-806.1530283	-798.2716828	15-1	0
15	81	WS5: 45deg	Combination	6.739548731	-4.088585555	-2.346643732	-8.486970229	-616.074886	-467.0962529	15-1	81
15	162	WS5: 45deg	Combination	5.792118731	-4.088585555	-2.346643732	-8.486970229	-425.9967437	-135.9208229	15-1	162
15	0	WS5: 30deg	Combination	6.747247769	-4.096143257	-2.346643732	-8.486970229	-806.1530283	-799.765265	15-1	0
15	81	WS5: 30deg	Combination	5.897827769	-4.096143257	-2.346643732	-8.486970229	-616.074886	-467.9776612	15-1	81
15	162	WS5: 30deg	Combination	5.048407769	-4.096143257	-2.346643732	-8.486970229	-425.9967437	-136.1900574	15-1	162
15	0	WS5: 15deg	Combination	5.639037007	-4.097330999	-2.346643732	-8.486970229	-806.1530283	-800.0194238	15-1	0
15	81	WS5: 15deg	Combination	4.952967007	-4.097330999	-2.346643732	-8.486970229	-616.074886	-468.1356129	15-1	81
15	162	WS5: 15deg	Combination	4.266897007	-4.097330999	-2.346643732	-8.486970229	-425.9967437	-136.251802	15-1	162
15	0	WS5: 0deg	Combination	5.441586508	-4.093892988	-2.346643732	-8.486970229	-806.1530283	-799.3195355	15-1	0
15	81	WS5: 0deg	Combination	4.984206508	-4.093892988	-2.346643732	-8.486970229	-616.074886	-467.7142034	15-1	81
15	162	WS5: 0deg	Combination	4.526826508	-4.093892988	-2.346643732	-8.486970229	-425.9967437	-136.1088714	15-1	162
15	0	WS5: -15deg	Combination	5.084956957	-4.084721493	-2.346643732	-8.486970229	-806.1530283	-797.513166	15-1	0
15	81	WS5: -15deg	Combination	4.888936957	-4.084721493	-2.346643732	-8.486970229	-616.074886	-466.650725	15-1	81
15	162	WS5: -15deg	Combination	4.692916957	-4.084721493	-2.346643732	-8.486970229	-425.9967437	-135.7882841	15-1	162
15	0	WS5: -30deg	Combination	4.728185864	-4.07070862	-2.346643732	-8.486970229	-806.1530283	-794.7684346	15-1	0
15	81	WS5: -30deg	Combination	4.760855864	-4.07070862	-2.346643732	-8.486970229	-616.074886	-465.0410363	15-1	81
15	162	WS5: -30deg	Combination	4.793525864	-4.07070862	-2.346643732	-8.486970229	-425.9967437	-135.3136381	15-1	162
15	0	WS5: -45deg	Combination	4.120649234	-4.053297742	-2.346643732	-8.486970229	-806.1530283	-791.3746772	15-1	0
15	81	WS5: -45deg	Combination	4.414679234	-4.053297742	-2.346643732	-8.486970229	-616.074886	-463.0575601	15-1	81
15	162	WS5: -45deg	Combination	4.708709234	-4.053297742	-2.346643732	-8.486970229	-425.9967437	-134.740443	15-1	162
15	0	LL - 1 Lane	Combination	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-2147.462274	-1099.229939	15-1	0
15	81	LL - 1 Lane	Combination	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-1641.124612	-652.915447	15-1	81
15	162	LL - 1 Lane	Combination	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-1134.78695	-206.6009549	15-1	162
15	0	WS5 + WA	Combination	10.49119227	-4.010907882	-2.346643732	-8.486970229	-806.1530283	-783.273578	15-1	0
15	81	WS5 + WA	Combination	8.46619227	-4.010907882	-2.346643732	-8.486970229	-616.074886	-458.3900396	15-1	81
15	162	WS5 + WA	Combination	6.44119227	-4.010907882	-2.346643732	-8.486970229	-425.9967437	-133.5065011	15-1	162
15	0	LL - 2 Lane	Combination	-142.1378035	-9.270970912	-10.41150154	-37.65467351	-3576.70974	-1841.688147	15-1	0
15	81	LL - 2 Lane	Combination	-142.1378035	-9.270970912	-10.41150154	-37.65467351	-2733.378116	-1090.739503	15-1	81
15	162	LL - 2 Lane	Combination	-142.1378035	-9.270970912	-10.41150154	-37.65467351	-1890.046491	-339.7908588	15-1	162
15	0	LL - 3 Lane	Combination	-161.7309542	-11.90255629	-13.27570979	-48.01348932	-4560.664026	-2358.61057	15-1	0

15	81	LL - 3 Lane	Combination	-161.7309542	-11.90255629	-13.27570979	-48.01348932	-3485.331533	-1394.50351	15-1	81
15	162	LL - 3 Lane	Combination	-161.7309542	-11.90255629	-13.27570979	-48.01348932	-2409.99904	-430.3964508	15-1	162
15	0	LL - 7 Lane	Combination	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-8130.191619	-4330.720129	15-1	0
15	81	LL - 7 Lane	Combination	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-6213.220938	-2532.024467	15-1	81
15	162	LL - 7 Lane	Combination	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-4296.250257	-733.3288053	15-1	162
15	0	LL Envelope	Combination Max	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-2147.462274	-1099.229939	15-1	0
15	81	LL Envelope	Combination Max	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-1641.124612	-652.915447	15-1	81
15	162	LL Envelope	Combination Max	-99.78972062	-5.510055459	-6.251082249	-22.60792647	-1134.78695	-206.6009549	15-1	162
15	0	LL Envelope	Combination Min	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-8130.191619	-4330.720129	15-1	0
15	81	LL Envelope	Combination Min	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-6213.220938	-2532.024467	15-1	81
15	162	LL Envelope	Combination Min	-169.9680758	-22.20611928	-23.6663047	-85.59255104	-4296.250257	-733.3288053	15-1	162
15	0	WS3 & WA envelope	Combination Max	16.50231196	-2.032273851	-1.090698866	-3.944667304	-374.692665	-397.9792326	15-1	0
15	81	WS3 & WA envelope	Combination Max	14.54481196	-2.032273851	-1.090698866	-3.944667304	-286.3460568	-233.3650507	15-1	81
15	162	WS3 & WA envelope	Combination Max	12.58731196	-2.032273851	-1.090698866	-3.944667304	-197.9994487	-68.75086881	15-1	162
15	0	WS3 & WA envelope	Combination Min	3.843968315	-5.547636943	-2.947834773	-10.66126298	-1012.682878	-1086.468699	15-1	0
15	81	WS3 & WA envelope	Combination Min	3.868943315	-5.547636943	-2.947834773	-10.66126298	-773.9082617	-637.1101065	15-1	81
15	162	WS3 & WA envelope	Combination Min	3.893918315	-5.547636943	-2.947834773	-10.66126298	-535.1336451	-187.7515141	15-1	162
15	0	WS3 + WA	Combination	14.30560439	-5.369076784	-2.947834773	-10.66126298	-1012.682878	-1051.869844	15-1	0
15	81	WS3 + WA	Combination	12.28060439	-5.369076784	-2.947834773	-10.66126298	-773.9082617	-616.9746244	15-1	81
15	162	WS3 + WA	Combination	10.25560439	-5.369076784	-2.947834773	-10.66126298	-535.1336451	-182.0794049	15-1	162
15	0	WS5 & WA envelope	Combination Max	10.49119227	-4.010907882	-2.346643732	-8.486970229	-806.1530283	-783.273578	15-1	0
15	81	WS5 & WA envelope	Combination Max	8.46619227	-4.010907882	-2.346643732	-8.486970229	-616.074886	-458.3900396	15-1	81
15	162	WS5 & WA envelope	Combination Max	6.44119227	-4.010907882	-2.346643732	-8.486970229	-425.9967437	-133.5065011	15-1	162
15	0	WS5 & WA envelope	Combination Min	4.120649234	-4.097330999	-2.346643732	-8.486970229	-806.1530283	-800.0194238	15-1	0
15	81	WS5 & WA envelope	Combination Min	4.414679234	-4.097330999	-2.346643732	-8.486970229	-616.074886	-468.1356129	15-1	81
15	162	WS5 & WA envelope	Combination Min	4.266897007	-4.097330999	-2.346643732	-8.486970229	-425.9967437	-136.251802	15-1	162
15	0	Strength 1 - Max	Combination Max	-883.2693616	-9.343476457	-10.93939393	-39.56387132	-3758.058979	-1905.242099	15-1	0
15	81	Strength 1 - Max	Combination Max	-869.3900487	-9.343476457	-10.93939393	-39.56387132	-2871.96807	-1148.420506	15-1	81
15	162	Strength 1 - Max	Combination Max	-855.5107359	-9.343476457	-10.93939393	-39.56387132	-1985.877162	-391.5989132	15-1	162
15	0	Strength 1 - Max	Combination Min	-1006.081483	-38.56158815	-41.41603323	-149.7869643	-14227.83533	-7560.349932	15-1	0
15	81	Strength 1 - Max	Combination Min	-992.2021704	-38.56158815	-41.41603323	-149.7869643	-10873.13664	-4436.861292	15-1	81
15	162	Strength 1 - Max	Combination Min	-978.3228576	-38.56158815	-41.41603323	-149.7869643	-7518.43795	-1313.372651	15-1	162
15	0	Strength 1 - Min	Combination Max	-657.6942611	-9.437133858	-10.93939393	-39.56387132	-3758.058979	-1910.660293	15-1	0
15	81	Strength 1 - Min	Combination Max	-648.2681559	-9.437133858	-10.93939393	-39.56387132	-2871.96807	-1146.25245	15-1	81
15	162	Strength 1 - Min	Combination Max	-638.8420506	-9.437133858	-10.93939393	-39.56387132	-1985.877162	-381.8446078	15-1	162
15	0	Strength 1 - Min	Combination Min	-780.5063827	-38.65524555	-41.41603323	-149.7869643	-14227.83533	-7565.768125	15-1	0
15	81	Strength 1 - Min	Combination Min	-771.0802775	-38.65524555	-41.41603323	-149.7869643	-10873.13664	-4434.693236	15-1	81
15	162	Strength 1 - Min	Combination Min	-761.6541723	-38.65524555	-41.41603323	-149.7869643	-7518.43795	-1303.618346	15-1	162
15	0	Strength 3 - Max	Combination Max	-699.6300385	-1.733153255	-1.090698866	-3.944667304	-374.692665	-379.5689384	15-1	0
15	81	Strength 3 - Max	Combination Max	-685.6832257	-1.733153255	-1.090698866	-3.944667304	-286.3460568	-239.1835247	15-1	81
15	162	Strength 3 - Max	Combination Max	-671.7364129	-1.733153255	-1.090698866	-3.944667304	-197.9994487	-98.79811102	15-1	162
15	0	Strength 3 - Max	Combination Min	-712.2883821	-5.248516347	-2.947834773	-10.66126298	-1012.682878	-1068.058405	15-1	0

15	81	Strength 3 - Max	Combination Min	-696.3590943	-5.248516347	-2.947834773	-10.66126298	-773.9082617	-642.9285805	15-1	81
15	162	Strength 3 - Max	Combination Min	-680.4298065	-5.248516347	-2.947834773	-10.66126298	-535.1336451	-217.7987563	15-1	162
15	0	Strength 3 - Min	Combination Max	-474.054938	-1.826810656	-1.090698866	-3.944667304	-374.692665	-384.9871319	15-1	0
15	81	Strength 3 - Min	Combination Max	-464.5613328	-1.826810656	-1.090698866	-3.944667304	-286.3460568	-237.0154687	15-1	81
15	162	Strength 3 - Min	Combination Max	-455.0677276	-1.826810656	-1.090698866	-3.944667304	-197.9994487	-89.04380558	15-1	162
15	0	Strength 3 - Min	Combination Min	-486.7132817	-5.342173748	-2.947834773	-10.66126298	-1012.682878	-1073.476598	15-1	0
15	81	Strength 3 - Min	Combination Min	-475.2372015	-5.342173748	-2.947834773	-10.66126298	-773.9082617	-640.7605245	15-1	81
15	162	Strength 3 - Min	Combination Min	-463.7611212	-5.342173748	-2.947834773	-10.66126298	-535.1336451	-208.0444509	15-1	162
15	0	Strength 5 - Max	Combination Max	-840.357281	-11.15036216	-10.78560477	-39.00767096	-3705.227098	-2248.823702	15-1	0
15	81	Strength 5 - Max	Combination Max	-826.4779682	-11.15036216	-10.78560477	-39.00767096	-2831.593112	-1345.644367	15-1	81
15	162	Strength 5 - Max	Combination Max	-812.5986554	-11.15036216	-10.78560477	-39.00767096	-1957.959126	-442.4650324	15-1	162
15	0	Strength 5 - Max	Combination Min	-941.4686036	-33.77647144	-34.29615508	-124.0369141	-11781.91171	-6628.081304	15-1	0
15	81	Strength 5 - Max	Combination Min	-925.2702608	-33.77647144	-34.29615508	-124.0369141	-9003.923152	-3892.187118	15-1	81
15	162	Strength 5 - Max	Combination Min	-909.5137302	-33.77647144	-34.29615508	-124.0369141	-6225.934591	-1156.292931	15-1	162
15	0	Strength 5 - Min	Combination Max	-614.7821806	-11.24401956	-10.78560477	-39.00767096	-3705.227098	-2254.241895	15-1	0
15	81	Strength 5 - Min	Combination Max	-605.3560754	-11.24401956	-10.78560477	-39.00767096	-2831.593112	-1343.476311	15-1	81
15	162	Strength 5 - Min	Combination Max	-595.9299701	-11.24401956	-10.78560477	-39.00767096	-1957.959126	-432.7107269	15-1	162
15	0	Strength 5 - Min	Combination Min	-715.8935032	-33.87012884	-34.29615508	-124.0369141	-11781.91171	-6633.499498	15-1	0
15	81	Strength 5 - Min	Combination Min	-704.1483679	-33.87012884	-34.29615508	-124.0369141	-9003.923152	-3890.019062	15-1	81
15	162	Strength 5 - Min	Combination Min	-692.8450449	-33.87012884	-34.29615508	-124.0369141	-6225.934591	-1146.538626	15-1	162
15	0	Service 1	Combination Max	-651.025774	-7.261923734	-7.341781114	-26.55259377	-2522.154939	-1473.816016	15-1	0
15	81	Service 1	Combination Max	-640.3273237	-7.261923734	-7.341781114	-26.55259377	-1927.470668	-885.6001938	15-1	81
15	162	Service 1	Combination Max	-629.6288735	-7.261923734	-7.341781114	-26.55259377	-1332.786398	-297.3843714	15-1	162
15	0	Service 1	Combination Min	-727.3750845	-24.02405482	-24.75700357	-89.53721835	-8504.884283	-4718.107783	15-1	0
15	81	Service 1	Combination Min	-714.6266592	-24.02405482	-24.75700357	-89.53721835	-6499.566995	-2772.159342	15-1	81
15	162	Service 1	Combination Min	-702.2808222	-24.02405482	-24.75700357	-89.53721835	-4494.249706	-826.2109022	15-1	162
15	0	WServ1: 45deg	Combination	6.105855424	-2.045940102	-1.090698866	-3.944667304	-374.692665	-400.6573356	15-1	0
15	81	WServ1: 45deg	Combination	5.381580424	-2.045940102	-1.090698866	-3.944667304	-286.3460568	-234.9361873	15-1	81
15	162	WServ1: 45deg	Combination	4.657305424	-2.045940102	-1.090698866	-3.944667304	-197.9994487	-69.21503906	15-1	162
15	0	WServ1: 30deg	Combination	5.387466052	-2.051717684	-1.090698866	-3.944667304	-374.692665	-401.7991236	15-1	0
15	81	WServ1: 30deg	Combination	4.738116052	-2.051717684	-1.090698866	-3.944667304	-286.3460568	-235.6099912	15-1	81
15	162	WServ1: 30deg	Combination	4.088766052	-2.051717684	-1.090698866	-3.944667304	-197.9994487	-69.42085879	15-1	162
15	0	WServ1: 15deg	Combination	4.540280139	-2.052625669	-1.090698866	-3.944667304	-374.692665	-401.9934186	15-1	0
15	81	WServ1: 15deg	Combination	4.015805139	-2.052625669	-1.090698866	-3.944667304	-286.3460568	-235.7307394	15-1	81
15	162	WServ1: 15deg	Combination	3.491330139	-2.052625669	-1.090698866	-3.944667304	-197.9994487	-69.46806023	15-1	162
15	0	WServ1: 0deg	Combination	4.389336576	-2.049997438	-1.090698866	-3.944667304	-374.692665	-401.45838	15-1	0
15	81	WServ1: 0deg	Combination	4.039686576	-2.049997438	-1.090698866	-3.944667304	-286.3460568	-235.4085876	15-1	81
15	162	WServ1: 0deg	Combination	3.690036576	-2.049997438	-1.090698866	-3.944667304	-197.9994487	-69.35879511	15-1	162
15	0	WServ1: -15deg	Combination	4.116706547	-2.042986171	-1.090698866	-3.944667304	-374.692665	-400.0774777	15-1	0
15	81	WServ1: -15deg	Combination	3.966856547	-2.042986171	-1.090698866	-3.944667304	-286.3460568	-234.5955978	15-1	81
15	162	WServ1: -15deg	Combination	3.817006547	-2.042986171	-1.090698866	-3.944667304	-197.9994487	-69.11371801	15-1	162
15	0	WServ1: -30deg	Combination	3.843968315	-2.032273851	-1.090698866	-3.944667304	-374.692665	-397.9792326	15-1	0

15	81	WServ1: -30deg	Combination	3.868943315	-2.032273851	-1.090698866	-3.944667304	-286.3460568	-233.3650507	15-1	81
15	162	WServ1: -30deg	Combination	3.893918315	-2.032273851	-1.090698866	-3.944667304	-197.9994487	-68.75086881	15-1	162
15	0	WServ1 + WA	Combination	10.01492363	-1.98655841	-1.090698866	-3.944667304	-374.692665	-389.1918423	15-1	0
15	81	WServ1 + WA	Combination	7.989923626	-1.98655841	-1.090698866	-3.944667304	-286.3460568	-228.280611	15-1	81
15	162	WServ1 + WA	Combination	5.964923626	-1.98655841	-1.090698866	-3.944667304	-197.9994487	-67.36937981	15-1	162
15	0	WServ1 & WA envelope	Combination Max	10.01492363	-1.98655841	-1.090698866	-3.944667304	-374.692665	-389.1918423	15-1	0
15	81	WServ1 & WA envelope	Combination Max	7.989923626	-1.98655841	-1.090698866	-3.944667304	-286.3460568	-228.280611	15-1	81
15	162	WServ1 & WA envelope	Combination Max	5.964923626	-1.98655841	-1.090698866	-3.944667304	-197.9994487	-67.36937981	15-1	162
15	0	WServ1 & WA envelope	Combination Min	3.843968315	-2.052625669	-1.090698866	-3.944667304	-374.692665	-401.9934186	15-1	0
15	81	WServ1 & WA envelope	Combination Min	3.868943315	-2.052625669	-1.090698866	-3.944667304	-286.3460568	-235.7307394	15-1	81
15	162	WServ1 & WA envelope	Combination Min	3.491330139	-2.052625669	-1.090698866	-3.944667304	-197.9994487	-69.46806023	15-1	162
15	0	Strength Envelope	Combination Max	-474.054938	-1.733153255	-1.090698866	-3.944667304	-374.692665	-379.5689384	15-1	0
15	81	Strength Envelope	Combination Max	-464.5613328	-1.733153255	-1.090698866	-3.944667304	-286.3460568	-237.0154687	15-1	81
15	162	Strength Envelope	Combination Max	-455.0677276	-1.733153255	-1.090698866	-3.944667304	-197.9994487	-89.04380558	15-1	162
15	0	Strength Envelope	Combination Min	-1006.081483	-38.65524555	-41.41603323	-149.7869643	-14227.83533	-7565.768125	15-1	0
15	81	Strength Envelope	Combination Min	-992.2021704	-38.65524555	-41.41603323	-149.7869643	-10873.13664	-4436.861292	15-1	81
15	162	Strength Envelope	Combination Min	-978.3228576	-38.65524555	-41.41603323	-149.7869643	-7518.43795	-1313.372651	15-1	162
16	0	DEAD	LinStatic	-90.50551247	0.011076806	0	0	0	1.555767512	16-1	0
16	81	DEAD	LinStatic	-77.78206222	0.011076806	0	0	0	0.658546263	16-1	81
16	162	DEAD	LinStatic	-65.05861197	0.011076806	0	0	0	-0.238674986	16-1	162
16	0	R01_Z	LinStatic	-0.015950451	0.003845809	0	0	0	0.713217675	16-1	0
16	81	R01_Z	LinStatic	-0.015950451	0.003845809	0	0	0	0.401707134	16-1	81
16	162	R01_Z	LinStatic	-0.015950451	0.003845809	0	0	0	0.090196593	16-1	162
16	0	R02_Z	LinStatic	-0.056344346	-0.001259747	0	0	0	-0.277141861	16-1	0
16	81	R02_Z	LinStatic	-0.056344346	-0.001259747	0	0	0	-0.175102327	16-1	81
16	162	R02_Z	LinStatic	-0.056344346	-0.001259747	0	0	0	-0.073062794	16-1	162
16	0	R03_Z	LinStatic	0.01531264	-0.003007527	0	0	0	-0.414443233	16-1	0
16	81	R03_Z	LinStatic	0.01531264	-0.003007527	0	0	0	-0.170833538	16-1	81
16	162	R03_Z	LinStatic	0.01531264	-0.003007527	0	0	0	0.072776157	16-1	162
16	0	R04_Z	LinStatic	0.357231641	-0.01405	0	0	0	-1.892290824	16-1	0
16	81	R04_Z	LinStatic	0.357231641	-0.01405	0	0	0	-0.754240795	16-1	81
16	162	R04_Z	LinStatic	0.357231641	-0.01405	0	0	0	0.383809235	16-1	162
16	0	R05_Z	LinStatic	0.77369254	-0.013183594	0	0	0	-1.672940813	16-1	0
16	81	R05_Z	LinStatic	0.77369254	-0.013183594	0	0	0	-0.605069728	16-1	81
16	162	R05_Z	LinStatic	0.77369254	-0.013183594	0	0	0	0.462801358	16-1	162
16	0	R06_Z	LinStatic	0.788063025	0.012431128	0	0	0	1.57582237	16-1	0
16	81	R06_Z	LinStatic	0.788063025	0.012431128	0	0	0	0.568901032	16-1	81
16	162	R06_Z	LinStatic	0.788063025	0.012431128	0	0	0	-0.438020306	16-1	162
16	0	R07_Z	LinStatic	0.380126733	0.014264968	0	0	0	1.90085372	16-1	0
16	81	R07_Z	LinStatic	0.380126733	0.014264968	0	0	0	0.745391289	16-1	81
16	162	R07_Z	LinStatic	0.380126733	0.014264968	0	0	0	-0.410071143	16-1	162
16	0	R08_Z	LinStatic	0.025667829	0.002220215	0	0	0	0.244867056	16-1	0

16	81	R08_Z	LinStatic	0.025667829	0.002220215	0	0	0	0.065029639	16-1	81
16	162	R08_Z	LinStatic	0.025667829	0.002220215	0	0	0	-0.114807778	16-1	162
16	0	R09_Z	LinStatic	-0.052643346	-4.15269E-05	0	0	0	0.02261884	16-1	0
16	81	R09_Z	LinStatic	-0.052643346	-4.15269E-05	0	0	0	0.025982519	16-1	81
16	162	R09_Z	LinStatic	-0.052643346	-4.15269E-05	0	0	0	0.029346197	16-1	162
16	0	R10_Z	LinStatic	-0.021289175	-7.07033E-05	0	0	0	0.019005381	16-1	0
16	81	R10_Z	LinStatic	-0.021289175	-7.07033E-05	0	0	0	0.024732347	16-1	81
16	162	R10_Z	LinStatic	-0.021289175	-7.07033E-05	0	0	0	0.030459313	16-1	162
16	0	R11_Z	LinStatic	-0.004311339	0.001262497	0	0	0	0.262922294	16-1	0
16	81	R11_Z	LinStatic	-0.004311339	0.001262497	0	0	0	0.160660058	16-1	81
16	162	R11_Z	LinStatic	-0.004311339	0.001262497	0	0	0	0.058397821	16-1	162
16	0	R12_Z	LinStatic	0.001108531	-0.001045825	0	0	0	-0.201180238	16-1	0
16	81	R12_Z	LinStatic	0.001108531	-0.001045825	0	0	0	-0.116468389	16-1	81
16	162	R12_Z	LinStatic	0.001108531	-0.001045825	0	0	0	-0.031756541	16-1	162
16	0	R_X	LinStatic	0.02583166	2.04128315	0	0	0	396.5955286	16-1	0
16	81	R_X	LinStatic	0.02583166	2.04128315	0	0	0	231.2515934	16-1	81
16	162	R_X	LinStatic	0.02583166	2.04128315	0	0	0	65.90765828	16-1	162
16	0	R_Y	LinStatic	0	0	2.187881235	1.463858699	740.1652165	0	16-1	0
16	81	R_Y	LinStatic	0	0	2.187881235	1.463858699	562.9468365	0	16-1	81
16	162	R_Y	LinStatic	0	0	2.187881235	1.463858699	385.7284564	0	16-1	162
16	0	Cap_R_X	LinStatic	0.003228784	0.167202399	0	0	0	32.47958966	16-1	0
16	81	Cap_R_X	LinStatic	0.003228784	0.167202399	0	0	0	18.93619536	16-1	81
16	162	Cap_R_X	LinStatic	0.003228784	0.167202399	0	0	0	5.392801048	16-1	162
16	0	Cap_w_Y	LinStatic	-17.98917514	0.004102521	0	0	0	0.57621019	16-1	0
16	81	Cap_w_Y	LinStatic	-17.98917514	0.004102521	0	0	0	0.243906023	16-1	81
16	162	Cap_w_Y	LinStatic	-17.98917514	0.004102521	0	0	0	-0.088398143	16-1	162
16	0	Cap_w_Z	LinStatic	-17.98917514	0.004102521	0	0	0	0.57621019	16-1	0
16	81	Cap_w_Z	LinStatic	-17.98917514	0.004102521	0	0	0	0.243906023	16-1	81
16	162	Cap_w_Z	LinStatic	-17.98917514	0.004102521	0	0	0	-0.088398143	16-1	162
16	0	Col_w_X	LinStatic	-13.25	-1.47559E-17	0	0	0	1.54083E-15	16-1	0
16	81	Col_w_X	LinStatic	-13.25	-1.47559E-17	0	0	0	2.73605E-15	16-1	81
16	162	Col_w_X	LinStatic	-13.25	-1.47559E-17	0	0	0	3.93128E-15	16-1	162
16	0	Col_w_Y	LinStatic	-13.25	-1.47559E-17	0	0	0	1.54083E-15	16-1	0
16	81	Col_w_Y	LinStatic	-13.25	-1.47559E-17	0	0	0	2.73605E-15	16-1	81
16	162	Col_w_Y	LinStatic	-13.25	-1.47559E-17	0	0	0	3.93128E-15	16-1	162
16	0	Cais_w_X	LinStatic	-13.5	-1.14219E-17	0	0	0	-4.62626E-16	16-1	0
16	81	Cais_w_X	LinStatic	-6.75	-1.14219E-17	0	0	0	4.62547E-16	16-1	81
16	162	Cais_w_X	LinStatic	-3.92741E-15	-1.14219E-17	0	0	0	1.38772E-15	16-1	162
16	0	Cais_w_Y	LinStatic	-13.5	-1.14219E-17	0	0	0	-4.62626E-16	16-1	0
16	81	Cais_w_Y	LinStatic	-6.75	-1.14219E-17	0	0	0	4.62547E-16	16-1	81
16	162	Cais_w_Y	LinStatic	-3.92741E-15	-1.14219E-17	0	0	0	1.38772E-15	16-1	162
16	0	DC	LinStatic	-389.7801766	-0.189984507	0	0	0	-40.35483699	16-1	0

16	81	DC	LinStatic	-389.7801766	-0.189984507	0	0	0	-24.96609192	16-1	81
16	162	DC	LinStatic	-389.7801766	-0.189984507	0	0	0	-9.577346855	16-1	162
16	0	DW	LinStatic	-55.44571301	-0.034565688	0	0	0	-7.119965415	16-1	0
16	81	DW	LinStatic	-55.44571301	-0.034565688	0	0	0	-4.320144688	16-1	81
16	162	DW	LinStatic	-55.44571301	-0.034565688	0	0	0	-1.520323962	16-1	162
16	0	WS3	LinStatic	19.9204291	-5.331767781	-3.084912542	-2.064040765	-1043.632955	-1046.93657	16-1	0
16	81	WS3	LinStatic	19.9204291	-5.331767781	-3.084912542	-2.064040765	-793.7550394	-615.0633802	16-1	81
16	162	WS3	LinStatic	19.9204291	-5.331767781	-3.084912542	-2.064040765	-543.8771236	-183.1901899	16-1	162
16	0	WL5	LinStatic	-0.232906456	-1.403108493	-0.962667743	-0.644097827	-325.6726953	-272.9764475	16-1	0
16	81	WL5	LinStatic	-0.232906456	-1.403108493	-0.962667743	-0.644097827	-247.6966081	-159.3246596	16-1	81
16	162	WL5	LinStatic	-0.232906456	-1.403108493	-0.962667743	-0.644097827	-169.7205208	-45.67287173	16-1	162
16	0	PL	LinStatic	-18.33586005	-0.01143085	0	0	0	-2.35456778	16-1	0
16	81	PL	LinStatic	-18.33586005	-0.01143085	0	0	0	-1.428668947	16-1	81
16	162	PL	LinStatic	-18.33586005	-0.01143085	0	0	0	-0.502770113	16-1	162
16	0	LL-1 Lane	LinStatic	-45.34816802	0.307783414	0	0	0	36.9910766	16-1	0
16	81	LL-1 Lane	LinStatic	-45.34816802	0.307783414	0	0	0	12.06062007	16-1	81
16	162	LL-1 Lane	LinStatic	-45.34816802	0.307783414	0	0	0	-12.86983646	16-1	162
16	0	LL-2 Lane	LinStatic	-72.34521979	0.432008896	0	0	0	51.49238149	16-1	0
16	81	LL-2 Lane	LinStatic	-72.34521979	0.432008896	0	0	0	16.49966093	16-1	81
16	162	LL-2 Lane	LinStatic	-72.34521979	0.432008896	0	0	0	-18.49305962	16-1	162
16	0	LL-3 Lane	LinStatic	-88.11814399	0.447659942	0	0	0	52.71443205	16-1	0
16	81	LL-3 Lane	LinStatic	-88.11814399	0.447659942	0	0	0	16.45397677	16-1	81
16	162	LL-3 Lane	LinStatic	-88.11814399	0.447659942	0	0	0	-19.80647851	16-1	162
16	0	LL-7 Lane	LinStatic	-127.7564597	0.062012864	0	0	0	1.642455732	16-1	0
16	81	LL-7 Lane	LinStatic	-127.7564597	0.062012864	0	0	0	-3.380586226	16-1	81
16	162	LL-7 Lane	LinStatic	-127.7564597	0.062012864	0	0	0	-8.403628185	16-1	162
16	0	CE-1 Lane	LinStatic	-0.81592735	-4.390187778	-1.48775924	-0.995423915	-503.3123472	-854.2640311	16-1	0
16	81	CE-1 Lane	LinStatic	-0.81592735	-4.390187778	-1.48775924	-0.995423915	-382.8038488	-498.658821	16-1	81
16	162	CE-1 Lane	LinStatic	-0.81592735	-4.390187778	-1.48775924	-0.995423915	-262.2953504	-143.0536109	16-1	162
16	0	CE-2 Lane	LinStatic	-1.354314649	-7.31705481	-2.494184608	-1.668798916	-843.7883468	-1423.785631	16-1	0
16	81	CE-2 Lane	LinStatic	-1.354314649	-7.31705481	-2.494184608	-1.668798916	-641.7593936	-831.1041911	16-1	81
16	162	CE-2 Lane	LinStatic	-1.354314649	-7.31705481	-2.494184608	-1.668798916	-439.7304403	-238.4227515	16-1	162
16	0	CE-3 Lane	LinStatic	-1.105702371	-9.341125316	-3.172427791	-2.122595113	-1073.239564	-1816.410493	16-1	0
16	81	CE-3 Lane	LinStatic	-1.105702371	-9.341125316	-3.172427791	-2.122595113	-816.2729129	-1059.779342	16-1	81
16	162	CE-3 Lane	LinStatic	-1.105702371	-9.341125316	-3.172427791	-2.122595113	-559.3062618	-303.1481913	16-1	162
16	0	CE-7 Lane	LinStatic	-3.093838866	-16.64600988	-5.644733587	-3.776755442	-1909.626259	-3239.070375	16-1	0
16	81	CE-7 Lane	LinStatic	-3.093838866	-16.64600988	-5.644733587	-3.776755442	-1452.402838	-1890.743575	16-1	81
16	162	CE-7 Lane	LinStatic	-3.093838866	-16.64600988	-5.644733587	-3.776755442	-995.1794176	-542.4167745	16-1	162
16	0	BR-1 Lane	LinStatic	-0.018857112	-1.490136699	-5.054005653	-3.381513594	-1709.78165	-289.5147359	16-1	0
16	81	BR-1 Lane	LinStatic	-0.018857112	-1.490136699	-5.054005653	-3.381513594	-1300.407192	-168.8136632	16-1	81
16	162	BR-1 Lane	LinStatic	-0.018857112	-1.490136699	-5.054005653	-3.381513594	-891.0327344	-48.11259055	16-1	162
16	0	BR-2 Lane	LinStatic	-0.031256309	-2.469952611	-8.401463943	-5.621217402	-2842.234431	-479.8805896	16-1	0

16	81	BR-2 Lane	LinStatic	-0.031256309	-2.46995261	-8.401463943	-5.621217402	-2161.715852	-279.814428	16-1	81
16	162	BR-2 Lane	LinStatic	-0.031256309	-2.46995261	-8.401463943	-5.621217402	-1481.197273	-79.74826652	16-1	162
16	0	BR-3 Lane	LinStatic	-0.040039073	-3.163988882	-10.72061805	-7.172907623	-3626.809561	-614.7230693	16-1	0
16	81	BR-3 Lane	LinStatic	-0.040039073	-3.163988882	-10.72061805	-7.172907623	-2758.439499	-358.4399698	16-1	81
16	162	BR-3 Lane	LinStatic	-0.040039073	-3.163988882	-10.72061805	-7.172907623	-1890.069437	-102.1568703	16-1	162
16	0	BR-7 Lane	LinStatic	-0.071295382	-5.633941494	-19.122082	-12.79412503	-6469.043993	-1094.603659	16-1	0
16	81	BR-7 Lane	LinStatic	-0.071295382	-5.633941494	-19.122082	-12.79412503	-4920.155351	-638.2543979	16-1	81
16	162	BR-7 Lane	LinStatic	-0.071295382	-5.633941494	-19.122082	-12.79412503	-3371.266709	-181.9051369	16-1	162
16	0	WSub3: 45deg	LinStatic	9.515633672	-0.159334581	0	0	0	-30.9247554	16-1	0
16	81	WSub3: 45deg	LinStatic	7.558133672	-0.159334581	0	0	0	-18.01865431	16-1	81
16	162	WSub3: 45deg	LinStatic	5.600633672	-0.159334581	0	0	0	-5.112553218	16-1	162
16	0	WSub3: 30deg	LinStatic	7.633460285	-0.17580867	0	0	0	-34.13814176	16-1	0
16	81	WSub3: 30deg	LinStatic	5.878460285	-0.17580867	0	0	0	-19.89763949	16-1	81
16	162	WSub3: 30deg	LinStatic	4.123460285	-0.17580867	0	0	0	-5.657137212	16-1	162
16	0	WSub3: 15deg	LinStatic	5.396436952	-0.178947592	0	0	0	-34.75892304	16-1	0
16	81	WSub3: 15deg	LinStatic	3.978936952	-0.178947592	0	0	0	-20.26416809	16-1	81
16	162	WSub3: 15deg	LinStatic	2.561436952	-0.178947592	0	0	0	-5.76941314	16-1	162
16	0	WSub3: 0deg	LinStatic	4.915840651	-0.170874648	0	0	0	-33.17527827	16-1	0
16	81	WSub3: 0deg	LinStatic	3.97084065	-0.170874648	0	0	0	-19.33443174	16-1	81
16	162	WSub3: 0deg	LinStatic	3.025840651	-0.170874648	0	0	0	-5.493585217	16-1	162
16	0	WSub3: -15deg	LinStatic	4.120578613	-0.151056512	0	0	0	-29.31230012	16-1	0
16	81	WSub3: -15deg	LinStatic	3.715578613	-0.151056512	0	0	0	-17.07672266	16-1	81
16	162	WSub3: -15deg	LinStatic	3.310578613	-0.151056512	0	0	0	-4.841145203	16-1	162
16	0	WSub3: -30deg	LinStatic	3.328010303	-0.121206231	0	0	0	-23.5005466	16-1	0
16	81	WSub3: -30deg	LinStatic	3.395510303	-0.121206231	0	0	0	-13.68284186	16-1	81
16	162	WSub3: -30deg	LinStatic	3.463010303	-0.121206231	0	0	0	-3.865137126	16-1	162
16	0	WSub3: -45deg	LinStatic	2.040787641	-0.084585804	0	0	0	-16.37808528	16-1	0
16	81	WSub3: -45deg	LinStatic	2.64828764	-0.084585804	0	0	0	-9.526635123	16-1	81
16	162	WSub3: -45deg	LinStatic	3.255787641	-0.084585804	0	0	0	-2.67518497	16-1	162
16	0	WA	LinStatic	7.495	4.22307E-18	0	0	0	-7.65074E-16	16-1	0
16	81	WA	LinStatic	5.47	4.22307E-18	0	0	0	-1.10714E-15	16-1	81
16	162	WA	LinStatic	3.445	4.22307E-18	0	0	0	-1.44921E-15	16-1	162
16	0	WS3: 45deg	Combination	29.43606277	-5.491102363	-3.084912542	-2.064040765	-1043.632955	-1077.861326	16-1	0
16	81	WS3: 45deg	Combination	27.47856277	-5.491102363	-3.084912542	-2.064040765	-793.7550394	-633.0820345	16-1	81
16	162	WS3: 45deg	Combination	25.52106277	-5.491102363	-3.084912542	-2.064040765	-543.8771236	-188.3027431	16-1	162
16	0	WS3: 30deg	Combination	27.55388938	-5.507576451	-3.084912542	-2.064040765	-1043.632955	-1081.074712	16-1	0
16	81	WS3: 30deg	Combination	25.79888938	-5.507576451	-3.084912542	-2.064040765	-793.7550394	-634.9610197	16-1	81
16	162	WS3: 30deg	Combination	24.04388938	-5.507576451	-3.084912542	-2.064040765	-543.8771236	-188.8473271	16-1	162
16	0	WS3: 15deg	Combination	25.31686605	-5.510715373	-3.084912542	-2.064040765	-1043.632955	-1081.695494	16-1	0
16	81	WS3: 15deg	Combination	23.89936605	-5.510715373	-3.084912542	-2.064040765	-793.7550394	-635.3275483	16-1	81
16	162	WS3: 15deg	Combination	22.48186605	-5.510715373	-3.084912542	-2.064040765	-543.8771236	-188.9596031	16-1	162
16	0	WS3: 0deg	Combination	24.83626975	-5.50264243	-3.084912542	-2.064040765	-1043.632955	-1080.111849	16-1	0

16	81	WS3: 0deg	Combination	23.89126975	-5.50264243	-3.084912542	-2.064040765	-793.7550394	-634.3978119	16-1	81
16	162	WS3: 0deg	Combination	22.94626975	-5.50264243	-3.084912542	-2.064040765	-543.8771236	-188.6837751	16-1	162
16	0	WS3: -15deg	Combination	24.04100771	-5.482824293	-3.084912542	-2.064040765	-1043.632955	-1076.248871	16-1	0
16	81	WS3: -15deg	Combination	23.63600771	-5.482824293	-3.084912542	-2.064040765	-793.7550394	-632.1401029	16-1	81
16	162	WS3: -15deg	Combination	23.23100771	-5.482824293	-3.084912542	-2.064040765	-543.8771236	-188.0313351	16-1	162
16	0	WS3: -30deg	Combination	23.2484394	-5.452974013	-3.084912542	-2.064040765	-1043.632955	-1070.437117	16-1	0
16	81	WS3: -30deg	Combination	23.3159394	-5.452974013	-3.084912542	-2.064040765	-793.7550394	-628.7462221	16-1	81
16	162	WS3: -30deg	Combination	23.3834394	-5.452974013	-3.084912542	-2.064040765	-543.8771236	-187.055327	16-1	162
16	0	WServ1: -45deg	Combination	8.601922578	-2.017600385	-1.14141764	-0.763695083	-386.1441935	-396.0617333	16-1	0
16	81	WServ1: -45deg	Combination	8.626897578	-2.017600385	-1.14141764	-0.763695083	-293.6893646	-232.6361022	16-1	81
16	162	WServ1: -45deg	Combination	8.651872578	-2.017600385	-1.14141764	-0.763695083	-201.2345357	-69.210471	16-1	162
16	0	WS5: 45deg	Combination	14.01414792	-4.060802036	-2.455765414	-1.643093558	-830.7910456	-794.6613293	16-1	0
16	81	WS5: 45deg	Combination	13.06671792	-4.060802036	-2.455765414	-1.643093558	-631.8740471	-465.7363643	16-1	81
16	162	WS5: 45deg	Combination	12.11928792	-4.060802036	-2.455765414	-1.643093558	-432.9570486	-136.8113994	16-1	162
16	0	WS5: 30deg	Combination	13.103176	-4.068775495	-2.455765414	-1.643093558	-830.7910456	-796.2166082	16-1	0
16	81	WS5: 30deg	Combination	12.253756	-4.068775495	-2.455765414	-1.643093558	-631.8740471	-466.6457932	16-1	81
16	162	WS5: 30deg	Combination	11.404336	-4.068775495	-2.455765414	-1.643093558	-432.9570486	-137.0749781	16-1	162
16	0	WS5: 15deg	Combination	12.02045671	-4.070294733	-2.455765414	-1.643093558	-830.7910456	-796.5170664	16-1	0
16	81	WS5: 15deg	Combination	11.33438671	-4.070294733	-2.455765414	-1.643093558	-631.8740471	-466.823193	16-1	81
16	162	WS5: 15deg	Combination	10.64831671	-4.070294733	-2.455765414	-1.643093558	-432.9570486	-137.1293196	16-1	162
16	0	WS5: 0deg	Combination	11.7878481	-4.066387429	-2.455765414	-1.643093558	-830.7910456	-795.7505823	16-1	0
16	81	WS5: 0deg	Combination	11.3304681	-4.066387429	-2.455765414	-1.643093558	-631.8740471	-466.3732006	16-1	81
16	162	WS5: 0deg	Combination	10.8730881	-4.066387429	-2.455765414	-1.643093558	-432.9570486	-136.9958189	16-1	162
16	0	WS5: -15deg	Combination	11.40294128	-4.05679545	-2.455765414	-1.643093558	-830.7910456	-793.8809009	16-1	0
16	81	WS5: -15deg	Combination	11.20692128	-4.05679545	-2.455765414	-1.643093558	-631.8740471	-465.2804694	16-1	81
16	162	WS5: -15deg	Combination	11.01090128	-4.05679545	-2.455765414	-1.643093558	-432.9570486	-136.6800379	16-1	162
16	0	WS5: -30deg	Combination	11.01933821	-4.042347915	-2.455765414	-1.643093558	-830.7910456	-791.0680122	16-1	0
16	81	WS5: -30deg	Combination	11.05200821	-4.042347915	-2.455765414	-1.643093558	-631.8740471	-463.6378311	16-1	81
16	162	WS5: -30deg	Combination	11.08467821	-4.042347915	-2.455765414	-1.643093558	-432.9570486	-136.20765	16-1	162
16	0	WS5: -45deg	Combination	10.39632245	-4.024623628	-2.455765414	-1.643093558	-830.7910456	-787.6207409	16-1	0
16	81	WS5: -45deg	Combination	10.69035245	-4.024623628	-2.455765414	-1.643093558	-631.8740471	-461.626227	16-1	81
16	162	WS5: -45deg	Combination	10.98438245	-4.024623628	-2.455765414	-1.643093558	-432.9570486	-135.6317132	16-1	162
16	0	LL - 1 Lane	Combination	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-2213.093997	-1109.142258	16-1	0
16	81	LL - 1 Lane	Combination	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-1683.211041	-656.8405331	16-1	81
16	162	LL - 1 Lane	Combination	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-1153.328085	-204.5388081	16-1	162
16	0	WS5 + WA	Combination	16.90358123	-3.983684099	-2.455765414	-1.643093558	-830.7910456	-779.6937476	16-1	0
16	81	WS5 + WA	Combination	14.87858123	-3.983684099	-2.455765414	-1.643093558	-631.8740471	-457.0153356	16-1	81
16	162	WS5 + WA	Combination	12.85358123	-3.983684099	-2.455765414	-1.643093558	-432.9570486	-134.3369236	16-1	162
16	0	LL - 2 Lane	Combination	-92.0666508	-9.366429375	-10.89564855	-7.290016319	-3686.022778	-1854.528407	16-1	0
16	81	LL - 2 Lane	Combination	-92.0666508	-9.366429375	-10.89564855	-7.290016319	-2803.475246	-1095.847627	16-1	81
16	162	LL - 2 Lane	Combination	-92.0666508	-9.366429375	-10.89564855	-7.290016319	-1920.927713	-337.1668477	16-1	162
16	0	LL - 3 Lane	Combination	-107.5997455	-12.06888511	-13.89304584	-9.295502736	-4700.049125	-2380.773698	16-1	0

16	81	LL - 3 Lane	Combination	-107.5997455	-12.06888511	-13.89304584	-9.295502736	-3574.712412	-1403.194004	16-1	81
16	162	LL - 3 Lane	Combination	-107.5997455	-12.06888511	-13.89304584	-9.295502736	-2449.375698	-425.6143103	16-1	162
16	0	LL - 7 Lane	Combination	-149.257454	-22.22936936	-24.76681558	-16.57088047	-8378.670251	-4334.386145	16-1	0
16	81	LL - 7 Lane	Combination	-149.257454	-22.22936936	-24.76681558	-16.57088047	-6372.558189	-2533.807228	16-1	81
16	162	LL - 7 Lane	Combination	-149.257454	-22.22936936	-24.76681558	-16.57088047	-4366.446127	-733.2283097	16-1	162
16	0	LL Envelope	Combination Max	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-2213.093997	-1109.142258	16-1	0
16	81	LL Envelope	Combination Max	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-1683.211041	-656.8405331	16-1	81
16	162	LL Envelope	Combination Max	-64.51881253	-5.583971914	-6.541764893	-4.376937509	-1153.328085	-204.5388081	16-1	162
16	0	LL Envelope	Combination Min	-149.257454	-22.22936936	-24.76681558	-16.57088047	-8378.670251	-4334.386145	16-1	0
16	81	LL Envelope	Combination Min	-149.257454	-22.22936936	-24.76681558	-16.57088047	-6372.558189	-2533.807228	16-1	81
16	162	LL Envelope	Combination Min	-149.257454	-22.22936936	-24.76681558	-16.57088047	-4366.446127	-733.2283097	16-1	162
16	0	WS3 & WA envelope	Combination Max	29.43606277	-2.017600385	-1.14141764	-0.763695083	-386.1441935	-396.0617333	16-1	0
16	81	WS3 & WA envelope	Combination Max	27.47856277	-2.017600385	-1.14141764	-0.763695083	-293.6893646	-232.6361022	16-1	81
16	162	WS3 & WA envelope	Combination Max	25.52106277	-2.017600385	-1.14141764	-0.763695083	-201.2345357	-69.210471	16-1	162
16	0	WS3 & WA envelope	Combination Min	8.601922578	-5.510715373	-3.084912542	-2.064040765	-1043.632955	-1081.695494	16-1	0
16	81	WS3 & WA envelope	Combination Min	8.626897578	-5.510715373	-3.084912542	-2.064040765	-793.7550394	-635.3275483	16-1	81
16	162	WS3 & WA envelope	Combination Min	8.651872578	-5.510715373	-3.084912542	-2.064040765	-543.8771236	-188.9596031	16-1	162
16	0	WS3 + WA	Combination	27.4154291	-5.331767781	-3.084912542	-2.064040765	-1043.632955	-1046.93657	16-1	0
16	81	WS3 + WA	Combination	25.3904291	-5.331767781	-3.084912542	-2.064040765	-793.7550394	-615.0633802	16-1	81
16	162	WS3 + WA	Combination	23.3654291	-5.331767781	-3.084912542	-2.064040765	-543.8771236	-183.1901899	16-1	162
16	0	WS5 & WA envelope	Combination Max	16.90358123	-3.983684099	-2.455765414	-1.643093558	-830.7910456	-779.6937476	16-1	0
16	81	WS5 & WA envelope	Combination Max	14.87858123	-3.983684099	-2.455765414	-1.643093558	-631.8740471	-457.0153356	16-1	81
16	162	WS5 & WA envelope	Combination Max	12.85358123	-3.983684099	-2.455765414	-1.643093558	-432.9570486	-134.3369236	16-1	162
16	0	WS5 & WA envelope	Combination Min	10.39632245	-4.070294733	-2.455765414	-1.643093558	-830.7910456	-796.5170664	16-1	0
16	81	WS5 & WA envelope	Combination Min	10.69035245	-4.070294733	-2.455765414	-1.643093558	-631.8740471	-466.823193	16-1	81
16	162	WS5 & WA envelope	Combination Min	10.64831671	-4.070294733	-2.455765414	-1.643093558	-432.9570486	-137.1293196	16-1	162
16	0	Strength 1 - Max	Combination Max	-788.9386028	-10.04743401	-11.44808856	-7.65964064	-3872.914496	-2000.177737	16-1	0
16	81	Strength 1 - Max	Combination Max	-775.0592899	-10.04743401	-11.44808856	-7.65964064	-2945.619322	-1186.335582	16-1	81
16	162	Strength 1 - Max	Combination Max	-761.1799771	-10.04743401	-11.44808856	-7.65964064	-2018.324148	-372.4934274	16-1	162
16	0	Strength 1 - Max	Combination Min	-937.2312254	-39.17687953	-43.34192727	-28.99904082	-14662.67294	-7644.35454	16-1	0
16	81	Strength 1 - Max	Combination Min	-923.3519125	-39.17687953	-43.34192727	-28.99904082	-11151.97683	-4471.027297	16-1	81
16	162	Strength 1 - Max	Combination Min	-909.4725997	-39.17687953	-43.34192727	-28.99904082	-7641.280722	-1297.700055	16-1	162
16	0	Strength 1 - Min	Combination Max	-573.7097555	-9.955435478	-11.44808856	-7.65964064	-3872.914496	-1980.546092	16-1	0
16	81	Strength 1 - Min	Combination Max	-564.2836503	-9.955435478	-11.44808856	-7.65964064	-2945.619322	-1174.155818	16-1	81
16	162	Strength 1 - Min	Combination Max	-554.8575451	-9.955435478	-11.44808856	-7.65964064	-2018.324148	-367.7655443	16-1	162
16	0	Strength 1 - Min	Combination Min	-722.0023781	-39.084881	-43.34192727	-28.99904082	-14662.67294	-7624.722895	16-1	0
16	81	Strength 1 - Min	Combination Min	-712.5762729	-39.084881	-43.34192727	-28.99904082	-11151.97683	-4458.847533	16-1	81
16	162	Strength 1 - Min	Combination Min	-703.1501677	-39.084881	-43.34192727	-28.99904082	-7641.280722	-1292.972172	16-1	162
16	0	Strength 3 - Max	Combination Max	-654.0896181	-2.293083543	-1.14141764	-0.763695083	-386.1441935	-455.2405183	16-1	0
16	81	Strength 3 - Max	Combination Max	-640.1428052	-2.293083543	-1.14141764	-0.763695083	-293.6893646	-269.5007513	16-1	81
16	162	Strength 3 - Max	Combination Max	-626.1959924	-2.293083543	-1.14141764	-0.763695083	-201.2345357	-83.76098425	16-1	162
16	0	Strength 3 - Max	Combination Min	-674.9237583	-5.786198532	-3.084912542	-2.064040765	-1043.632955	-1140.874279	16-1	0

16	81	Strength 3 - Max	Combination Min	-658.9944704	-5.786198532	-3.084912542	-2.064040765	-793.7550394	-672.1921974	16-1	81
16	162	Strength 3 - Max	Combination Min	-643.0651826	-5.786198532	-3.084912542	-2.064040765	-543.8771236	-203.5101163	16-1	162
16	0	Strength 3 - Min	Combination Max	-438.8607708	-2.201085013	-1.14141764	-0.763695083	-386.1441935	-435.6088734	16-1	0
16	81	Strength 3 - Min	Combination Max	-429.3671656	-2.201085013	-1.14141764	-0.763695083	-293.6893646	-257.3209873	16-1	81
16	162	Strength 3 - Min	Combination Max	-419.8735604	-2.201085013	-1.14141764	-0.763695083	-201.2345357	-79.03310124	16-1	162
16	0	Strength 3 - Min	Combination Min	-459.694911	-5.694200002	-3.084912542	-2.064040765	-1043.632955	-1121.242634	16-1	0
16	81	Strength 3 - Min	Combination Min	-448.2188308	-5.694200002	-3.084912542	-2.064040765	-793.7550394	-660.0124334	16-1	81
16	162	Strength 3 - Min	Combination Min	-436.7427506	-5.694200002	-3.084912542	-2.064040765	-543.8771236	-198.7822333	16-1	162
16	0	Strength 5 - Max	Combination Max	-753.7224965	-11.79752934	-11.28714802	-7.551959194	-3818.467942	-2336.214581	16-1	0
16	81	Strength 5 - Max	Combination Max	-739.8431837	-11.79752934	-11.28714802	-7.551959194	-2904.208953	-1380.614704	16-1	81
16	162	Strength 5 - Max	Combination Max	-725.9638709	-11.79752934	-11.28714802	-7.551959194	-1989.949963	-425.0148278	16-1	162
16	0	Strength 5 - Max	Combination Min	-874.6269213	-34.35542652	-35.89096645	-24.01378219	-12141.99588	-6707.117148	16-1	0
16	81	Strength 5 - Max	Combination Min	-858.4285785	-34.35542652	-35.89096645	-24.01378219	-9234.827602	-3924.327599	16-1	81
16	162	Strength 5 - Max	Combination Min	-842.5663014	-34.35542652	-35.89096645	-24.01378219	-6327.65932	-1141.538051	16-1	162
16	0	Strength 5 - Min	Combination Max	-538.4936493	-11.70553081	-11.28714802	-7.551959194	-3818.467942	-2316.582936	16-1	0
16	81	Strength 5 - Min	Combination Max	-529.0675441	-11.70553081	-11.28714802	-7.551959194	-2904.208953	-1368.43494	16-1	81
16	162	Strength 5 - Min	Combination Max	-519.6414388	-11.70553081	-11.28714802	-7.551959194	-1989.949963	-420.2869448	16-1	162
16	0	Strength 5 - Min	Combination Min	-659.3980741	-34.26342799	-35.89096645	-24.01378219	-12141.99588	-6687.485503	16-1	0
16	81	Strength 5 - Min	Combination Min	-647.6529389	-34.26342799	-35.89096645	-24.01378219	-9234.827602	-3912.147835	16-1	81
16	162	Strength 5 - Min	Combination Min	-636.2438694	-34.26342799	-35.89096645	-24.01378219	-6327.65932	-1136.810168	16-1	162
16	0	Service 1	Combination Max	-585.3846558	-7.770199382	-7.683182534	-5.140632592	-2599.238191	-1542.427824	16-1	0
16	81	Service 1	Combination Max	-574.6862056	-7.770199382	-7.683182534	-5.140632592	-1976.900406	-913.0416741	16-1	81
16	162	Service 1	Combination Max	-563.9877553	-7.770199382	-7.683182534	-5.140632592	-1354.56262	-283.6555241	16-1	162
16	0	Service 1	Combination Min	-676.3869335	-24.48180743	-25.90823322	-17.33457555	-8764.814445	-4780.532513	16-1	0
16	81	Service 1	Combination Min	-663.6385082	-24.48180743	-25.90823322	-17.33457555	-6666.247554	-2797.506111	16-1	81
16	162	Service 1	Combination Min	-651.2236651	-24.48180743	-25.90823322	-17.33457555	-4567.680663	-814.4797086	16-1	162
16	0	WServ1: 45deg	Combination	10.89134322	-2.031707874	-1.14141764	-0.763695083	-386.1441935	-398.8086906	16-1	0
16	81	WServ1: 45deg	Combination	10.16706822	-2.031707874	-1.14141764	-0.763695083	-293.6893646	-234.2403528	16-1	81
16	162	WServ1: 45deg	Combination	9.442793224	-2.031707874	-1.14141764	-0.763695083	-201.2345357	-69.67201496	16-1	162
16	0	WServ1: 30deg	Combination	10.19493907	-2.037803287	-1.14141764	-0.763695083	-386.1441935	-399.9976435	16-1	0
16	81	WServ1: 30deg	Combination	9.545589071	-2.037803287	-1.14141764	-0.763695083	-293.6893646	-234.9355773	16-1	81
16	162	WServ1: 30deg	Combination	8.896239071	-2.037803287	-1.14141764	-0.763695083	-201.2345357	-69.87351104	16-1	162
16	0	WServ1: 15deg	Combination	9.367240438	-2.038964688	-1.14141764	-0.763695083	-386.1441935	-400.2273326	16-1	0
16	81	WServ1: 15deg	Combination	8.842765438	-2.038964688	-1.14141764	-0.763695083	-293.6893646	-235.0711929	16-1	81
16	162	WServ1: 15deg	Combination	8.318290438	-2.038964688	-1.14141764	-0.763695083	-201.2345357	-69.91505313	16-1	162
16	0	WServ1: 0deg	Combination	9.189419807	-2.035977699	-1.14141764	-0.763695083	-386.1441935	-399.641384	16-1	0
16	81	WServ1: 0deg	Combination	8.839769807	-2.035977699	-1.14141764	-0.763695083	-293.6893646	-234.7271904	16-1	81
16	162	WServ1: 0deg	Combination	8.490119807	-2.035977699	-1.14141764	-0.763695083	-201.2345357	-69.8129968	16-1	162
16	0	WServ1: -15deg	Combination	8.895172853	-2.028644989	-1.14141764	-0.763695083	-386.1441935	-398.2120821	16-1	0
16	81	WServ1: -15deg	Combination	8.745322853	-2.028644989	-1.14141764	-0.763695083	-293.6893646	-233.8918381	16-1	81
16	162	WServ1: -15deg	Combination	8.595472853	-2.028644989	-1.14141764	-0.763695083	-201.2345357	-69.57159399	16-1	162
16	0	WServ1: -30deg	Combination	8.601922578	-2.017600385	-1.14141764	-0.763695083	-386.1441935	-396.0617333	16-1	0

16	81	WServ1: -30deg	Combination	8.626897578	-2.017600385	-1.14141764	-0.763695083	-293.6893646	-232.6361022	16-1	81
16	162	WServ1: -30deg	Combination	8.651872578	-2.017600385	-1.14141764	-0.763695083	-201.2345357	-69.210471	16-1	162
16	0	WServ1 + WA	Combination	14.86555877	-1.972754079	-1.14141764	-0.763695083	-386.1441935	-387.3665311	16-1	0
16	81	WServ1 + WA	Combination	12.84055877	-1.972754079	-1.14141764	-0.763695083	-293.6893646	-227.5734507	16-1	81
16	162	WServ1 + WA	Combination	10.81555877	-1.972754079	-1.14141764	-0.763695083	-201.2345357	-67.78037027	16-1	162
16	0	WServ1 & WA envelope	Combination Max	14.86555877	-1.972754079	-1.14141764	-0.763695083	-386.1441935	-387.3665311	16-1	0
16	81	WServ1 & WA envelope	Combination Max	12.84055877	-1.972754079	-1.14141764	-0.763695083	-293.6893646	-227.5734507	16-1	81
16	162	WServ1 & WA envelope	Combination Max	10.81555877	-1.972754079	-1.14141764	-0.763695083	-201.2345357	-67.78037027	16-1	162
16	0	WServ1 & WA envelope	Combination Min	8.601922578	-2.038964688	-1.14141764	-0.763695083	-386.1441935	-400.2273326	16-1	0
16	81	WServ1 & WA envelope	Combination Min	8.626897578	-2.038964688	-1.14141764	-0.763695083	-293.6893646	-235.0711929	16-1	81
16	162	WServ1 & WA envelope	Combination Min	8.318290438	-2.038964688	-1.14141764	-0.763695083	-201.2345357	-69.91505313	16-1	162
16	0	Strength Envelope	Combination Max	-438.8607708	-2.201085013	-1.14141764	-0.763695083	-386.1441935	-435.6088734	16-1	0
16	81	Strength Envelope	Combination Max	-429.3671656	-2.201085013	-1.14141764	-0.763695083	-293.6893646	-257.3209873	16-1	81
16	162	Strength Envelope	Combination Max	-419.8735604	-2.201085013	-1.14141764	-0.763695083	-201.2345357	-79.03310124	16-1	162
16	0	Strength Envelope	Combination Min	-937.2312254	-39.17687953	-43.34192727	-28.99904082	-14662.67294	-7644.35454	16-1	0
16	81	Strength Envelope	Combination Min	-923.3519125	-39.17687953	-43.34192727	-28.99904082	-11151.97683	-4471.027297	16-1	81
16	162	Strength Envelope	Combination Min	-909.4725997	-39.17687953	-43.34192727	-28.99904082	-7641.280722	-1297.700055	16-1	162
17	0	DEAD	LinStatic	-90.50551247	-0.011076806	0	0	0	-1.555767512	17-1	0
17	81	DEAD	LinStatic	-77.78206222	-0.011076806	0	0	0	-0.658546263	17-1	81
17	162	DEAD	LinStatic	-65.05861197	-0.011076806	0	0	0	0.238674986	17-1	162
17	0	R01_Z	LinStatic	0.001770451	0.003247216	0	0	0	0.631899872	17-1	0
17	81	R01_Z	LinStatic	0.001770451	0.003247216	0	0	0	0.36887538	17-1	81
17	162	R01_Z	LinStatic	0.001770451	0.003247216	0	0	0	0.105850889	17-1	162
17	0	R02_Z	LinStatic	-0.002446054	-0.001523647	0	0	0	-0.310074888	17-1	0
17	81	R02_Z	LinStatic	-0.002446054	-0.001523647	0	0	0	-0.186659516	17-1	81
17	162	R02_Z	LinStatic	-0.002446054	-0.001523647	0	0	0	-0.063244144	17-1	162
17	0	R03_Z	LinStatic	-0.01588208	0.000134422	0	0	0	-0.003449183	17-1	0
17	81	R03_Z	LinStatic	-0.01588208	0.000134422	0	0	0	-0.014337366	17-1	81
17	162	R03_Z	LinStatic	-0.01588208	0.000134422	0	0	0	-0.025225549	17-1	162
17	0	R04_Z	LinStatic	-0.049218151	-0.000205625	0	0	0	-0.081498469	17-1	0
17	81	R04_Z	LinStatic	-0.049218151	-0.000205625	0	0	0	-0.064842873	17-1	81
17	162	R04_Z	LinStatic	-0.049218151	-0.000205625	0	0	0	-0.048187276	17-1	162
17	0	R05_Z	LinStatic	-0.011501358	-0.000807931	0	0	0	-0.055105257	17-1	0
17	81	R05_Z	LinStatic	-0.011501358	-0.000807931	0	0	0	0.010337119	17-1	81
17	162	R05_Z	LinStatic	-0.011501358	-0.000807931	0	0	0	0.075779495	17-1	162
17	0	R06_Z	LinStatic	0.270775226	-0.011607339	0	0	0	-1.563467203	17-1	0
17	81	R06_Z	LinStatic	0.270775226	-0.011607339	0	0	0	-0.62327272	17-1	81
17	162	R06_Z	LinStatic	0.270775226	-0.011607339	0	0	0	0.316921763	17-1	162
17	0	R07_Z	LinStatic	0.709370684	-0.015426734	0	0	0	-1.976887234	17-1	0
17	81	R07_Z	LinStatic	0.709370684	-0.015426734	0	0	0	-0.727321805	17-1	81
17	162	R07_Z	LinStatic	0.709370684	-0.015426734	0	0	0	0.522243623	17-1	162
17	0	R08_Z	LinStatic	0.833358281	0.008525697	0	0	0	1.069464949	17-1	0

17	81	R08_Z	LinStatic	0.833358281	0.008525697	0	0	0	0.378883532	17-1	81
17	162	R08_Z	LinStatic	0.833358281	0.008525697	0	0	0	-0.311697885	17-1	162
17	0	R09_Z	LinStatic	0.467158596	0.015886309	0	0	0	2.105482419	17-1	0
17	81	R09_Z	LinStatic	0.467158596	0.015886309	0	0	0	0.81869137	17-1	81
17	162	R09_Z	LinStatic	0.467158596	0.015886309	0	0	0	-0.468099678	17-1	162
17	0	R10_Z	LinStatic	0.063145324	0.00470649	0	0	0	0.643902212	17-1	0
17	81	R10_Z	LinStatic	0.063145324	0.00470649	0	0	0	0.262676533	17-1	81
17	162	R10_Z	LinStatic	0.063145324	0.00470649	0	0	0	-0.118549147	17-1	162
17	0	R11_Z	LinStatic	-0.055252199	0.001353754	0	0	0	0.276219051	17-1	0
17	81	R11_Z	LinStatic	-0.055252199	0.001353754	0	0	0	0.166564957	17-1	81
17	162	R11_Z	LinStatic	-0.055252199	0.001353754	0	0	0	0.056910863	17-1	162
17	0	R12_Z	LinStatic	-0.026297604	-0.00161813	0	0	0	-0.276968247	17-1	0
17	81	R12_Z	LinStatic	-0.026297604	-0.00161813	0	0	0	-0.145899725	17-1	81
17	162	R12_Z	LinStatic	-0.026297604	-0.00161813	0	0	0	-0.014831202	17-1	162
17	0	R_X	LinStatic	-0.026073079	2.040052599	0	0	0	396.3998117	17-1	0
17	81	R_X	LinStatic	-0.026073079	2.040052599	0	0	0	231.1555512	17-1	81
17	162	R_X	LinStatic	-0.026073079	2.040052599	0	0	0	65.91129065	17-1	162
17	0	R_Y	LinStatic	0	0	2.171756766	-4.939930749	734.5969789	0	17-1	0
17	81	R_Y	LinStatic	0	0	2.171756766	-4.939930749	558.6846809	0	17-1	81
17	162	R_Y	LinStatic	0	0	2.171756766	-4.939930749	382.7723828	0	17-1	162
17	0	Cap_R_X	LinStatic	-0.000586443	0.169672212	0	0	0	32.95902305	17-1	0
17	81	Cap_R_X	LinStatic	-0.000586443	0.169672212	0	0	0	19.21557389	17-1	81
17	162	Cap_R_X	LinStatic	-0.000586443	0.169672212	0	0	0	5.472124733	17-1	162
17	0	Cap_w_Y	LinStatic	-17.98917514	-0.004102521	0	0	0	-0.57621019	17-1	0
17	81	Cap_w_Y	LinStatic	-17.98917514	-0.004102521	0	0	0	-0.243906023	17-1	81
17	162	Cap_w_Y	LinStatic	-17.98917514	-0.004102521	0	0	0	0.088398143	17-1	162
17	0	Cap_w_Z	LinStatic	-17.98917514	-0.004102521	0	0	0	-0.57621019	17-1	0
17	81	Cap_w_Z	LinStatic	-17.98917514	-0.004102521	0	0	0	-0.243906023	17-1	81
17	162	Cap_w_Z	LinStatic	-17.98917514	-0.004102521	0	0	0	0.088398143	17-1	162
17	0	Col_w_X	LinStatic	-13.25	2.77473E-16	0	0	0	3.99118E-14	17-1	0
17	81	Col_w_X	LinStatic	-13.25	2.77473E-16	0	0	0	1.74365E-14	17-1	81
17	162	Col_w_X	LinStatic	-13.25	2.77473E-16	0	0	0	-5.03876E-15	17-1	162
17	0	Col_w_Y	LinStatic	-13.25	2.77473E-16	0	0	0	3.99118E-14	17-1	0
17	81	Col_w_Y	LinStatic	-13.25	2.77473E-16	0	0	0	1.74365E-14	17-1	81
17	162	Col_w_Y	LinStatic	-13.25	2.77473E-16	0	0	0	-5.03876E-15	17-1	162
17	0	Cais_w_X	LinStatic	-13.5	1.0358E-16	0	0	0	1.46165E-14	17-1	0
17	81	Cais_w_X	LinStatic	-6.75	1.0358E-16	0	0	0	6.22658E-15	17-1	81
17	162	Cais_w_X	LinStatic	1.40166E-15	1.0358E-16	0	0	0	-2.16337E-15	17-1	162
17	0	Cais_w_Y	LinStatic	-13.5	1.0358E-16	0	0	0	1.46165E-14	17-1	0
17	81	Cais_w_Y	LinStatic	-6.75	1.0358E-16	0	0	0	6.22658E-15	17-1	81
17	162	Cais_w_Y	LinStatic	1.40166E-15	1.0358E-16	0	0	0	-2.16337E-15	17-1	162
17	0	DC	LinStatic	-388.9524698	-0.443004249	0	0	0	-75.00474441	17-1	0

17	81	DC	LinStatic	-388.9524698	-0.443004249	0	0	0	-39.12140026	17-1	81
17	162	DC	LinStatic	-388.9524698	-0.443004249	0	0	0	-3.238056103	17-1	162
17	0	DW	LinStatic	-55.30187204	-0.067438068	0	0	0	-11.63040112	17-1	0
17	81	DW	LinStatic	-55.30187204	-0.067438068	0	0	0	-6.167917586	17-1	81
17	162	DW	LinStatic	-55.30187204	-0.067438068	0	0	0	-0.705434056	17-1	162
17	0	WS3	LinStatic	34.59041914	-5.310576803	-3.062177041	6.965302356	-1035.78174	-1043.936655	17-1	0
17	81	WS3	LinStatic	34.59041914	-5.310576803	-3.062177041	6.965302356	-787.7454	-613.779934	17-1	81
17	162	WS3	LinStatic	34.59041914	-5.310576803	-3.062177041	6.965302356	-539.7090597	-183.6232129	17-1	162
17	0	WL5	LinStatic	0.284202726	-1.402185122	-0.955572977	2.17356953	-323.2226707	-272.8305826	17-1	0
17	81	WL5	LinStatic	0.284202726	-1.402185122	-0.955572977	2.17356953	-245.8212596	-159.2535877	17-1	81
17	162	WL5	LinStatic	0.284202726	-1.402185122	-0.955572977	2.17356953	-168.4198484	-45.67659282	17-1	162
17	0	PL	LinStatic	-18.28829194	-0.022301724	0	0	0	-3.846165837	17-1	0
17	81	PL	LinStatic	-18.28829194	-0.022301724	0	0	0	-2.039726203	17-1	81
17	162	PL	LinStatic	-18.28829194	-0.022301724	0	0	0	-0.233286569	17-1	162
17	0	LL-1 Lane	LinStatic	-15.92175596	0.293241307	0	0	0	35.03370681	17-1	0
17	81	LL-1 Lane	LinStatic	-15.92175596	0.293241307	0	0	0	11.28116096	17-1	81
17	162	LL-1 Lane	LinStatic	-15.92175596	0.293241307	0	0	0	-12.47138489	17-1	162
17	0	LL-2 Lane	LinStatic	-30.54085773	0.406623949	0	0	0	48.06333328	17-1	0
17	81	LL-2 Lane	LinStatic	-30.54085773	0.406623949	0	0	0	15.12679342	17-1	81
17	162	LL-2 Lane	LinStatic	-30.54085773	0.406623949	0	0	0	-17.80974644	17-1	162
17	0	LL-3 Lane	LinStatic	-44.04514766	0.413849696	0	0	0	48.13228699	17-1	0
17	81	LL-3 Lane	LinStatic	-44.04514766	0.413849696	0	0	0	14.61046164	17-1	81
17	162	LL-3 Lane	LinStatic	-44.04514766	0.413849696	0	0	0	-18.9113637	17-1	162
17	0	LL-7 Lane	LinStatic	-115.069372	-0.008552488	0	0	0	-8.023699792	17-1	0
17	81	LL-7 Lane	LinStatic	-115.069372	-0.008552488	0	0	0	-7.330948246	17-1	81
17	162	LL-7 Lane	LinStatic	-115.069372	-0.008552488	0	0	0	-6.638196701	17-1	162
17	0	CE-1 Lane	LinStatic	0.997032363	-4.387287721	-1.476794601	3.359152909	-499.5259457	-853.8057246	17-1	0
17	81	CE-1 Lane	LinStatic	0.997032363	-4.387287721	-1.476794601	3.359152909	-379.905583	-498.4354192	17-1	81
17	162	CE-1 Lane	LinStatic	0.997032363	-4.387287721	-1.476794601	3.359152909	-260.2852203	-143.0651139	17-1	162
17	0	CE-2 Lane	LinStatic	1.655525737	-7.312148396	-2.475802714	5.631521054	-837.440556	-1423.01224	17-1	0
17	81	CE-2 Lane	LinStatic	1.655525737	-7.312148396	-2.475802714	5.631521054	-636.9005362	-830.7282202	17-1	81
17	162	CE-2 Lane	LinStatic	1.655525737	-7.312148396	-2.475802714	5.631521054	-436.3605164	-238.4442001	17-1	162
17	0	CE-3 Lane	LinStatic	2.279804016	-9.310110226	-3.149047311	7.162899586	-1065.165619	-1812.17834	17-1	0
17	81	CE-3 Lane	LinStatic	2.279804016	-9.310110226	-3.149047311	7.162899586	-810.0927873	-1058.059411	17-1	81
17	162	CE-3 Lane	LinStatic	2.279804016	-9.310110226	-3.149047311	7.162899586	-555.019955	-303.940483	17-1	162
17	0	CE-7 Lane	LinStatic	3.781064036	-16.63493643	-5.603132457	12.74502133	-1895.260206	-3237.322516	17-1	0
17	81	CE-7 Lane	LinStatic	3.781064036	-16.63493643	-5.603132457	12.74502133	-1441.406477	-1889.892665	17-1	81
17	162	CE-7 Lane	LinStatic	3.781064036	-16.63493643	-5.603132457	12.74502133	-987.5527476	-542.462814	17-1	162
17	0	BR-1 Lane	LinStatic	0.019033347	-1.489238397	-5.01675813	11.41124003	-1696.919021	-289.3718626	17-1	0
17	81	BR-1 Lane	LinStatic	0.019033347	-1.489238397	-5.01675813	11.41124003	-1290.561613	-168.7435524	17-1	81
17	162	BR-1 Lane	LinStatic	0.019033347	-1.489238397	-5.01675813	11.41124003	-884.2042042	-48.11524218	17-1	162
17	0	BR-2 Lane	LinStatic	0.031548425	-2.468463645	-8.339545983	18.96933408	-2820.852399	-479.6437722	17-1	0

17	81	BR-2 Lane	LinStatic	0.031548425	-2.468463645	-8.339545983	18.96933408	-2145.349175	-279.6982169	17-1	81
17	162	BR-2 Lane	LinStatic	0.031548425	-2.468463645	-8.339545983	18.96933408	-1469.84595	-79.75266169	17-1	162
17	0	BR-3 Lane	LinStatic	0.040413272	-3.162081529	-10.64160816	24.20566067	-3599.525197	-614.4197082	17-1	0
17	81	BR-3 Lane	LinStatic	0.040413272	-3.162081529	-10.64160816	24.20566067	-2737.554936	-358.2911044	17-1	81
17	162	BR-3 Lane	LinStatic	0.040413272	-3.162081529	-10.64160816	24.20566067	-1875.584676	-102.1625005	17-1	162
17	0	BR-7 Lane	LinStatic	0.071961697	-5.630545174	-18.98115414	43.17499475	-6420.377596	-1094.06348	17-1	0
17	81	BR-7 Lane	LinStatic	0.071961697	-5.630545174	-18.98115414	43.17499475	-4882.904111	-637.9893213	17-1	81
17	162	BR-7 Lane	LinStatic	0.071961697	-5.630545174	-18.98115414	43.17499475	-3345.430626	-181.9151622	17-1	162
17	0	WSub3: 45deg	LinStatic	9.519258137	-0.160696299	0	0	0	-31.24192668	17-1	0
17	81	WSub3: 45deg	LinStatic	7.561758137	-0.160696299	0	0	0	-18.22552647	17-1	81
17	162	WSub3: 45deg	LinStatic	5.604258137	-0.160696299	0	0	0	-5.209126273	17-1	162
17	0	WSub3: 30deg	LinStatic	7.637466274	-0.177909671	0	0	0	-34.57240159	17-1	0
17	81	WSub3: 30deg	LinStatic	5.882466274	-0.177909671	0	0	0	-20.16171822	17-1	81
17	162	WSub3: 30deg	LinStatic	4.127466274	-0.177909671	0	0	0	-5.751034858	17-1	162
17	0	WSub3: 15deg	LinStatic	5.400519246	-0.181508241	0	0	0	-35.26039256	17-1	0
17	81	WSub3: 15deg	LinStatic	3.983019246	-0.181508241	0	0	0	-20.558225	17-1	81
17	162	WSub3: 15deg	LinStatic	2.565519246	-0.181508241	0	0	0	-5.856057445	17-1	162
17	0	WSub3: 0deg	LinStatic	4.919732183	-0.172737454	0	0	0	-33.5721067	17-1	0
17	81	WSub3: 0deg	LinStatic	3.974732183	-0.172737454	0	0	0	-19.58037289	17-1	81
17	162	WSub3: 0deg	LinStatic	3.029732183	-0.172737454	0	0	0	-5.588639079	17-1	162
17	0	WSub3: -15deg	LinStatic	4.124012318	-0.152130638	0	0	0	-29.58245132	17-1	0
17	81	WSub3: -15deg	LinStatic	3.719012318	-0.152130638	0	0	0	-17.25986966	17-1	81
17	162	WSub3: -15deg	LinStatic	3.314012318	-0.152130638	0	0	0	-4.937288	17-1	162
17	0	WSub3: -30deg	LinStatic	3.330757266	-0.121343488	0	0	0	-23.61525456	17-1	0
17	81	WSub3: -30deg	LinStatic	3.398257266	-0.121343488	0	0	0	-13.786432	17-1	81
17	162	WSub3: -30deg	LinStatic	3.465757266	-0.121343488	0	0	0	-3.957609436	17-1	162
17	0	WSub3: -45deg	LinStatic	2.042695254	-0.083851501	0	0	0	-16.34122108	17-1	0
17	81	WSub3: -45deg	LinStatic	2.650195254	-0.083851501	0	0	0	-9.5492495	17-1	81
17	162	WSub3: -45deg	LinStatic	3.257695254	-0.083851501	0	0	0	-2.757277921	17-1	162
17	0	WA	LinStatic	7.495	-1.06157E-16	0	0	0	-1.52534E-14	17-1	0
17	81	WA	LinStatic	5.47	-1.06157E-16	0	0	0	-6.65465E-15	17-1	81
17	162	WA	LinStatic	3.445	-1.06157E-16	0	0	0	1.94407E-15	17-1	162
17	0	WS3: 45deg	Combination	44.10967728	-5.471273102	-3.062177041	6.965302356	-1035.78174	-1075.178582	17-1	0
17	81	WS3: 45deg	Combination	42.15217728	-5.471273102	-3.062177041	6.965302356	-787.7454	-632.0054604	17-1	81
17	162	WS3: 45deg	Combination	40.19467728	-5.471273102	-3.062177041	6.965302356	-539.7090597	-188.8323392	17-1	162
17	0	WS3: 30deg	Combination	42.22788542	-5.488486474	-3.062177041	6.965302356	-1035.78174	-1078.509057	17-1	0
17	81	WS3: 30deg	Combination	40.47288542	-5.488486474	-3.062177041	6.965302356	-787.7454	-633.9416522	17-1	81
17	162	WS3: 30deg	Combination	38.71788542	-5.488486474	-3.062177041	6.965302356	-539.7090597	-189.3742478	17-1	162
17	0	WS3: 15deg	Combination	39.99093839	-5.492085044	-3.062177041	6.965302356	-1035.78174	-1079.197048	17-1	0
17	81	WS3: 15deg	Combination	38.57343839	-5.492085044	-3.062177041	6.965302356	-787.7454	-634.338159	17-1	81
17	162	WS3: 15deg	Combination	37.15593839	-5.492085044	-3.062177041	6.965302356	-539.7090597	-189.4792704	17-1	162
17	0	WS3: 0deg	Combination	39.51015133	-5.483314257	-3.062177041	6.965302356	-1035.78174	-1077.508762	17-1	0

17	81	WS3: 0deg	Combination	38.56515133	-5.483314257	-3.062177041	6.965302356	-787.7454	-633.3603068	17-1	81
17	162	WS3: 0deg	Combination	37.62015133	-5.483314257	-3.062177041	6.965302356	-539.7090597	-189.211852	17-1	162
17	0	WS3: -15deg	Combination	38.71443146	-5.462707441	-3.062177041	6.965302356	-1035.78174	-1073.519106	17-1	0
17	81	WS3: -15deg	Combination	38.30943146	-5.462707441	-3.062177041	6.965302356	-787.7454	-631.0398036	17-1	81
17	162	WS3: -15deg	Combination	37.90443146	-5.462707441	-3.062177041	6.965302356	-539.7090597	-188.5605009	17-1	162
17	0	WS3: -30deg	Combination	37.92117641	-5.431920291	-3.062177041	6.965302356	-1035.78174	-1067.55191	17-1	0
17	81	WS3: -30deg	Combination	37.98867641	-5.431920291	-3.062177041	6.965302356	-787.7454	-627.566366	17-1	81
17	162	WS3: -30deg	Combination	38.05617641	-5.431920291	-3.062177041	6.965302356	-539.7090597	-187.5808224	17-1	162
17	0	WServ1: -45deg	Combination	14.03083527	-2.009810508	-1.133005505	2.577161872	-383.2392439	-394.9942065	17-1	0
17	81	WServ1: -45deg	Combination	14.05581027	-2.009810508	-1.133005505	2.577161872	-291.465798	-232.1995554	17-1	81
17	162	WServ1: -45deg	Combination	14.08078527	-2.009810508	-1.133005505	2.577161872	-199.6923521	-69.40490427	17-1	162
17	0	WS5: 45deg	Combination	21.63328653	-4.050281303	-2.437666665	5.54477587	-824.541033	-793.2170161	17-1	0
17	81	WS5: 45deg	Combination	20.68585653	-4.050281303	-2.437666665	5.54477587	-627.0900332	-465.1442305	17-1	81
17	162	WS5: 45deg	Combination	19.73842653	-4.050281303	-2.437666665	5.54477587	-429.6390333	-137.071445	17-1	162
17	0	WS5: 30deg	Combination	20.72249927	-4.058612575	-2.437666665	5.54477587	-824.541033	-794.8289659	17-1	0
17	81	WS5: 30deg	Combination	19.87307927	-4.058612575	-2.437666665	5.54477587	-627.0900332	-466.0813473	17-1	81
17	162	WS5: 30deg	Combination	19.02365927	-4.058612575	-2.437666665	5.54477587	-429.6390333	-137.3337287	17-1	162
17	0	WS5: 15deg	Combination	19.63981691	-4.060354283	-2.437666665	5.54477587	-824.541033	-795.1619536	17-1	0
17	81	WS5: 15deg	Combination	18.95374691	-4.060354283	-2.437666665	5.54477587	-627.0900332	-466.2732566	17-1	81
17	162	WS5: 15deg	Combination	18.26767691	-4.060354283	-2.437666665	5.54477587	-429.6390333	-137.3845597	17-1	162
17	0	WS5: 0deg	Combination	19.40711597	-4.056109222	-2.437666665	5.54477587	-824.541033	-794.3448232	17-1	0
17	81	WS5: 0deg	Combination	18.94973597	-4.056109222	-2.437666665	5.54477587	-627.0900332	-465.7999762	17-1	81
17	162	WS5: 0deg	Combination	18.49235597	-4.056109222	-2.437666665	5.54477587	-429.6390333	-137.2551292	17-1	162
17	0	WS5: -15deg	Combination	19.02198755	-4.046135523	-2.437666665	5.54477587	-824.541033	-792.41383	17-1	0
17	81	WS5: -15deg	Combination	18.82596755	-4.046135523	-2.437666665	5.54477587	-627.0900332	-464.6768526	17-1	81
17	162	WS5: -15deg	Combination	18.62994755	-4.046135523	-2.437666665	5.54477587	-429.6390333	-136.9398753	17-1	162
17	0	WS5: -30deg	Combination	18.63805211	-4.031234543	-2.437666665	5.54477587	-824.541033	-789.5257068	17-1	0
17	81	WS5: -30deg	Combination	18.67072211	-4.031234543	-2.437666665	5.54477587	-627.0900332	-462.9957088	17-1	81
17	162	WS5: -30deg	Combination	18.70339211	-4.031234543	-2.437666665	5.54477587	-429.6390333	-136.4657108	17-1	162
17	0	WS5: -45deg	Combination	18.01463009	-4.013088421	-2.437666665	5.54477587	-824.541033	-786.0050746	17-1	0
17	81	WS5: -45deg	Combination	18.30866009	-4.013088421	-2.437666665	5.54477587	-627.0900332	-460.9449125	17-1	81
17	162	WS5: -45deg	Combination	18.60269009	-4.013088421	-2.437666665	5.54477587	-429.6390333	-135.8847504	17-1	162
17	0	LL - 1 Lane	Combination	-33.19398219	-5.605586535	-6.493552732	14.77039294	-2196.444967	-1111.990046	17-1	0
17	81	LL - 1 Lane	Combination	-33.19398219	-5.605586535	-6.493552732	14.77039294	-1670.467196	-657.9375369	17-1	81
17	162	LL - 1 Lane	Combination	-33.19398219	-5.605586535	-6.493552732	14.77039294	-1144.489425	-203.8850275	17-1	162
17	0	WS5 + WA	Combination	24.52096559	-3.972504294	-2.437666665	5.54477587	-824.541033	-778.0959236	17-1	0
17	81	WS5 + WA	Combination	22.49596559	-3.972504294	-2.437666665	5.54477587	-627.0900332	-456.3230757	17-1	81
17	162	WS5 + WA	Combination	20.47096559	-3.972504294	-2.437666665	5.54477587	-429.6390333	-134.5502279	17-1	162
17	0	LL - 2 Lane	Combination	-47.1420755	-9.396289816	-10.8153487	24.60085513	-3658.292955	-1858.438845	17-1	0
17	81	LL - 2 Lane	Combination	-47.1420755	-9.396289816	-10.8153487	24.60085513	-2782.249711	-1097.33937	17-1	81
17	162	LL - 2 Lane	Combination	-47.1420755	-9.396289816	-10.8153487	24.60085513	-1906.206466	-336.2398948	17-1	162
17	0	LL - 3 Lane	Combination	-60.01322231	-12.08064378	-13.79065547	31.36856026	-4664.690816	-2382.311927	17-1	0

17	81	LL - 3 Lane	Combination	-60.01322231	-12.08064378	-13.79065547	31.36856026	-3547.647723	-1403.77978	17-1		81
17	162	LL - 3 Lane	Combination	-60.01322231	-12.08064378	-13.79065547	31.36856026	-2430.604631	-425.2476338	17-1		162
17	0	LL - 7 Lane	Combination	-129.5046382	-22.29633582	-24.5842866	55.92001608	-8315.637802	-4343.255862	17-1		0
17	81	LL - 7 Lane	Combination	-129.5046382	-22.29633582	-24.5842866	55.92001608	-6324.310587	-2537.252661	17-1		81
17	162	LL - 7 Lane	Combination	-129.5046382	-22.29633582	-24.5842866	55.92001608	-4332.983373	-731.2494595	17-1		162
17	0	LL Envelope	Combination Max	-33.19398219	-5.605586535	-6.493552732	55.92001608	-2196.444967	-1111.990046	17-1		0
17	81	LL Envelope	Combination Max	-33.19398219	-5.605586535	-6.493552732	55.92001608	-1670.467196	-657.9375369	17-1		81
17	162	LL Envelope	Combination Max	-33.19398219	-5.605586535	-6.493552732	55.92001608	-1144.489425	-203.8850275	17-1		162
17	0	LL Envelope	Combination Min	-129.5046382	-22.29633582	-24.5842866	14.77039294	-8315.637802	-4343.255862	17-1		0
17	81	LL Envelope	Combination Min	-129.5046382	-22.29633582	-24.5842866	14.77039294	-6324.310587	-2537.252661	17-1		81
17	162	LL Envelope	Combination Min	-129.5046382	-22.29633582	-24.5842866	14.77039294	-4332.983373	-731.2494595	17-1		162
17	0	WS3 & WA envelope	Combination Max	44.10967728	-2.009810508	-1.133005505	6.965302356	-383.2392439	-394.9942065	17-1		0
17	81	WS3 & WA envelope	Combination Max	42.15217728	-2.009810508	-1.133005505	6.965302356	-291.465798	-232.1995554	17-1		81
17	162	WS3 & WA envelope	Combination Max	40.19467728	-2.009810508	-1.133005505	6.965302356	-199.6923521	-69.40490427	17-1		162
17	0	WS3 & WA envelope	Combination Min	14.03083527	-5.492085044	-3.062177041	2.577161872	-1035.78174	-1079.197048	17-1		0
17	81	WS3 & WA envelope	Combination Min	14.05581027	-5.492085044	-3.062177041	2.577161872	-787.7454	-634.338159	17-1		81
17	162	WS3 & WA envelope	Combination Min	14.08078527	-5.492085044	-3.062177041	2.577161872	-539.7090597	-189.4792704	17-1		162
17	0	WS3 + WA	Combination	42.08541914	-5.310576803	-3.062177041	6.965302356	-1035.78174	-1043.936655	17-1		0
17	81	WS3 + WA	Combination	40.06041914	-5.310576803	-3.062177041	6.965302356	-787.7454	-613.779934	17-1		81
17	162	WS3 + WA	Combination	38.03541914	-5.310576803	-3.062177041	6.965302356	-539.7090597	-183.6232129	17-1		162
17	0	WS5 & WA envelope	Combination Max	24.52096559	-3.972504294	-2.437666665	5.54477587	-824.541033	-778.0959236	17-1		0
17	81	WS5 & WA envelope	Combination Max	22.49596559	-3.972504294	-2.437666665	5.54477587	-627.0900332	-456.3230757	17-1		81
17	162	WS5 & WA envelope	Combination Max	20.47096559	-3.972504294	-2.437666665	5.54477587	-429.6390333	-134.5502279	17-1		162
17	0	WS5 & WA envelope	Combination Min	18.01463009	-4.060354283	-2.437666665	5.54477587	-824.541033	-795.1619536	17-1		0
17	81	WS5 & WA envelope	Combination Min	18.30866009	-4.060354283	-2.437666665	5.54477587	-627.0900332	-466.2732566	17-1		81
17	162	WS5 & WA envelope	Combination Min	18.26767691	-4.060354283	-2.437666665	5.54477587	-429.6390333	-137.3845597	17-1		162
17	0	Strength 1 - Max	Combination Max	-732.8697547	-10.47853486	-11.36371728	97.86002814	-3843.778692	-2059.128822	17-1		0
17	81	Strength 1 - Max	Combination Max	-718.9904419	-10.47853486	-11.36371728	97.86002814	-2923.317593	-1210.367499	17-1		81
17	162	Strength 1 - Max	Combination Max	-705.1111291	-10.47853486	-11.36371728	97.86002814	-2002.856493	-361.6061756	17-1		162
17	0	Strength 1 - Max	Combination Min	-901.4134026	-39.6873461	-43.02250154	25.84818764	-14552.36615	-7713.844001	17-1		0
17	81	Strength 1 - Max	Combination Min	-887.5340898	-39.6873461	-43.02250154	25.84818764	-11067.54353	-4499.168966	17-1		81
17	162	Strength 1 - Max	Combination Min	-873.654777	-39.6873461	-43.02250154	25.84818764	-7582.720903	-1284.493932	17-1		162
17	0	Strength 1 - Min	Combination Max	-518.0528697	-10.26228413	-11.36371728	97.86002814	-3843.778692	-2022.446802	17-1		0
17	81	Strength 1 - Min	Combination Max	-508.6267644	-10.26228413	-11.36371728	97.86002814	-2923.317593	-1191.201788	17-1		81
17	162	Strength 1 - Min	Combination Max	-499.2006592	-10.26228413	-11.36371728	97.86002814	-2002.856493	-359.9567732	17-1		162
17	0	Strength 1 - Min	Combination Min	-686.5965176	-39.47109538	-43.02250154	25.84818764	-14552.36615	-7677.161981	17-1		0
17	81	Strength 1 - Min	Combination Min	-677.1704124	-39.47109538	-43.02250154	25.84818764	-11067.54353	-4480.003255	17-1		81
17	162	Strength 1 - Min	Combination Min	-667.7443072	-39.47109538	-43.02250154	25.84818764	-7582.720903	-1282.844529	17-1		162
17	0	Strength 3 - Max	Combination Max	-638.1656086	-2.678568928	-1.133005505	6.965302356	-383.2392439	-508.1404481	17-1		0
17	81	Strength 3 - Max	Combination Max	-624.2187957	-2.678568928	-1.133005505	6.965302356	-291.465798	-291.1763649	17-1		81
17	162	Strength 3 - Max	Combination Max	-610.2719829	-2.678568928	-1.133005505	6.965302356	-199.6923521	-74.21228175	17-1		162
17	0	Strength 3 - Max	Combination Min	-668.2444506	-6.160843465	-3.062177041	2.577161872	-1035.78174	-1192.343289	17-1		0

17	81	Strength 3 - Max	Combination	Min	-652.3151628	-6.160843465	-3.062177041	2.577161872	-787.7454	-693.3149685	17-1	81
17	162	Strength 3 - Max	Combination	Min	-636.3858749	-6.160843465	-3.062177041	2.577161872	-539.7090597	-194.2866479	17-1	162
17	0	Strength 3 - Min	Combination	Max	-423.3487235	-2.462318201	-1.133005505	6.965302356	-383.2392439	-471.458428	17-1	0
17	81	Strength 3 - Min	Combination	Max	-413.8551183	-2.462318201	-1.133005505	6.965302356	-291.465798	-272.0106537	17-1	81
17	162	Strength 3 - Min	Combination	Max	-404.3615131	-2.462318201	-1.133005505	6.965302356	-199.6923521	-72.56287942	17-1	162
17	0	Strength 3 - Min	Combination	Min	-453.4275656	-5.944592738	-3.062177041	2.577161872	-1035.78174	-1155.661269	17-1	0
17	81	Strength 3 - Min	Combination	Min	-441.9514853	-5.944592738	-3.062177041	2.577161872	-787.7454	-674.1492573	17-1	81
17	162	Strength 3 - Min	Combination	Min	-430.4754051	-5.944592738	-3.062177041	2.577161872	-539.7090597	-192.6372455	17-1	162
17	0	Strength 5 - Max	Combination	Max	-702.5661962	-12.20880454	-11.20396285	81.03679758	-3789.741739	-2392.428728	17-1	0
17	81	Strength 5 - Max	Combination	Max	-688.6868834	-12.20880454	-11.20396285	81.03679758	-2882.220748	-1403.51556	17-1	81
17	162	Strength 5 - Max	Combination	Max	-674.8075706	-12.20880454	-11.20396285	81.03679758	-1974.699756	-414.6023925	17-1	162
17	0	Strength 5 - Max	Combination	Min	-839.0919173	-34.82916606	-35.62645357	25.48480634	-12050.65207	-6771.703609	17-1	0
17	81	Strength 5 - Max	Combination	Min	-822.8935744	-34.82916606	-35.62645357	25.48480634	-9164.909326	-3950.541158	17-1	81
17	162	Strength 5 - Max	Combination	Min	-807.0302448	-34.82916606	-35.62645357	25.48480634	-6279.166587	-1129.378708	17-1	162
17	0	Strength 5 - Min	Combination	Max	-487.7493112	-11.99255381	-11.20396285	81.03679758	-3789.741739	-2355.746707	17-1	0
17	81	Strength 5 - Min	Combination	Max	-478.323206	-11.99255381	-11.20396285	81.03679758	-2882.220748	-1384.349849	17-1	81
17	162	Strength 5 - Min	Combination	Max	-468.8971007	-11.99255381	-11.20396285	81.03679758	-1974.699756	-412.9529901	17-1	162
17	0	Strength 5 - Min	Combination	Min	-624.2750322	-34.61291533	-35.62645357	25.48480634	-12050.65207	-6735.021589	17-1	0
17	81	Strength 5 - Min	Combination	Min	-612.529897	-34.61291533	-35.62645357	25.48480634	-9164.909326	-3931.375447	17-1	81
17	162	Strength 5 - Min	Combination	Min	-601.119775	-34.61291533	-35.62645357	25.48480634	-6279.166587	-1127.729305	17-1	162
17	0	Service 1	Combination	Max	-547.6603814	-8.092019075	-7.626558237	58.49717795	-2579.684211	-1586.437522	17-1	0
17	81	Service 1	Combination	Max	-536.9619311	-8.092019075	-7.626558237	58.49717795	-1961.932994	-930.9839765	17-1	81
17	162	Service 1	Combination	Max	-526.2634809	-8.092019075	-7.626558237	58.49717795	-1344.181777	-275.5304314	17-1	162
17	0	Service 1	Combination	Min	-650.2336572	-24.84992641	-25.7172921	17.34755481	-8698.877046	-4830.749683	17-1	0
17	81	Service 1	Combination	Min	-637.4852319	-24.84992641	-25.7172921	17.34755481	-6615.776385	-2817.905644	17-1	81
17	162	Service 1	Combination	Min	-625.0698947	-24.84992641	-25.7172921	17.34755481	-4532.675725	-805.0616047	17-1	162
17	0	WServ1: 45deg	Combination		16.32058059	-2.024371048	-1.133005505	2.577161872	-383.2392439	-397.8160752	17-1	0
17	81	WServ1: 45deg	Combination		15.59630559	-2.024371048	-1.133005505	2.577161872	-291.465798	-233.8420204	17-1	81
17	162	WServ1: 45deg	Combination		14.87203059	-2.024371048	-1.133005505	2.577161872	-199.6923521	-69.8679655	17-1	162
17	0	WServ1: 30deg	Combination		15.6243176	-2.030739995	-1.133005505	2.577161872	-383.2392439	-399.0483509	17-1	0
17	81	WServ1: 30deg	Combination		14.9749676	-2.030739995	-1.133005505	2.577161872	-291.465798	-234.5584113	17-1	81
17	162	WServ1: 30deg	Combination		14.3256176	-2.030739995	-1.133005505	2.577161872	-199.6923521	-70.06847168	17-1	162
17	0	WServ1: 15deg	Combination		14.7966472	-2.032071466	-1.133005505	2.577161872	-383.2392439	-399.3029076	17-1	0
17	81	WServ1: 15deg	Combination		14.2721722	-2.032071466	-1.133005505	2.577161872	-291.465798	-234.7051188	17-1	81
17	162	WServ1: 15deg	Combination		13.7476972	-2.032071466	-1.133005505	2.577161872	-199.6923521	-70.10733004	17-1	162
17	0	WServ1: 0deg	Combination		14.61875599	-2.028826275	-1.133005505	2.577161872	-383.2392439	-398.6782418	17-1	0
17	81	WServ1: 0deg	Combination		14.26910599	-2.028826275	-1.133005505	2.577161872	-291.465798	-234.3433135	17-1	81
17	162	WServ1: 0deg	Combination		13.91945599	-2.028826275	-1.133005505	2.577161872	-199.6923521	-70.00838524	17-1	162
17	0	WServ1: -15deg	Combination		14.32433964	-2.021201753	-1.133005505	2.577161872	-383.2392439	-397.2020693	17-1	0
17	81	WServ1: -15deg	Combination		14.17448964	-2.021201753	-1.133005505	2.577161872	-291.465798	-233.4847273	17-1	81
17	162	WServ1: -15deg	Combination		14.02463964	-2.021201753	-1.133005505	2.577161872	-199.6923521	-69.76738534	17-1	162
17	0	WServ1: -30deg	Combination		14.03083527	-2.009810508	-1.133005505	2.577161872	-383.2392439	-394.9942065	17-1	0

17	81	WServ1: -30deg	Combination	14.05581027	-2.009810508	-1.133005505	2.577161872	-291.465798	-232.1995554	17-1	81
17	162	WServ1: -30deg	Combination	14.08078527	-2.009810508	-1.133005505	2.577161872	-199.6923521	-69.40490427	17-1	162
17	0	WServ1 + WA	Combination	20.29345508	-1.964913417	-1.133005505	2.577161872	-383.2392439	-386.2565623	17-1	0
17	81	WServ1 + WA	Combination	18.26845508	-1.964913417	-1.133005505	2.577161872	-291.465798	-227.0985756	17-1	81
17	162	WServ1 + WA	Combination	16.24345508	-1.964913417	-1.133005505	2.577161872	-199.6923521	-67.94058878	17-1	162
17	0	WServ1 & WA envelope	Combination Max	20.29345508	-1.964913417	-1.133005505	2.577161872	-383.2392439	-386.2565623	17-1	0
17	81	WServ1 & WA envelope	Combination Max	18.26845508	-1.964913417	-1.133005505	2.577161872	-291.465798	-227.0985756	17-1	81
17	162	WServ1 & WA envelope	Combination Max	16.24345508	-1.964913417	-1.133005505	2.577161872	-199.6923521	-67.94058878	17-1	162
17	0	WServ1 & WA envelope	Combination Min	14.03083527	-2.032071466	-1.133005505	2.577161872	-383.2392439	-399.3029076	17-1	0
17	81	WServ1 & WA envelope	Combination Min	14.05581027	-2.032071466	-1.133005505	2.577161872	-291.465798	-234.7051188	17-1	81
17	162	WServ1 & WA envelope	Combination Min	13.7476972	-2.032071466	-1.133005505	2.577161872	-199.6923521	-70.10733004	17-1	162
17	0	Strength Envelope	Combination Max	-423.3487235	-2.462318201	-1.133005505	97.86002814	-383.2392439	-471.458428	17-1	0
17	81	Strength Envelope	Combination Max	-413.8551183	-2.462318201	-1.133005505	97.86002814	-291.465798	-272.0106537	17-1	81
17	162	Strength Envelope	Combination Max	-404.3615131	-2.462318201	-1.133005505	97.86002814	-199.6923521	-72.56287942	17-1	162
17	0	Strength Envelope	Combination Min	-901.4134026	-39.6873461	-43.02250154	2.577161872	-14552.36615	-7713.844001	17-1	0
17	81	Strength Envelope	Combination Min	-887.5340898	-39.6873461	-43.02250154	2.577161872	-11067.54353	-4499.168966	17-1	81
17	162	Strength Envelope	Combination Min	-873.654777	-39.6873461	-43.02250154	2.577161872	-7582.720903	-1284.493932	17-1	162
18	0	DEAD	LinStatic	-93.40335298	-0.047534588	0	0	0	-6.541198374	18-1	0
18	81	DEAD	LinStatic	-80.67990273	-0.047534588	0	0	0	-2.690896744	18-1	81
18	162	DEAD	LinStatic	-67.95645248	-0.047534588	0	0	0	1.159404885	18-1	162
18	0	R01_Z	LinStatic	0.000979707	0.003248204	0	0	0	0.630019507	18-1	0
18	81	R01_Z	LinStatic	0.000979707	0.003248204	0	0	0	0.366914959	18-1	81
18	162	R01_Z	LinStatic	0.000979707	0.003248204	0	0	0	0.103810412	18-1	162
18	0	R02_Z	LinStatic	0.000714996	-0.001771949	0	0	0	-0.341455932	18-1	0
18	81	R02_Z	LinStatic	0.000714996	-0.001771949	0	0	0	-0.197928056	18-1	81
18	162	R02_Z	LinStatic	0.000714996	-0.001771949	0	0	0	-0.054400179	18-1	162
18	0	R03_Z	LinStatic	0.001340152	-0.000333325	0	0	0	-0.064400631	18-1	0
18	81	R03_Z	LinStatic	0.001340152	-0.000333325	0	0	0	-0.037401321	18-1	81
18	162	R03_Z	LinStatic	0.001340152	-0.000333325	0	0	0	-0.010402011	18-1	162
18	0	R04_Z	LinStatic	-0.000956418	-0.000704782	0	0	0	-0.146271277	18-1	0
18	81	R04_Z	LinStatic	-0.000956418	-0.000704782	0	0	0	-0.089183947	18-1	81
18	162	R04_Z	LinStatic	-0.000956418	-0.000704782	0	0	0	-0.032096618	18-1	162
18	0	R05_Z	LinStatic	-0.011434738	0.001191511	0	0	0	0.20572124	18-1	0
18	81	R05_Z	LinStatic	-0.011434738	0.001191511	0	0	0	0.109208854	18-1	81
18	162	R05_Z	LinStatic	-0.011434738	0.001191511	0	0	0	0.012696468	18-1	162
18	0	R06_Z	LinStatic	-0.043927149	-5.50976E-05	0	0	0	-0.052779923	18-1	0
18	81	R06_Z	LinStatic	-0.043927149	-5.50976E-05	0	0	0	-0.048317013	18-1	81
18	162	R06_Z	LinStatic	-0.043927149	-5.50976E-05	0	0	0	-0.043854104	18-1	162
18	0	R07_Z	LinStatic	-0.032867197	-0.000201319	0	0	0	0.013608435	18-1	0
18	81	R07_Z	LinStatic	-0.032867197	-0.000201319	0	0	0	0.029915258	18-1	81
18	162	R07_Z	LinStatic	-0.032867197	-0.000201319	0	0	0	0.046222081	18-1	162
18	0	R08_Z	LinStatic	0.189158576	-0.009186699	0	0	0	-1.243685553	18-1	0

18	81	R08_Z	LinStatic	0.189158576	-0.009186699	0	0	0	-0.499562896	18-1	81
18	162	R08_Z	LinStatic	0.189158576	-0.009186699	0	0	0	0.244559761	18-1	162
18	0	R09_Z	LinStatic	0.638872712	-0.016215531	0	0	0	-2.086728722	18-1	0
18	81	R09_Z	LinStatic	0.638872712	-0.016215531	0	0	0	-0.773270678	18-1	81
18	162	R09_Z	LinStatic	0.638872712	-0.016215531	0	0	0	0.540187366	18-1	162
18	0	R10_Z	LinStatic	0.885330255	0.004802829	0	0	0	0.658255934	18-1	0
18	81	R10_Z	LinStatic	0.885330255	0.004802829	0	0	0	0.2692268	18-1	81
18	162	R10_Z	LinStatic	0.885330255	0.004802829	0	0	0	-0.119802334	18-1	162
18	0	R11_Z	LinStatic	0.608031973	0.019660003	0	0	0	2.671663613	18-1	0
18	81	R11_Z	LinStatic	0.608031973	0.019660003	0	0	0	1.079203401	18-1	81
18	162	R11_Z	LinStatic	0.608031973	0.019660003	0	0	0	-0.51325681	18-1	162
18	0	R12_Z	LinStatic	0.096728717	0.004499313	0	0	0	0.521449092	18-1	0
18	81	R12_Z	LinStatic	0.096728717	0.004499313	0	0	0	0.157004739	18-1	81
18	162	R12_Z	LinStatic	0.096728717	0.004499313	0	0	0	-0.207439614	18-1	162
18	0	R_X	LinStatic	0.624091414	2.051596028	0	0	0	397.8317922	18-1	0
18	81	R_X	LinStatic	0.624091414	2.051596028	0	0	0	231.6525139	18-1	81
18	162	R_X	LinStatic	0.624091414	2.051596028	0	0	0	65.47323562	18-1	162
18	0	R_Y	LinStatic	0	0	2.020869142	-12.40359768	697.31054	0	18-1	0
18	81	R_Y	LinStatic	0	0	2.020869142	-12.40359768	533.6201395	0	18-1	81
18	162	R_Y	LinStatic	0	0	2.020869142	-12.40359768	369.929739	0	18-1	162
18	0	Cap_R_X	LinStatic	0.053427357	0.174213795	0	0	0	33.76362619	18-1	0
18	81	Cap_R_X	LinStatic	0.053427357	0.174213795	0	0	0	19.65230883	18-1	81
18	162	Cap_R_X	LinStatic	0.053427357	0.174213795	0	0	0	5.540991469	18-1	162
18	0	Cap_w_Y	LinStatic	-19.0624494	-0.017605403	0	0	0	-2.422666064	18-1	0
18	81	Cap_w_Y	LinStatic	-19.0624494	-0.017605403	0	0	0	-0.996628424	18-1	81
18	162	Cap_w_Y	LinStatic	-19.0624494	-0.017605403	0	0	0	0.429409217	18-1	162
18	0	Cap_w_Z	LinStatic	-19.0624494	-0.017605403	0	0	0	-2.422666064	18-1	0
18	81	Cap_w_Z	LinStatic	-19.0624494	-0.017605403	0	0	0	-0.996628424	18-1	81
18	162	Cap_w_Z	LinStatic	-19.0624494	-0.017605403	0	0	0	0.429409217	18-1	162
18	0	Col_w_X	LinStatic	-13.25	-1.04953E-16	0	0	0	-9.84348E-15	18-1	0
18	81	Col_w_X	LinStatic	-13.25	-1.04953E-16	0	0	0	-1.34232E-15	18-1	81
18	162	Col_w_X	LinStatic	-13.25	-1.04953E-16	0	0	0	7.15884E-15	18-1	162
18	0	Col_w_Y	LinStatic	-13.25	-1.04953E-16	0	0	0	-9.84348E-15	18-1	0
18	81	Col_w_Y	LinStatic	-13.25	-1.04953E-16	0	0	0	-1.34232E-15	18-1	81
18	162	Col_w_Y	LinStatic	-13.25	-1.04953E-16	0	0	0	7.15884E-15	18-1	162
18	0	Cais_w_X	LinStatic	-13.5	-3.99748E-17	0	0	0	-4.07973E-15	18-1	0
18	81	Cais_w_X	LinStatic	-6.75	-3.99748E-17	0	0	0	-8.41776E-16	18-1	81
18	162	Cais_w_X	LinStatic	1.38362E-14	-3.99748E-17	0	0	0	2.39618E-15	18-1	162
18	0	Cais_w_Y	LinStatic	-13.5	-3.99748E-17	0	0	0	-4.07973E-15	18-1	0
18	81	Cais_w_Y	LinStatic	-6.75	-3.99748E-17	0	0	0	-8.41776E-16	18-1	81
18	162	Cais_w_Y	LinStatic	1.38362E-14	-3.99748E-17	0	0	0	2.39618E-15	18-1	162
18	0	DC	LinStatic	-412.7807902	-0.730919586	0	0	0	-114.3591577	18-1	0

18	81	DC	LinStatic	-412.7807902	-0.730919586	0	0	0	-55.1546712	18-1	81
18	162	DC	LinStatic	-412.7807902	-0.730919586	0	0	0	4.049815294	18-1	162
18	0	DW	LinStatic	-59.02220086	-0.124858193	0	0	0	-19.37216726	18-1	0
18	81	DW	LinStatic	-59.02220086	-0.124858193	0	0	0	-9.258653649	18-1	81
18	162	DW	LinStatic	-59.02220086	-0.124858193	0	0	0	0.85485996	18-1	162
18	0	WS3	LinStatic	51.59915728	-5.276625686	-2.84942549	17.48907273	-983.2078613	-1039.090132	18-1	0
18	81	WS3	LinStatic	51.59915728	-5.276625686	-2.84942549	17.48907273	-752.4043966	-611.6834515	18-1	81
18	162	WS3	LinStatic	51.59915728	-5.276625686	-2.84942549	17.48907273	-521.6009319	-184.2767709	18-1	162
18	0	WL5	LinStatic	0.395327333	-1.408912848	-0.889182422	5.457582979	-306.8166376	-273.6540227	18-1	0
18	81	WL5	LinStatic	0.395327333	-1.408912848	-0.889182422	5.457582979	-234.7928614	-159.532082	18-1	81
18	162	WL5	LinStatic	0.395327333	-1.408912848	-0.889182422	5.457582979	-162.7690851	-45.41014139	18-1	162
18	0	PL	LinStatic	-19.51860218	-0.04129052	0	0	0	-6.406362701	18-1	0
18	81	PL	LinStatic	-19.51860218	-0.04129052	0	0	0	-3.061830543	18-1	81
18	162	PL	LinStatic	-19.51860218	-0.04129052	0	0	0	0.282701615	18-1	162
18	0	LL-1 Lane	LinStatic	16.05486284	0.335380291	0	0	0	40.58151617	18-1	0
18	81	LL-1 Lane	LinStatic	16.05486284	0.335380291	0	0	0	13.41571262	18-1	81
18	162	LL-1 Lane	LinStatic	16.05486284	0.335380291	0	0	0	-13.75009092	18-1	162
18	0	LL-2 Lane	LinStatic	14.31647886	0.457995048	0	0	0	54.80064825	18-1	0
18	81	LL-2 Lane	LinStatic	14.31647886	0.457995048	0	0	0	17.70304938	18-1	81
18	162	LL-2 Lane	LinStatic	14.31647886	0.457995048	0	0	0	-19.39454948	18-1	162
18	0	LL-3 Lane	LinStatic	2.398908482	0.455493188	0	0	0	53.54853229	18-1	0
18	81	LL-3 Lane	LinStatic	2.398908482	0.455493188	0	0	0	16.65358407	18-1	81
18	162	LL-3 Lane	LinStatic	2.398908482	0.455493188	0	0	0	-20.24136415	18-1	162
18	0	LL-7 Lane	LinStatic	-108.8854122	-0.103338524	0	0	0	-20.85958476	18-1	0
18	81	LL-7 Lane	LinStatic	-108.8854122	-0.103338524	0	0	0	-12.48916428	18-1	81
18	162	LL-7 Lane	LinStatic	-108.8854122	-0.103338524	0	0	0	-4.118743804	18-1	162
18	0	CE-1 Lane	LinStatic	1.570852228	-4.407750867	-1.374191017	8.434446422	-474.1711672	-856.3041818	18-1	0
18	81	CE-1 Lane	LinStatic	1.570852228	-4.407750867	-1.374191017	8.434446422	-362.8616948	-499.2763615	18-1	81
18	162	CE-1 Lane	LinStatic	1.570852228	-4.407750867	-1.374191017	8.434446422	-251.5522225	-142.2485413	18-1	162
18	0	CE-2 Lane	LinStatic	2.614185626	-7.346292992	-2.303790822	14.14010135	-794.9340156	-1427.181479	18-1	0
18	81	CE-2 Lane	LinStatic	2.614185626	-7.346292992	-2.303790822	14.14010135	-608.326959	-832.1317462	18-1	81
18	162	CE-2 Lane	LinStatic	2.614185626	-7.346292992	-2.303790822	14.14010135	-421.7199024	-237.0820138	18-1	162
18	0	CE-3 Lane	LinStatic	2.538944412	-9.404516425	-2.930260256	17.98521664	-1011.100283	-1824.13314	18-1	0
18	81	CE-3 Lane	LinStatic	2.538944412	-9.404516425	-2.930260256	17.98521664	-773.7492022	-1062.367309	18-1	81
18	162	CE-3 Lane	LinStatic	2.538944412	-9.404516425	-2.930260256	17.98521664	-536.3981215	-300.6014787	18-1	162
18	0	CE-7 Lane	LinStatic	5.955469301	-16.71295926	-5.213842386	32.00128201	-1799.061193	-3246.852446	18-1	0
18	81	CE-7 Lane	LinStatic	5.955469301	-16.71295926	-5.213842386	32.00128201	-1376.73996	-1893.102746	18-1	81
18	162	CE-7 Lane	LinStatic	5.955469301	-16.71295926	-5.213842386	32.00128201	-954.4187265	-539.3530453	18-1	162
18	0	BR-1 Lane	LinStatic	-0.455586733	-1.497665101	-4.668207718	28.65231064	-1610.787347	-290.4172083	18-1	0
18	81	BR-1 Lane	LinStatic	-0.455586733	-1.497665101	-4.668207718	28.65231064	-1232.662522	-169.1063352	18-1	81
18	162	BR-1 Lane	LinStatic	-0.455586733	-1.497665101	-4.668207718	28.65231064	-854.537697	-47.795462	18-1	162
18	0	BR-2 Lane	LinStatic	-0.755150611	-2.482431194	-7.760137505	47.62981509	-2677.672473	-481.3764685	18-1	0

18	81	BR-2 Lane	LinStatic	-0.755150611	-2.482431194	-7.760137505	47.62981509	-2049.101336	-280.2995418	18-1	81
18	162	BR-2 Lane	LinStatic	-0.755150611	-2.482431194	-7.760137505	47.62981509	-1420.530198	-79.2226151	18-1	162
18	0	BR-3 Lane	LinStatic	-0.967341692	-3.179973844	-9.902258796	60.77762863	-3416.821646	-616.6392779	18-1	0
18	81	BR-3 Lane	LinStatic	-0.967341692	-3.179973844	-9.902258796	60.77762863	-2614.738683	-359.0613966	18-1	81
18	162	BR-3 Lane	LinStatic	-0.967341692	-3.179973844	-9.902258796	60.77762863	-1812.655721	-101.4835152	18-1	162
18	0	BR-7 Lane	LinStatic	-1.722492304	-5.662405038	-17.6623963	108.4074437	-6094.494119	-1098.015746	18-1	0
18	81	BR-7 Lane	LinStatic	-1.722492304	-5.662405038	-17.6623963	108.4074437	-4663.840019	-639.3609384	18-1	81
18	162	BR-7 Lane	LinStatic	-1.722492304	-5.662405038	-17.6623963	108.4074437	-3233.185919	-180.7061303	18-1	162
18	0	WSub3: 45deg	LinStatic	9.596737938	-0.163390456	0	0	0	-31.78472495	18-1	0
18	81	WSub3: 45deg	LinStatic	7.639237938	-0.163390456	0	0	0	-18.55009798	18-1	81
18	162	WSub3: 45deg	LinStatic	5.681737938	-0.163390456	0	0	0	-5.315471002	18-1	162
18	0	WSub3: 30deg	LinStatic	7.645148239	-0.18186816	0	0	0	-35.30644753	18-1	0
18	81	WSub3: 30deg	LinStatic	5.890148239	-0.18186816	0	0	0	-20.57512656	18-1	81
18	162	WSub3: 30deg	LinStatic	4.135148239	-0.18186816	0	0	0	-5.843805596	18-1	162
18	0	WSub3: 15deg	LinStatic	5.353457222	-0.186232706	0	0	0	-36.10285336	18-1	0
18	81	WSub3: 15deg	LinStatic	3.935957222	-0.186232706	0	0	0	-21.01800416	18-1	81
18	162	WSub3: 15deg	LinStatic	2.518457222	-0.186232706	0	0	0	-5.933154964	18-1	162
18	0	WSub3: 0deg	LinStatic	4.950500047	-0.176289638	0	0	0	-34.24508543	18-1	0
18	81	WSub3: 0deg	LinStatic	4.005500047	-0.176289638	0	0	0	-19.96562473	18-1	81
18	162	WSub3: 0deg	LinStatic	3.060500047	-0.176289638	0	0	0	-5.686164036	18-1	162
18	0	WSub3: -15deg	LinStatic	4.225658294	-0.154327659	0	0	0	-30.04809032	18-1	0
18	81	WSub3: -15deg	LinStatic	3.820658294	-0.154327659	0	0	0	-17.54754997	18-1	81
18	162	WSub3: -15deg	LinStatic	3.415658294	-0.154327659	0	0	0	-5.047009613	18-1	162
18	0	WSub3: -30deg	LinStatic	3.506522183	-0.121912851	0	0	0	-23.82527764	18-1	0
18	81	WSub3: -30deg	LinStatic	3.574022183	-0.121912851	0	0	0	-13.95033667	18-1	81
18	162	WSub3: -30deg	LinStatic	3.641522183	-0.121912851	0	0	0	-4.075395701	18-1	162
18	0	WSub3: -45deg	LinStatic	2.273274177	-0.082881601	0	0	0	-16.30037324	18-1	0
18	81	WSub3: -45deg	LinStatic	2.880774177	-0.082881601	0	0	0	-9.586963593	18-1	81
18	162	WSub3: -45deg	LinStatic	3.488274177	-0.082881601	0	0	0	-2.873553947	18-1	162
18	0	WA	LinStatic	7.495	3.42563E-17	0	0	0	3.01774E-15	18-1	0
18	81	WA	LinStatic	5.47	3.42563E-17	0	0	0	2.42979E-16	18-1	81
18	162	WA	LinStatic	3.445	3.42563E-17	0	0	0	-2.53178E-15	18-1	162
18	0	WS3: 45deg	Combination	61.19589522	-5.440016143	-2.84942549	17.48907273	-983.2078613	-1070.874857	18-1	0
18	81	WS3: 45deg	Combination	59.23839522	-5.440016143	-2.84942549	17.48907273	-752.4043966	-630.2335495	18-1	81
18	162	WS3: 45deg	Combination	57.28089522	-5.440016143	-2.84942549	17.48907273	-521.6009319	-189.5922419	18-1	162
18	0	WS3: 30deg	Combination	59.24430552	-5.458493847	-2.84942549	17.48907273	-983.2078613	-1074.39658	18-1	0
18	81	WS3: 30deg	Combination	57.48930552	-5.458493847	-2.84942549	17.48907273	-752.4043966	-632.2585781	18-1	81
18	162	WS3: 30deg	Combination	55.73430552	-5.458493847	-2.84942549	17.48907273	-521.6009319	-190.1205765	18-1	162
18	0	WS3: 15deg	Combination	56.9526145	-5.462858393	-2.84942549	17.48907273	-983.2078613	-1075.192986	18-1	0
18	81	WS3: 15deg	Combination	55.5351145	-5.462858393	-2.84942549	17.48907273	-752.4043966	-632.7014557	18-1	81
18	162	WS3: 15deg	Combination	54.1176145	-5.462858393	-2.84942549	17.48907273	-521.6009319	-190.2099259	18-1	162
18	0	WS3: 0deg	Combination	56.54965733	-5.452915325	-2.84942549	17.48907273	-983.2078613	-1073.335218	18-1	0

18	81	WS3: 0deg	Combination	55.60465733	-5.452915325	-2.84942549	17.48907273	-752.4043966	-631.6490763	18-1		81
18	162	WS3: 0deg	Combination	54.65965733	-5.452915325	-2.84942549	17.48907273	-521.6009319	-189.962935	18-1		162
18	0	WS3: -15deg	Combination	55.82481557	-5.430953345	-2.84942549	17.48907273	-983.2078613	-1069.138222	18-1		0
18	81	WS3: -15deg	Combination	55.41981557	-5.430953345	-2.84942549	17.48907273	-752.4043966	-629.2310015	18-1		81
18	162	WS3: -15deg	Combination	55.01481557	-5.430953345	-2.84942549	17.48907273	-521.6009319	-189.3237805	18-1		162
18	0	WS3: -30deg	Combination	55.10567946	-5.398538538	-2.84942549	17.48907273	-983.2078613	-1062.91541	18-1		0
18	81	WS3: -30deg	Combination	55.17317946	-5.398538538	-2.84942549	17.48907273	-752.4043966	-625.6337882	18-1		81
18	162	WS3: -30deg	Combination	55.24067946	-5.398538538	-2.84942549	17.48907273	-521.6009319	-188.3521666	18-1		162
18	0	WServ1: -45deg	Combination	20.3891014	-1.997459259	-1.054287431	6.470956909	-363.7869087	-393.2787016	18-1		0
18	81	WServ1: -45deg	Combination	20.4140764	-1.997459259	-1.054287431	6.470956909	-278.3896268	-231.4845016	18-1		81
18	162	WServ1: -45deg	Combination	20.4390514	-1.997459259	-1.054287431	6.470956909	-192.9923448	-69.69030165	18-1		162
18	0	WS5: 45deg	Combination	30.01414062	-4.041880661	-2.26830436	13.92229418	-782.6892425	-791.9574535	18-1		0
18	81	WS5: 45deg	Combination	29.06671062	-4.041880661	-2.26830436	13.92229418	-598.9565893	-464.56512	18-1		81
18	162	WS5: 45deg	Combination	28.11928062	-4.041880661	-2.26830436	13.92229418	-415.2239362	-137.1727865	18-1		162
18	0	WS5: 30deg	Combination	29.0695712	-4.050823869	-2.26830436	13.92229418	-782.6892425	-793.6619673	18-1		0
18	81	WS5: 30deg	Combination	28.2201512	-4.050823869	-2.26830436	13.92229418	-598.9565893	-465.5452338	18-1		81
18	162	WS5: 30deg	Combination	27.3707312	-4.050823869	-2.26830436	13.92229418	-415.2239362	-137.4285004	18-1		162
18	0	WS5: 15deg	Combination	27.96039275	-4.05293631	-2.26830436	13.92229418	-782.6892425	-794.0474277	18-1		0
18	81	WS5: 15deg	Combination	27.27432275	-4.05293631	-2.26830436	13.92229418	-598.9565893	-465.7595866	18-1		81
18	162	WS5: 15deg	Combination	26.58825275	-4.05293631	-2.26830436	13.92229418	-415.2239362	-137.4717455	18-1		162
18	0	WS5: 0deg	Combination	27.76536148	-4.048123865	-2.26830436	13.92229418	-782.6892425	-793.148268	18-1		0
18	81	WS5: 0deg	Combination	27.30798148	-4.048123865	-2.26830436	13.92229418	-598.9565893	-465.250235	18-1		81
18	162	WS5: 0deg	Combination	26.85060148	-4.048123865	-2.26830436	13.92229418	-415.2239362	-137.3522019	18-1		162
18	0	WS5: -15deg	Combination	27.41453807	-4.037494267	-2.26830436	13.92229418	-782.6892425	-791.1169224	18-1		0
18	81	WS5: -15deg	Combination	27.21851807	-4.037494267	-2.26830436	13.92229418	-598.9565893	-464.0798868	18-1		81
18	162	WS5: -15deg	Combination	27.02249807	-4.037494267	-2.26830436	13.92229418	-415.2239362	-137.0428512	18-1		162
18	0	WS5: -30deg	Combination	27.06647619	-4.0218055	-2.26830436	13.92229418	-782.6892425	-788.105081	18-1		0
18	81	WS5: -30deg	Combination	27.09914619	-4.0218055	-2.26830436	13.92229418	-598.9565893	-462.3388355	18-1		81
18	162	WS5: -30deg	Combination	27.13181619	-4.0218055	-2.26830436	13.92229418	-415.2239362	-136.57259	18-1		162
18	0	WS5: -45deg	Combination	26.46958416	-4.002914375	-2.26830436	13.92229418	-782.6892425	-784.4630273	18-1		0
18	81	WS5: -45deg	Combination	26.76361416	-4.002914375	-2.26830436	13.92229418	-598.9565893	-460.226963	18-1		81
18	162	WS5: -45deg	Combination	27.05764416	-4.002914375	-2.26830436	13.92229418	-415.2239362	-135.9908986	18-1		162
18	0	LL - 1 Lane	Combination	-2.348473847	-5.611326198	-6.042398735	37.08675706	-2084.958514	-1112.546237	18-1		0
18	81	LL - 1 Lane	Combination	-2.348473847	-5.611326198	-6.042398735	37.08675706	-1595.524217	-658.0288146	18-1		81
18	162	LL - 1 Lane	Combination	-2.348473847	-5.611326198	-6.042398735	37.08675706	-1106.089919	-203.5113926	18-1		162
18	0	WS5 + WA	Combination	32.86431946	-3.96279968	-2.26830436	13.92229418	-782.6892425	-776.5736467	18-1		0
18	81	WS5 + WA	Combination	30.83931946	-3.96279968	-2.26830436	13.92229418	-598.9565893	-455.5868726	18-1		81
18	162	WS5 + WA	Combination	28.81431946	-3.96279968	-2.26830436	13.92229418	-415.2239362	-134.6000985	18-1		162
18	0	LL - 2 Lane	Combination	-3.343088305	-9.412019659	-10.06392833	61.76991644	-3472.606489	-1860.163662	18-1		0
18	81	LL - 2 Lane	Combination	-3.343088305	-9.412019659	-10.06392833	61.76991644	-2657.428295	-1097.790069	18-1		81
18	162	LL - 2 Lane	Combination	-3.343088305	-9.412019659	-10.06392833	61.76991644	-1842.2501	-335.4164768	18-1		162
18	0	LL - 3 Lane	Combination	-15.54809098	-12.1702876	-12.83251905	78.76284526	-4427.921929	-2393.630248	18-1		0

18	81	LL - 3 Lane	Combination	-15.54809098	-12.1702876	-12.83251905	78.76284526	-3388.487886	-1407.836952	18-1	81
18	162	LL - 3 Lane	Combination	-15.54809098	-12.1702876	-12.83251905	78.76284526	-2349.053842	-422.0436564	18-1	162
18	0	LL - 7 Lane	Combination	-124.1710374	-22.51999335	-22.87623869	140.4087257	-7893.555312	-4372.13414	18-1	0
18	81	LL - 7 Lane	Combination	-124.1710374	-22.51999335	-22.87623869	140.4087257	-6040.579979	-2548.014679	18-1	81
18	162	LL - 7 Lane	Combination	-124.1710374	-22.51999335	-22.87623869	140.4087257	-4187.604645	-723.8952178	18-1	162
18	0	LL Envelope	Combination Max	-2.348473847	-5.611326198	-6.042398735	140.4087257	-2084.958514	-1112.546237	18-1	0
18	81	LL Envelope	Combination Max	-2.348473847	-5.611326198	-6.042398735	140.4087257	-1595.524217	-658.0288146	18-1	81
18	162	LL Envelope	Combination Max	-2.348473847	-5.611326198	-6.042398735	140.4087257	-1106.089919	-203.5113926	18-1	162
18	0	LL Envelope	Combination Min	-124.1710374	-22.51999335	-22.87623869	37.08675706	-7893.555312	-4372.13414	18-1	0
18	81	LL Envelope	Combination Min	-124.1710374	-22.51999335	-22.87623869	37.08675706	-6040.579979	-2548.014679	18-1	81
18	162	LL Envelope	Combination Min	-124.1710374	-22.51999335	-22.87623869	37.08675706	-4187.604645	-723.8952178	18-1	162
18	0	WS3 & WA envelope	Combination Max	61.19589522	-1.997459259	-1.054287431	17.48907273	-363.7869087	-393.2787016	18-1	0
18	81	WS3 & WA envelope	Combination Max	59.23839522	-1.997459259	-1.054287431	17.48907273	-278.3896268	-231.4845016	18-1	81
18	162	WS3 & WA envelope	Combination Max	57.28089522	-1.997459259	-1.054287431	17.48907273	-192.9923448	-69.69030165	18-1	162
18	0	WS3 & WA envelope	Combination Min	20.3891014	-5.462858393	-2.84942549	6.470956909	-983.2078613	-1075.192986	18-1	0
18	81	WS3 & WA envelope	Combination Min	20.4140764	-5.462858393	-2.84942549	6.470956909	-752.4043966	-632.7014557	18-1	81
18	162	WS3 & WA envelope	Combination Min	20.4390514	-5.462858393	-2.84942549	6.470956909	-521.6009319	-190.2099259	18-1	162
18	0	WS3 + WA	Combination	59.09415728	-5.276625686	-2.84942549	17.48907273	-983.2078613	-1039.090132	18-1	0
18	81	WS3 + WA	Combination	57.06915728	-5.276625686	-2.84942549	17.48907273	-752.4043966	-611.6834515	18-1	81
18	162	WS3 + WA	Combination	55.04415728	-5.276625686	-2.84942549	17.48907273	-521.6009319	-184.2767709	18-1	162
18	0	WS5 & WA envelope	Combination Max	32.86431946	-3.96279968	-2.26830436	13.92229418	-782.6892425	-776.5736467	18-1	0
18	81	WS5 & WA envelope	Combination Max	30.83931946	-3.96279968	-2.26830436	13.92229418	-598.9565893	-455.5868726	18-1	81
18	162	WS5 & WA envelope	Combination Max	28.81431946	-3.96279968	-2.26830436	13.92229418	-415.2239362	-134.6000985	18-1	162
18	0	WS5 & WA envelope	Combination Min	26.46958416	-4.05293631	-2.26830436	13.92229418	-782.6892425	-794.0474277	18-1	0
18	81	WS5 & WA envelope	Combination Min	26.76361416	-4.05293631	-2.26830436	13.92229418	-598.9565893	-465.7595866	18-1	81
18	162	WS5 & WA envelope	Combination Min	26.58825275	-4.05293631	-2.26830436	13.92229418	-415.2239362	-137.4717455	18-1	162
18	0	Strength 1 - Max	Combination Max	-717.8783095	-10.98017585	-10.57419779	245.71527	-3648.6774	-2127.13961	18-1	0
18	81	Strength 1 - Max	Combination Max	-703.9989967	-10.98017585	-10.57419779	245.71527	-2792.16738	-1237.745366	18-1	81
18	162	Strength 1 - Max	Combination Max	-690.1196839	-10.98017585	-10.57419779	245.71527	-1935.657359	-348.3511218	18-1	162
18	0	Strength 1 - Max	Combination Min	-931.0677957	-40.57034336	-40.0334177	64.90182486	-13813.7218	-7831.418441	18-1	0
18	81	Strength 1 - Max	Combination Min	-917.1884829	-40.57034336	-40.0334177	64.90182486	-10571.01496	-4545.220628	18-1	81
18	162	Strength 1 - Max	Combination Min	-903.3091701	-40.57034336	-40.0334177	64.90182486	-7328.308129	-1259.022816	18-1	162
18	0	Strength 1 - Min	Combination Max	-490.5449886	-10.60158743	-10.57419779	245.71527	-3648.6774	-2068.358143	18-1	0
18	81	Strength 1 - Min	Combination Max	-481.1188834	-10.60158743	-10.57419779	245.71527	-2792.16738	-1209.629562	18-1	81
18	162	Strength 1 - Min	Combination Max	-471.6927782	-10.60158743	-10.57419779	245.71527	-1935.657359	-350.9009799	18-1	162
18	0	Strength 1 - Min	Combination Min	-703.7344749	-40.19175494	-40.0334177	64.90182486	-13813.7218	-7772.636974	18-1	0
18	81	Strength 1 - Min	Combination Min	-694.3083697	-40.19175494	-40.0334177	64.90182486	-10571.01496	-4517.104824	18-1	81
18	162	Strength 1 - Min	Combination Min	-684.8822645	-40.19175494	-40.0334177	64.90182486	-7328.308129	-1261.572674	18-1	162
18	0	Strength 3 - Max	Combination Max	-660.067585	-3.157814266	-1.054287431	17.48907273	-363.7869087	-573.4623976	18-1	0
18	81	Strength 3 - Max	Combination Max	-646.1207722	-3.157814266	-1.054287431	17.48907273	-278.3896268	-317.679442	18-1	81
18	162	Strength 3 - Max	Combination Max	-632.1739594	-3.157814266	-1.054287431	17.48907273	-192.9923448	-61.89648649	18-1	162
18	0	Strength 3 - Max	Combination Min	-700.8743788	-6.6232134	-2.84942549	6.470956909	-983.2078613	-1255.376681	18-1	0

18	81	Strength 3 - Max	Combination	Min	-684.945091	-6.6232134	-2.84942549	6.470956909	-752.4043966	-718.8963961	18-1	81
18	162	Strength 3 - Max	Combination	Min	-669.0158032	-6.6232134	-2.84942549	6.470956909	-521.6009319	-182.4161107	18-1	162
18	0	Strength 3 - Min	Combination	Max	-432.7342642	-2.779225841	-1.054287431	17.48907273	-363.7869087	-514.6809308	18-1	0
18	81	Strength 3 - Min	Combination	Max	-423.240659	-2.779225841	-1.054287431	17.48907273	-278.3896268	-289.5636377	18-1	81
18	162	Strength 3 - Min	Combination	Max	-413.7470537	-2.779225841	-1.054287431	17.48907273	-192.9923448	-64.44634452	18-1	162
18	0	Strength 3 - Min	Combination	Min	-473.541058	-6.244624975	-2.84942549	6.470956909	-983.2078613	-1196.595215	18-1	0
18	81	Strength 3 - Min	Combination	Min	-462.0649778	-6.244624975	-2.84942549	6.470956909	-752.4043966	-690.7805917	18-1	81
18	162	Strength 3 - Min	Combination	Min	-450.5888976	-6.244624975	-2.84942549	6.470956909	-521.6009319	-184.9659688	18-1	162
18	0	Strength 5 - Max	Combination	Max	-691.5696005	-12.69844505	-10.42554265	203.4740739	-3597.383237	-2458.694762	18-1	0
18	81	Strength 5 - Max	Combination	Max	-677.6902877	-12.69844505	-10.42554265	203.4740739	-2752.914282	-1430.120713	18-1	81
18	162	Strength 5 - Max	Combination	Max	-663.8109749	-12.69844505	-10.42554265	203.4740739	-1908.445328	-401.5466633	18-1	162
18	0	Strength 5 - Max	Combination	Min	-862.4247966	-35.61528233	-33.15122659	63.98941621	-11438.98891	-6876.612213	18-1	0
18	81	Strength 5 - Max	Combination	Min	-846.2264538	-35.61528233	-33.15122659	63.98941621	-8753.739561	-3991.774343	18-1	81
18	162	Strength 5 - Max	Combination	Min	-830.4975024	-35.61528233	-33.15122659	63.98941621	-6068.490207	-1106.936474	18-1	162
18	0	Strength 5 - Min	Combination	Max	-464.2362796	-12.31985663	-10.42554265	203.4740739	-3597.383237	-2399.913295	18-1	0
18	81	Strength 5 - Min	Combination	Max	-454.8101744	-12.31985663	-10.42554265	203.4740739	-2752.914282	-1402.004908	18-1	81
18	162	Strength 5 - Min	Combination	Max	-445.3840692	-12.31985663	-10.42554265	203.4740739	-1908.445328	-404.0965214	18-1	162
18	0	Strength 5 - Min	Combination	Min	-635.0914758	-35.23669391	-33.15122659	63.98941621	-11438.98891	-6817.830746	18-1	0
18	81	Strength 5 - Min	Combination	Min	-623.3463406	-35.23669391	-33.15122659	63.98941621	-8753.739561	-3963.658539	18-1	81
18	162	Strength 5 - Min	Combination	Min	-612.0705967	-35.23669391	-33.15122659	63.98941621	-6068.490207	-1109.486332	18-1	162
18	0	Service 1	Combination	Max	-540.9681297	-8.466990069	-7.096686166	146.8796826	-2448.745423	-1637.282109	18-1	0
18	81	Service 1	Combination	Max	-530.2696794	-8.466990069	-7.096686166	146.8796826	-1873.913844	-951.4559132	18-1	81
18	162	Service 1	Combination	Max	-519.5712292	-8.466990069	-7.096686166	146.8796826	-1299.082264	-265.6297177	18-1	162
18	0	Service 1	Combination	Min	-668.9882801	-25.44456332	-23.93052612	43.55771397	-8257.342221	-4910.228068	18-1	0
18	81	Service 1	Combination	Min	-656.2398548	-25.44456332	-23.93052612	43.55771397	-6318.969605	-2849.218439	18-1	81
18	162	Service 1	Combination	Min	-643.9069636	-25.44456332	-23.93052612	43.55771397	-4380.59699	-788.2088103	18-1	162
18	0	WServ1: 45deg	Combination		22.64248123	-2.012805973	-1.054287431	6.470956909	-363.7869087	-396.2236971	18-1	0
18	81	WServ1: 45deg	Combination		21.91820623	-2.012805973	-1.054287431	6.470956909	-278.3896268	-233.1864133	18-1	81
18	162	WServ1: 45deg	Combination		21.19393123	-2.012805973	-1.054287431	6.470956909	-192.9923448	-70.14912951	18-1	162
18	0	WServ1: 30deg	Combination		21.92039304	-2.019642723	-1.054287431	6.470956909	-363.7869087	-397.5267345	18-1	0
18	81	WServ1: 30deg	Combination		21.27104304	-2.019642723	-1.054287431	6.470956909	-278.3896268	-233.9356739	18-1	81
18	162	WServ1: 30deg	Combination		20.62169304	-2.019642723	-1.054287431	6.470956909	-192.9923448	-70.34461331	18-1	162
18	0	WServ1: 15deg	Combination		21.07246737	-2.021257605	-1.054287431	6.470956909	-363.7869087	-397.8214046	18-1	0
18	81	WServ1: 15deg	Combination		20.54799237	-2.021257605	-1.054287431	6.470956909	-278.3896268	-234.0995386	18-1	81
18	162	WServ1: 15deg	Combination		20.02351737	-2.021257605	-1.054287431	6.470956909	-192.9923448	-70.37767258	18-1	162
18	0	WServ1: 0deg	Combination		20.92337321	-2.01757867	-1.054287431	6.470956909	-363.7869087	-397.1340305	18-1	0
18	81	WServ1: 0deg	Combination		20.57372321	-2.01757867	-1.054287431	6.470956909	-278.3896268	-233.7101582	18-1	81
18	162	WServ1: 0deg	Combination		20.22407321	-2.01757867	-1.054287431	6.470956909	-192.9923448	-70.28628594	18-1	162
18	0	WServ1: -15deg	Combination		20.65518176	-2.009452738	-1.054287431	6.470956909	-363.7869087	-395.5811423	18-1	0
18	81	WServ1: -15deg	Combination		20.50533176	-2.009452738	-1.054287431	6.470956909	-278.3896268	-232.8154706	18-1	81
18	162	WServ1: -15deg	Combination		20.35548176	-2.009452738	-1.054287431	6.470956909	-192.9923448	-70.0497988	18-1	162
18	0	WServ1: -30deg	Combination		20.3891014	-1.997459259	-1.054287431	6.470956909	-363.7869087	-393.2787016	18-1	0

18	81	WServ1: -30deg	Combination	20.4140764	-1.997459259	-1.054287431	6.470956909	-278.3896268	-231.4845016	18-1	81
18	162	WServ1: -30deg	Combination	20.4390514	-1.997459259	-1.054287431	6.470956909	-192.9923448	-69.69030165	18-1	162
18	0	WServ1 + WA	Combination	26.58668819	-1.952351504	-1.054287431	6.470956909	-363.7869087	-384.4633489	18-1	0
18	81	WServ1 + WA	Combination	24.56168819	-1.952351504	-1.054287431	6.470956909	-278.3896268	-226.3228771	18-1	81
18	162	WServ1 + WA	Combination	22.53668819	-1.952351504	-1.054287431	6.470956909	-192.9923448	-68.18240524	18-1	162
18	0	WServ1 & WA envelope	Combination Max	26.58668819	-1.952351504	-1.054287431	6.470956909	-363.7869087	-384.4633489	18-1	0
18	81	WServ1 & WA envelope	Combination Max	24.56168819	-1.952351504	-1.054287431	6.470956909	-278.3896268	-226.3228771	18-1	81
18	162	WServ1 & WA envelope	Combination Max	22.53668819	-1.952351504	-1.054287431	6.470956909	-192.9923448	-68.18240524	18-1	162
18	0	WServ1 & WA envelope	Combination Min	20.3891014	-2.021257605	-1.054287431	6.470956909	-363.7869087	-397.8214046	18-1	0
18	81	WServ1 & WA envelope	Combination Min	20.4140764	-2.021257605	-1.054287431	6.470956909	-278.3896268	-234.0995386	18-1	81
18	162	WServ1 & WA envelope	Combination Min	20.02351737	-2.021257605	-1.054287431	6.470956909	-192.9923448	-70.37767258	18-1	162
18	0	Strength Envelope	Combination Max	-432.7342642	-2.779225841	-1.054287431	245.71527	-363.7869087	-514.6809308	18-1	0
18	81	Strength Envelope	Combination Max	-423.240659	-2.779225841	-1.054287431	245.71527	-278.3896268	-289.5636377	18-1	81
18	162	Strength Envelope	Combination Max	-413.7470537	-2.779225841	-1.054287431	245.71527	-192.9923448	-61.89648649	18-1	162
18	0	Strength Envelope	Combination Min	-931.0677957	-40.57034336	-40.0334177	6.470956909	-13813.7218	-7831.418441	18-1	0
18	81	Strength Envelope	Combination Min	-917.1884829	-40.57034336	-40.0334177	6.470956909	-10571.01496	-4545.220628	18-1	81
18	162	Strength Envelope	Combination Min	-903.3091701	-40.57034336	-40.0334177	6.470956909	-7328.308129	-1261.572674	18-1	162
19	0	DEAD	LinStatic	-71.49535335	0.73019507	0	0	0	94.91785412	19-1	0
19	81	DEAD	LinStatic	-58.7719031	0.73019507	0	0	0	35.77205348	19-1	81
19	162	DEAD	LinStatic	-46.04845286	0.73019507	0	0	0	-23.37374717	19-1	162
19	0	R01_Z	LinStatic	-0.002788846	0.003034235	0	0	0	0.601071182	19-1	0
19	81	R01_Z	LinStatic	-0.002788846	0.003034235	0	0	0	0.355298168	19-1	81
19	162	R01_Z	LinStatic	-0.002788846	0.003034235	0	0	0	0.109525153	19-1	162
19	0	R02_Z	LinStatic	0.001376245	-0.001622933	0	0	0	-0.321452055	19-1	0
19	81	R02_Z	LinStatic	0.001376245	-0.001622933	0	0	0	-0.189994501	19-1	81
19	162	R02_Z	LinStatic	0.001376245	-0.001622933	0	0	0	-0.058536946	19-1	162
19	0	R03_Z	LinStatic	0.000335336	-0.00032049	0	0	0	-0.06261987	19-1	0
19	81	R03_Z	LinStatic	0.000335336	-0.00032049	0	0	0	-0.036660191	19-1	81
19	162	R03_Z	LinStatic	0.000335336	-0.00032049	0	0	0	-0.010700513	19-1	162
19	0	R04_Z	LinStatic	0.001460592	-0.000842276	0	0	0	-0.163979941	19-1	0
19	81	R04_Z	LinStatic	0.001460592	-0.000842276	0	0	0	-0.095755625	19-1	81
19	162	R04_Z	LinStatic	0.001460592	-0.000842276	0	0	0	-0.027531308	19-1	162
19	0	R05_Z	LinStatic	0.000750947	0.000721657	0	0	0	0.144054281	19-1	0
19	81	R05_Z	LinStatic	0.000750947	0.000721657	0	0	0	0.085600073	19-1	81
19	162	R05_Z	LinStatic	0.000750947	0.000721657	0	0	0	0.027145866	19-1	162
19	0	R06_Z	LinStatic	0.001762761	-0.000461578	0	0	0	-0.105781936	19-1	0
19	81	R06_Z	LinStatic	0.001762761	-0.000461578	0	0	0	-0.068394107	19-1	81
19	162	R06_Z	LinStatic	0.001762761	-0.000461578	0	0	0	-0.031006278	19-1	162
19	0	R07_Z	LinStatic	-0.006391108	0.001185629	0	0	0	0.194580608	19-1	0
19	81	R07_Z	LinStatic	-0.006391108	0.001185629	0	0	0	0.098544642	19-1	81
19	162	R07_Z	LinStatic	-0.006391108	0.001185629	0	0	0	0.002508675	19-1	162
19	0	R08_Z	LinStatic	-0.03264929	0.000286046	0	0	0	-0.005161107	19-1	0

19	81	R08_Z	LinStatic	-0.03264929	0.000286046	0	0	0	-0.028330843	19-1	81
19	162	R08_Z	LinStatic	-0.03264929	0.000286046	0	0	0	-0.05150058	19-1	162
19	0	R09_Z	LinStatic	-0.052394122	-0.00031927	0	0	0	-0.008099063	19-1	0
19	81	R09_Z	LinStatic	-0.052394122	-0.00031927	0	0	0	0.017761827	19-1	81
19	162	R09_Z	LinStatic	-0.052394122	-0.00031927	0	0	0	0.043622718	19-1	162
19	0	R10_Z	LinStatic	0.071199105	-0.010295131	0	0	0	-1.312595916	19-1	0
19	81	R10_Z	LinStatic	0.071199105	-0.010295131	0	0	0	-0.478690326	19-1	81
19	162	R10_Z	LinStatic	0.071199105	-0.010295131	0	0	0	0.355215263	19-1	162
19	0	R11_Z	LinStatic	0.44937151	-0.025278901	0	0	0	-3.196270347	19-1	0
19	81	R11_Z	LinStatic	0.44937151	-0.025278901	0	0	0	-1.14867933	19-1	81
19	162	R11_Z	LinStatic	0.44937151	-0.025278901	0	0	0	0.898911687	19-1	162
19	0	R12_Z	LinStatic	0.928766455	0.000107138	0	0	0	-0.052887331	19-1	0
19	81	R12_Z	LinStatic	0.928766455	0.000107138	0	0	0	-0.061565496	19-1	81
19	162	R12_Z	LinStatic	0.928766455	0.000107138	0	0	0	-0.070243661	19-1	162
19	0	R_X	LinStatic	-2.056691948	1.906543344	0	0	0	378.7364614	19-1	0
19	81	R_X	LinStatic	-2.056691948	1.906543344	0	0	0	224.3064505	19-1	81
19	162	R_X	LinStatic	-2.056691948	1.906543344	0	0	0	69.87643967	19-1	162
19	0	R_Y	LinStatic	0	0	1.674185613	-18.79055085	619.3477644	0	19-1	0
19	81	R_Y	LinStatic	0	0	1.674185613	-18.79055085	483.7387298	0	19-1	81
19	162	R_Y	LinStatic	0	0	1.674185613	-18.79055085	348.1296951	0	19-1	162
19	0	Cap_R_X	LinStatic	-0.150707623	0.166888496	0	0	0	33.07229308	19-1	0
19	81	Cap_R_X	LinStatic	-0.150707623	0.166888496	0	0	0	19.55432489	19-1	81
19	162	Cap_R_X	LinStatic	-0.150707623	0.166888496	0	0	0	6.036356705	19-1	162
19	0	Cap_w_Y	LinStatic	-10.94837546	0.270442618	0	0	0	35.15476078	19-1	0
19	81	Cap_w_Y	LinStatic	-10.94837546	0.270442618	0	0	0	13.24890869	19-1	81
19	162	Cap_w_Y	LinStatic	-10.94837546	0.270442618	0	0	0	-8.656943394	19-1	162
19	0	Cap_w_Z	LinStatic	-10.94837546	0.270442618	0	0	0	35.15476078	19-1	0
19	81	Cap_w_Z	LinStatic	-10.94837546	0.270442618	0	0	0	13.24890869	19-1	81
19	162	Cap_w_Z	LinStatic	-10.94837546	0.270442618	0	0	0	-8.656943394	19-1	162
19	0	Col_w_X	LinStatic	-13.25	-6.34459E-16	0	0	0	-7.88664E-14	19-1	0
19	81	Col_w_X	LinStatic	-13.25	-6.34459E-16	0	0	0	-2.74752E-14	19-1	81
19	162	Col_w_X	LinStatic	-13.25	-6.34459E-16	0	0	0	2.3916E-14	19-1	162
19	0	Col_w_Y	LinStatic	-13.25	-6.34459E-16	0	0	0	-7.88664E-14	19-1	0
19	81	Col_w_Y	LinStatic	-13.25	-6.34459E-16	0	0	0	-2.74752E-14	19-1	81
19	162	Col_w_Y	LinStatic	-13.25	-6.34459E-16	0	0	0	2.3916E-14	19-1	162
19	0	Cais_w_X	LinStatic	-13.5	-1.83276E-16	0	0	0	-2.27561E-14	19-1	0
19	81	Cais_w_X	LinStatic	-6.75	-1.83276E-16	0	0	0	-7.91074E-15	19-1	81
19	162	Cais_w_X	LinStatic	-1.81383E-14	-1.83276E-16	0	0	0	6.93461E-15	19-1	162
19	0	Cais_w_Y	LinStatic	-13.5	-1.83276E-16	0	0	0	-2.27561E-14	19-1	0
19	81	Cais_w_Y	LinStatic	-6.75	-1.83276E-16	0	0	0	-7.91074E-15	19-1	81
19	162	Cais_w_Y	LinStatic	-1.81383E-14	-1.83276E-16	0	0	0	6.93461E-15	19-1	162
19	0	DC	LinStatic	-224.4769687	6.069962083	0	0	0	772.9535875	19-1	0

19	81	DC	LinStatic	-224.4769687	6.069962083	0	0	0	281.2866587	19-1		81
19	162	DC	LinStatic	-224.4769687	6.069962083	0	0	0	-210.38027	19-1		162
19	0	DW	LinStatic	-34.4418375	0.855626669	0	0	0	108.5581713	19-1		0
19	81	DW	LinStatic	-34.4418375	0.855626669	0	0	0	39.25241112	19-1		81
19	162	DW	LinStatic	-34.4418375	0.855626669	0	0	0	-30.05334906	19-1		162
19	0	WS3	LinStatic	43.86551353	-6.0301805	-2.360601714	26.49467669	-873.2803478	-1136.991544	19-1		0
19	81	WS3	LinStatic	43.86551353	-6.0301805	-2.360601714	26.49467669	-682.071609	-648.5469236	19-1		81
19	162	WS3	LinStatic	43.86551353	-6.0301805	-2.360601714	26.49467669	-490.8628701	-160.1023031	19-1		162
19	0	WL5	LinStatic	2.138991641	-1.331113351	-0.73664167	8.267842372	-272.5130163	-263.3873893	19-1		0
19	81	WL5	LinStatic	2.138991641	-1.331113351	-0.73664167	8.267842372	-212.8450411	-155.5672079	19-1		81
19	162	WL5	LinStatic	2.138991641	-1.331113351	-0.73664167	8.267842372	-153.1770659	-47.74702653	19-1		162
19	0	PL	LinStatic	-11.38989253	0.282955165	0	0	0	35.90011433	19-1		0
19	81	PL	LinStatic	-11.38989253	0.282955165	0	0	0	12.98074599	19-1		81
19	162	PL	LinStatic	-11.38989253	0.282955165	0	0	0	-9.938622347	19-1		162
19	0	LL-1 Lane	LinStatic	23.87206954	-0.453848229	0	0	0	-62.46947512	19-1		0
19	81	LL-1 Lane	LinStatic	23.87206954	-0.453848229	0	0	0	-25.70776859	19-1		81
19	162	LL-1 Lane	LinStatic	23.87206954	-0.453848229	0	0	0	11.05393793	19-1		162
19	0	LL-2 Lane	LinStatic	28.9469251	-0.521296198	0	0	0	-73.08056222	19-1		0
19	81	LL-2 Lane	LinStatic	28.9469251	-0.521296198	0	0	0	-30.85557019	19-1		81
19	162	LL-2 Lane	LinStatic	28.9469251	-0.521296198	0	0	0	11.36942185	19-1		162
19	0	LL-3 Lane	LinStatic	23.08653159	-0.365205739	0	0	0	-53.64575021	19-1		0
19	81	LL-3 Lane	LinStatic	23.08653159	-0.365205739	0	0	0	-24.06408537	19-1		81
19	162	LL-3 Lane	LinStatic	23.08653159	-0.365205739	0	0	0	5.517579461	19-1		162
19	0	LL-7 Lane	LinStatic	-57.42506011	1.485332852	0	0	0	186.3932096	19-1		0
19	81	LL-7 Lane	LinStatic	-57.42506011	1.485332852	0	0	0	66.08124856	19-1		81
19	162	LL-7 Lane	LinStatic	-57.42506011	1.485332852	0	0	0	-54.23071243	19-1		162
19	0	CE-1 Lane	LinStatic	6.983293468	-4.173267867	-1.138446217	12.77757457	-421.1564798	-825.3482112	19-1		0
19	81	CE-1 Lane	LinStatic	6.983293468	-4.173267867	-1.138446217	12.77757457	-328.9423362	-487.3135139	19-1		81
19	162	CE-1 Lane	LinStatic	6.983293468	-4.173267867	-1.138446217	12.77757457	-236.7281927	-149.2788167	19-1		162
19	0	CE-2 Lane	LinStatic	11.64457375	-6.955412738	-1.908571599	21.42122796	-706.0564514	-1375.578365	19-1		0
19	81	CE-2 Lane	LinStatic	11.64457375	-6.955412738	-1.908571599	21.42122796	-551.4621519	-812.1899333	19-1		81
19	162	CE-2 Lane	LinStatic	11.64457375	-6.955412738	-1.908571599	21.42122796	-396.8678525	-248.8015015	19-1		162
19	0	CE-3 Lane	LinStatic	7.176552105	-8.870062305	-2.427569139	27.24629873	-898.0542584	-1753.620656	19-1		0
19	81	CE-3 Lane	LinStatic	7.176552105	-8.870062305	-2.427569139	27.24629873	-701.4211582	-1035.14561	19-1		81
19	162	CE-3 Lane	LinStatic	7.176552105	-8.870062305	-2.427569139	27.24629873	-504.788058	-316.6705629	19-1		162
19	0	CE-7 Lane	LinStatic	26.48130574	-15.82357986	-4.319398881	48.47962118	-1597.917232	-3129.438774	19-1		0
19	81	CE-7 Lane	LinStatic	26.48130574	-15.82357986	-4.319398881	48.47962118	-1248.045923	-1847.728806	19-1		81
19	162	CE-7 Lane	LinStatic	26.48130574	-15.82357986	-4.319398881	48.47962118	-898.1746135	-566.0188375	19-1		162
19	0	BR-1 Lane	LinStatic	1.501385122	-1.391776641	-3.867368766	43.40617245	-1430.693336	-276.4776168	19-1		0
19	81	BR-1 Lane	LinStatic	1.501385122	-1.391776641	-3.867368766	43.40617245	-1117.436466	-163.7437089	19-1		81
19	162	BR-1 Lane	LinStatic	1.501385122	-1.391776641	-3.867368766	43.40617245	-804.1795958	-51.00980096	19-1		162
19	0	BR-2 Lane	LinStatic	2.488597257	-2.306917446	-6.428872753	72.15571525	-2378.295415	-458.2711183	19-1		0

19	81	BR-2 Lane	LinStatic	2.488597257	-2.306917446	-6.428872753	72.15571525	-1857.556722	-271.4108051	19-1	81
19	162	BR-2 Lane	LinStatic	2.488597257	-2.306917446	-6.428872753	72.15571525	-1336.818029	-84.550492	19-1	162
19	0	BR-3 Lane	LinStatic	3.187872519	-2.955142183	-8.203509503	92.07369914	-3034.804046	-587.0415151	19-1	0
19	81	BR-3 Lane	LinStatic	3.187872519	-2.955142183	-8.203509503	92.07369914	-2370.319776	-347.6749983	19-1	81
19	162	BR-3 Lane	LinStatic	3.187872519	-2.955142183	-8.203509503	92.07369914	-1705.835506	-108.3084815	19-1	162
19	0	BR-7 Lane	LinStatic	5.676469776	-5.262059629	-14.63238226	164.2294144	-5413.099461	-1045.312633	19-1	0
19	81	BR-7 Lane	LinStatic	5.676469776	-5.262059629	-14.63238226	164.2294144	-4227.876498	-619.0858034	19-1	81
19	162	BR-7 Lane	LinStatic	5.676469776	-5.262059629	-14.63238226	164.2294144	-3042.653536	-192.8589735	19-1	162
19	0	WSub3: 45deg	LinStatic	8.816977297	-0.190997186	0	0	0	-35.63724972	19-1	0
19	81	WSub3: 45deg	LinStatic	6.859477297	-0.190997186	0	0	0	-20.16647769	19-1	81
19	162	WSub3: 45deg	LinStatic	4.901977297	-0.190997186	0	0	0	-4.695705663	19-1	162
19	0	WSub3: 30deg	LinStatic	7.372645532	-0.191459478	0	0	0	-36.83519338	19-1	0
19	81	WSub3: 30deg	LinStatic	5.617645532	-0.191459478	0	0	0	-21.32697566	19-1	81
19	162	WSub3: 30deg	LinStatic	3.862645532	-0.191459478	0	0	0	-5.818757937	19-1	162
19	0	WSub3: 15deg	LinStatic	5.490740911	-0.181275117	0	0	0	-35.7389012	19-1	0
19	81	WSub3: 15deg	LinStatic	4.073240911	-0.181275117	0	0	0	-21.05561672	19-1	81
19	162	WSub3: 15deg	LinStatic	2.65574091 1	-0.181275117	0	0	0	-6.372332241	19-1	162
19	0	WSub3: 0deg	LinStatic	4.509591813	-0.191861676	0	0	0	-36.54611981	19-1	0
19	81	WSub3: 0deg	LinStatic	3.564591813	-0.191861676	0	0	0	-21.00532409	19-1	81
19	162	WSub3: 0deg	LinStatic	2.619591813	-0.191861676	0	0	0	-5.464528368	19-1	162
19	0	WSub3: -15deg	LinStatic	3.273409426	-0.188061613	0	0	0	-34.68673028	19-1	0
19	81	WSub3: -15deg	LinStatic	2.868409426	-0.188061613	0	0	0	-19.45373962	19-1	81
19	162	WSub3: -15deg	LinStatic	2.463409426	-0.188061613	0	0	0	-4.220748959	19-1	162
19	0	WSub3: -30deg	LinStatic	2.030684581	-0.174248241	0	0	0	-30.84300317	19-1	0
19	81	WSub3: -30deg	LinStatic	2.098184581	-0.174248241	0	0	0	-16.72889566	19-1	81
19	162	WSub3: -30deg	LinStatic	2.165684581	-0.174248241	0	0	0	-2.614788149	19-1	162
19	0	WSub3: -45deg	LinStatic	0.427963923	-0.148350476	0	0	0	-24.97328913	19-1	0
19	81	WSub3: -45deg	LinStatic	1.035463923	-0.148350476	0	0	0	-12.95690053	19-1	81
19	162	WSub3: -45deg	LinStatic	1.642963923	-0.148350476	0	0	0	-0.940511938	19-1	162
19	0	WA	LinStatic	7.495	2.33283E-16	0	0	0	2.89666E-14	19-1	0
19	81	WA	LinStatic	5.47	2.33283E-16	0	0	0	1.00707E-14	19-1	81
19	162	WA	LinStatic	3.445	2.33283E-16	0	0	0	-8.8252E-15	19-1	162
19	0	WS3: 45deg	Combination	52.68249083	-6.221177686	-2.360601714	26.49467669	-873.2803478	-1172.628794	19-1	0
19	81	WS3: 45deg	Combination	50.72499083	-6.221177686	-2.360601714	26.49467669	-682.071609	-668.7134013	19-1	81
19	162	WS3: 45deg	Combination	48.76749083	-6.221177686	-2.360601714	26.49467669	-490.8628701	-164.7980088	19-1	162
19	0	WS3: 30deg	Combination	51.23815906	-6.221639978	-2.360601714	26.49467669	-873.2803478	-1173.826737	19-1	0
19	81	WS3: 30deg	Combination	49.48315906	-6.221639978	-2.360601714	26.49467669	-682.071609	-669.8738993	19-1	81
19	162	WS3: 30deg	Combination	47.72815906	-6.221639978	-2.360601714	26.49467669	-490.8628701	-165.921061	19-1	162
19	0	WS3: 15deg	Combination	49.35625444	-6.211455617	-2.360601714	26.49467669	-873.2803478	-1172.730445	19-1	0
19	81	WS3: 15deg	Combination	47.93875444	-6.211455617	-2.360601714	26.49467669	-682.071609	-669.6025403	19-1	81
19	162	WS3: 15deg	Combination	46.52125444	-6.211455617	-2.360601714	26.49467669	-490.8628701	-166.4746353	19-1	162
19	0	WS3: 0deg	Combination	48.37510534	-6.222042176	-2.360601714	26.49467669	-873.2803478	-1173.537664	19-1	0

19	81	WS3: 0deg	Combination	47.43010534	-6.222042176	-2.360601714	26.49467669	-682.071609	-669.5522477	19-1		81
19	162	WS3: 0deg	Combination	46.48510534	-6.222042176	-2.360601714	26.49467669	-490.8628701	-165.5668315	19-1		162
19	0	WS3: -15deg	Combination	47.13892296	-6.218242113	-2.360601714	26.49467669	-873.2803478	-1171.678274	19-1		0
19	81	WS3: -15deg	Combination	46.73392296	-6.218242113	-2.360601714	26.49467669	-682.071609	-668.0006632	19-1		81
19	162	WS3: -15deg	Combination	46.32892296	-6.218242113	-2.360601714	26.49467669	-490.8628701	-164.3230521	19-1		162
19	0	WS3: -30deg	Combination	45.89619811	-6.204428741	-2.360601714	26.49467669	-873.2803478	-1167.834547	19-1		0
19	81	WS3: -30deg	Combination	45.96369811	-6.204428741	-2.360601714	26.49467669	-682.071609	-665.2758193	19-1		81
19	162	WS3: -30deg	Combination	46.03119811	-6.204428741	-2.360601714	26.49467669	-490.8628701	-162.7170912	19-1		162
19	0	WServ1: -45deg	Combination	16.9815933	-2.295638634	-0.873422634	9.803030376	-323.1137287	-432.0987825	19-1		0
19	81	WServ1: -45deg	Combination	17.0065683	-2.295638634	-0.873422634	9.803030376	-252.3664953	-246.1520531	19-1		81
19	162	WServ1: -45deg	Combination	17.0315433	-2.295638634	-0.873422634	9.803030376	-181.619262	-60.20532376	19-1		162
19	0	WS5: 45deg	Combination	27.6373172	-4.34216335	-1.879172899	21.09126589	-695.1807047	-830.9397255	19-1		0
19	81	WS5: 45deg	Combination	26.6898872	-4.34216335	-1.879172899	21.09126589	-542.9676999	-479.2244942	19-1		81
19	162	WS5: 45deg	Combination	25.7424572	-4.34216335	-1.879172899	21.09126589	-390.754695	-127.5092628	19-1		162
19	0	WS5: 30deg	Combination	26.93826063	-4.3423871	-1.879172899	21.09126589	-695.1807047	-831.5195303	19-1		0
19	81	WS5: 30deg	Combination	26.08884063	-4.3423871	-1.879172899	21.09126589	-542.9676999	-479.7861752	19-1		81
19	162	WS5: 30deg	Combination	25.23942063	-4.3423871	-1.879172899	21.09126589	-390.754695	-128.0528201	19-1		162
19	0	WS5: 15deg	Combination	26.02741879	-4.337457869	-1.879172899	21.09126589	-695.1807047	-830.9889249	19-1		0
19	81	WS5: 15deg	Combination	25.34134879	-4.337457869	-1.879172899	21.09126589	-542.9676999	-479.6548374	19-1		81
19	162	WS5: 15deg	Combination	24.65527879	-4.337457869	-1.879172899	21.09126589	-390.754695	-128.32075	19-1		162
19	0	WS5: 0deg	Combination	25.55254263	-4.342581764	-1.879172899	21.09126589	-695.1807047	-831.3796187	19-1		0
19	81	WS5: 0deg	Combination	25.09516263	-4.342581764	-1.879172899	21.09126589	-542.9676999	-479.6304958	19-1		81
19	162	WS5: 0deg	Combination	24.63778263	-4.342581764	-1.879172899	21.09126589	-390.754695	-127.881373	19-1		162
19	0	WS5: -15deg	Combination	24.95423035	-4.340742533	-1.879172899	21.09126589	-695.1807047	-830.4796741	19-1		0
19	81	WS5: -15deg	Combination	24.75821035	-4.340742533	-1.879172899	21.09126589	-542.9676999	-478.8795289	19-1		81
19	162	WS5: -15deg	Combination	24.56219035	-4.340742533	-1.879172899	21.09126589	-390.754695	-127.2793837	19-1		162
19	0	WS5: -30deg	Combination	24.35275153	-4.334056861	-1.879172899	21.09126589	-695.1807047	-828.6193102	19-1		0
19	81	WS5: -30deg	Combination	24.38542153	-4.334056861	-1.879172899	21.09126589	-542.9676999	-477.5607045	19-1		81
19	162	WS5: -30deg	Combination	24.41809153	-4.334056861	-1.879172899	21.09126589	-390.754695	-126.5020987	19-1		162
19	0	WS5: -45deg	Combination	23.57703473	-4.321522343	-1.879172899	21.09126589	-695.1807047	-825.7783686	19-1		0
19	81	WS5: -45deg	Combination	23.87106473	-4.321522343	-1.879172899	21.09126589	-542.9676999	-475.7350588	19-1		81
19	162	WS5: -45deg	Combination	24.16509473	-4.321522343	-1.879172899	21.09126589	-390.754695	-125.691749	19-1		162
19	0	LL - 1 Lane	Combination	20.96685561	-5.735937572	-5.005814982	56.18374703	-1851.849816	-1128.395189	19-1		0
19	81	LL - 1 Lane	Combination	20.96685561	-5.735937572	-5.005814982	56.18374703	-1446.378802	-663.7842454	19-1		81
19	162	LL - 1 Lane	Combination	20.96685561	-5.735937572	-5.005814982	56.18374703	-1040.907788	-199.1733021	19-1		162
19	0	WS5 + WA	Combination	30.86490019	-4.249720713	-1.879172899	21.09126589	-695.1807047	-813.6912967	19-1		0
19	81	WS5 + WA	Combination	28.83990019	-4.249720713	-1.879172899	21.09126589	-542.9676999	-469.463919	19-1		81
19	162	WS5 + WA	Combination	26.81490019	-4.249720713	-1.879172899	21.09126589	-390.754695	-125.2365412	19-1		162
19	0	LL - 2 Lane	Combination	31.69020358	-9.500671218	-8.337444352	93.57694321	-3084.351867	-1871.029931	19-1		0
19	81	LL - 2 Lane	Combination	31.69020358	-9.500671218	-8.337444352	93.57694321	-2409.018874	-1101.475563	19-1		81
19	162	LL - 2 Lane	Combination	31.69020358	-9.500671218	-8.337444352	93.57694321	-1733.685882	-331.921194	19-1		162
19	0	LL - 3 Lane	Combination	22.06106369	-11.90745506	-10.63107864	119.3199979	-3932.858304	-2358.407807	19-1		0

19	81	LL - 3 Lane	Combination	22.06106369	-11.90745506	-10.63107864	119.3199979	-3071.740934	-1393.903947	19-1	81
19	162	LL - 3 Lane	Combination	22.06106369	-11.90745506	-10.63107864	119.3199979	-2210.623564	-429.4000873	19-1	162
19	0	LL - 7 Lane	Combination	-36.65717712	-19.31735147	-18.95178114	212.7090356	-7011.016693	-3952.458084	19-1	0
19	81	LL - 7 Lane	Combination	-36.65717712	-19.31735147	-18.95178114	212.7090356	-5475.922421	-2387.752615	19-1	81
19	162	LL - 7 Lane	Combination	-36.65717712	-19.31735147	-18.95178114	212.7090356	-3940.828149	-823.0471458	19-1	162
19	0	LL Envelope	Combination Max	31.69020358	-5.735937572	-5.005814982	212.7090356	-1851.849816	-1128.395189	19-1	0
19	81	LL Envelope	Combination Max	31.69020358	-5.735937572	-5.005814982	212.7090356	-1446.378802	-663.7842454	19-1	81
19	162	LL Envelope	Combination Max	31.69020358	-5.735937572	-5.005814982	212.7090356	-1040.907788	-199.1733021	19-1	162
19	0	LL Envelope	Combination Min	-36.65717712	-19.31735147	-18.95178114	56.18374703	-7011.016693	-3952.458084	19-1	0
19	81	LL Envelope	Combination Min	-36.65717712	-19.31735147	-18.95178114	56.18374703	-5475.922421	-2387.752615	19-1	81
19	162	LL Envelope	Combination Min	-36.65717712	-19.31735147	-18.95178114	56.18374703	-3940.828149	-823.0471458	19-1	162
19	0	WS3 & WA envelope	Combination Max	52.68249083	-2.295638634	-0.873422634	26.49467669	-323.1137287	-432.0987825	19-1	0
19	81	WS3 & WA envelope	Combination Max	50.72499083	-2.295638634	-0.873422634	26.49467669	-252.3664953	-246.1520531	19-1	81
19	162	WS3 & WA envelope	Combination Max	48.76749083	-2.295638634	-0.873422634	26.49467669	-181.619262	-60.20532376	19-1	162
19	0	WS3 & WA envelope	Combination Min	16.9815933	-6.222042176	-2.360601714	9.803030376	-873.2803478	-1173.826737	19-1	0
19	81	WS3 & WA envelope	Combination Min	17.0065683	-6.222042176	-2.360601714	9.803030376	-682.071609	-669.8738993	19-1	81
19	162	WS3 & WA envelope	Combination Min	17.0315433	-6.222042176	-2.360601714	9.803030376	-490.8628701	-166.4746353	19-1	162
19	0	WS3 + WA	Combination	51.36051353	-6.0301805	-2.360601714	26.49467669	-873.2803478	-1136.991544	19-1	0
19	81	WS3 + WA	Combination	49.33551353	-6.0301805	-2.360601714	26.49467669	-682.071609	-648.5469236	19-1	81
19	162	WS3 + WA	Combination	47.31051353	-6.0301805	-2.360601714	26.49467669	-490.8628701	-160.1023031	19-1	162
19	0	WS5 & WA envelope	Combination Max	30.86490019	-4.249720713	-1.879172899	21.09126589	-695.1807047	-813.6912967	19-1	0
19	81	WS5 & WA envelope	Combination Max	28.83990019	-4.249720713	-1.879172899	21.09126589	-542.9676999	-469.463919	19-1	81
19	162	WS5 & WA envelope	Combination Max	26.81490019	-4.249720713	-1.879172899	21.09126589	-390.754695	-125.2365412	19-1	162
19	0	WS5 & WA envelope	Combination Min	23.57703473	-4.342581764	-1.879172899	21.09126589	-695.1807047	-831.5195303	19-1	0
19	81	WS5 & WA envelope	Combination Min	23.87106473	-4.342581764	-1.879172899	21.09126589	-542.9676999	-479.7861752	19-1	81
19	162	WS5 & WA envelope	Combination Min	24.16509473	-4.342581764	-1.879172899	21.09126589	-390.754695	-128.32075	19-1	162
19	0	Strength 1 - Max	Combination Max	-358.6753026	-0.254254307	-8.760176219	372.2408122	-3240.737177	-727.0150214	19-1	0
19	81	Strength 1 - Max	Combination Max	-344.7959898	-0.254254307	-8.760176219	372.2408122	-2531.162904	-706.4204225	19-1	81
19	162	Strength 1 - Max	Combination Max	-330.9166769	-0.254254307	-8.760176219	372.2408122	-1821.58863	-685.8258236	19-1	162
19	0	Strength 1 - Max	Combination Min	-478.2832188	-24.02172863	-33.16561699	98.3215573	-12269.27921	-5669.125088	19-1	0
19	81	Strength 1 - Max	Combination Min	-464.403906	-24.02172863	-33.16561699	98.3215573	-9582.864237	-3723.365069	19-1	81
19	162	Strength 1 - Max	Combination Min	-450.5245932	-24.02172863	-33.16561699	98.3215573	-6896.449261	-1777.60505	19-1	162
19	0	Strength 1 - Min	Combination Max	-225.809428	-3.361591979	-8.760176219	372.2408122	-3240.737177	-1123.044472	19-1	0
19	81	Strength 1 - Min	Combination Max	-216.3833227	-3.361591979	-8.760176219	372.2408122	-2531.162904	-850.7555212	19-1	81
19	162	Strength 1 - Min	Combination Max	-206.9572175	-3.361591979	-8.760176219	372.2408122	-1821.58863	-578.4665709	19-1	162
19	0	Strength 1 - Min	Combination Min	-345.4173442	-27.1290663	-33.16561699	98.3215573	-12269.27921	-6065.154538	19-1	0
19	81	Strength 1 - Min	Combination Min	-335.991239	-27.1290663	-33.16561699	98.3215573	-9582.864237	-3867.700168	19-1	81
19	162	Strength 1 - Min	Combination Min	-326.5651337	-27.1290663	-33.16561699	98.3215573	-6896.449261	-1670.245797	19-1	162
19	0	Strength 3 - Max	Combination Max	-368.945668	7.48799781	-0.873422634	26.49467669	-323.1137287	815.5777764	19-1	0
19	81	Strength 3 - Max	Combination Max	-354.9988552	7.48799781	-0.873422634	26.49467669	-252.3664953	209.0499538	19-1	81
19	162	Strength 3 - Max	Combination Max	-341.0520424	7.48799781	-0.873422634	26.49467669	-181.619262	-397.4778688	19-1	162
19	0	Strength 3 - Max	Combination Min	-404.6465655	3.561594269	-2.360601714	9.803030376	-873.2803478	73.84982145	19-1	0

19	81	Strength 3 - Max	Combination	Min	-388.7172777	3.561594269	-2.360601714	9.803030376	-682.071609	-214.6718923	19-1	81
19	162	Strength 3 - Max	Combination	Min	-372.7879899	3.561594269	-2.360601714	9.803030376	-490.8628701	-503.7471804	19-1	162
19	0	Strength 3 - Min	Combination	Max	-236.0797934	4.380660138	-0.873422634	26.49467669	-323.1137287	419.5483263	19-1	0
19	81	Strength 3 - Min	Combination	Max	-226.5861882	4.380660138	-0.873422634	26.49467669	-252.3664953	64.7148551	19-1	81
19	162	Strength 3 - Min	Combination	Max	-217.092583	4.380660138	-0.873422634	26.49467669	-181.619262	-290.1186161	19-1	162
19	0	Strength 3 - Min	Combination	Min	-271.7806909	0.454256597	-2.360601714	9.803030376	-873.2803478	-322.1796287	19-1	0
19	81	Strength 3 - Min	Combination	Min	-260.3046107	0.454256597	-2.360601714	9.803030376	-682.071609	-359.006991	19-1	81
19	162	Strength 3 - Min	Combination	Min	-248.8285305	0.454256597	-2.360601714	9.803030376	-490.8628701	-396.3879277	19-1	162
19	0	Strength 5 - Max	Combination	Max	-347.9814838	-2.209599991	-8.637023125	308.2484639	-3195.177956	-1089.348243	19-1	0
19	81	Strength 5 - Max	Combination	Max	-334.102171	-2.209599991	-8.637023125	308.2484639	-2495.579083	-910.3706433	19-1	81
19	162	Strength 5 - Max	Combination	Max	-320.2228582	-2.209599991	-8.637023125	308.2484639	-1795.980209	-731.393044	19-1	162
19	0	Strength 5 - Max	Combination	Min	-447.5383132	-20.6373698	-27.46407743	96.93932438	-10160.05324	-4919.661384	19-1	0
19	81	Strength 5 - Max	Combination	Min	-431.3399704	-20.6373698	-27.46407743	96.93932438	-7935.462968	-3248.050198	19-1	81
19	162	Strength 5 - Max	Combination	Min	-415.1416276	-20.6373698	-27.46407743	96.93932438	-5710.872696	-1576.706942	19-1	162
19	0	Strength 5 - Min	Combination	Max	-215.1156092	-5.316937663	-8.637023125	308.2484639	-3195.177956	-1485.377693	19-1	0
19	81	Strength 5 - Min	Combination	Max	-205.689504	-5.316937663	-8.637023125	308.2484639	-2495.579083	-1054.705742	19-1	81
19	162	Strength 5 - Min	Combination	Max	-196.2633988	-5.316937663	-8.637023125	308.2484639	-1795.980209	-624.0337913	19-1	162
19	0	Strength 5 - Min	Combination	Min	-314.6724386	-23.74470748	-27.46407743	96.93932438	-10160.05324	-5315.690835	19-1	0
19	81	Strength 5 - Min	Combination	Min	-302.9273034	-23.74470748	-27.46407743	96.93932438	-7935.462968	-3392.385297	19-1	81
19	162	Strength 5 - Min	Combination	Min	-291.1821682	-23.74470748	-27.46407743	96.93932438	-5710.872696	-1469.347689	19-1	162
19	0	Service 1	Combination	Max	-274.998716	-0.311320536	-5.879237617	222.5120659	-2174.963544	-572.6524472	19-1	0
19	81	Service 1	Combination	Max	-264.3002657	-0.311320536	-5.879237617	222.5120659	-1698.745297	-547.4354838	19-1	81
19	162	Service 1	Combination	Max	-253.6018155	-0.311320536	-5.879237617	222.5120659	-1222.52705	-522.2185204	19-1	162
19	0	Service 1	Combination	Min	-350.0897434	-13.96372325	-19.82520377	65.9867774	-7334.130422	-3410.344364	19-1	0
19	81	Service 1	Combination	Min	-337.3413181	-13.96372325	-19.82520377	65.9867774	-5728.288916	-2279.294834	19-1	81
19	162	Service 1	Combination	Min	-324.5928929	-13.96372325	-19.82520377	65.9867774	-4122.447411	-1148.450127	19-1	162
19	0	WServ1: 45deg	Combination		19.49252161	-2.301835744	-0.873422634	9.803030376	-323.1137287	-433.8726537	19-1	0
19	81	WServ1: 45deg	Combination		18.76824661	-2.301835744	-0.873422634	9.803030376	-252.3664953	-247.4239585	19-1	81
19	162	WServ1: 45deg	Combination		18.04397161	-2.301835744	-0.873422634	9.803030376	-181.619262	-60.97526324	19-1	162
19	0	WServ1: 30deg	Combination		18.95811885	-2.302006792	-0.873422634	9.803030376	-323.1137287	-434.3158929	19-1	0
19	81	WServ1: 30deg	Combination		18.30876885	-2.302006792	-0.873422634	9.803030376	-252.3664953	-247.8533427	19-1	81
19	162	WServ1: 30deg	Combination		17.65941885	-2.302006792	-0.873422634	9.803030376	-181.619262	-61.39079258	19-1	162
19	0	WServ1: 15deg	Combination		18.26181414	-2.298238578	-0.873422634	9.803030376	-323.1137287	-433.9102648	19-1	0
19	81	WServ1: 15deg	Combination		17.73733914	-2.298238578	-0.873422634	9.803030376	-252.3664953	-247.7529399	19-1	81
19	162	WServ1: 15deg	Combination		17.21286414	-2.298238578	-0.873422634	9.803030376	-181.619262	-61.59561508	19-1	162
19	0	WServ1: 0deg	Combination		17.89878898	-2.302155605	-0.873422634	9.803030376	-323.1137287	-434.2089356	19-1	0
19	81	WServ1: 0deg	Combination		17.54913898	-2.302155605	-0.873422634	9.803030376	-252.3664953	-247.7343316	19-1	81
19	162	WServ1: 0deg	Combination		17.19948898	-2.302155605	-0.873422634	9.803030376	-181.619262	-61.25972764	19-1	162
19	0	WServ1: -15deg	Combination		17.44140149	-2.300749582	-0.873422634	9.803030376	-323.1137287	-433.5209615	19-1	0
19	81	WServ1: -15deg	Combination		17.29155149	-2.300749582	-0.873422634	9.803030376	-252.3664953	-247.1602454	19-1	81
19	162	WServ1: -15deg	Combination		17.14170149	-2.300749582	-0.873422634	9.803030376	-181.619262	-60.79952926	19-1	162
19	0	WServ1: -30deg	Combination		16.9815933	-2.295638634	-0.873422634	9.803030376	-323.1137287	-432.0987825	19-1	0

19	81	WServ1: -30deg	Combination		17.0065683	-2.295638634	-0.873422634	9.803030376	-252.3664953	-246.1520531	19-1	81
19	162	WServ1: -30deg	Combination		17.0315433	-2.295638634	-0.873422634	9.803030376	-181.619262	-60.20532376	19-1	162
19	0	WServ1 + WA	Combination		23.72524001	-2.231166785	-0.873422634	9.803030376	-323.1137287	-420.6868713	19-1	0
19	81	WServ1 + WA	Combination		21.70024001	-2.231166785	-0.873422634	9.803030376	-252.3664953	-239.9623617	19-1	81
19	162	WServ1 + WA	Combination		19.67524001	-2.231166785	-0.873422634	9.803030376	-181.619262	-59.23785215	19-1	162
19	0	WServ1 & WA envelope	Combination	Max	23.72524001	-2.231166785	-0.873422634	9.803030376	-323.1137287	-420.6868713	19-1	0
19	81	WServ1 & WA envelope	Combination	Max	21.70024001	-2.231166785	-0.873422634	9.803030376	-252.3664953	-239.9623617	19-1	81
19	162	WServ1 & WA envelope	Combination	Max	19.67524001	-2.231166785	-0.873422634	9.803030376	-181.619262	-59.23785215	19-1	162
19	0	WServ1 & WA envelope	Combination	Min	16.9815933	-2.302155605	-0.873422634	9.803030376	-323.1137287	-434.3158929	19-1	0
19	81	WServ1 & WA envelope	Combination	Min	17.0065683	-2.302155605	-0.873422634	9.803030376	-252.3664953	-247.8533427	19-1	81
19	162	WServ1 & WA envelope	Combination	Min	17.0315433	-2.302155605	-0.873422634	9.803030376	-181.619262	-61.59561508	19-1	162
19	0	Strength Envelope	Combination	Max	-215.1156092	7.48799781	-0.873422634	372.2408122	-323.1137287	815.5777764	19-1	0
19	81	Strength Envelope	Combination	Max	-205.689504	7.48799781	-0.873422634	372.2408122	-252.3664953	209.0499538	19-1	81
19	162	Strength Envelope	Combination	Max	-196.2633988	7.48799781	-0.873422634	372.2408122	-181.619262	-290.1186161	19-1	162
19	0	Strength Envelope	Combination	Min	-478.2832188	-27.1290663	-33.16561699	9.803030376	-12269.27921	-6065.154538	19-1	0
19	81	Strength Envelope	Combination	Min	-464.403906	-27.1290663	-33.16561699	9.803030376	-9582.864237	-3867.700168	19-1	81
19	162	Strength Envelope	Combination	Min	-450.5245932	-27.1290663	-33.16561699	9.803030376	-6896.449261	-1777.60505	19-1	162

TABLE: Joint Displacements

Joint	OutputCase	CaseType	StepType	U1	U2	U3	R1	R2	R3
Text	Text	Text	Text	in	in	in	Radians	Radians	Radians
1	DEAD	LinStatic		-0.000823449	0	-0.001459512	0	-6.16906E-06	0
1	R01_Z	LinStatic		-1.34413E-05	0	2.55099E-05	0	-8.65841E-08	0
1	R02_Z	LinStatic		2.62476E-05	0	1.37509E-05	0	1.89627E-07	0
1	R03_Z	LinStatic		1.68373E-05	0	3.45345E-06	0	1.25085E-07	0
1	R04_Z	LinStatic		5.8148E-07	0	-1.03696E-06	0	3.10597E-10	0
1	R05_Z	LinStatic		4.28202E-07	0	-1.05853E-06	0	6.39044E-09	0
1	R06_Z	LinStatic		-2.28911E-06	0	-2.59867E-07	0	-2.05498E-08	0
1	R07_Z	LinStatic		7.49828E-07	0	2.40541E-08	0	8.03607E-09	0
1	R08_Z	LinStatic		-1.39333E-06	0	2.13928E-08	0	-1.34999E-08	0
1	R09_Z	LinStatic		9.07654E-07	0	3.25985E-08	0	8.7006E-09	0
1	R10_Z	LinStatic		8.79565E-07	0	1.31035E-08	0	8.49941E-09	0
1	R11_Z	LinStatic		2.97963E-06	0	3.00127E-08	0	2.8935E-08	0
1	R12_Z	LinStatic		-1.96152E-06	0	-2.25107E-08	0	-1.90504E-08	0
1	R_X	LinStatic		0.003978908	0	5.1853E-05	0	3.86972E-05	0
1	R_Y	LinStatic		0	0.008032171	0	-8.90106E-05	0	2.54778E-06
1	Cap_R_X	LinStatic		0.000322979	0	3.50596E-06	0	3.13725E-06	0
1	Cap_w_Y	LinStatic		-0.000304981	0	-0.000271886	0	-2.28484E-06	0
1	Cap_w_Z	LinStatic		-0.000304981	0	-0.000271886	0	-2.28484E-06	0
1	Col_w_X	LinStatic		7.37047E-19	0	-0.000329044	0	5.7646E-21	0
1	Col_w_Y	LinStatic		7.37047E-19	0	-0.000329044	0	5.7646E-21	0
1	Cais_w_X	LinStatic		2.24845E-19	0	-0.000167626	0	1.75718E-21	0
1	Cais_w_Y	LinStatic		2.24845E-19	0	-0.000167626	0	1.75718E-21	0
1	DC	LinStatic		-0.005718179	0	-0.006712406	0	-4.39362E-05	0
1	DW	LinStatic		-0.000772614	0	-0.001023981	0	-5.97061E-06	0
1	WS3	LinStatic		-0.010670348	-0.011325361	-0.000286979	0.000125505	-0.000103916	-3.59238E-06
1	WL5	LinStatic		-0.002755228	-0.003534155	-5.67563E-05	3.91647E-05	-2.67765E-05	-1.12103E-06
1	PL	LinStatic		-0.000255503	0	-0.00033863	0	-1.97448E-06	0
1	LL-1 Lane	LinStatic		-0.001045856	0	-0.001874521	0	-8.07215E-06	0
1	LL-2 Lane	LinStatic		-0.001595495	0	-0.002808304	0	-1.23157E-05	0
1	LL-3 Lane	LinStatic		-0.001846351	0	-0.003177855	0	-1.42535E-05	0
1	LL-7 Lane	LinStatic		-0.001954461	0	-0.002796066	0	-1.50995E-05	0
1	CE-1 Lane	LinStatic		-0.008629085	-0.005461876	-0.000186053	6.05272E-05	-8.38531E-05	-1.73249E-06
1	CE-2 Lane	LinStatic		-0.014381648	-0.009156675	-0.000310238	0.000101472	-0.000139754	-2.90447E-06
1	CE-3 Lane	LinStatic		-0.018351038	-0.011646648	-0.000403796	0.000129065	-0.000178264	-3.69429E-06
1	CE-7 Lane	LinStatic		-0.032718443	-0.020723001	-0.000705523	0.000229647	-0.000317942	-6.57328E-06
1	BR-1 Lane	LinStatic		-0.002904603	-0.018554314	-3.78527E-05	0.000205614	-2.8249E-05	-5.88538E-06
1	BR-2 Lane	LinStatic		-0.004814478	-0.030843536	-6.27421E-05	0.000341801	-4.68237E-05	-9.78349E-06
1	BR-3 Lane	LinStatic		-0.006167307	-0.039357637	-8.03721E-05	0.000436152	-5.99807E-05	-1.24841E-05
1	BR-7 Lane	LinStatic		-0.010981785	-0.070201172	-0.000143114	0.000777952	-0.000106804	-2.22676E-05

1	WSub3: 45deg	LinStatic	-0.000270232	0	0.000163459	0	-2.70621E-06	0
1	WSub3: 30deg	LinStatic	-0.000320829	0	0.000131895	0	-3.15703E-06	0
1	WSub3: 15deg	LinStatic	-0.000342537	0	9.33968E-05	0	-3.33401E-06	0
1	WSub3: 0deg	LinStatic	-0.00030504	0	8.11277E-05	0	-3.01721E-06	0
1	WSub3: -15deg	LinStatic	-0.000247983	0	6.47089E-05	0	-2.50365E-06	0
1	WSub3: -30deg	LinStatic	-0.000171548	0	4.68863E-05	0	-1.80185E-06	0
1	WSub3: -45deg	LinStatic	-8.82939E-05	0	2.20899E-05	0	-1.02027E-06	0
1	WA	LinStatic	-2.57644E-19	0	0.000135839	0	-2.02192E-21	0
1	WS3: 45deg	Combination	-0.01094058	-0.011325361	-0.00012352	0.000125505	-0.000106622	-3.59238E-06
1	WS3: 30deg	Combination	-0.010991177	-0.011325361	-0.000155084	0.000125505	-0.000107073	-3.59238E-06
1	WS3: 15deg	Combination	-0.011012885	-0.011325361	-0.000193582	0.000125505	-0.00010725	-3.59238E-06
1	WS3: 0deg	Combination	-0.010975388	-0.011325361	-0.000205851	0.000125505	-0.000106933	-3.59238E-06
1	WS3: -15deg	Combination	-0.010918331	-0.011325361	-0.00022227	0.000125505	-0.00010642	-3.59238E-06
1	WS3: -30deg	Combination	-0.010841896	-0.011325361	-0.000240093	0.000125505	-0.000105718	-3.59238E-06
1	WServ1: -45deg	Combination	-0.004011502	-0.004190383	-8.88343E-05	4.64368E-05	-3.91156E-05	-1.32918E-06
1	WS5: 45deg	Combination	-0.008050469	-0.00901563	-0.00011654	9.9909E-05	-7.83816E-05	-2.85974E-06
1	WS5: 30deg	Combination	-0.008074958	-0.00901563	-0.000131817	9.9909E-05	-7.85998E-05	-2.85974E-06
1	WS5: 15deg	Combination	-0.008085464	-0.00901563	-0.00015045	9.9909E-05	-7.86855E-05	-2.85974E-06
1	WS5: 0deg	Combination	-0.008067316	-0.00901563	-0.000156388	9.9909E-05	-7.85321E-05	-2.85974E-06
1	WS5: -15deg	Combination	-0.0080397	-0.00901563	-0.000164335	9.9909E-05	-7.82836E-05	-2.85974E-06
1	WS5: -30deg	Combination	-0.008002706	-0.00901563	-0.000172961	9.9909E-05	-7.79439E-05	-2.85974E-06
1	WS5: -45deg	Combination	-0.00796211	-0.00901563	-0.000184963	9.9909E-05	-7.75656E-05	-2.85974E-06
1	LL - 1 Lane	Combination	-0.012835047	-0.024016191	-0.002437056	0.000266142	-0.000122149	-7.61788E-06
1	WS5 + WA	Combination	-0.007919676	-0.00901563	-5.98149E-05	9.9909E-05	-7.70718E-05	-2.85974E-06
1	LL - 2 Lane	Combination	-0.021047124	-0.04000021	-0.003519914	0.000443273	-0.000200868	-1.2688E-05
1	LL - 3 Lane	Combination	-0.026620199	-0.051004284	-0.004000652	0.000565217	-0.000254473	-1.61784E-05
1	LL - 7 Lane	Combination	-0.045910191	-0.090924173	-0.003983332	0.0010076	-0.00044182	-2.88409E-05
1	LL Envelope	Combination Max	-0.012835047	-0.024016191	-0.002437056	0.0010076	-0.000122149	-7.61788E-06
1	LL Envelope	Combination Min	-0.045910191	-0.090924173	-0.004000652	0.000266142	-0.00044182	-2.88409E-05
1	WS3 & WA envelope	Combination Max	-0.004011502	-0.004190383	-8.88343E-05	0.000125505	-3.91156E-05	-1.32918E-06
1	WS3 & WA envelope	Combination Min	-0.011012885	-0.011325361	-0.000240093	4.64368E-05	-0.00010725	-3.59238E-06
1	WS3 + WA	Combination	-0.010670348	-0.011325361	-0.00015114	0.000125505	-0.000103916	-3.59238E-06
1	WS5 & WA envelope	Combination Max	-0.007919676	-0.00901563	-5.98149E-05	9.9909E-05	-7.70718E-05	-2.85974E-06
1	WS5 & WA envelope	Combination Min	-0.008085464	-0.00901563	-0.000184963	9.9909E-05	-7.86855E-05	-2.85974E-06
1	Strength 1 - Max	Combination Max	-0.031797287	-0.042028333	-0.015879878	0.001763299	-0.000285348	-1.33313E-05
1	Strength 1 - Max	Combination Min	-0.08967879	-0.159117303	-0.01861617	0.000465748	-0.000844773	-5.04716E-05
1	Strength 1 - Min	Combination Max	-0.028850995	-0.042028333	-0.012149323	0.001763299	-0.000262736	-1.33313E-05
1	Strength 1 - Min	Combination Min	-0.086732499	-0.159117303	-0.014885615	0.000465748	-0.000822161	-5.04716E-05
1	Strength 3 - Max	Combination Max	-0.013347457	-0.004190383	-0.011839702	0.000125505	-0.000110703	-1.32918E-06
1	Strength 3 - Max	Combination Min	-0.020348841	-0.011325361	-0.011990961	4.64368E-05	-0.000178837	-3.59238E-06
1	Strength 3 - Min	Combination Max	-0.010401166	-0.004190383	-0.008109148	0.000125505	-8.80912E-05	-1.32918E-06
1	Strength 3 - Min	Combination Min	-0.017402549	-0.011325361	-0.008260406	4.64368E-05	-0.000156226	-3.59238E-06

1	Strength 5 - Max	Combination	Max	-0.034582945	-0.041437487	-0.015100709	0.001460169	-0.00031356	-1.31439E-05
1	Strength 5 - Max	Combination	Min	-0.079400178	-0.131763263	-0.01733671 1	0.0004592	-0.00074673	-4.1795E-05
1	Strength 5 - Min	Combination	Max	-0.031636653	-0.041437487	-0.011370154	0.001460169	-0.000290948	-1.31439E-05
1	Strength 5 - Min	Combination	Min	-0.076453887	-0.131763263	-0.013606156	0.0004592	-0.000724118	-4.1795E-05
1	Service 1	Combination	Max	-0.024097317	-0.028206574	-0.011603298	0.001054036	-0.000216673	-8.94706E-06
1	Service 1	Combination	Min	-0.057299201	-0.095114556	-0.013285385	0.000312578	-0.000537578	-3.01701E-05
1	WServ1: 45deg	Combination		-0.004048015	-0.004190383	-4.57025E-05	4.64368E-05	-3.94502E-05	-1.32918E-06
1	WServ1: 30deg	Combination		-0.004066735	-0.004190383	-5.73811E-05	4.64368E-05	-3.9617E-05	-1.32918E-06
1	WServ1: 15deg	Combination		-0.004074768	-0.004190383	-7.16254E-05	4.64368E-05	-3.96825E-05	-1.32918E-06
1	WServ1: 0deg	Combination		-0.004060893	-0.004190383	-7.61649E-05	4.64368E-05	-3.95652E-05	-1.32918E-06
1	WServ1: -15deg	Combination		-0.004039783	-0.004190383	-8.22399E-05	4.64368E-05	-3.93752E-05	-1.32918E-06
1	WServ1: -30deg	Combination		-0.004011502	-0.004190383	-8.88343E-05	4.64368E-05	-3.91156E-05	-1.32918E-06
1	WServ1 + WA	Combination		-0.003948029	-0.004190383	2.9657E-05	4.64368E-05	-3.84489E-05	-1.32918E-06
1	WServ1 & WA envelope	Combination	Max	-0.003948029	-0.004190383	2.9657E-05	4.64368E-05	-3.84489E-05	-1.32918E-06
1	WServ1 & WA envelope	Combination	Min	-0.004074768	-0.004190383	-8.88343E-05	4.64368E-05	-3.96825E-05	-1.32918E-06
1	Strength Envelope	Combination	Max	-0.010401166	-0.004190383	-0.008109148	0.001763299	-8.80912E-05	-1.32918E-06
1	Strength Envelope	Combination	Min	-0.08967879	-0.159117303	-0.01861617	4.64368E-05	-0.000844773	-5.04716E-05
2	DEAD	LinStatic		4.04218E-05	0	-0.002855292	0	2.5455E-05	0
2	R01_Z	LinStatic		1.58459E-05	0	6.34366E-05	0	6.22143E-07	0
2	R02_Z	LinStatic		-8.83479E-06	0	3.41949E-05	0	-9.14068E-07	0
2	R03_Z	LinStatic		-1.96256E-06	0	8.58783E-06	0	-5.35943E-07	0
2	R04_Z	LinStatic		-4.38139E-06	0	-2.57865E-06	0	-7.72045E-08	0
2	R05_Z	LinStatic		3.40306E-06	0	-2.6323E-06	0	3.33547E-08	0
2	R06_Z	LinStatic		-3.5461E-06	0	-6.46221E-07	0	2.09817E-08	0
2	R07_Z	LinStatic		2.56537E-06	0	5.98163E-08	0	1.22287E-08	0
2	R08_Z	LinStatic		-3.22539E-06	0	5.31983E-08	0	-1.74698E-09	0
2	R09_Z	LinStatic		2.00044E-06	0	8.10641E-08	0	-2.31737E-10	0
2	R10_Z	LinStatic		2.01177E-06	0	3.2585E-08	0	7.71982E-10	0
2	R11_Z	LinStatic		6.96819E-06	0	7.46338E-08	0	4.69843E-09	0
2	R12_Z	LinStatic		-4.58956E-06	0	-5.59783E-08	0	-3.12483E-09	0
2	R_X	LinStatic		0.009367779	0	0.000128945	0	7.12683E-06	0
2	R_Y	LinStatic		0	0.03063056	0	-0.000173861	0	8.28566E-06
2	Cap_R_X	LinStatic		0.000756207	0	8.71841E-06	0	5.21336E-07	0
2	Cap_w_Y	LinStatic		1.49711E-05	0	-0.000676111	0	9.42778E-06	0
2	Cap_w_Z	LinStatic		1.49711E-05	0	-0.000676111	0	9.42778E-06	0
2	Col_w_X	LinStatic		2.25099E-19	0	-0.000573645	0	-1.92288E-20	0
2	Col_w_Y	LinStatic		2.25099E-19	0	-0.000573645	0	-1.92288E-20	0
2	Cais_w_X	LinStatic		6.71803E-20	0	-0.000167626	0	-5.88625E-21	0
2	Cais_w_Y	LinStatic		6.71803E-20	0	-0.000167626	0	-5.88625E-21	0
2	DC	LinStatic		-0.000899715	0	-0.016692016	0	0.000160702	0
2	DW	LinStatic		-0.000158312	0	-0.002546375	0	2.12133E-05	0
2	WS3	LinStatic		-0.02527291 1	-0.04318909	-0.000713642	0.000245143	-2.11679E-05	-1.16828E-05

2	WL5	LinStatic	-0.006465598	-0.013477446	-0.000141138	7.64987E-05	-4.64657E-06	-3.64569E-06
2	PL	LinStatic	-5.23535E-05	0	-0.000842085	0	7.01524E-06	0
2	LL-1 Lane	LinStatic	-0.000203515	0	-0.004661449	0	2.88624E-05	0
2	LL-2 Lane	LinStatic	-0.000311891	0	-0.006983525	0	4.40114E-05	0
2	LL-3 Lane	LinStatic	-0.000362494	0	-0.007902502	0	5.09099E-05	0
2	LL-7 Lane	LinStatic	-0.000395963	0	-0.006953092	0	5.37242E-05	0
2	CE-1 Lane	LinStatic	-0.020240791	-0.020828781	-0.000462665	0.000118225	-1.4433E-05	-5.63425E-06
2	CE-2 Lane	LinStatic	-0.033734831	-0.034918839	-0.000771482	0.000198201	-2.40624E-05	-9.44566E-06
2	CE-3 Lane	LinStatic	-0.042978447	-0.044414312	-0.001004136	0.000252098	-2.97876E-05	-1.20142E-05
2	CE-7 Lane	LinStatic	-0.076746437	-0.079026845	-0.001754452	0.00044856	-5.47319E-05	-2.1377E-05
2	BR-1 Lane	LinStatic	-0.006838479	-0.070756594	-9.41298E-05	0.000401618	-5.20258E-06	-1.91399E-05
2	BR-2 Lane	LinStatic	-0.011335013	-0.117621351	-0.000156023	0.000667625	-8.62346E-06	-3.18169E-05
2	BR-3 Lane	LinStatic	-0.014520058	-0.150089744	-0.000199865	0.000851917	-1.10466E-05	-4.05997E-05
2	BR-7 Lane	LinStatic	-0.025855071	-0.267711095	-0.000355888	0.001519542	-1.967E-05	-7.24167E-05
2	WSub3: 45deg	LinStatic	-0.000720193	0	0.00027061	0	-1.6266E-06	0
2	WSub3: 30deg	LinStatic	-0.000794915	0	0.000206934	0	-1.11307E-06	0
2	WSub3: 15deg	LinStatic	-0.000809291	0	0.00013589	0	-6.52107E-07	0
2	WSub3: 0deg	LinStatic	-0.000772528	0	0.000137501	0	-1.28599E-06	0
2	WSub3: -15deg	LinStatic	-0.000682682	0	0.000131285	0	-1.78909E-06	0
2	WSub3: -30deg	LinStatic	-0.000547463	0	0.000121532	0	-2.26092E-06	0
2	WSub3: -45deg	LinStatic	-0.000381696	0	9.69295E-05	0	-2.52334E-06	0
2	WA	LinStatic	-8.60268E-20	0	0.000199436	0	6.62182E-21	0
2	WS3: 45deg	Combination	-0.025993104	-0.04318909	-0.000443032	0.000245143	-2.27945E-05	-1.16828E-05
2	WS3: 30deg	Combination	-0.026067826	-0.04318909	-0.000506709	0.000245143	-2.2281E-05	-1.16828E-05
2	WS3: 15deg	Combination	-0.026082202	-0.04318909	-0.000577752	0.000245143	-2.182E-05	-1.16828E-05
2	WS3: 0deg	Combination	-0.02604544	-0.04318909	-0.000576141	0.000245143	-2.24539E-05	-1.16828E-05
2	WS3: -15deg	Combination	-0.025955593	-0.04318909	-0.000582357	0.000245143	-2.2957E-05	-1.16828E-05
2	WS3: -30deg	Combination	-0.025820374	-0.04318909	-0.00059211	0.000245143	-2.34288E-05	-1.16828E-05
2	WServ1: -45deg	Combination	-0.009553538	-0.015979963	-0.000219081	9.07031E-05	-8.66866E-06	-4.32263E-06
2	WS5: 45deg	Combination	-0.019046261	-0.034380966	-0.000355566	0.000195148	-1.56791E-05	-9.30016E-06
2	WS5: 30deg	Combination	-0.019082426	-0.034380966	-0.000386385	0.000195148	-1.54306E-05	-9.30016E-06
2	WS5: 15deg	Combination	-0.019089384	-0.034380966	-0.00042077	0.000195148	-1.52075E-05	-9.30016E-06
2	WS5: 0deg	Combination	-0.019071591	-0.034380966	-0.000419991	0.000195148	-1.55143E-05	-9.30016E-06
2	WS5: -15deg	Combination	-0.019028105	-0.034380966	-0.000422999	0.000195148	-1.57578E-05	-9.30016E-06
2	WS5: -30deg	Combination	-0.018962659	-0.034380966	-0.00042772	0.000195148	-1.59861E-05	-9.30016E-06
2	WS5: -45deg	Combination	-0.018882428	-0.034380966	-0.000439627	0.000195148	-1.61131E-05	-9.30016E-06
2	LL - 1 Lane	Combination	-0.027335138	-0.091585375	-0.006060328	0.000519843	1.6242E-05	-2.47741E-05
2	WS5 + WA	Combination	-0.018697687	-0.034380966	-0.000287106	0.000195148	-1.48918E-05	-9.30016E-06
2	LL - 2 Lane	Combination	-0.045434089	-0.152540189	-0.008753115	0.000865826	1.83408E-05	-4.12626E-05
2	LL - 3 Lane	Combination	-0.057913353	-0.194504057	-0.009948586	0.001104015	1.7091E-05	-5.2614E-05
2	LL - 7 Lane	Combination	-0.103049824	-0.34673794	-0.009905517	0.001968102	-1.36625E-05	-9.37937E-05
2	LL Envelope	Combination Max	-0.027335138	-0.091585375	-0.006060328	0.001968102	1.83408E-05	-2.47741E-05

2	LL Envelope	Combination Min	-0.103049824	-0.34673794	-0.009948586	0.000519843	-1.36625E-05	-9.37937E-05
2	WS3 & WA envelope	Combination Max	-0.009553538	-0.015979963	-0.000219081	0.000245143	-8.66866E-06	-4.32263E-06
2	WS3 & WA envelope	Combination Min	-0.026082202	-0.04318909	-0.00059211	9.07031E-05	-2.34288E-05	-1.16828E-05
2	WS3 + WA	Combination	-0.02527211	-0.04318909	-0.000514207	0.000245143	-2.11679E-05	-1.16828E-05
2	WS5 & WA envelope	Combination Max	-0.018697687	-0.034380966	-0.000287106	0.000195148	-1.48918E-05	-9.30016E-06
2	WS5 & WA envelope	Combination Min	-0.019089384	-0.034380966	-0.000439627	0.000195148	-1.61131E-05	-9.30016E-06
2	Strength 1 - Max	Combination Max	-0.049148076	-0.160274406	-0.038659837	0.003444178	0.000296613	-4.33547E-05
2	Strength 1 - Max	Combination Min	-0.181648777	-0.606791396	-0.045464289	0.000909726	0.000240607	-0.000164139
2	Strength 1 - Min	Combination Max	-0.048712759	-0.160274406	-0.02965386	0.003444178	0.000213427	-4.33547E-05
2	Strength 1 - Min	Combination Min	-0.181213459	-0.606791396	-0.036458312	0.000909726	0.000157421	-0.000164139
2	Strength 3 - Max	Combination Max	-0.010865123	-0.015979963	-0.028472779	0.000245143	0.000255848	-4.32263E-06
2	Strength 3 - Max	Combination Min	-0.027393786	-0.04318909	-0.028845808	9.07031E-05	0.000241088	-1.16828E-05
2	Strength 3 - Min	Combination Max	-0.010429805	-0.015979963	-0.019466802	0.000245143	0.000172662	-4.32263E-06
2	Strength 3 - Min	Combination Min	-0.026958468	-0.04318909	-0.019839831	9.07031E-05	0.000157901	-1.16828E-05
2	Strength 5 - Max	Combination Max	-0.056911708	-0.158021222	-0.036722247	0.002852086	0.000274385	-4.27452E-05
2	Strength 5 - Max	Combination Min	-0.159518231	-0.502477185	-0.042123917	0.000896936	0.000229959	-0.000135922
2	Strength 5 - Min	Combination Max	-0.056476391	-0.158021222	-0.02771627	0.002852086	0.000191198	-4.27452E-05
2	Strength 5 - Min	Combination Min	-0.159082913	-0.502477185	-0.03311794	0.000896936	0.000146773	-0.000135922
2	Service 1	Combination Max	-0.03770372	-0.107565338	-0.028218624	0.002058805	0.000217879	-2.90968E-05
2	Service 1	Combination Min	-0.113717844	-0.362717904	-0.032261351	0.000610546	0.000185039	-9.81163E-05
2	WServ1: 45deg	Combination	-0.009617448	-0.015979963	-0.000163922	9.07031E-05	-8.43396E-06	-4.32263E-06
2	WServ1: 30deg	Combination	-0.009645096	-0.015979963	-0.000187482	9.07031E-05	-8.24396E-06	-4.32263E-06
2	WServ1: 15deg	Combination	-0.009650415	-0.015979963	-0.000213768	9.07031E-05	-8.0734E-06	-4.32263E-06
2	WServ1: 0deg	Combination	-0.009636813	-0.015979963	-0.000213172	9.07031E-05	-8.30794E-06	-4.32263E-06
2	WServ1: -15deg	Combination	-0.009603569	-0.015979963	-0.000215472	9.07031E-05	-8.49408E-06	-4.32263E-06
2	WServ1: -30deg	Combination	-0.009553538	-0.015979963	-0.000219081	9.07031E-05	-8.66866E-06	-4.32263E-06
2	WServ1 + WA	Combination	-0.009350977	-0.015979963	-6.46121E-05	9.07031E-05	-7.83212E-06	-4.32263E-06
2	WServ1 & WA envelope	Combination Max	-0.009350977	-0.015979963	-6.46121E-05	9.07031E-05	-7.83212E-06	-4.32263E-06
2	WServ1 & WA envelope	Combination Min	-0.009650415	-0.015979963	-0.000219081	9.07031E-05	-8.66866E-06	-4.32263E-06
2	Strength Envelope	Combination Max	-0.010429805	-0.015979963	-0.019466802	0.003444178	0.000296613	-4.32263E-06
2	Strength Envelope	Combination Min	-0.181648777	-0.606791396	-0.045464289	9.07031E-05	0.000146773	-0.000164139
3	DEAD	LinStatic	5.86647E-05	0	-0.002003564	0	4.64058E-07	0
3	R01_Z	LinStatic	4.27567E-06	0	-2.79374E-07	0	4.66436E-08	0
3	R02_Z	LinStatic	-2.252E-05	0	1.24906E-05	0	-1.77425E-07	0
3	R03_Z	LinStatic	-1.35133E-05	0	2.13526E-05	0	-1.03354E-07	0
3	R04_Z	LinStatic	1.57203E-05	0	1.82089E-05	0	1.14444E-07	0
3	R05_Z	LinStatic	1.46366E-05	0	7.22947E-06	0	1.1348E-07	0
3	R06_Z	LinStatic	5.62292E-07	0	-1.54204E-07	0	9.12051E-10	0
3	R07_Z	LinStatic	4.44945E-07	0	-1.27167E-06	0	5.74285E-09	0
3	R08_Z	LinStatic	-1.95727E-06	0	-4.07191E-07	0	-1.7765E-08	0
3	R09_Z	LinStatic	6.53276E-07	0	-5.72791E-08	0	6.79309E-09	0
3	R10_Z	LinStatic	8.75168E-07	0	2.69899E-08	0	8.47553E-09	0

3	R11_Z	LinStatic	3.1389E-06	0	2.3629E-08	0	3.01663E-08	0
3	R12_Z	LinStatic	-2.02836E-06	0	1.49092E-08	0	-1.95745E-08	0
3	R_X	LinStatic	0.004152017	0	-1.62705E-05	0	4.00053E-05	0
3	R_Y	LinStatic	0	0.008594054	0	-9.46555E-05	0	1.56475E-06
3	Cap_R_X	LinStatic	0.000336656	0	-1.15577E-06	0	3.24368E-06	0
3	Cap_w_Y	LinStatic	2.17276E-05	0	-0.000473387	0	1.71873E-07	0
3	Cap_w_Z	LinStatic	2.17276E-05	0	-0.000473387	0	1.71873E-07	0
3	Col_w_X	LinStatic	-6.3019E-20	0	-0.000329044	0	-2.52742E-22	0
3	Col_w_Y	LinStatic	-6.3019E-20	0	-0.000329044	0	-2.52742E-22	0
3	Cais_w_X	LinStatic	-1.77635E-20	0	-0.000167626	0	-6.77594E-23	0
3	Cais_w_Y	LinStatic	-1.77635E-20	0	-0.000167626	0	-6.77594E-23	0
3	DC	LinStatic	-8.83394E-06	0	-0.010171131	0	-1.00745E-06	0
3	DW	LinStatic	-7.29416E-06	0	-0.00144716	0	-2.16123E-07	0
3	WS3	LinStatic	-0.010998968	-0.012117615	0.000169131	0.000133464	-0.0001064	-2.2063E-06
3	WL5	LinStatic	-0.002858038	-0.003781384	-7.45353E-06	4.16484E-05	-2.75539E-05	-6.88492E-07
3	PL	LinStatic	-2.41217E-06	0	-0.000478575	0	-7.14718E-08	0
3	LL-1 Lane	LinStatic	0.000413879	0	-0.001980556	0	2.91141E-06	0
3	LL-2 Lane	LinStatic	0.000586247	0	-0.003019554	0	4.0999E-06	0
3	LL-3 Lane	LinStatic	0.000615704	0	-0.003491233	0	4.27034E-06	0
3	LL-7 Lane	LinStatic	0.000159874	0	-0.003670171	0	8.01566E-07	0
3	CE-1 Lane	LinStatic	-0.008944022	-0.005843956	-3.08739E-05	6.43657E-05	-8.62345E-05	-1.06403E-06
3	CE-2 Lane	LinStatic	-0.014906835	-0.009797221	-5.13366E-05	0.000107907	-0.000143725	-1.78382E-06
3	CE-3 Lane	LinStatic	-0.018934633	-0.012461378	-7.17556E-05	0.00013725	-0.00018268	-2.26889E-06
3	CE-7 Lane	LinStatic	-0.033913118	-0.022172658	-0.000117062	0.000244211	-0.000326975	-4.03707E-06
3	BR-1 Lane	LinStatic	-0.003030972	-0.019852264	1.18775E-05	0.000218654	-2.92038E-05	-3.61458E-06
3	BR-2 Lane	LinStatic	-0.005023941	-0.033001165	1.96873E-05	0.000363477	-4.84064E-05	-6.00866E-06
3	BR-3 Lane	LinStatic	-0.006435626	-0.042110862	2.52193E-05	0.000463812	-6.20082E-05	-7.6673E-06
3	BR-7 Lane	LinStatic	-0.011459567	-0.075112028	4.49066E-05	0.000827289	-0.000110415	-1.3676E-05
3	WSub3: 45deg	LinStatic	-0.000322431	0	0.000192067	0	-3.10212E-06	0
3	WSub3: 30deg	LinStatic	-0.000354793	0	0.00014888	0	-3.41618E-06	0
3	WSub3: 15deg	LinStatic	-0.00036044	0	0.0001004	0	-3.47246E-06	0
3	WSub3: 0deg	LinStatic	-0.000345128	0	0.000102003	0	-3.32231E-06	0
3	WSub3: -15deg	LinStatic	-0.000306033	0	9.71146E-05	0	-2.94338E-06	0
3	WSub3: -30deg	LinStatic	-0.000246738	0	9.05429E-05	0	-2.36983E-06	0
3	WSub3: -45deg	LinStatic	-0.000173543	0	7.2781E-05	0	-1.66309E-06	0
3	WA	LinStatic	2.30247E-20	0	0.000135839	0	8.89148E-23	0
3	WS3: 45deg	Combination	-0.011321399	-0.012117615	0.000361198	0.000133464	-0.000109502	-2.2063E-06
3	WS3: 30deg	Combination	-0.011353761	-0.012117615	0.000318011	0.000133464	-0.000109816	-2.2063E-06
3	WS3: 15deg	Combination	-0.011359408	-0.012117615	0.000269531	0.000133464	-0.000109873	-2.2063E-06
3	WS3: 0deg	Combination	-0.011344096	-0.012117615	0.000271134	0.000133464	-0.000109723	-2.2063E-06
3	WS3: -15deg	Combination	-0.011305001	-0.012117615	0.000266246	0.000133464	-0.000109344	-2.2063E-06
3	WS3: -30deg	Combination	-0.011245706	-0.012117615	0.000259674	0.000133464	-0.00010877	-2.2063E-06

3	WServ1: -45deg	Combination	-0.00416091	-0.004483518	9.60794E-05	4.93818E-05	-4.02449E-05	-8.16332E-07
3	WS5: 45deg	Combination	-0.008337595	-0.009646309	0.000167367	0.000106245	-8.0553E-05	-1.75634E-06
3	WS5: 30deg	Combination	-0.008353258	-0.009646309	0.000146464	0.000106245	-8.0705E-05	-1.75634E-06
3	WS5: 15deg	Combination	-0.008355991	-0.009646309	0.000122999	0.000106245	-8.07322E-05	-1.75634E-06
3	WS5: 0deg	Combination	-0.00834858	-0.009646309	0.000123775	0.000106245	-8.06596E-05	-1.75634E-06
3	WS5: -15deg	Combination	-0.008329658	-0.009646309	0.000121409	0.000106245	-8.04762E-05	-1.75634E-06
3	WS5: -30deg	Combination	-0.00830096	-0.009646309	0.000118229	0.000106245	-8.01986E-05	-1.75634E-06
3	WS5: -45deg	Combination	-0.008265533	-0.009646309	0.000109632	0.000106245	-7.98565E-05	-1.75634E-06
3	LL - 1 Lane	Combination	-0.011563527	-0.02569622	-0.002478127	0.00028302	-0.000112598	-4.67861E-06
3	WS5 + WA	Combination	-0.008181539	-0.009646309	0.000210245	0.000106245	-7.90516E-05	-1.75634E-06
3	LL - 2 Lane	Combination	-0.019346941	-0.042798386	-0.003529778	0.000471384	-0.000188103	-7.79248E-06
3	LL - 3 Lane	Combination	-0.024756967	-0.05457224	-0.004016345	0.000601062	-0.000240489	-9.93619E-06
3	LL - 7 Lane	Combination	-0.045215223	-0.097284686	-0.004220901	0.0010715	-0.00043666	-1.7713E-05
3	LL Envelope	Combination Max	-0.011563527	-0.02569622	-0.002478127	0.0010715	-0.000112598	-4.67861E-06
3	LL Envelope	Combination Min	-0.045215223	-0.097284686	-0.004220901	0.00028302	-0.00043666	-1.7713E-05
3	WS3 & WA envelope	Combination Max	-0.00416091	-0.004483518	0.000361198	0.000133464	-4.02449E-05	-8.16332E-07
3	WS3 & WA envelope	Combination Min	-0.011359408	-0.012117615	9.60794E-05	4.93818E-05	-0.000109873	-2.2063E-06
3	WS3 + WA	Combination	-0.010998968	-0.012117615	0.00030497	0.000133464	-0.0001064	-2.2063E-06
3	WS5 & WA envelope	Combination Max	-0.008181539	-0.009646309	0.000210245	0.000106245	-7.90516E-05	-1.75634E-06
3	WS5 & WA envelope	Combination Min	-0.008355991	-0.009646309	0.000109632	0.000106245	-8.07322E-05	-1.75634E-06
3	Strength 1 - Max	Combination Max	-0.020184825	-0.044968385	-0.021589992	0.001875125	-0.000198051	-8.18758E-06
3	Strength 1 - Max	Combination Min	-0.079075293	-0.1702482	-0.024639846	0.000495285	-0.000765158	-3.09978E-05
3	Strength 1 - Min	Combination Max	-0.020196066	-0.044968385	-0.016098763	0.001875125	-0.000197677	-8.18758E-06
3	Strength 1 - Min	Combination Min	-0.079086533	-0.1702482	-0.019148617	0.000495285	-0.000764784	-3.09978E-05
3	Strength 3 - Max	Combination Max	-0.004109564	-0.004483518	-0.01702791	0.000133464	-4.12483E-05	-8.16332E-07
3	Strength 3 - Max	Combination Min	-0.01130806	-0.012117615	-0.017293029	4.93818E-05	-0.000110876	-2.2063E-06
3	Strength 3 - Min	Combination Max	-0.004120805	-0.004483518	-0.011536681	0.000133464	-4.08745E-05	-8.16332E-07
3	Strength 3 - Min	Combination Min	-0.011319301	-0.012117615	-0.0118018	4.93818E-05	-0.000110502	-2.2063E-06
3	Strength 5 - Max	Combination Max	-0.023740953	-0.044336206	-0.020524335	0.00155277	-0.000232063	-8.07247E-06
3	Strength 5 - Max	Combination Min	-0.069345195	-0.140980635	-0.022977693	0.000488322	-0.000671226	-2.56689E-05
3	Strength 5 - Min	Combination Max	-0.023752194	-0.044336206	-0.015033106	0.00155277	-0.000231689	-8.07247E-06
3	Strength 5 - Min	Combination Min	-0.069356436	-0.140980635	-0.017486464	0.000488322	-0.000670853	-2.56689E-05
3	Service 1	Combination Max	-0.015590609	-0.030179738	-0.015901564	0.001120882	-0.000152726	-5.49495E-06
3	Service 1	Combination Min	-0.049375667	-0.101768203	-0.017746676	0.000332402	-0.000478072	-1.85293E-05
3	WServ1: 45deg	Combination	-0.004188918	-0.004483518	0.000133643	4.93818E-05	-4.05159E-05	-8.16332E-07
3	WServ1: 30deg	Combination	-0.004200892	-0.004483518	0.000117664	4.93818E-05	-4.06321E-05	-8.16332E-07
3	WServ1: 15deg	Combination	-0.004202981	-0.004483518	9.97265E-05	4.93818E-05	-4.06529E-05	-8.16332E-07
3	WServ1: 0deg	Combination	-0.004197315	-0.004483518	0.00010032	4.93818E-05	-4.05973E-05	-8.16332E-07
3	WServ1: -15deg	Combination	-0.00418285	-0.004483518	9.85109E-05	4.93818E-05	-4.04571E-05	-8.16332E-07
3	WServ1: -30deg	Combination	-0.00416091	-0.004483518	9.60794E-05	4.93818E-05	-4.02449E-05	-8.16332E-07
3	WServ1 + WA	Combination	-0.004069618	-0.004483518	0.000198418	4.93818E-05	-3.93681E-05	-8.16332E-07
3	WServ1 & WA envelope	Combination Max	-0.004069618	-0.004483518	0.000198418	4.93818E-05	-3.93681E-05	-8.16332E-07

3	WServ1 & WA envelope	Combination	Min	-0.004202981	-0.004483518	9.60794E-05	4.93818E-05	-4.06529E-05	-8.16332E-07
3	Strength Envelope	Combination	Max	-0.004109564	-0.004483518	-0.011536681	0.001875125	-4.08745E-05	-8.16332E-07
3	Strength Envelope	Combination	Min	-0.079086533	-0.1702482	-0.024639846	4.93818E-05	-0.000765158	-3.09978E-05
4	DEAD	LinStatic		2.35426E-05	0	-0.004208209	0	-1.45395E-06	0
4	R01_Z	LinStatic		1.55107E-05	0	-6.9473E-07	0	8.17389E-08	0
4	R02_Z	LinStatic		-8.26714E-06	0	3.1061E-05	0	5.6862E-07	0
4	R03_Z	LinStatic		-1.61297E-06	0	5.30983E-05	0	3.86759E-07	0
4	R04_Z	LinStatic		-4.35238E-06	0	4.52808E-05	0	-5.34678E-07	0
4	R05_Z	LinStatic		3.3984E-06	0	1.79778E-05	0	-3.96439E-07	0
4	R06_Z	LinStatic		-3.57866E-06	0	-3.83465E-07	0	-6.57014E-08	0
4	R07_Z	LinStatic		2.57052E-06	0	-3.16231E-06	0	2.152E-08	0
4	R08_Z	LinStatic		-3.24102E-06	0	-1.01258E-06	0	1.50964E-08	0
4	R09_Z	LinStatic		2.01101E-06	0	-1.42438E-07	0	7.6058E-09	0
4	R10_Z	LinStatic		2.02173E-06	0	6.7117E-08	0	1.04055E-09	0
4	R11_Z	LinStatic		7.00134E-06	0	5.87592E-08	0	3.32374E-10	0
4	R12_Z	LinStatic		-4.61137E-06	0	3.70753E-08	0	-1.39983E-09	0
4	R_X	LinStatic		0.009371266	0	-4.04605E-05	0	1.93863E-06	0
4	R_Y	LinStatic		0	0.032147371	0	-0.000177506	0	5.08874E-06
4	Cap_R_X	LinStatic		0.000759797	0	-2.87409E-06	0	1.56509E-07	0
4	Cap_w_Y	LinStatic		8.71949E-06	0	-0.001177191	0	-5.385E-07	0
4	Cap_w_Z	LinStatic		8.71949E-06	0	-0.001177191	0	-5.385E-07	0
4	Col_w_X	LinStatic		2.39128E-19	0	-0.000573645	0	5.15982E-21	0
4	Col_w_Y	LinStatic		2.39128E-19	0	-0.000573645	0	5.15982E-21	0
4	Cais_w_X	LinStatic		7.11508E-20	0	-0.000167626	0	1.5054E-21	0
4	Cais_w_Y	LinStatic		7.11508E-20	0	-0.000167626	0	1.5054E-21	0
4	DC	LinStatic		-0.001012295	0	-0.02529297	0	-1.35072E-05	0
4	DW	LinStatic		-0.000173379	0	-0.003598712	0	-2.13856E-06	0
4	WS3	LinStatic		-0.025280927	-0.045327793	0.000420585	0.000250283	-1.13379E-05	-7.17513E-06
4	WL5	LinStatic		-0.006468195	-0.014144843	-1.8535E-05	7.81026E-05	-1.57245E-06	-2.23905E-06
4	PL	LinStatic		-5.73362E-05	0	-0.001190092	0	-7.0722E-07	0
4	LL-1 Lane	LinStatic		-0.000223953	0	-0.00492513	0	-1.5565E-05	0
4	LL-2 Lane	LinStatic		-0.000343065	0	-0.007508849	0	-2.2399E-05	0
4	LL-3 Lane	LinStatic		-0.000398562	0	-0.008681794	0	-2.40451E-05	0
4	LL-7 Lane	LinStatic		-0.000434095	0	-0.009126765	0	-1.07421E-05	0
4	CE-1 Lane	LinStatic		-0.020249	-0.021860212	-7.67754E-05	0.000120704	-5.01957E-06	-3.46035E-06
4	CE-2 Lane	LinStatic		-0.033748509	-0.036648003	-0.000127661	0.000202357	-8.36436E-06	-5.80117E-06
4	CE-3 Lane	LinStatic		-0.04299631	-0.046613688	-0.000178438	0.000257384	-1.238E-05	-7.37868E-06
4	CE-7 Lane	LinStatic		-0.076777559	-0.082940218	-0.000291103	0.000457965	-1.90228E-05	-1.3129E-05
4	BR-1 Lane	LinStatic		-0.006841024	-0.074260428	2.95362E-05	0.000410039	-1.4152E-06	-1.1755E-05
4	BR-2 Lane	LinStatic		-0.011339232	-0.123445906	4.89572E-05	0.000681623	-2.34574E-06	-1.95408E-05
4	BR-3 Lane	LinStatic		-0.014525462	-0.157522119	6.27138E-05	0.000869779	-3.00487E-06	-2.49348E-05
4	BR-7 Lane	LinStatic		-0.025864694	-0.280968025	0.000111671	0.001551402	-5.35061E-06	-4.44756E-05

4	WSub3: 45deg	LinStatic	-0.000722853	0	0.000341753	0	-8.40635E-08	0
4	WSub3: 30deg	LinStatic	-0.00079831	0	0.00024917	0	-1.32024E-07	0
4	WSub3: 15deg	LinStatic	-0.00081307	0	0.000153305	0	-1.6208E-07	0
4	WSub3: 0deg	LinStatic	-0.00077569	0	0.000189412	0	-1.16559E-07	0
4	WSub3: -15deg	LinStatic	-0.000685038	0	0.00021187	0	-6.5468E-08	0
4	WSub3: -30deg	LinStatic	-0.000548797	0	0.000230095	0	-4.98637E-09	0
4	WSub3: -45deg	LinStatic	-0.000381991	0	0.000222985	0	5.09856E-08	0
4	WA	LinStatic	-9.1056E-20	0	0.000199436	0	-1.93538E-21	0
4	WS3: 45deg	Combination	-0.02600378	-0.045327793	0.000762338	0.000250283	-1.1422E-05	-7.17513E-06
4	WS3: 30deg	Combination	-0.026079237	-0.045327793	0.000669756	0.000250283	-1.147E-05	-7.17513E-06
4	WS3: 15deg	Combination	-0.026093997	-0.045327793	0.00057389	0.000250283	-1.15E-05	-7.17513E-06
4	WS3: 0deg	Combination	-0.026056617	-0.045327793	0.000609997	0.000250283	-1.14545E-05	-7.17513E-06
4	WS3: -15deg	Combination	-0.025965965	-0.045327793	0.000632455	0.000250283	-1.14034E-05	-7.17513E-06
4	WS3: -30deg	Combination	-0.025829725	-0.045327793	0.00065068	0.000250283	-1.13429E-05	-7.17513E-06
4	WServ1: -45deg	Combination	-0.009556998	-0.016771284	0.000240752	9.26048E-05	-4.19689E-06	-2.6548E-06
4	WS5: 45deg	Combination	-0.019054025	-0.036083495	0.000350437	0.00019924	-7.1007E-06	-5.71181E-06
4	WS5: 30deg	Combination	-0.019090546	-0.036083495	0.000305627	0.00019924	-7.12391E-06	-5.71181E-06
4	WS5: 15deg	Combination	-0.01909769	-0.036083495	0.000259228	0.00019924	-7.13846E-06	-5.71181E-06
4	WS5: 0deg	Combination	-0.019079598	-0.036083495	0.000276704	0.00019924	-7.11643E-06	-5.71181E-06
4	WS5: -15deg	Combination	-0.019035722	-0.036083495	0.000287573	0.00019924	-7.0917E-06	-5.71181E-06
4	WS5: -30deg	Combination	-0.018969782	-0.036083495	0.000296394	0.00019924	-7.06243E-06	-5.71181E-06
4	WS5: -45deg	Combination	-0.018889048	-0.036083495	0.000292953	0.00019924	-7.03534E-06	-5.71181E-06
4	LL - 1 Lane	Combination	-0.027371313	-0.09612064	-0.006162461	0.000530743	-2.2707E-05	-1.52153E-05
4	WS5 + WA	Combination	-0.018704164	-0.036083495	0.000384464	0.00019924	-7.06001E-06	-5.71181E-06
4	LL - 2 Lane	Combination	-0.045488142	-0.160093909	-0.008777645	0.000883979	-3.38163E-05	-2.53419E-05
4	LL - 3 Lane	Combination	-0.057977672	-0.204135807	-0.009987609	0.001127163	-4.01371E-05	-3.23135E-05
4	LL - 7 Lane	Combination	-0.103133684	-0.363908243	-0.010496288	0.002009367	-3.58227E-05	-5.76046E-05
4	LL Envelope	Combination Max	-0.027371313	-0.09612064	-0.006162461	0.002009367	-2.2707E-05	-1.52153E-05
4	LL Envelope	Combination Min	-0.103133684	-0.363908243	-0.010496288	0.000530743	-4.01371E-05	-5.76046E-05
4	WS3 & WA envelope	Combination Max	-0.009556998	-0.016771284	0.000762338	0.000250283	-4.19689E-06	-2.6548E-06
4	WS3 & WA envelope	Combination Min	-0.026093997	-0.045327793	0.000240752	9.26048E-05	-1.15E-05	-7.17513E-06
4	WS3 + WA	Combination	-0.025280927	-0.045327793	0.000620021	0.000250283	-1.13379E-05	-7.17513E-06
4	WS5 & WA envelope	Combination Max	-0.018704164	-0.036083495	0.000384464	0.00019924	-7.03534E-06	-5.71181E-06
4	WS5 & WA envelope	Combination Min	-0.01909769	-0.036083495	0.000259228	0.00019924	-7.13846E-06	-5.71181E-06
4	Strength 1 - Max	Combination Max	-0.049395806	-0.16821112	-0.052859413	0.003516392	-6.16465E-05	-2.66269E-05
4	Strength 1 - Max	Combination Min	-0.181979955	-0.636839425	-0.060443611	0.0009288	-9.21492E-05	-0.000100808
4	Strength 1 - Min	Combination Max	-0.048902371	-0.16821112	-0.039475095	0.003516392	-5.45923E-05	-2.66269E-05
4	Strength 1 - Min	Combination Min	-0.18148652	-0.636839425	-0.047059293	0.0009288	-8.5095E-05	-0.000100808
4	Strength 3 - Max	Combination Max	-0.011053006	-0.016771284	-0.041512204	0.000250283	-2.61061E-05	-2.6548E-06
4	Strength 3 - Max	Combination Min	-0.027590005	-0.045327793	-0.04203379	9.26048E-05	-3.34093E-05	-7.17513E-06
4	Strength 3 - Min	Combination Max	-0.010559571	-0.016771284	-0.028127886	0.000250283	-1.90519E-05	-2.6548E-06
4	Strength 3 - Min	Combination Min	-0.02709657	-0.045327793	-0.028649472	9.26048E-05	-2.63551E-05	-7.17513E-06

4	Strength 5 - Max	Combination	Max	-0.057151444	-0.165846359	-0.0502094	0.002911885	-5.9599E-05	-2.62525E-05
4	Strength 5 - Max	Combination	Min	-0.159824171	-0.527359623	-0.056185303	0.000915742	-8.32328E-05	-8.3478E-05
4	Strength 5 - Min	Combination	Max	-0.05665801	-0.165846359	-0.036825083	0.002911885	-5.25448E-05	-2.62525E-05
4	Strength 5 - Min	Combination	Min	-0.159330736	-0.527359623	-0.042800985	0.000915742	-7.61786E-05	-8.3478E-05
4	Service 1	Combination	Max	-0.037887387	-0.112891924	-0.0389073	0.002101972	-4.40017E-05	-1.78701E-05
4	Service 1	Combination	Min	-0.113950593	-0.380679526	-0.04338384	0.000623348	-6.14918E-05	-6.02594E-05
4	WServ1: 45deg	Combination		-0.009621399	-0.016771284	0.000282065	9.26048E-05	-4.22614E-06	-2.6548E-06
4	WServ1: 30deg	Combination		-0.009649318	-0.016771284	0.00024781	9.26048E-05	-4.24389E-06	-2.6548E-06
4	WServ1: 15deg	Combination		-0.009654779	-0.016771284	0.000212339	9.26048E-05	-4.25501E-06	-2.6548E-06
4	WServ1: 0deg	Combination		-0.009640948	-0.016771284	0.000225699	9.26048E-05	-4.23817E-06	-2.6548E-06
4	WServ1: -15deg	Combination		-0.009607407	-0.016771284	0.000234008	9.26048E-05	-4.21926E-06	-2.6548E-06
4	WServ1: -30deg	Combination		-0.009556998	-0.016771284	0.000240752	9.26048E-05	-4.19689E-06	-2.6548E-06
4	WServ1 + WA	Combination		-0.009353943	-0.016771284	0.000355052	9.26048E-05	-4.19504E-06	-2.6548E-06
4	WServ1 & WA envelope	Combination	Max	-0.009353943	-0.016771284	0.000355052	9.26048E-05	-4.19504E-06	-2.6548E-06
4	WServ1 & WA envelope	Combination	Min	-0.009654779	-0.016771284	0.000212339	9.26048E-05	-4.25501E-06	-2.6548E-06
4	Strength Envelope	Combination	Max	-0.010559571	-0.016771284	-0.028127886	0.003516392	-1.90519E-05	-2.6548E-06
4	Strength Envelope	Combination	Min	-0.181979955	-0.636839425	-0.060443611	9.26048E-05	-9.21492E-05	-0.000100808
5	DEAD	LinStatic		1.41104E-05	0	-0.0019316	0	1.13569E-07	0
5	R01_Z	LinStatic		7.31654E-06	0	-3.96105E-07	0	6.92763E-08	0
5	R02_Z	LinStatic		-3.00452E-06	0	-1.39923E-06	0	-3.01972E-08	0
5	R03_Z	LinStatic		-3.71983E-06	0	3.80266E-07	0	-2.94611E-08	0
5	R04_Z	LinStatic		-1.67654E-05	0	8.87131E-06	0	-1.30072E-07	0
5	R05_Z	LinStatic		-1.42975E-05	0	1.92135E-05	0	-1.04347E-07	0
5	R06_Z	LinStatic		1.34586E-05	0	1.95704E-05	0	9.81097E-08	0
5	R07_Z	LinStatic		1.67371E-05	0	9.43987E-06	0	1.28546E-07	0
5	R08_Z	LinStatic		1.89279E-06	0	6.37422E-07	0	1.12147E-08	0
5	R09_Z	LinStatic		3.44533E-07	0	-1.30732E-06	0	4.48081E-09	0
5	R10_Z	LinStatic		3.14134E-07	0	-5.28685E-07	0	4.26521E-09	0
5	R11_Z	LinStatic		2.804E-06	0	-1.07066E-07	0	2.77066E-08	0
5	R12_Z	LinStatic		-2.09063E-06	0	2.75287E-08	0	-2.00855E-08	0
5	R_X	LinStatic		0.004135383	0	6.4149E-07	0	3.98805E-05	0
5	R_Y	LinStatic		0	0.00883378	0	-9.70829E-05	0	3.02939E-07
5	Cap_R_X	LinStatic		0.000338651	0	8.0182E-08	0	3.26564E-06	0
5	Cap_w_Y	LinStatic		5.22607E-06	0	-0.000446734	0	4.20628E-08	0
5	Cap_w_Z	LinStatic		5.22607E-06	0	-0.000446734	0	4.20628E-08	0
5	Col_w_X	LinStatic		3.1677E-20	0	-0.000329044	0	4.71845E-22	0
5	Col_w_Y	LinStatic		3.1677E-20	0	-0.000329044	0	4.71845E-22	0
5	Cais_w_X	LinStatic		1.39699E-21	0	-0.000167626	0	7.97684E-23	0
5	Cais_w_Y	LinStatic		1.39699E-21	0	-0.000167626	0	7.97684E-23	0
5	DC	LinStatic		-0.000432983	0	-0.009679603	0	-4.30552E-06	0
5	DW	LinStatic		-7.56732E-05	0	-0.001376911	0	-7.4503E-07	0
5	WS3	LinStatic		-0.010955728	-0.01245563	0.000494694	0.000136887	-0.000106071	-4.27145E-07

5	WL5	LinStatic	-0.002847693	-0.003886863	-5.78388E-06	4.27165E-05	-2.74763E-05	-1.33293E-07
5	PL	LinStatic	-2.50251E-05	0	-0.000455343	0	-2.46381E-07	0
5	LL-1 Lane	LinStatic	0.000304938	0	-0.001126153	0	2.07991E-06	0
5	LL-2 Lane	LinStatic	0.000422026	0	-0.001796585	0	2.84545E-06	0
5	LL-3 Lane	LinStatic	0.000428327	0	-0.002188281	0	2.83757E-06	0
5	LL-7 Lane	LinStatic	-1.97275E-05	0	-0.003172639	0	-5.82998E-07	0
5	CE-1 Lane	LinStatic	-0.008912212	-0.00600697	-2.02623E-05	6.60164E-05	-8.59961E-05	-2.05999E-07
5	CE-2 Lane	LinStatic	-0.014853807	-0.010070509	-3.36324E-05	0.000110674	-0.000143328	-3.45351E-07
5	CE-3 Lane	LinStatic	-0.018945568	-0.012808981	-2.74585E-05	0.00014077	-0.000182764	-4.39262E-07
5	CE-7 Lane	LinStatic	-0.033792024	-0.022791152	-7.68308E-05	0.000250474	-0.000326068	-7.81584E-07
5	BR-1 Lane	LinStatic	-0.00301883	-0.020406032	-4.68288E-07	0.000224261	-2.91127E-05	-6.9979E-07
5	BR-2 Lane	LinStatic	-0.005003814	-0.033921715	-7.76203E-07	0.000372798	-4.82553E-05	-1.16329E-06
5	BR-3 Lane	LinStatic	-0.006409844	-0.043285521	-9.9431E-07	0.000475706	-6.18147E-05	-1.4844E-06
5	BR-7 Lane	LinStatic	-0.011413658	-0.077207236	-1.77051E-06	0.000848504	-0.00011007	-2.64769E-06
5	WSub3: 45deg	LinStatic	-0.000322346	0	0.000187695	0	-3.1074E-06	0
5	WSub3: 30deg	LinStatic	-0.000355897	0	0.000145983	0	-3.43144E-06	0
5	WSub3: 15deg	LinStatic	-0.000362409	0	9.88109E-05	0	-3.49465E-06	0
5	WSub3: 0deg	LinStatic	-0.000345842	0	9.86098E-05	0	-3.33432E-06	0
5	WSub3: -15deg	LinStatic	-0.000305518	0	9.22708E-05	0	-2.94496E-06	0
5	WSub3: -30deg	LinStatic	-0.000244874	0	8.43224E-05	0	-2.35967E-06	0
5	WSub3: -45deg	LinStatic	-0.00017058	0	6.57662E-05	0	-1.64291E-06	0
5	WA	LinStatic	-1.35931E-20	0	0.000135839	0	-1.90932E-22	0
5	WS3: 45deg	Combination	-0.011278074	-0.01245563	0.000682389	0.000136887	-0.000109178	-4.27145E-07
5	WS3: 30deg	Combination	-0.011311625	-0.01245563	0.000640677	0.000136887	-0.000109502	-4.27145E-07
5	WS3: 15deg	Combination	-0.011318137	-0.01245563	0.000593505	0.000136887	-0.000109565	-4.27145E-07
5	WS3: 0deg	Combination	-0.01130157	-0.01245563	0.000593304	0.000136887	-0.000109405	-4.27145E-07
5	WS3: -15deg	Combination	-0.011261246	-0.01245563	0.000586965	0.000136887	-0.000109016	-4.27145E-07
5	WS3: -30deg	Combination	-0.011200602	-0.01245563	0.000579016	0.000136887	-0.00010843	-4.27145E-07
5	WServ1: -45deg	Combination	-0.004144223	-0.004608583	0.000214236	5.06481E-05	-4.01192E-05	-1.58043E-07
5	WS5: 45deg	Combination	-0.00830628	-0.009915388	0.000324492	0.00010897	-8.03185E-05	-3.40031E-07
5	WS5: 30deg	Combination	-0.008322519	-0.009915388	0.000304304	0.00010897	-8.04753E-05	-3.40031E-07
5	WS5: 15deg	Combination	-0.008325671	-0.009915388	0.000281472	0.00010897	-8.05059E-05	-3.40031E-07
5	WS5: 0deg	Combination	-0.008317653	-0.009915388	0.000281375	0.00010897	-8.04283E-05	-3.40031E-07
5	WS5: -15deg	Combination	-0.008298136	-0.009915388	0.000278307	0.00010897	-8.02399E-05	-3.40031E-07
5	WS5: -30deg	Combination	-0.008268784	-0.009915388	0.00027446	0.00010897	-7.99566E-05	-3.40031E-07
5	WS5: -45deg	Combination	-0.008232826	-0.009915388	0.000265479	0.00010897	-7.96097E-05	-3.40031E-07
5	LL - 1 Lane	Combination	-0.011651129	-0.026413002	-0.001602227	0.000290278	-0.000113275	-9.05789E-07
5	WS5 + WA	Combination	-0.008150265	-0.009915388	0.000369487	0.00010897	-7.88145E-05	-3.40031E-07
5	LL - 2 Lane	Combination	-0.01946062	-0.043992224	-0.002286337	0.000483473	-0.000188984	-1.50864E-06
5	LL - 3 Lane	Combination	-0.024952111	-0.056094502	-0.002672078	0.000616476	-0.000241988	-1.92367E-06
5	LL - 7 Lane	Combination	-0.045250435	-0.099998388	-0.003706584	0.001098978	-0.000436967	-3.42927E-06
5	LL Envelope	Combination Max	-0.011651129	-0.026413002	-0.001602227	0.001098978	-0.000113275	-9.05789E-07

5	LL Envelope	Combination	Min	-0.045250435	-0.099998388	-0.003706584	0.000290278	-0.000436967	-3.42927E-06
5	WS3 & WA envelope	Combination	Max	-0.004144223	-0.004608583	0.000682389	0.000136887	-4.01192E-05	-1.58043E-07
5	WS3 & WA envelope	Combination	Min	-0.011318137	-0.01245563	0.000214236	5.06481E-05	-0.000109565	-4.27145E-07
5	WS3 + WA	Combination		-0.010955728	-0.01245563	0.000630533	0.000136887	-0.000106071	-4.27145E-07
5	WS5 & WA envelope	Combination	Max	-0.008150265	-0.009915388	0.000369487	0.00010897	-7.88145E-05	-3.40031E-07
5	WS5 & WA envelope	Combination	Min	-0.008325671	-0.009915388	0.000265479	0.00010897	-8.05059E-05	-3.40031E-07
5	Strength 1 - Max	Combination	Max	-0.021026576	-0.046222753	-0.019247429	0.001923212	-0.000204589	-1.58513E-06
5	Strength 1 - Max	Combination	Min	-0.079825361	-0.174997179	-0.022930053	0.000507986	-0.00077105	-6.00123E-06
5	Strength 1 - Min	Combination	Max	-0.020815649	-0.046222753	-0.014013134	0.001923212	-0.000202489	-1.58513E-06
5	Strength 1 - Min	Combination	Min	-0.079614433	-0.174997179	-0.017695758	0.000507986	-0.00076895	-6.00123E-06
5	Strength 3 - Max	Combination	Max	-0.004781323	-0.004608583	-0.015896982	0.000136887	-4.64767E-05	-1.58043E-07
5	Strength 3 - Max	Combination	Min	-0.011955238	-0.01245563	-0.016365135	5.06481E-05	-0.000115923	-4.27145E-07
5	Strength 3 - Min	Combination	Max	-0.004570396	-0.004608583	-0.010662687	0.000136887	-4.43762E-05	-1.58043E-07
5	Strength 3 - Min	Combination	Min	-0.01174431	-0.01245563	-0.011130839	5.06481E-05	-0.000113822	-4.27145E-07
5	Strength 5 - Max	Combination	Max	-0.02451639	-0.04557294	-0.018372891	0.00159259	-0.000238094	-1.56285E-06
5	Strength 5 - Max	Combination	Min	-0.070050858	-0.144913212	-0.02131778	0.000500845	-0.000676769	-4.96955E-06
5	Strength 5 - Min	Combination	Max	-0.024305462	-0.04557294	-0.013138595	0.00159259	-0.000235993	-1.56285E-06
5	Strength 5 - Min	Combination	Min	-0.069839931	-0.144913212	-0.016083485	0.000500845	-0.000674669	-4.96955E-06
5	Service 1	Combination	Max	-0.016199294	-0.031021585	-0.014271466	0.001149626	-0.000157458	-1.06383E-06
5	Service 1	Combination	Min	-0.049932691	-0.104606971	-0.016480462	0.000340926	-0.000482443	-3.58732E-06
5	WServ1: 45deg	Combination		-0.004172887	-0.004608583	0.000252484	5.06481E-05	-4.03959E-05	-1.58043E-07
5	WServ1: 30deg	Combination		-0.004185301	-0.004608583	0.00023705	5.06481E-05	-4.05158E-05	-1.58043E-07
5	WServ1: 15deg	Combination		-0.004187711	-0.004608583	0.000219597	5.06481E-05	-4.05392E-05	-1.58043E-07
5	WServ1: 0deg	Combination		-0.004181581	-0.004608583	0.000219522	5.06481E-05	-4.04798E-05	-1.58043E-07
5	WServ1: -15deg	Combination		-0.004166661	-0.004608583	0.000217177	5.06481E-05	-4.03358E-05	-1.58043E-07
5	WServ1: -30deg	Combination		-0.004144223	-0.004608583	0.000214236	5.06481E-05	-4.01192E-05	-1.58043E-07
5	WServ1 + WA	Combination		-0.004053619	-0.004608583	0.000318876	5.06481E-05	-3.92461E-05	-1.58043E-07
5	WServ1 & WA envelope	Combination	Max	-0.004053619	-0.004608583	0.000318876	5.06481E-05	-3.92461E-05	-1.58043E-07
5	WServ1 & WA envelope	Combination	Min	-0.004187711	-0.004608583	0.000214236	5.06481E-05	-4.05392E-05	-1.58043E-07
5	Strength Envelope	Combination	Max	-0.004570396	-0.004608583	-0.010662687	0.001923212	-4.43762E-05	-1.58043E-07
5	Strength Envelope	Combination	Min	-0.079825361	-0.174997179	-0.022930053	5.06481E-05	-0.00077105	-6.00123E-06
6	DEAD	LinStatic		7.76219E-06	0	-0.004029254	0	-3.21144E-07	0
6	R01_Z	LinStatic		1.52016E-05	0	-9.85012E-07	0	-1.44385E-08	0
6	R02_Z	LinStatic		-8.12432E-06	0	-3.47952E-06	0	-1.9677E-08	0
6	R03_Z	LinStatic		-1.53144E-06	0	9.45624E-07	0	9.16668E-08	0
6	R04_Z	LinStatic		-3.98709E-06	0	2.20607E-05	0	4.52812E-07	0
6	R05_Z	LinStatic		3.6776E-06	0	4.7779E-05	0	4.82465E-07	0
6	R06_Z	LinStatic		-3.58576E-06	0	4.86664E-05	0	-4.55844E-07	0
6	R07_Z	LinStatic		2.57462E-06	0	2.34745E-05	0	-4.71175E-07	0
6	R08_Z	LinStatic		-3.28368E-06	0	1.5851E-06	0	-1.01928E-07	0
6	R09_Z	LinStatic		2.02697E-06	0	-3.25096E-06	0	1.71607E-08	0
6	R10_Z	LinStatic		2.04153E-06	0	-1.3147E-06	0	1.82783E-08	0

6	R11_Z	LinStatic	7.07075E-06	0	-2.66244E-07	0	1.14058E-08	0
6	R12_Z	LinStatic	-4.65628E-06	0	6.84567E-08	0	-1.27692E-10	0
6	R_X	LinStatic	0.009371873	0	1.59522E-06	0	2.44997E-06	0
6	R_Y	LinStatic	0	0.032815004	0	-0.00017934	0	9.85191E-07
6	Cap_R_X	LinStatic	0.000767241	0	1.99392E-07	0	1.97468E-07	0
6	Cap_w_Y	LinStatic	2.87488E-06	0	-0.001110912	0	-1.18942E-07	0
6	Cap_w_Z	LinStatic	2.87488E-06	0	-0.001110912	0	-1.18942E-07	0
6	Col_w_X	LinStatic	2.5078E-19	0	-0.000573645	0	2.45431E-21	0
6	Col_w_Y	LinStatic	2.5078E-19	0	-0.000573645	0	2.45431E-21	0
6	Cais_w_X	LinStatic	7.44954E-20	0	-0.000167626	0	9.7141E-22	0
6	Cais_w_Y	LinStatic	7.44954E-20	0	-0.000167626	0	9.7141E-22	0
6	DC	LinStatic	-0.00112108	0	-0.024070668	0	-2.15914E-06	0
6	DW	LinStatic	-0.000187913	0	-0.003424021	0	-2.68228E-07	0
6	WS3	LinStatic	-0.025276959	-0.046269155	0.001230176	0.000252869	-1.25917E-05	-1.38912E-06
6	WL5	LinStatic	-0.006468659	-0.014438602	-1.4383E-05	7.89096E-05	-1.89164E-06	-4.33484E-07
6	PL	LinStatic	-6.21428E-05	0	-0.001132321	0	-8.87028E-08	0
6	LL-1 Lane	LinStatic	-0.000235108	0	-0.002800452	0	-1.24219E-05	0
6	LL-2 Lane	LinStatic	-0.000360987	0	-0.004467641	0	-1.7676E-05	0
6	LL-3 Lane	LinStatic	-0.000420564	0	-0.005441689	0	-1.86773E-05	0
6	LL-7 Lane	LinStatic	-0.000467277	0	-0.007889532	0	-5.76161E-06	0
6	CE-1 Lane	LinStatic	-0.020250468	-0.022314203	-5.03872E-05	0.000121951	-6.00161E-06	-6.6993E-07
6	CE-2 Lane	LinStatic	-0.033750954	-0.037409104	-8.3635E-05	0.000204448	-1.00014E-05	-1.12312E-06
6	CE-3 Lane	LinStatic	-0.042998529	-0.047581756	-6.82821E-05	0.000260043	-1.20794E-05	-1.42853E-06
6	CE-7 Lane	LinStatic	-0.076783128	-0.08466271	-0.000191058	0.000462697	-2.2761E-05	-2.54179E-06
6	BR-1 Lane	LinStatic	-0.006841467	-0.075802659	-1.16451E-06	0.000414275	-1.78848E-06	-2.27579E-06
6	BR-2 Lane	LinStatic	-0.011339966	-0.126009615	-1.93022E-06	0.000688665	-2.96446E-06	-3.78313E-06
6	BR-3 Lane	LinStatic	-0.014526403	-0.160793519	-2.47259E-06	0.000878766	-3.79745E-06	-4.82743E-06
6	BR-7 Lane	LinStatic	-0.02586637	-0.286803134	-4.40281E-06	0.001567431	-6.76191E-06	-8.61057E-06
6	WSub3: 45deg	LinStatic	-0.000729224	0	0.000330879	0	-1.73321E-07	0
6	WSub3: 30deg	LinStatic	-0.000805775	0	0.000241967	0	-2.00204E-07	0
6	WSub3: 15deg	LinStatic	-0.000820976	0	0.000149353	0	-2.10101E-07	0
6	WSub3: 0deg	LinStatic	-0.000782815	0	0.000180975	0	-1.91902E-07	0
6	WSub3: -15deg	LinStatic	-0.000690919	0	0.000199825	0	-1.61069E-07	0
6	WSub3: -30deg	LinStatic	-0.000552988	0	0.000214626	0	-1.18388E-07	0
6	WSub3: -45deg	LinStatic	-0.00038431	0	0.000205541	0	-7.01877E-08	0
6	WA	LinStatic	-9.51933E-20	0	0.000199436	0	-8.84181E-22	0
6	WS3: 45deg	Combination	-0.026006183	-0.046269155	0.001561055	0.000252869	-1.27651E-05	-1.38912E-06
6	WS3: 30deg	Combination	-0.026082734	-0.046269155	0.001472142	0.000252869	-1.27919E-05	-1.38912E-06
6	WS3: 15deg	Combination	-0.026097935	-0.046269155	0.001379529	0.000252869	-1.28018E-05	-1.38912E-06
6	WS3: 0deg	Combination	-0.026059775	-0.046269155	0.00141115	0.000252869	-1.27836E-05	-1.38912E-06
6	WS3: -15deg	Combination	-0.025967878	-0.046269155	0.00143	0.000252869	-1.27528E-05	-1.38912E-06
6	WS3: -30deg	Combination	-0.025829947	-0.046269155	0.001444802	0.000252869	-1.27101E-05	-1.38912E-06

6	WServ1: -45deg	Combination	-0.009557081	-0.017119588	0.000534577	9.35617E-05	-4.70275E-06	-5.13974E-07
6	WS5: 45deg	Combination	-0.019055651	-0.036832873	0.000741168	0.000201298	-8.06993E-06	-1.10582E-06
6	WS5: 30deg	Combination	-0.019092702	-0.036832873	0.000698134	0.000201298	-8.08294E-06	-1.10582E-06
6	WS5: 15deg	Combination	-0.019100059	-0.036832873	0.000653309	0.000201298	-8.08773E-06	-1.10582E-06
6	WS5: 0deg	Combination	-0.01908159	-0.036832873	0.000668614	0.000201298	-8.07893E-06	-1.10582E-06
6	WS5: -15deg	Combination	-0.019037112	-0.036832873	0.000677737	0.000201298	-8.064E-06	-1.10582E-06
6	WS5: -30deg	Combination	-0.018970353	-0.036832873	0.000684901	0.000201298	-8.04334E-06	-1.10582E-06
6	WS5: -45deg	Combination	-0.018888713	-0.036832873	0.000680504	0.000201298	-8.02002E-06	-1.10582E-06
6	LL - 1 Lane	Combination	-0.027389186	-0.098116862	-0.003984325	0.000536227	-2.03007E-05	-2.94572E-06
6	WS5 + WA	Combination	-0.018702707	-0.036832873	0.000780458	0.000201298	-7.98605E-06	-1.10582E-06
6	LL - 2 Lane	Combination	-0.04551405	-0.163418719	-0.005685527	0.000893113	-3.07306E-05	-4.90625E-06
6	LL - 3 Lane	Combination	-0.058007639	-0.208375275	-0.006644765	0.001138809	-3.46428E-05	-6.25596E-06
6	LL - 7 Lane	Combination	-0.103178918	-0.371465844	-0.009217315	0.002030128	-3.53732E-05	-1.11524E-05
6	LL Envelope	Combination Max	-0.027389186	-0.098116862	-0.003984325	0.002030128	-2.03007E-05	-2.94572E-06
6	LL Envelope	Combination Min	-0.103178918	-0.371465844	-0.009217315	0.000536227	-3.53732E-05	-1.11524E-05
6	WS3 & WA envelope	Combination Max	-0.009557081	-0.017119588	0.001561055	0.000252869	-4.70275E-06	-5.13974E-07
6	WS3 & WA envelope	Combination Min	-0.026097935	-0.046269155	0.000534577	9.35617E-05	-1.28018E-05	-1.38912E-06
6	WS3 + WA	Combination	-0.025276959	-0.046269155	0.001429611	0.000252869	-1.25917E-05	-1.38912E-06
6	WS5 & WA envelope	Combination Max	-0.018702707	-0.036832873	0.000780458	0.000201298	-7.98605E-06	-1.10582E-06
6	WS5 & WA envelope	Combination Min	-0.019100059	-0.036832873	0.000653309	0.000201298	-8.08773E-06	-1.10582E-06
6	Strength 1 - Max	Combination Max	-0.049604592	-0.171704508	-0.047034067	0.003552725	-3.90289E-05	-5.15501E-06
6	Strength 1 - Max	Combination Min	-0.182236623	-0.650065227	-0.056191799	0.000938396	-6.54058E-05	-1.95166E-05
6	Strength 1 - Min	Combination Max	-0.049055205	-0.171704508	-0.034288677	0.003552725	-3.79328E-05	-5.15501E-06
6	Strength 1 - Min	Combination Min	-0.181687236	-0.650065227	-0.043446409	0.000938396	-6.43097E-05	-1.95166E-05
6	Strength 3 - Max	Combination Max	-0.011230598	-0.017119588	-0.038699879	0.000252869	-8.20544E-06	-5.13974E-07
6	Strength 3 - Max	Combination Min	-0.027771452	-0.046269155	-0.039726357	9.35617E-05	-1.63045E-05	-1.38912E-06
6	Strength 3 - Min	Combination Max	-0.01068121	-0.017119588	-0.025954489	0.000252869	-7.10935E-06	-5.13974E-07
6	Strength 3 - Min	Combination Min	-0.027222065	-0.046269155	-0.026980967	9.35617E-05	-1.52084E-05	-1.38912E-06
6	Strength 5 - Max	Combination Max	-0.057351625	-0.169290636	-0.044859315	0.002941972	-3.88947E-05	-5.08254E-06
6	Strength 5 - Max	Combination Min	-0.160065116	-0.538311762	-0.052051	0.000925204	-5.93443E-05	-1.61615E-05
6	Strength 5 - Min	Combination Max	-0.056802237	-0.169290636	-0.032113925	0.002941972	-3.77986E-05	-5.08254E-06
6	Strength 5 - Min	Combination Min	-0.159515728	-0.538311762	-0.03930561	0.000925204	-5.82482E-05	-1.61615E-05
6	Service 1	Combination Max	-0.038042892	-0.115236449	-0.034853667	0.00212369	-2.77081E-05	-3.45969E-06
6	Service 1	Combination Min	-0.114136385	-0.388585431	-0.040230832	0.000629788	-4.28584E-05	-1.16663E-05
6	WServ1: 45deg	Combination	-0.009622288	-0.017119588	0.00057759	9.35617E-05	-4.72307E-06	-5.13974E-07
6	WServ1: 30deg	Combination	-0.009650612	-0.017119588	0.000544693	9.35617E-05	-4.73302E-06	-5.13974E-07
6	WServ1: 15deg	Combination	-0.009656236	-0.017119588	0.000510426	9.35617E-05	-4.73668E-06	-5.13974E-07
6	WServ1: 0deg	Combination	-0.009642117	-0.017119588	0.000522126	9.35617E-05	-4.72995E-06	-5.13974E-07
6	WServ1: -15deg	Combination	-0.009608115	-0.017119588	0.0005291	9.35617E-05	-4.71854E-06	-5.13974E-07
6	WServ1: -30deg	Combination	-0.009557081	-0.017119588	0.000534577	9.35617E-05	-4.70275E-06	-5.13974E-07
6	WServ1 + WA	Combination	-0.009352475	-0.017119588	0.000654601	9.35617E-05	-4.65894E-06	-5.13974E-07
6	WServ1 & WA envelope	Combination Max	-0.009352475	-0.017119588	0.000654601	9.35617E-05	-4.65894E-06	-5.13974E-07

6	WServ1 & WA envelope	Combination	Min	-0.009656236	-0.017119588	0.000510426	9.35617E-05	-4.73668E-06	-5.13974E-07
6	Strength Envelope	Combination	Max	-0.01068121	-0.017119588	-0.025954489	0.003552725	-7.10935E-06	-5.13974E-07
6	Strength Envelope	Combination	Min	-0.182236623	-0.650065227	-0.056191799	9.35617E-05	-6.54058E-05	-1.95166E-05
7	DEAD	LinStatic		-1.41104E-05	0	-0.0019316	0	-1.13569E-07	0
7	R01_Z	LinStatic		6.59252E-06	0	4.39665E-08	0	6.36143E-08	0
7	R02_Z	LinStatic		-3.28297E-06	0	-6.07441E-08	0	-3.21903E-08	0
7	R03_Z	LinStatic		-1.40676E-07	0	-3.94408E-07	0	-2.47255E-09	0
7	R04_Z	LinStatic		-9.9695E-07	0	-1.22226E-06	0	-1.11825E-08	0
7	R05_Z	LinStatic		-2.13824E-07	0	-2.85619E-07	0	1.78269E-09	0
7	R06_Z	LinStatic		-1.38529E-05	0	6.72429E-06	0	-1.07486E-07	0
7	R07_Z	LinStatic		-1.69998E-05	0	1.76162E-05	0	-1.2543E-07	0
7	R08_Z	LinStatic		9.0727E-06	0	2.06952E-05	0	6.53403E-08	0
7	R09_Z	LinStatic		1.84799E-05	0	1.16012E-05	0	1.41187E-07	0
7	R10_Z	LinStatic		5.75606E-06	0	1.56812E-06	0	4.52998E-08	0
7	R11_Z	LinStatic		2.92695E-06	0	-1.37211E-06	0	2.87249E-08	0
7	R12_Z	LinStatic		-2.7555E-06	0	-6.53061E-07	0	-2.51611E-08	0
7	R_X	LinStatic		0.004133496	0	-6.47486E-07	0	3.98639E-05	0
7	R_Y	LinStatic		0	0.008767093	0	-9.63479E-05	0	-1.0223E-06
7	Cap_R_X	LinStatic		0.000343649	0	-1.45634E-08	0	3.31382E-06	0
7	Cap_w_Y	LinStatic		-5.22607E-06	0	-0.000446734	0	-4.20628E-08	0
7	Cap_w_Z	LinStatic		-5.22607E-06	0	-0.000446734	0	-4.20628E-08	0
7	Col_w_X	LinStatic		3.66594E-19	0	-0.000329044	0	3.00701E-21	0
7	Col_w_Y	LinStatic		3.66594E-19	0	-0.000329044	0	3.00701E-21	0
7	Cais_w_X	LinStatic		1.32903E-19	0	-0.000167626	0	1.0738E-21	0
7	Cais_w_Y	LinStatic		1.32903E-19	0	-0.000167626	0	1.0738E-21	0
7	DC	LinStatic		-0.0007429	0	-0.009659048	0	-6.74667E-06	0
7	DW	LinStatic		-0.000116059	0	-0.001373339	0	-1.06369E-06	0
7	WS3	LinStatic		-0.010928404	-0.012361601	0.000859001	0.00013585	-0.000105849	1.44144E-06
7	WL5	LinStatic		-0.002846291	-0.003857521	7.05775E-06	4.23931E-05	-2.7464E-05	4.49811E-07
7	PL	LinStatic		-3.83808E-05	0	-0.000454162	0	-3.51761E-07	0
7	LL-1 Lane	LinStatic		0.000287602	0	-0.000395393	0	1.94549E-06	0
7	LL-2 Lane	LinStatic		0.000391593	0	-0.000758436	0	2.60869E-06	0
7	LL-3 Lane	LinStatic		0.000387584	0	-0.001093795	0	2.51964E-06	0
7	LL-7 Lane	LinStatic		-0.000106197	0	-0.002857574	0	-1.26426E-06	0
7	CE-1 Lane	LinStatic		-0.008907806	-0.005961623	2.47598E-05	6.55165E-05	-8.59576E-05	6.95163E-07
7	CE-2 Lane	LinStatic		-0.014846379	-0.009994486	4.11125E-05	0.000109837	-0.000143263	1.16542E-06
7	CE-3 Lane	LinStatic		-0.018907791	-0.012712285	5.66155E-05	0.000139704	-0.000182467	1.48233E-06
7	CE-7 Lane	LinStatic		-0.033775228	-0.0226191	9.3897E-05	0.000248577	-0.000325921	2.63753E-06
7	BR-1 Lane	LinStatic		-0.003017452	-0.020251985	4.72664E-07	0.000222564	-2.91006E-05	2.36151E-06
7	BR-2 Lane	LinStatic		-0.00500153	-0.033665638	7.83458E-07	0.000369976	-4.82353E-05	3.92562E-06
7	BR-3 Lane	LinStatic		-0.006406919	-0.042958757	1.0036E-06	0.000472105	-6.1789E-05	5.00926E-06
7	BR-7 Lane	LinStatic		-0.011408449	-0.076624395	1.78706E-06	0.00084208	-0.000110024	8.93488E-06

7	WSub3: 45deg	LinStatic	-0.000325839	0	0.000187785	0	-3.14308E-06	0
7	WSub3: 30deg	LinStatic	-0.000360518	0	0.000146082	0	-3.47699E-06	0
7	WSub3: 15deg	LinStatic	-0.000367652	0	9.89123E-05	0	-3.54536E-06	0
7	WSub3: 0deg	LinStatic	-0.000350104	0	9.87065E-05	0	-3.37673E-06	0
7	WSub3: -15deg	LinStatic	-0.000308552	0	9.23561E-05	0	-2.97655E-06	0
7	WSub3: -30deg	LinStatic	-0.000246382	0	8.43906E-05	0	-2.37754E-06	0
7	WSub3: -45deg	LinStatic	-0.00017057	0	6.58136E-05	0	-1.64681E-06	0
7	WA	LinStatic	-1.40026E-19	0	0.000135839	0	-1.14763E-21	0
7	WS3: 45deg	Combination	-0.011254243	-0.012361601	0.001046786	0.00013585	-0.000108992	1.44144E-06
7	WS3: 30deg	Combination	-0.011288922	-0.012361601	0.001005083	0.00013585	-0.000109326	1.44144E-06
7	WS3: 15deg	Combination	-0.011296056	-0.012361601	0.000957913	0.00013585	-0.000109395	1.44144E-06
7	WS3: 0deg	Combination	-0.011278508	-0.012361601	0.000957707	0.00013585	-0.000109226	1.44144E-06
7	WS3: -15deg	Combination	-0.011236956	-0.012361601	0.000951357	0.00013585	-0.000108826	1.44144E-06
7	WS3: -30deg	Combination	-0.011174786	-0.012361601	0.000943392	0.00013585	-0.000108227	1.44144E-06
7	WServ1: -45deg	Combination	-0.004134671	-0.004573793	0.000349055	5.02647E-05	-4.00439E-05	5.33333E-07
7	WS5: 45deg	Combination	-0.008293344	-0.009840536	0.000513702	0.000108145	-8.02164E-05	1.14747E-06
7	WS5: 30deg	Combination	-0.008310129	-0.009840536	0.000493518	0.000108145	-8.0378E-05	1.14747E-06
7	WS5: 15deg	Combination	-0.008313582	-0.009840536	0.000470688	0.000108145	-8.04111E-05	1.14747E-06
7	WS5: 0deg	Combination	-0.008305088	-0.009840536	0.000470588	0.000108145	-8.03294E-05	1.14747E-06
7	WS5: -15deg	Combination	-0.008284977	-0.009840536	0.000467515	0.000108145	-8.01358E-05	1.14747E-06
7	WS5: -30deg	Combination	-0.008254887	-0.009840536	0.000463659	0.000108145	-7.98458E-05	1.14747E-06
7	WS5: -45deg	Combination	-0.008218194	-0.009840536	0.000454668	0.000108145	-7.94922E-05	1.14747E-06
7	LL - 1 Lane	Combination	-0.011676036	-0.026213609	-0.000824323	0.00028808	-0.000113464	3.05667E-06
7	WS5 + WA	Combination	-0.008135638	-0.009840536	0.000558653	0.000108145	-7.86951E-05	1.14747E-06
7	LL - 2 Lane	Combination	-0.019494697	-0.043660124	-0.001170702	0.000479812	-0.000189241	5.09104E-06
7	LL - 3 Lane	Combination	-0.024965507	-0.055671042	-0.001490338	0.000611809	-0.000242089	6.49159E-06
7	LL - 7 Lane	Combination	-0.045328255	-0.099243495	-0.003216053	0.001090658	-0.000437561	1.15724E-05
7	LL Envelope	Combination Max	-0.011676036	-0.026213609	-0.000824323	0.001090658	-0.000113464	1.15724E-05
7	LL Envelope	Combination Min	-0.045328255	-0.099243495	-0.003216053	0.00028808	-0.000437561	3.05667E-06
7	WS3 & WA envelope	Combination Max	-0.004134671	-0.004573793	0.001046786	0.00013585	-4.00439E-05	1.44144E-06
7	WS3 & WA envelope	Combination Min	-0.011296056	-0.012361601	0.000349055	5.02647E-05	-0.000109395	5.33333E-07
7	WS3 + WA	Combination	-0.010928404	-0.012361601	0.00099484	0.00013585	-0.000105849	1.44144E-06
7	WS5 & WA envelope	Combination Max	-0.008135638	-0.009840536	0.000558653	0.000108145	-7.86951E-05	1.14747E-06
7	WS5 & WA envelope	Combination Min	-0.008313582	-0.009840536	0.000454668	0.000108145	-8.04111E-05	1.14747E-06
7	Strength 1 - Max	Combination Max	-0.021553416	-0.045873815	-0.017855044	0.001908651	-0.000208734	2.02517E-05
7	Strength 1 - Max	Combination Min	-0.080444799	-0.173676117	-0.022040572	0.00050414	-0.000775903	5.34917E-06
7	Strength 1 - Min	Combination Max	-0.021189812	-0.045873815	-0.012630979	0.001908651	-0.000205428	2.02517E-05
7	Strength 1 - Min	Combination Min	-0.080081194	-0.173676117	-0.016816507	0.00050414	-0.000772598	5.34917E-06
7	Strength 3 - Max	Combination Max	-0.005255023	-0.004573793	-0.015501533	0.00013585	-5.02148E-05	1.44144E-06
7	Strength 3 - Max	Combination Min	-0.012416409	-0.012361601	-0.016199264	5.02647E-05	-0.000119566	5.33333E-07
7	Strength 3 - Min	Combination Max	-0.004891419	-0.004573793	-0.010277468	0.00013585	-4.69095E-05	1.44144E-06
7	Strength 3 - Min	Combination Min	-0.012052804	-0.012361601	-0.010975199	5.02647E-05	-0.00011626	5.33333E-07

7	Strength 5 - Max	Combination	Max	-0.02501864	-0.045228908	-0.017102501	0.001580533	-0.000242043	1.67702E-05
7	Strength 5 - Max	Combination	Min	-0.070627078	-0.143819255	-0.020435322	0.000497053	-0.00068129	5.27397E-06
7	Strength 5 - Min	Combination	Max	-0.024655036	-0.045228908	-0.011878436	0.001580533	-0.000238738	1.67702E-05
7	Strength 5 - Min	Combination	Min	-0.070263474	-0.143819255	-0.015211257	0.000497053	-0.000677985	5.27397E-06
7	Service 1	Combination	Max	-0.016592616	-0.030787401	-0.01333464	0.001140922	-0.000160553	1.21057E-05
7	Service 1	Combination	Min	-0.050380866	-0.103817288	-0.015830985	0.000338345	-0.000485961	3.59E-06
7	WServ1: 45deg	Combination		-0.00416407	-0.004573793	0.000387311	5.02647E-05	-4.03272E-05	5.33333E-07
7	WServ1: 30deg	Combination		-0.004176901	-0.004573793	0.000371881	5.02647E-05	-4.04507E-05	5.33333E-07
7	WServ1: 15deg	Combination		-0.004179541	-0.004573793	0.000354428	5.02647E-05	-4.0476E-05	5.33333E-07
7	WServ1: 0deg	Combination		-0.004173048	-0.004573793	0.000354352	5.02647E-05	-4.04136E-05	5.33333E-07
7	WServ1: -15deg	Combination		-0.004157674	-0.004573793	0.000352002	5.02647E-05	-4.02656E-05	5.33333E-07
7	WServ1: -30deg	Combination		-0.004134671	-0.004573793	0.000349055	5.02647E-05	-4.00439E-05	5.33333E-07
7	WServ1 + WA	Combination		-0.00404351	-0.004573793	0.00045367	5.02647E-05	-3.91642E-05	5.33333E-07
7	WServ1 & WA envelope	Combination	Max	-0.00404351	-0.004573793	0.00045367	5.02647E-05	-3.91642E-05	5.33333E-07
7	WServ1 & WA envelope	Combination	Min	-0.004179541	-0.004573793	0.000349055	5.02647E-05	-4.0476E-05	5.33333E-07
7	Strength Envelope	Combination	Max	-0.004891419	-0.004573793	-0.010277468	0.001908651	-4.69095E-05	2.02517E-05
7	Strength Envelope	Combination	Min	-0.080444799	-0.173676117	-0.022040572	5.02647E-05	-0.000775903	5.33333E-07
8	DEAD	LinStatic		-7.76219E-06	0	-0.004029254	0	3.21144E-07	0
8	R01_Z	LinStatic		1.49813E-05	0	1.09333E-07	0	4.46202E-09	0
8	R02_Z	LinStatic		-8.01062E-06	0	-1.51055E-07	0	-9.70829E-09	0
8	R03_Z	LinStatic		-1.51944E-06	0	-9.80789E-07	0	-1.64203E-08	0
8	R04_Z	LinStatic		-3.94657E-06	0	-3.03944E-06	0	-2.35487E-08	0
8	R05_Z	LinStatic		3.65205E-06	0	-7.1026E-07	0	5.61606E-08	0
8	R06_Z	LinStatic		-3.3055E-06	0	1.67216E-05	0	3.73998E-07	0
8	R07_Z	LinStatic		2.90848E-06	0	4.38068E-05	0	5.53729E-07	0
8	R08_Z	LinStatic		-3.27501E-06	0	5.14636E-05	0	-3.18964E-07	0
8	R09_Z	LinStatic		2.04196E-06	0	2.88491E-05	0	-5.31133E-07	0
8	R10_Z	LinStatic		2.05969E-06	0	3.89951E-06	0	-1.46064E-07	0
8	R11_Z	LinStatic		7.16935E-06	0	-3.41207E-06	0	9.02885E-09	0
8	R12_Z	LinStatic		-4.72535E-06	0	-1.62399E-06	0	1.90412E-08	0
8	R_X	LinStatic		0.009369357	0	-1.61013E-06	0	2.47281E-06	0
8	R_Y	LinStatic		0	0.032564973	0	-0.000177955	0	-3.32462E-06
8	Cap_R_X	LinStatic		0.00077855	0	-3.62155E-08	0	2.00196E-07	0
8	Cap_w_Y	LinStatic		-2.87488E-06	0	-0.001110912	0	1.18942E-07	0
8	Cap_w_Z	LinStatic		-2.87488E-06	0	-0.001110912	0	1.18942E-07	0
8	Col_w_X	LinStatic		2.62373E-19	0	-0.000573645	0	-7.51742E-21	0
8	Col_w_Y	LinStatic		2.62373E-19	0	-0.000573645	0	-7.51742E-21	0
8	Cais_w_X	LinStatic		7.7534E-20	0	-0.000167626	0	-2.96462E-21	0
8	Cais_w_Y	LinStatic		7.7534E-20	0	-0.000167626	0	-2.96462E-21	0
8	DC	LinStatic		-0.001234257	0	-0.024019554	0	5.67423E-06	0
8	DW	LinStatic		-0.000203247	0	-0.003415138	0	7.44598E-07	0
8	WS3	LinStatic		-0.025260405	-0.045916612	0.002136113	0.000250916	-1.31929E-05	4.68771E-06

8	WL5	LinStatic	-0.006466843	-0.014328588	1.75508E-05	7.83001E-05	-1.90934E-06	1.46283E-06
8	PL	LinStatic	-6.72136E-05	0	-0.001129384	0	2.46238E-07	0
8	LL-1 Lane	LinStatic	-0.000239148	0	-0.00098324	0	-1.19526E-05	0
8	LL-2 Lane	LinStatic	-0.000368923	0	-0.001886034	0	-1.68636E-05	0
8	LL-3 Lane	LinStatic	-0.000432218	0	-0.002719985	0	-1.76036E-05	0
8	LL-7 Lane	LinStatic	-0.000499026	0	-0.007106048	0	-3.57837E-06	0
8	CE-1 Lane	LinStatic	-0.020244751	-0.022144182	6.15712E-05	0.000121009	-6.05709E-06	2.26074E-06
8	CE-2 Lane	LinStatic	-0.033741426	-0.03712407	0.000102236	0.000202868	-1.00964E-05	3.79007E-06
8	CE-3 Lane	LinStatic	-0.042985756	-0.047219211	0.000140788	0.000258034	-1.30482E-05	4.8207E-06
8	CE-7 Lane	LinStatic	-0.076761453	-0.084017631	0.000233498	0.000459123	-2.29741E-05	8.57752E-06
8	BR-1 Lane	LinStatic	-0.006839631	-0.075225088	1.17539E-06	0.000411075	-1.80515E-06	7.67987E-06
8	BR-2 Lane	LinStatic	-0.011336922	-0.125049498	1.94826E-06	0.000683346	-2.9921E-06	1.27665E-05
8	BR-3 Lane	LinStatic	-0.014522504	-0.159568369	2.4957E-06	0.000871978	-3.83286E-06	1.62906E-05
8	BR-7 Lane	LinStatic	-0.025859426	-0.284617867	4.44396E-06	0.001555324	-6.82496E-06	2.90572E-05
8	WSub3: 45deg	LinStatic	-0.000739277	0	0.000331103	0	-2.0446E-07	0
8	WSub3: 30deg	LinStatic	-0.000817305	0	0.000242214	0	-2.17343E-07	0
8	WSub3: 15deg	LinStatic	-0.000833019	0	0.000149605	0	-2.15399E-07	0
8	WSub3: 0deg	LinStatic	-0.000793891	0	0.000181215	0	-2.13716E-07	0
8	WSub3: -15deg	LinStatic	-0.000700292	0	0.000200037	0	-1.96829E-07	0
8	WSub3: -30deg	LinStatic	-0.000559981	0	0.000214796	0	-1.6793E-07	0
8	WSub3: -45deg	LinStatic	-0.000388585	0	0.000205659	0	-1.28644E-07	0
8	WA	LinStatic	-9.92014E-20	0	0.000199436	0	2.88521E-21	0
8	WS3: 45deg	Combination	-0.025999682	-0.045916612	0.002467216	0.000250916	-1.33973E-05	4.68771E-06
8	WS3: 30deg	Combination	-0.02607771	-0.045916612	0.002378327	0.000250916	-1.34102E-05	4.68771E-06
8	WS3: 15deg	Combination	-0.026093424	-0.045916612	0.002285718	0.000250916	-1.34083E-05	4.68771E-06
8	WS3: 0deg	Combination	-0.026054296	-0.045916612	0.002317328	0.000250916	-1.34066E-05	4.68771E-06
8	WS3: -15deg	Combination	-0.025960697	-0.045916612	0.00233615	0.000250916	-1.33897E-05	4.68771E-06
8	WS3: -30deg	Combination	-0.025820386	-0.045916612	0.002350909	0.000250916	-1.33608E-05	4.68771E-06
8	WServ1: -45deg	Combination	-0.009553543	-0.016989147	0.000869836	9.2839E-05	-4.9435E-06	1.73445E-06
8	WS5: 45deg	Combination	-0.019050689	-0.036552229	0.001211683	0.000199743	-8.39366E-06	3.73169E-06
8	WS5: 30deg	Combination	-0.019088454	-0.036552229	0.001168661	0.000199743	-8.3999E-06	3.73169E-06
8	WS5: 15deg	Combination	-0.01909606	-0.036552229	0.001123839	0.000199743	-8.39895E-06	3.73169E-06
8	WS5: 0deg	Combination	-0.019077122	-0.036552229	0.001139138	0.000199743	-8.39814E-06	3.73169E-06
8	WS5: -15deg	Combination	-0.01903182	-0.036552229	0.001148247	0.000199743	-8.38997E-06	3.73169E-06
8	WS5: -30deg	Combination	-0.018963909	-0.036552229	0.001155391	0.000199743	-8.37598E-06	3.73169E-06
8	WS5: -45deg	Combination	-0.018880954	-0.036552229	0.001150968	0.000199743	-8.35697E-06	3.73169E-06
8	LL - 1 Lane	Combination	-0.027390743	-0.09736927	-0.002049877	0.000532085	-1.95686E-05	9.94061E-06
8	WS5 + WA	Combination	-0.018692879	-0.036552229	0.001250865	0.000199743	-8.2947E-06	3.73169E-06
8	LL - 2 Lane	Combination	-0.045514485	-0.162173567	-0.002911234	0.000886214	-2.97059E-05	1.65566E-05
8	LL - 3 Lane	Combination	-0.058007691	-0.206787581	-0.003706085	0.001130012	-3.42384E-05	2.11113E-05
8	LL - 7 Lane	Combination	-0.103187118	-0.368635498	-0.00799749	0.002014447	-3.31311E-05	3.76347E-05
8	LL Envelope	Combination Max	-0.027390743	-0.09736927	-0.002049877	0.002014447	-1.95686E-05	3.76347E-05

8	LL Envelope	Combination Min	-0.103187118	-0.368635498	-0.00799749	0.000532085	-3.42384E-05	9.94061E-06
8	WS3 & WA envelope	Combination Max	-0.009553543	-0.016989147	0.002467216	0.000250916	-4.9435E-06	4.68771E-06
8	WS3 & WA envelope	Combination Min	-0.026093424	-0.045916612	0.000869836	9.2839E-05	-1.34102E-05	1.73445E-06
8	WS3 + WA	Combination	-0.025260405	-0.045916612	0.002335549	0.000250916	-1.31929E-05	4.68771E-06
8	WS5 & WA envelope	Combination Max	-0.018692879	-0.036552229	0.001250865	0.000199743	-8.2947E-06	3.73169E-06
8	WS5 & WA envelope	Combination Min	-0.01909606	-0.036552229	0.001123839	0.000199743	-8.3999E-06	3.73169E-06
8	Strength 1 - Max	Combination Max	-0.049791195	-0.170396223	-0.043571565	0.003525283	-2.56339E-05	6.58607E-05
8	Strength 1 - Max	Combination Min	-0.18243485	-0.645112122	-0.053979889	0.000931148	-5.1306E-05	1.73961E-05
8	Strength 1 - Min	Combination Max	-0.049183728	-0.170396223	-0.030851615	0.003525283	-2.83652E-05	6.58607E-05
8	Strength 1 - Min	Combination Min	-0.181827384	-0.645112122	-0.041259939	0.000931148	-5.40373E-05	1.73961E-05
8	Strength 3 - Max	Combination Max	-0.011410937	-0.016989147	-0.0377165	0.000250916	3.66761E-06	4.68771E-06
8	Strength 3 - Max	Combination Min	-0.027950819	-0.045916612	-0.03931388	9.2839E-05	-4.79912E-06	1.73445E-06
8	Strength 3 - Min	Combination Max	-0.010803471	-0.016989147	-0.02499655	0.000250916	9.36318E-07	4.68771E-06
8	Strength 3 - Min	Combination Min	-0.027343352	-0.045916612	-0.02659393	9.2839E-05	-7.53041E-06	1.73445E-06
8	Strength 5 - Max	Combination Max	-0.057527776	-0.168000743	-0.041700185	0.002919247	-2.61012E-05	5.45385E-05
8	Strength 5 - Max	Combination Min	-0.160256063	-0.534210151	-0.04985649	0.000918058	-4.60106E-05	1.71515E-05
8	Strength 5 - Min	Combination Max	-0.05692031	-0.168000743	-0.028980235	0.002919247	-2.88324E-05	5.45385E-05
8	Strength 5 - Min	Combination Min	-0.159648597	-0.534210151	-0.03713654	0.000918058	-4.87419E-05	1.71515E-05
8	Service 1	Combination Max	-0.038182359	-0.114358417	-0.032524025	0.002107286	-1.771E-05	3.93691E-05
8	Service 1	Combination Min	-0.114286951	-0.385624645	-0.03861572	0.000624924	-3.24602E-05	1.16751E-05
8	WServ1: 45deg	Combination	-0.009619882	-0.016989147	0.00091287	9.2839E-05	-4.95702E-06	1.73445E-06
8	WServ1: 30deg	Combination	-0.009648753	-0.016989147	0.000879981	9.2839E-05	-4.96179E-06	1.73445E-06
8	WServ1: 15deg	Combination	-0.009654567	-0.016989147	0.000845716	9.2839E-05	-4.96107E-06	1.73445E-06
8	WServ1: 0deg	Combination	-0.009640089	-0.016989147	0.000857411	9.2839E-05	-4.96044E-06	1.73445E-06
8	WServ1: -15deg	Combination	-0.009605458	-0.016989147	0.000864375	9.2839E-05	-4.9542E-06	1.73445E-06
8	WServ1: -30deg	Combination	-0.009553543	-0.016989147	0.000869836	9.2839E-05	-4.9435E-06	1.73445E-06
8	WServ1 + WA	Combination	-0.00934635	-0.016989147	0.000989797	9.2839E-05	-4.88137E-06	1.73445E-06
8	WServ1 & WA envelope	Combination Max	-0.00934635	-0.016989147	0.000989797	9.2839E-05	-4.88137E-06	1.73445E-06
8	WServ1 & WA envelope	Combination Min	-0.009654567	-0.016989147	0.000845716	9.2839E-05	-4.96179E-06	1.73445E-06
8	Strength Envelope	Combination Max	-0.010803471	-0.016989147	-0.02499655	0.003525283	3.66761E-06	6.58607E-05
8	Strength Envelope	Combination Min	-0.18243485	-0.645112122	-0.053979889	9.2839E-05	-5.40373E-05	1.73445E-06
9	DEAD	LinStatic	-5.86647E-05	0	-0.002003564	0	-4.64058E-07	0
9	R01_Z	LinStatic	6.56557E-06	0	2.43295E-08	0	6.32763E-08	0
9	R02_Z	LinStatic	-3.55047E-06	0	1.77558E-08	0	-3.41336E-08	0
9	R03_Z	LinStatic	-6.70243E-07	0	3.32806E-08	0	-6.45004E-09	0
9	R04_Z	LinStatic	-1.55828E-06	0	-2.37512E-08	0	-1.53802E-08	0
9	R05_Z	LinStatic	2.05381E-06	0	-2.83964E-07	0	1.88336E-08	0
9	R06_Z	LinStatic	-6.99362E-07	0	-1.09086E-06	0	-8.3325E-09	0
9	R07_Z	LinStatic	3.2862E-07	0	-8.16207E-07	0	5.15903E-09	0
9	R08_Z	LinStatic	-1.10515E-05	0	4.69747E-06	0	-8.6152E-08	0
9	R09_Z	LinStatic	-1.79914E-05	0	1.58654E-05	0	-1.33354E-07	0
9	R10_Z	LinStatic	5.89027E-06	0	2.19858E-05	0	4.64295E-08	0

9	R11_Z	LinStatic	2.37921E-05	0	1.50996E-05	0	1.86114E-07	0
9	R12_Z	LinStatic	4.18809E-06	0	2.40211E-06	0	2.70762E-08	0
9	R_X	LinStatic	0.004145556	0	1.54984E-05	0	3.99496E-05	0
9	R_Y	LinStatic	0	0.00835007	0	-9.20254E-05	0	-2.56687E-06
9	Cap_R_X	LinStatic	0.000351763	0	1.32679E-06	0	3.38914E-06	0
9	Cap_w_Y	LinStatic	-2.17276E-05	0	-0.000473387	0	-1.71873E-07	0
9	Cap_w_Z	LinStatic	-2.17276E-05	0	-0.000473387	0	-1.71873E-07	0
9	Col_w_X	LinStatic	-6.52847E-20	0	-0.000329044	0	-2.3149E-22	0
9	Col_w_Y	LinStatic	-6.52847E-20	0	-0.000329044	0	-2.3149E-22	0
9	Cais_w_X	LinStatic	-2.94827E-20	0	-0.000167626	0	-1.45168E-22	0
9	Cais_w_Y	LinStatic	-2.94827E-20	0	-0.000167626	0	-1.45168E-22	0
9	DC	LinStatic	-0.001094523	0	-0.010250789	0	-9.51169E-06	0
9	DW	LinStatic	-0.000184692	0	-0.001465727	0	-1.5967E-06	0
9	WS3	LinStatic	-0.010884065	-0.011773599	0.001281387	0.000129756	-0.000105488	3.61929E-06
9	WL5	LinStatic	-0.002853164	-0.003674031	9.81736E-06	4.04912E-05	-2.75121E-05	1.12942E-06
9	PL	LinStatic	-6.10777E-05	0	-0.000484715	0	-5.28027E-07	0
9	LL-1 Lane	LinStatic	0.000336103	0	0.000398698	0	2.3136E-06	0
9	LL-2 Lane	LinStatic	0.000450358	0	0.000355528	0	3.05298E-06	0
9	LL-3 Lane	LinStatic	0.000434588	0	5.95733E-05	0	2.87199E-06	0
9	LL-7 Lane	LinStatic	-0.000220278	0	-0.002704005	0	-2.15382E-06	0
9	CE-1 Lane	LinStatic	-0.008928626	-0.005678048	3.90097E-05	6.25772E-05	-8.61026E-05	1.74547E-06
9	CE-2 Lane	LinStatic	-0.014881124	-0.00951908	6.49194E-05	0.000104909	-0.000143505	2.92623E-06
9	CE-3 Lane	LinStatic	-0.019009826	-0.012107601	6.30509E-05	0.000133437	-0.00018321	3.72196E-06
9	CE-7 Lane	LinStatic	-0.033854663	-0.02154318	0.000147895	0.000237425	-0.000326475	6.62253E-06
9	BR-1 Lane	LinStatic	-0.003026256	-0.019288661	-1.13138E-05	0.000212579	-2.91632E-05	5.92947E-06
9	BR-2 Lane	LinStatic	-0.005016123	-0.032064268	-1.8753E-05	0.000353377	-4.8339E-05	9.85679E-06
9	BR-3 Lane	LinStatic	-0.006425612	-0.040915342	-2.40225E-05	0.000450924	-6.19219E-05	1.25777E-05
9	BR-7 Lane	LinStatic	-0.011441735	-0.072979611	-4.27755E-05	0.000804302	-0.000110261	2.24345E-05
9	WSub3: 45deg	LinStatic	-0.000331568	0	0.000189709	0	-3.19905E-06	0
9	WSub3: 30deg	LinStatic	-0.000368048	0	0.000146273	0	-3.54828E-06	0
9	WSub3: 15deg	LinStatic	-0.000376169	0	9.77436E-05	0	-3.62466E-06	0
9	WSub3: 0deg	LinStatic	-0.00035706	0	9.94706E-05	0	-3.44317E-06	0
9	WSub3: -15deg	LinStatic	-0.000313545	0	9.48803E-05	0	-3.02616E-06	0
9	WSub3: -30deg	LinStatic	-0.000248924	0	8.87555E-05	0	-2.4058E-06	0
9	WSub3: -45deg	LinStatic	-0.000170667	0	7.15397E-05	0	-1.65332E-06	0
9	WA	LinStatic	1.85827E-20	0	0.000135839	0	4.19029E-23	0
9	WS3: 45deg	Combination	-0.011215633	-0.011773599	0.001471096	0.000129756	-0.000108687	3.61929E-06
9	WS3: 30deg	Combination	-0.011252113	-0.011773599	0.00142766	0.000129756	-0.000109036	3.61929E-06
9	WS3: 15deg	Combination	-0.011260235	-0.011773599	0.001379131	0.000129756	-0.000109112	3.61929E-06
9	WS3: 0deg	Combination	-0.011241126	-0.011773599	0.001380858	0.000129756	-0.000108931	3.61929E-06
9	WS3: -15deg	Combination	-0.01119761	-0.011773599	0.001376268	0.000129756	-0.000108514	3.61929E-06
9	WS3: -30deg	Combination	-0.011132989	-0.011773599	0.001370143	0.000129756	-0.000107894	3.61929E-06

9	WServ1: -45deg	Combination	-0.004119206	-0.004356231	0.000506953	4.80096E-05	-3.99206E-05	1.33914E-06
9	WS5: 45deg	Combination	-0.00828153	-0.009372452	0.000721828	0.000103293	-8.01165E-05	2.88116E-06
9	WS5: 30deg	Combination	-0.008299186	-0.009372452	0.000700805	0.000103293	-8.02855E-05	2.88116E-06
9	WS5: 15deg	Combination	-0.008303117	-0.009372452	0.000677317	0.000103293	-8.03225E-05	2.88116E-06
9	WS5: 0deg	Combination	-0.008293869	-0.009372452	0.000678153	0.000103293	-8.02346E-05	2.88116E-06
9	WS5: -15deg	Combination	-0.008272807	-0.009372452	0.000675931	0.000103293	-8.00328E-05	2.88116E-06
9	WS5: -30deg	Combination	-0.008241531	-0.009372452	0.000672966	0.000103293	-7.97326E-05	2.88116E-06
9	WS5: -45deg	Combination	-0.008203654	-0.009372452	0.000664634	0.000103293	-7.93684E-05	2.88116E-06
9	LL - 1 Lane	Combination	-0.011679856	-0.024966709	-5.83208E-05	0.000275156	-0.00011348	7.67495E-06
9	WS5 + WA	Combination	-0.008121051	-0.009372452	0.000765848	0.000103293	-7.85681E-05	2.88116E-06
9	LL - 2 Lane	Combination	-0.019507967	-0.041583348	-8.30206E-05	0.000458286	-0.000189319	1.2783E-05
9	LL - 3 Lane	Combination	-0.025061927	-0.053022944	-0.000386113	0.000584361	-0.000242788	1.62996E-05
9	LL - 7 Lane	Combination	-0.045577753	-0.094522791	-0.003083601	0.001041727	-0.000439417	2.9057E-05
9	LL Envelope	Combination Max	-0.011679856	-0.024966709	-5.83208E-05	0.001041727	-0.00011348	2.9057E-05
9	LL Envelope	Combination Min	-0.045577753	-0.094522791	-0.003083601	0.000275156	-0.000439417	7.67495E-06
9	WS3 & WA envelope	Combination Max	-0.004119206	-0.004356231	0.001471096	0.000129756	-3.99206E-05	3.61929E-06
9	WS3 & WA envelope	Combination Min	-0.011260235	-0.011773599	0.000506953	4.80096E-05	-0.000109112	1.33914E-06
9	WS3 + WA	Combination	-0.010884065	-0.011773599	0.001417227	0.000129756	-0.000105488	3.61929E-06
9	WS5 & WA envelope	Combination Max	-0.008121051	-0.009372452	0.000765848	0.000103293	-7.85681E-05	2.88116E-06
9	WS5 & WA envelope	Combination Min	-0.008303117	-0.009372452	0.000664634	0.000103293	-8.03225E-05	2.88116E-06
9	Strength 1 - Max	Combination Max	-0.022158272	-0.043691741	-0.017482754	0.001823022	-0.000213455	5.08497E-05
9	Strength 1 - Max	Combination Min	-0.081479592	-0.165414885	-0.022776994	0.000481523	-0.000783845	1.34312E-05
9	Strength 1 - Min	Combination Max	-0.021597667	-0.043691741	-0.011947862	0.001823022	-0.000208606	5.08497E-05
9	Strength 1 - Min	Combination Min	-0.080918987	-0.165414885	-0.017242102	0.000481523	-0.000778996	1.34312E-05
9	Strength 3 - Max	Combination Max	-0.005837729	-0.004356231	-0.016045436	0.000129756	-5.47853E-05	3.61929E-06
9	Strength 3 - Max	Combination Min	-0.012978758	-0.011773599	-0.017009579	4.80096E-05	-0.000123977	1.33914E-06
9	Strength 3 - Min	Combination Max	-0.005277125	-0.004356231	-0.010510544	0.000129756	-4.99366E-05	3.61929E-06
9	Strength 3 - Min	Combination Min	-0.012418154	-0.011773599	-0.011474687	4.80096E-05	-0.000119128	1.33914E-06
9	Strength 5 - Max	Combination Max	-0.025607381	-0.04307751	-0.016829417	0.001509625	-0.000246631	4.21081E-05
9	Strength 5 - Max	Combination Min	-0.071551607	-0.136978221	-0.021014759	0.000474753	-0.000688401	1.32423E-05
9	Strength 5 - Min	Combination Max	-0.025046776	-0.04307751	-0.011294525	0.001509625	-0.000241782	4.21081E-05
9	Strength 5 - Min	Combination Min	-0.070991003	-0.136978221	-0.015479867	0.000474753	-0.000683552	1.32423E-05
9	Service 1	Combination Max	-0.017044841	-0.02932294	-0.013168448	0.001089737	-0.000164083	3.03961E-05
9	Service 1	Combination Min	-0.05108192	-0.098879023	-0.016296728	0.000323165	-0.000491361	9.01408E-06
9	WServ1: 45deg	Combination	-0.004149784	-0.004356231	0.000544306	4.80096E-05	-4.02141E-05	1.33914E-06
9	WServ1: 30deg	Combination	-0.004163282	-0.004356231	0.000528234	4.80096E-05	-4.03433E-05	1.33914E-06
9	WServ1: 15deg	Combination	-0.004166287	-0.004356231	0.000510278	4.80096E-05	-4.03716E-05	1.33914E-06
9	WServ1: 0deg	Combination	-0.004159216	-0.004356231	0.000510917	4.80096E-05	-4.03044E-05	1.33914E-06
9	WServ1: -15deg	Combination	-0.004143116	-0.004356231	0.000509219	4.80096E-05	-4.01501E-05	1.33914E-06
9	WServ1: -30deg	Combination	-0.004119206	-0.004356231	0.000506953	4.80096E-05	-3.99206E-05	1.33914E-06
9	WServ1 + WA	Combination	-0.004027104	-0.004356231	0.000609953	4.80096E-05	-3.90305E-05	1.33914E-06
9	WServ1 & WA envelope	Combination Max	-0.004027104	-0.004356231	0.000609953	4.80096E-05	-3.90305E-05	1.33914E-06

9	WServ1 & WA envelope	Combination	Min	-0.004166287	-0.004356231	0.000506953	4.80096E-05	-4.03716E-05	1.33914E-06
9	Strength Envelope	Combination	Max	-0.005277125	-0.004356231	-0.010510544	0.001823022	-4.99366E-05	5.08497E-05
9	Strength Envelope	Combination	Min	-0.081479592	-0.165414885	-0.022776994	4.80096E-05	-0.000783845	1.33914E-06
10	DEAD	LinStatic		-2.35426E-05	0	-0.004208209	0	1.45395E-06	0
10	R01_Z	LinStatic		1.4836E-05	0	6.05013E-08	0	3.30092E-09	0
10	R02_Z	LinStatic		-7.93215E-06	0	4.41542E-08	0	-5.49966E-10	0
10	R03_Z	LinStatic		-1.50432E-06	0	8.27604E-08	0	-1.98062E-10	0
10	R04_Z	LinStatic		-3.91081E-06	0	-5.90631E-08	0	-6.08474E-09	0
10	R05_Z	LinStatic		3.60783E-06	0	-7.06146E-07	0	-1.30252E-08	0
10	R06_Z	LinStatic		-3.29356E-06	0	-2.7127E-06	0	-2.36636E-08	0
10	R07_Z	LinStatic		2.88572E-06	0	-2.0297E-06	0	2.93271E-08	0
10	R08_Z	LinStatic		-3.06926E-06	0	1.16814E-05	0	2.92487E-07	0
10	R09_Z	LinStatic		2.42418E-06	0	3.94532E-05	0	5.77129E-07	0
10	R10_Z	LinStatic		2.18665E-06	0	5.46731E-05	0	-1.48396E-07	0
10	R11_Z	LinStatic		7.29923E-06	0	3.75487E-05	0	-6.20264E-07	0
10	R12_Z	LinStatic		-4.83184E-06	0	5.97343E-06	0	-1.92414E-07	0
10	R_X	LinStatic		0.009363765	0	3.85404E-05	0	2.03196E-06	0
10	R_Y	LinStatic		0	0.0312962	0	-0.000173303	0	-8.34774E-06
10	Cap_R_X	LinStatic		0.000793781	0	3.29938E-06	0	1.62031E-07	0
10	Cap_w_Y	LinStatic		-8.71949E-06	0	-0.001177191	0	5.385E-07	0
10	Cap_w_Z	LinStatic		-8.71949E-06	0	-0.001177191	0	5.385E-07	0
10	Col_w_X	LinStatic		2.80368E-19	0	-0.000573645	0	5.7895E-21	0
10	Col_w_Y	LinStatic		2.80368E-19	0	-0.000573645	0	5.7895E-21	0
10	Cais_w_X	LinStatic		8.29033E-20	0	-0.000167626	0	2.01977E-21	0
10	Cais_w_Y	LinStatic		8.29033E-20	0	-0.000167626	0	2.01977E-21	0
10	DC	LinStatic		-0.001357675	0	-0.025491059	0	1.46296E-05	0
10	DW	LinStatic		-0.000220139	0	-0.003644885	0	2.59053E-06	0
10	WS3	LinStatic		-0.025230977	-0.044127643	0.003186479	0.000244358	-1.41335E-05	1.17703E-05
10	WL5	LinStatic		-0.006462778	-0.013770328	2.44132E-05	7.62534E-05	-1.64615E-06	3.673E-06
10	PL	LinStatic		-7.27999E-05	0	-0.001205361	0	8.56686E-07	0
10	LL-1 Lane	LinStatic		-0.000236409	0	0.00099146	0	-1.33822E-05	0
10	LL-2 Lane	LinStatic		-0.00036746	0	0.000884107	0	-1.8621E-05	0
10	LL-3 Lane	LinStatic		-0.000434305	0	0.000148143	0	-1.90536E-05	0
10	LL-7 Lane	LinStatic		-0.000530972	0	-0.006724161	0	-5.62726E-07	0
10	CE-1 Lane	LinStatic		-0.020231944	-0.021281416	9.70071E-05	0.000117846	-5.25314E-06	5.67646E-06
10	CE-2 Lane	LinStatic		-0.033720081	-0.035677668	0.000161438	0.000197566	-8.75515E-06	9.51642E-06
10	CE-3 Lane	LinStatic		-0.042957619	-0.045379491	0.000156791	0.00025129	-9.5793E-06	1.21042E-05
10	CE-7 Lane	LinStatic		-0.07671289	-0.080744197	0.000367777	0.000447122	-1.99108E-05	2.15372E-05
10	BR-1 Lane	LinStatic		-0.006835548	-0.072294223	-2.81345E-05	0.00040033	-1.48333E-06	1.92833E-05
10	BR-2 Lane	LinStatic		-0.011330155	-0.12017741	-4.66339E-05	0.000665484	-2.45867E-06	3.20553E-05
10	BR-3 Lane	LinStatic		-0.014513835	-0.153351382	-5.97377E-05	0.000849186	-3.14953E-06	4.09039E-05
10	BR-7 Lane	LinStatic		-0.02584399	-0.273528791	-0.000106372	0.00151467	-5.6082E-06	7.29592E-05

10	WSub3: 45deg	LinStatic	-0.000753045	0	0.000335888	0	-2.1855E-07	0
10	WSub3: 30deg	LinStatic	-0.000832947	0	0.000242688	0	-2.02443E-07	0
10	WSub3: 15deg	LinStatic	-0.000849258	0	0.000146699	0	-1.78758E-07	0
10	WSub3: 0deg	LinStatic	-0.000808959	0	0.000183115	0	-2.08352E-07	0
10	WSub3: -15deg	LinStatic	-0.000713182	0	0.000206314	0	-2.21218E-07	0
10	WSub3: -30deg	LinStatic	-0.000569778	0	0.00022565	0	-2.24362E-07	0
10	WSub3: -45deg	LinStatic	-0.000394798	0	0.000219898	0	-2.10256E-07	0
10	WA	LinStatic	-1.05614E-19	0	0.000199436	0	-1.99913E-21	0
10	WS3: 45deg	Combination	-0.025984022	-0.044127643	0.003522366	0.000244358	-1.4352E-05	1.17703E-05
10	WS3: 30deg	Combination	-0.026063924	-0.044127643	0.003429167	0.000244358	-1.43359E-05	1.17703E-05
10	WS3: 15deg	Combination	-0.026080235	-0.044127643	0.003333178	0.000244358	-1.43122E-05	1.17703E-05
10	WS3: 0deg	Combination	-0.026039936	-0.044127643	0.003369594	0.000244358	-1.43418E-05	1.17703E-05
10	WS3: -15deg	Combination	-0.025944159	-0.044127643	0.003392792	0.000244358	-1.43547E-05	1.17703E-05
10	WS3: -30deg	Combination	-0.025800755	-0.044127643	0.003412129	0.000244358	-1.43578E-05	1.17703E-05
10	WServ1: -45deg	Combination	-0.009546279	-0.016327228	0.001262488	9.04123E-05	-5.3124E-06	4.35501E-06
10	WS5: 45deg	Combination	-0.019039045	-0.035128107	0.001729239	0.000194522	-8.59253E-06	9.36983E-06
10	WS5: 30deg	Combination	-0.019077717	-0.035128107	0.00168413	0.000194522	-8.58474E-06	9.36983E-06
10	WS5: 15deg	Combination	-0.019085612	-0.035128107	0.001637671	0.000194522	-8.57327E-06	9.36983E-06
10	WS5: 0deg	Combination	-0.019066107	-0.035128107	0.001655297	0.000194522	-8.5876E-06	9.36983E-06
10	WS5: -15deg	Combination	-0.019019751	-0.035128107	0.001666525	0.000194522	-8.59382E-06	9.36983E-06
10	WS5: -30deg	Combination	-0.018950343	-0.035128107	0.001675883	0.000194522	-8.59535E-06	9.36983E-06
10	WS5: -45deg	Combination	-0.018865653	-0.035128107	0.0016731	0.000194522	-8.58852E-06	9.36983E-06
10	LL - 1 Lane	Combination	-0.027376702	-0.093575639	-0.000145029	0.000518177	-1.9262E-05	2.49597E-05
10	WS5 + WA	Combination	-0.018674571	-0.035128107	0.001766104	0.000194522	-8.48676E-06	9.36983E-06
10	LL - 2 Lane	Combination	-0.045490496	-0.155855078	-0.000206451	0.00086305	-2.89781E-05	4.15717E-05
10	LL - 3 Lane	Combination	-0.057978558	-0.198730873	-0.000960164	0.001100475	-3.09258E-05	5.30081E-05
10	LL - 7 Lane	Combination	-0.103160652	-0.354272988	-0.007668117	0.001961792	-2.5225E-05	9.44964E-05
10	LL Envelope	Combination Max	-0.027376702	-0.093575639	-0.000145029	0.001961792	-1.9262E-05	9.44964E-05
10	LL Envelope	Combination Min	-0.103160652	-0.354272988	-0.007668117	0.000518177	-3.09258E-05	2.49597E-05
10	WS3 & WA envelope	Combination Max	-0.009546279	-0.016327228	0.003522366	0.000244358	-5.3124E-06	1.17703E-05
10	WS3 & WA envelope	Combination Min	-0.026080235	-0.044127643	0.001262488	9.04123E-05	-1.43578E-05	4.35501E-06
10	WS3 + WA	Combination	-0.025230977	-0.044127643	0.003385914	0.000244358	-1.41335E-05	1.17703E-05
10	WS5 & WA envelope	Combination Max	-0.018674571	-0.035128107	0.001766104	0.000194522	-8.48676E-06	9.36983E-06
10	WS5 & WA envelope	Combination Min	-0.019085612	-0.035128107	0.001637671	0.000194522	-8.59535E-06	9.36983E-06
10	Strength 1 - Max	Combination Max	-0.049965958	-0.163757369	-0.042645776	0.003433137	-9.71821E-06	0.000165369
10	Strength 1 - Max	Combination Min	-0.182587871	-0.61997773	-0.05581118	0.000906809	-3.01298E-05	4.36795E-05
10	Strength 1 - Min	Combination Max	-0.049295414	-0.163757369	-0.029152881	0.003433137	-1.75494E-05	0.000165369
10	Strength 1 - Min	Combination Min	-0.181917327	-0.61997773	-0.042318284	0.000906809	-3.7961E-05	4.36795E-05
10	Strength 3 - Max	Combination Max	-0.01160301	-0.016327228	-0.039069045	0.000244358	1.86778E-05	1.17703E-05
10	Strength 3 - Max	Combination Min	-0.028136966	-0.044127643	-0.041328924	9.04123E-05	9.63239E-06	4.35501E-06
10	Strength 3 - Min	Combination Max	-0.010932466	-0.016327228	-0.025576149	0.000244358	1.08466E-05	1.17703E-05
10	Strength 3 - Min	Combination Min	-0.027466421	-0.044127643	-0.027836028	9.04123E-05	1.8012E-06	4.35501E-06

10	Strength 5 - Max	Combination	Max	-0.057689848	-0.16145522	-0.041021096	0.002842942	-1.05002E-05	0.00013694
10	Strength 5 - Max	Combination	Min	-0.160409222	-0.513396642	-0.051305698	0.00089406 1	-2.63549E-05	4.30655E-05
10	Strength 5 - Min	Combination	Max	-0.057019304	-0.16145522	-0.0275282	0.002842942	-1.83314E-05	0.00013694
10	Strength 5 - Min	Combination	Min	-0.159738678	-0.513396642	-0.037812802	0.00089406 1	-3.41861E-05	4.30655E-05
10	Service 1	Combination	Max	-0.03831352	-0.109902867	-0.032110748	0.002052205	-5.81727E-06	9.88514E-05
10	Service 1	Combination	Min	-0.114411695	-0.370600216	-0.039778993	0.000608589	-1.75641E-05	2.93148E-05
10	WServ1: 45deg	Combination		-0.009614088	-0.016327228	0.001303276	9.04123E-05	-5.31025E-06	4.35501E-06
10	WServ1: 30deg	Combination		-0.009643652	-0.016327228	0.001268792	9.04123E-05	-5.30429E-06	4.35501E-06
10	WServ1: 15deg	Combination		-0.009649687	-0.016327228	0.001233276	9.04123E-05	-5.29553E-06	4.35501E-06
10	WServ1: 0deg	Combination		-0.009634776	-0.016327228	0.00124675	9.04123E-05	-5.30648E-06	4.35501E-06
10	WServ1: -15deg	Combination		-0.009599339	-0.016327228	0.001255333	9.04123E-05	-5.31124E-06	4.35501E-06
10	WServ1: -30deg	Combination		-0.009546279	-0.016327228	0.001262488	9.04123E-05	-5.3124E-06	4.35501E-06
10	WServ1 + WA	Combination		-0.009335462	-0.016327228	0.001378433	9.04123E-05	-5.22938E-06	4.35501E-06
10	WServ1 & WA envelope	Combination	Max	-0.009335462	-0.016327228	0.001378433	9.04123E-05	-5.22938E-06	4.35501E-06
10	WServ1 & WA envelope	Combination	Min	-0.009649687	-0.016327228	0.001233276	9.04123E-05	-5.3124E-06	4.35501E-06
10	Strength Envelope	Combination	Max	-0.010932466	-0.016327228	-0.025576149	0.003433137	1.86778E-05	0.000165369
10	Strength Envelope	Combination	Min	-0.182587871	-0.61997773	-0.05581118	9.04123E-05	-3.7961E-05	4.35501E-06
11	DEAD	LinStatic		0.000823449	0	-0.001459512	0	6.16906E-06	0
11	R01_Z	LinStatic		6.30843E-06	0	-6.92568E-08	0	6.12729E-08	0
11	R02_Z	LinStatic		-3.37358E-06	0	3.4177E-08	0	-3.27655E-08	0
11	R03_Z	LinStatic		-6.542E-07	0	8.32755E-09	0	-6.32223E-09	0
11	R04_Z	LinStatic		-1.71104E-06	0	3.62716E-08	0	-1.65135E-08	0
11	R05_Z	LinStatic		1.5157E-06	0	1.86486E-08	0	1.47621E-08	0
11	R06_Z	LinStatic		-1.16004E-06	0	4.37755E-08	0	-1.17949E-08	0
11	R07_Z	LinStatic		1.90224E-06	0	-1.58714E-07	0	1.69945E-08	0
11	R08_Z	LinStatic		-2.68922E-07	0	-8.10796E-07	0	-4.88579E-09	0
11	R09_Z	LinStatic		1.06554E-07	0	-1.30113E-06	0	3.06311E-09	0
11	R10_Z	LinStatic		-1.12514E-05	0	1.76812E-06	0	-8.25525E-08	0
11	R11_Z	LinStatic		-2.72539E-05	0	1.11595E-05	0	-1.98095E-07	0
11	R12_Z	LinStatic		-8.12496E-07	0	2.30645E-05	0	-1.06173E-08	0
11	R_X	LinStatic		0.003978627	0	-5.10748E-05	0	3.86827E-05	0
11	R_Y	LinStatic		0	0.007499571	0	-8.34231E-05	0	-3.88863E-06
11	Cap_R_X	LinStatic		0.000347146	0	-3.7426E-06	0	3.37224E-06	0
11	Cap_w_Y	LinStatic		0.000304981	0	-0.000271886	0	2.28484E-06	0
11	Cap_w_Z	LinStatic		0.000304981	0	-0.000271886	0	2.28484E-06	0
11	Col_w_X	LinStatic		-6.65104E-19	0	-0.000329044	0	-4.73823E-21	0
11	Col_w_Y	LinStatic		-6.65104E-19	0	-0.000329044	0	-4.73823E-21	0
11	Cais_w_X	LinStatic		-1.91765E-19	0	-0.000167626	0	-1.36424E-21	0
11	Cais_w_Y	LinStatic		-1.91765E-19	0	-0.000167626	0	-1.36424E-21	0
11	DC	LinStatic		0.006620556	0	-0.005574547	0	4.85092E-05	0
11	DW	LinStatic		0.00092768	0	-0.000855311	0	6.76927E-06	0
11	WS3	LinStatic		-0.011733118	-0.010574396	0.001089334	0.000117627	-0.000111845	5.48296E-06

11	WL5	LinStatic	-0.002763284	-0.003299811	5.31186E-05	3.67062E-05	-2.68283E-05	1.711E-06
11	PL	LinStatic	0.000306783	0	-0.000282851	0	2.23859E-06	0
11	LL-1 Lane	LinStatic	-0.000560336	0	0.000592827	0	-4.43343E-06	0
11	LL-2 Lane	LinStatic	-0.00066215	0	0.000718853	0	-5.32119E-06	0
11	LL-3 Lane	LinStatic	-0.000498073	0	0.000573319	0	-4.14997E-06	0
11	LL-7 Lane	LinStatic	0.001581647	0	-0.001426065	0	1.1396E-05	0
11	CE-1 Lane	LinStatic	-0.008657553	-0.005099709	0.00017342	5.67277E-05	-8.40396E-05	2.64427E-06
11	CE-2 Lane	LinStatic	-0.014429251	-0.008549511	0.000289175	9.51023E-05	-0.000140066	4.43303E-06
11	CE-3 Lane	LinStatic	-0.018392603	-0.010874379	0.000178219	0.000120963	-0.000178516	5.63851E-06
11	CE-7 Lane	LinStatic	-0.032826508	-0.019348894	0.000657623	0.000215232	-0.00031865	1.00327E-05
11	BR-1 Lane	LinStatic	-0.002904397	-0.01732401	3.72846E-05	0.000192707	-2.82384E-05	8.98272E-06
11	BR-2 Lane	LinStatic	-0.004814138	-0.028798354	6.18006E-05	0.000320345	-4.68061E-05	1.49323E-05
11	BR-3 Lane	LinStatic	-0.006166871	-0.0367479	7.9166E-05	0.000408773	-5.99582E-05	1.90543E-05
11	BR-7 Lane	LinStatic	-0.010981009	-0.065546255	0.000140967	0.000729118	-0.000106764	3.39866E-05
11	WSub3: 45deg	LinStatic	-0.000366387	0	0.000170345	0	-3.47781E-06	0
11	WSub3: 30deg	LinStatic	-0.000382803	0	0.000139506	0	-3.67794E-06	0
11	WSub3: 15deg	LinStatic	-0.000374497	0	0.000101153	0	-3.63114E-06	0
11	WSub3: 0deg	LinStatic	-0.000378488	0	8.85213E-05	0	-3.62247E-06	0
11	WSub3: -15deg	LinStatic	-0.000355129	0	7.12326E-05	0	-3.35489E-06	0
11	WSub3: -30deg	LinStatic	-0.000310942	0	5.21053E-05	0	-2.88498E-06	0
11	WSub3: -45deg	LinStatic	-0.000246769	0	2.57142E-05	0	-2.23448E-06	0
11	WA	LinStatic	2.44109E-19	0	0.000135839	0	1.73674E-21	0
11	WS3: 45deg	Combination	-0.012099504	-0.010574396	0.001259679	0.000117627	-0.000115323	5.48296E-06
11	WS3: 30deg	Combination	-0.01211592	-0.010574396	0.00122884	0.000117627	-0.000115523	5.48296E-06
11	WS3: 15deg	Combination	-0.012107614	-0.010574396	0.001190487	0.000117627	-0.000115476	5.48296E-06
11	WS3: 0deg	Combination	-0.012111605	-0.010574396	0.001177855	0.000117627	-0.000115468	5.48296E-06
11	WS3: -15deg	Combination	-0.012088247	-0.010574396	0.001160567	0.000117627	-0.0001152	5.48296E-06
11	WS3: -30deg	Combination	-0.012044059	-0.010574396	0.001141439	0.000117627	-0.00011473	5.48296E-06
11	WServ1: -45deg	Combination	-0.004456302	-0.003912526	0.000422332	4.35218E-05	-4.24501E-05	2.0287E-06
11	WS5: 45deg	Combination	-0.008619444	-0.008417819	0.000662803	9.36374E-05	-8.26446E-05	4.36475E-06
11	WS5: 30deg	Combination	-0.00862739	-0.008417819	0.000647877	9.36374E-05	-8.27414E-05	4.36475E-06
11	WS5: 15deg	Combination	-0.008623369	-0.008417819	0.000629314	9.36374E-05	-8.27188E-05	4.36475E-06
11	WS5: 0deg	Combination	-0.008625301	-0.008417819	0.000623201	9.36374E-05	-8.27146E-05	4.36475E-06
11	WS5: -15deg	Combination	-0.008613996	-0.008417819	0.000614833	9.36374E-05	-8.25851E-05	4.36475E-06
11	WS5: -30deg	Combination	-0.008592609	-0.008417819	0.000605575	9.36374E-05	-8.23576E-05	4.36475E-06
11	WS5: -45deg	Combination	-0.008561549	-0.008417819	0.000592802	9.36374E-05	-8.20428E-05	4.36475E-06
11	LL - 1 Lane	Combination	-0.011815503	-0.022423719	0.00052068	0.000249435	-0.000114473	1.1627E-05
11	WS5 + WA	Combination	-0.008442113	-0.008417819	0.000716195	9.36374E-05	-8.09613E-05	4.36475E-06
11	LL - 2 Lane	Combination	-0.019598756	-0.037347866	0.000786978	0.000415447	-0.000189955	1.93654E-05
11	LL - 3 Lane	Combination	-0.024750764	-0.047622279	0.000547853	0.000529737	-0.000240385	2.46928E-05
11	LL - 7 Lane	Combination	-0.041919087	-0.084895149	-0.000910326	0.000944349	-0.000411779	4.40192E-05
11	LL Envelope	Combination Max	-0.011815503	-0.022423719	0.000786978	0.000944349	-0.000114473	4.40192E-05

11	LL Envelope	Combination	Min	-0.041919087	-0.084895149	-0.000910326	0.000249435	-0.000411779	1.1627E-05
11	WS3 & WA envelope	Combination	Max	-0.004456302	-0.003912526	0.001259679	0.000117627	-4.24501E-05	5.48296E-06
11	WS3 & WA envelope	Combination	Min	-0.01211592	-0.010574396	0.000422332	4.35218E-05	-0.000115523	2.0287E-06
11	WS3 + WA	Combination		-0.011733118	-0.010574396	0.001225173	0.000117627	-0.000111845	5.48296E-06
11	WS5 & WA envelope	Combination	Max	-0.008442113	-0.008417819	0.000716195	9.36374E-05	-8.09613E-05	4.36475E-06
11	WS5 & WA envelope	Combination	Min	-0.00862739	-0.008417819	0.000592802	9.36374E-05	-8.27414E-05	4.36475E-06
11	Strength 1 - Max	Combination	Max	-0.009980605	-0.039241508	-0.008562489	0.00165261	-0.000121826	7.70337E-05
11	Strength 1 - Max	Combination	Min	-0.062661876	-0.14856511	-0.01153277	0.00043651	-0.000642112	2.03472E-05
11	Strength 1 - Min	Combination	Max	-0.013374535	-0.039241508	-0.005373554	0.00165261	-0.000146717	7.70337E-05
11	Strength 1 - Min	Combination	Min	-0.066055805	-0.14856511	-0.008343836	0.00043651	-0.000667004	2.03472E-05
11	Strength 3 - Max	Combination	Max	0.006240224	-0.003912526	-0.008815862	0.000117627	3.60517E-05	5.48296E-06
11	Strength 3 - Max	Combination	Min	-0.001419395	-0.010574396	-0.009653208	4.35218E-05	-3.70212E-05	2.0287E-06
11	Strength 3 - Min	Combination	Max	0.002846294	-0.003912526	-0.005626927	0.000117627	1.11604E-05	5.48296E-06
11	Strength 3 - Min	Combination	Min	-0.004813324	-0.010574396	-0.006464273	4.35218E-05	-6.19125E-05	2.0287E-06
11	Strength 5 - Max	Combination	Max	-0.013696517	-0.038689839	-0.008296924	0.001368509	-0.000156998	6.37907E-05
11	Strength 5 - Max	Combination	Min	-0.054521631	-0.12302627	-0.010711678	0.000430375	-0.000560142	2.00612E-05
11	Strength 5 - Min	Combination	Max	-0.017090446	-0.038689839	-0.005107989	0.001368509	-0.000181889	6.37907E-05
11	Strength 5 - Min	Combination	Min	-0.05791556	-0.12302627	-0.007522743	0.000430375	-0.000585033	2.00612E-05
11	Service 1	Combination	Max	-0.007785072	-0.026336245	-0.006563499	0.000987871	-9.44079E-05	4.60479E-05
11	Service 1	Combination	Min	-0.038030293	-0.088807675	-0.008377363	0.000292957	-0.000393075	1.36557E-05
11	WServ1: 45deg	Combination		-0.004476817	-0.003912526	0.000466081	4.35218E-05	-4.26695E-05	2.0287E-06
11	WServ1: 30deg	Combination		-0.00448289	-0.003912526	0.000454671	4.35218E-05	-4.27435E-05	2.0287E-06
11	WServ1: 15deg	Combination		-0.004479817	-0.003912526	0.00044048	4.35218E-05	-4.27262E-05	2.0287E-06
11	WServ1: 0deg	Combination		-0.004481294	-0.003912526	0.000435806	4.35218E-05	-4.2723E-05	2.0287E-06
11	WServ1: -15deg	Combination		-0.004472651	-0.003912526	0.00042941	4.35218E-05	-4.2624E-05	2.0287E-06
11	WServ1: -30deg	Combination		-0.004456302	-0.003912526	0.000422332	4.35218E-05	-4.24501E-05	2.0287E-06
11	WServ1 + WA	Combination		-0.004341253	-0.003912526	0.000538893	4.35218E-05	-4.13827E-05	2.0287E-06
11	WServ1 & WA envelope	Combination	Max	-0.004341253	-0.003912526	0.000538893	4.35218E-05	-4.13827E-05	2.0287E-06
11	WServ1 & WA envelope	Combination	Min	-0.00448289	-0.003912526	0.000422332	4.35218E-05	-4.27435E-05	2.0287E-06
11	Strength Envelope	Combination	Max	0.006240224	-0.003912526	-0.005107989	0.00165261	3.60517E-05	7.70337E-05
11	Strength Envelope	Combination	Min	-0.066055805	-0.14856511	-0.01153277	4.35218E-05	-0.000667004	2.0287E-06
12	DEAD	LinStatic		-4.04218E-05	0	-0.002855292	0	-2.5455E-05	0
12	R01_Z	LinStatic		1.47659E-05	0	-1.72224E-07	0	1.01238E-08	0
12	R02_Z	LinStatic		-7.89463E-06	0	8.49893E-08	0	-5.38958E-09	0
12	R03_Z	LinStatic		-1.49691E-06	0	2.07085E-08	0	-5.82485E-10	0
12	R04_Z	LinStatic		-3.89134E-06	0	9.01981E-08	0	-1.1996E-09	0
12	R05_Z	LinStatic		3.59114E-06	0	4.63743E-08	0	3.02283E-09	0
12	R06_Z	LinStatic		-3.28289E-06	0	1.08858E-07	0	-9.58529E-09	0
12	R07_Z	LinStatic		2.85832E-06	0	-3.94679E-07	0	-1.86395E-08	0
12	R08_Z	LinStatic		-3.07587E-06	0	-2.01624E-06	0	-3.37201E-08	0
12	R09_Z	LinStatic		2.43156E-06	0	-3.23557E-06	0	2.98636E-08	0
12	R10_Z	LinStatic		2.42464E-06	0	4.39686E-06	0	3.73288E-07	0

12	R11_Z	LinStatic	7.88358E-06	0	2.77507E-05	0	9.31559E-07	0
12	R12_Z	LinStatic	-4.83431E-06	0	5.73555E-05	0	-4.1207E-08	0
12	R_X	LinStatic	0.009354452	0	-0.00012701	0	6.95399E-06	0
12	R_Y	LinStatic	0	0.028938027	0	-0.000166939	0	-1.26462E-05
12	Cap_R_X	LinStatic	0.000813039	0	-9.30687E-06	0	5.63708E-07	0
12	Cap_w_Y	LinStatic	-1.49711E-05	0	-0.000676111	0	-9.42778E-06	0
12	Cap_w_Z	LinStatic	-1.49711E-05	0	-0.000676111	0	-9.42778E-06	0
12	Col_w_X	LinStatic	2.95771E-19	0	-0.000573645	0	2.41404E-20	0
12	Col_w_Y	LinStatic	2.95771E-19	0	-0.000573645	0	2.41404E-20	0
12	Cais_w_X	LinStatic	8.73184E-20	0	-0.000167626	0	6.98802E-21	0
12	Cais_w_Y	LinStatic	8.73184E-20	0	-0.000167626	0	6.98802E-21	0
12	DC	LinStatic	-0.001497988	0	-0.013862456	0	-0.00022062	0
12	DW	LinStatic	-0.000239918	0	-0.002126937	0	-3.1322E-05	0
12	WS3	LinStatic	-0.025185434	-0.040802618	0.002708892	0.000235383	1.21656E-05	1.78312E-05
12	WL5	LinStatic	-0.006455992	-0.012732732	0.000132092	7.3453E-05	-4.2722E-06	5.56434E-06
12	PL	LinStatic	-7.93407E-05	0	-0.000703377	0	-1.03582E-05	0
12	LL-1 Lane	LinStatic	-0.000225918	0	0.001474207	0	1.38731E-05	0
12	LL-2 Lane	LinStatic	-0.00035541	0	0.001787602	0	1.51905E-05	0
12	LL-3 Lane	LinStatic	-0.000425863	0	0.001425697	0	9.26934E-06	0
12	LL-7 Lane	LinStatic	-0.000565307	0	-0.003546254	0	-5.55286E-05	0
12	CE-1 Lane	LinStatic	-0.020210556	-0.019677858	0.00043125	0.000113518	-1.31606E-05	8.59943E-06
12	CE-2 Lane	LinStatic	-0.033684434	-0.032989351	0.000719104	0.00019031	-2.19369E-05	1.44167E-05
12	CE-3 Lane	LinStatic	-0.042912125	-0.041960139	0.000443184	0.000242061	-2.7628E-05	1.8337E-05
12	CE-7 Lane	LinStatic	-0.076631793	-0.07466011	0.001635339	0.000430701	-4.99036E-05	3.26272E-05
12	BR-1 Lane	LinStatic	-0.00682875	-0.066846842	9.27172E-05	0.000385628	-5.07641E-06	2.92128E-05
12	BR-2 Lane	LinStatic	-0.011318887	-0.111122024	0.000153682	0.000641044	-8.41433E-06	4.85615E-05
12	BR-3 Lane	LinStatic	-0.014499401	-0.141796332	0.000196865	0.000817999	-1.07787E-05	6.19665E-05
12	BR-7 Lane	LinStatic	-0.025818289	-0.252918356	0.000350547	0.001459043	-1.9193E-05	0.000110528
12	WSub3: 45deg	LinStatic	-0.00077059	0	0.000287734	0	5.95811E-07	0
12	WSub3: 30deg	LinStatic	-0.000852793	0	0.00022586	0	-2.62261E-08	0
12	WSub3: 15deg	LinStatic	-0.000869802	0	0.000155177	0	-5.08889E-07	0
12	WSub3: 0deg	LinStatic	-0.000828102	0	0.000155887	0	1.79241E-07	0
12	WSub3: -15deg	LinStatic	-0.000729639	0	0.000147508	0	8.12552E-07	0
12	WSub3: -30deg	LinStatic	-0.000582394	0	0.00013451	0	1.47969E-06	0
12	WSub3: -45deg	LinStatic	-0.000402926	0	0.000105942	0	1.98081E-06	0
12	WA	LinStatic	-1.11033E-19	0	0.000199436	0	-8.89385E-21	0
12	WS3: 45deg	Combination	-0.025956025	-0.040802618	0.002996626	0.000235383	1.27614E-05	1.78312E-05
12	WS3: 30deg	Combination	-0.026038227	-0.040802618	0.002934752	0.000235383	1.21393E-05	1.78312E-05
12	WS3: 15deg	Combination	-0.026055236	-0.040802618	0.002864069	0.000235383	1.16567E-05	1.78312E-05
12	WS3: 0deg	Combination	-0.026013536	-0.040802618	0.002864779	0.000235383	1.23448E-05	1.78312E-05
12	WS3: -15deg	Combination	-0.025915073	-0.040802618	0.0028564	0.000235383	1.29781E-05	1.78312E-05
12	WS3: -30deg	Combination	-0.025767828	-0.040802618	0.002843402	0.000235383	1.36453E-05	1.78312E-05

12	WServ1: -45deg	Combination	-0.009534096	-0.015096969	0.001052059	8.70918E-05	5.04875E-06	6.59753E-06
12	WS5: 45deg	Combination	-0.019018708	-0.032481199	0.001582459	0.000187378	1.90431E-06	1.41946E-05
12	WS5: 30deg	Combination	-0.019058494	-0.032481199	0.001552512	0.000187378	1.60324E-06	1.41946E-05
12	WS5: 15deg	Combination	-0.019066726	-0.032481199	0.001518302	0.000187378	1.36964E-06	1.41946E-05
12	WS5: 0deg	Combination	-0.019046543	-0.032481199	0.001518645	0.000187378	1.70269E-06	1.41946E-05
12	WS5: -15deg	Combination	-0.018998887	-0.032481199	0.00151459	0.000187378	2.00921E-06	1.41946E-05
12	WS5: -30deg	Combination	-0.018927621	-0.032481199	0.001508299	0.000187378	2.33211E-06	1.41946E-05
12	WS5: -45deg	Combination	-0.018840758	-0.032481199	0.001494472	0.000187378	2.57465E-06	1.41946E-05
12	LL - 1 Lane	Combination	-0.027344565	-0.086524701	0.001294797	0.000499146	-1.47221E-05	3.78122E-05
12	WS5 + WA	Combination	-0.018645742	-0.032481199	0.001642631	0.000187378	1.61594E-06	1.41946E-05
12	LL - 2 Lane	Combination	-0.045438072	-0.144111374	0.001957012	0.000831354	-2.55189E-05	6.29782E-05
12	LL - 3 Lane	Combination	-0.05791673	-0.183756471	0.001362369	0.00106006	-3.94955E-05	8.03035E-05
12	LL - 7 Lane	Combination	-0.103094729	-0.327578465	-0.002263745	0.001889744	-0.000134983	0.000143155
12	LL Envelope	Combination Max	-0.027344565	-0.086524701	0.001957012	0.001889744	-1.47221E-05	0.000143155
12	LL Envelope	Combination Min	-0.103094729	-0.327578465	-0.002263745	0.000499146	-0.000134983	3.78122E-05
12	WS3 & WA envelope	Combination Max	-0.009534096	-0.015096969	0.002996626	0.000235383	1.36453E-05	1.78312E-05
12	WS3 & WA envelope	Combination Min	-0.026055236	-0.040802618	0.001052059	8.70918E-05	5.04875E-06	6.59753E-06
12	WS3 + WA	Combination	-0.025185434	-0.040802618	0.002908327	0.000235383	1.21656E-05	1.78312E-05
12	WS5 & WA envelope	Combination Max	-0.018645742	-0.032481199	0.001642631	0.000187378	2.57465E-06	1.41946E-05
12	WS5 & WA envelope	Combination Min	-0.019066726	-0.032481199	0.001494472	0.000187378	1.36964E-06	1.41946E-05
12	Strength 1 - Max	Combination Max	-0.050135878	-0.151418226	-0.020463385	0.003307052	-0.00038034	0.000250522
12	Strength 1 - Max	Combination Min	-0.182698666	-0.573262314	-0.027849709	0.000873506	-0.000590798	6.61713E-05
12	Strength 1 - Min	Combination Max	-0.049393505	-0.151418226	-0.012804277	0.003307052	-0.00026759	0.000250522
12	Strength 1 - Min	Combination Min	-0.181956293	-0.573262314	-0.0201906	0.000873506	-0.000478048	6.61713E-05
12	Strength 3 - Max	Combination Max	-0.011816986	-0.015096969	-0.021090966	0.000235383	-0.000340932	1.78312E-05
12	Strength 3 - Max	Combination Min	-0.028338126	-0.040802618	-0.023035533	8.70918E-05	-0.000349528	6.59753E-06
12	Strength 3 - Min	Combination Max	-0.011074612	-0.015096969	-0.013431857	0.000235383	-0.000228182	1.78312E-05
12	Strength 3 - Min	Combination Min	-0.027595752	-0.040802618	-0.015376424	8.70918E-05	-0.000236778	6.59753E-06
12	Strength 5 - Max	Combination Max	-0.057843794	-0.149289545	-0.019802994	0.002738533	-0.000371877	0.000207454
12	Strength 5 - Max	Combination Min	-0.160527501	-0.474712127	-0.025649175	0.000861226	-0.000535435	6.52411E-05
12	Strength 5 - Min	Combination Max	-0.057101421	-0.149289545	-0.012143885	0.002738533	-0.000259127	0.000207454
12	Strength 5 - Min	Combination Min	-0.159785127	-0.474712127	-0.017990066	0.000861226	-0.000422685	6.52411E-05
12	Service 1	Combination Max	-0.038441504	-0.101621669	-0.015685948	0.001976836	-0.00028707	0.000149753
12	Service 1	Combination Min	-0.114513495	-0.342675434	-0.020056371	0.000586238	-0.000408067	4.44097E-05
12	WServ1: 45deg	Combination	-0.009603729	-0.015096969	0.001108752	8.70918E-05	4.72171E-06	6.59753E-06
12	WServ1: 30deg	Combination	-0.009634144	-0.015096969	0.001085858	8.70918E-05	4.49156E-06	6.59753E-06
12	WServ1: 15deg	Combination	-0.009640437	-0.015096969	0.001059705	8.70918E-05	4.31297E-06	6.59753E-06
12	WServ1: 0deg	Combination	-0.009625008	-0.015096969	0.001059968	8.70918E-05	4.56758E-06	6.59753E-06
12	WServ1: -15deg	Combination	-0.009588577	-0.015096969	0.001056868	8.70918E-05	4.80191E-06	6.59753E-06
12	WServ1: -30deg	Combination	-0.009534096	-0.015096969	0.001052059	8.70918E-05	5.04875E-06	6.59753E-06
12	WServ1 + WA	Combination	-0.009318611	-0.015096969	0.001201725	8.70918E-05	4.50126E-06	6.59753E-06
12	WServ1 & WA envelope	Combination Max	-0.009318611	-0.015096969	0.001201725	8.70918E-05	5.04875E-06	6.59753E-06

12	WServ1 & WA envelope	Combination	Min	-0.009640437	-0.015096969	0.001052059	8.70918E-05	4.31297E-06	6.59753E-06
12	Strength Envelope	Combination	Max	-0.011074612	-0.015096969	-0.012143885	0.003307052	-0.000228182	0.000250522
12	Strength Envelope	Combination	Min	-0.182698666	-0.573262314	-0.027849709	8.70918E-05	-0.000590798	6.59753E-06
13	DEAD	LinStatic		4.04218E-05	0	-0.002004654	0	2.46845E-05	0
13	R01_Z	LinStatic		1.58459E-05	0	9.03612E-05	0	6.51774E-07	0
13	R02_Z	LinStatic		-8.83479E-06	0	1.28844E-06	0	-9.14068E-07	0
13	R03_Z	LinStatic		-1.96256E-06	0	-1.07061E-05	0	-5.35943E-07	0
13	R04_Z	LinStatic		-4.38139E-06	0	-5.35801E-06	0	-7.72045E-08	0
13	R05_Z	LinStatic		3.40306E-06	0	-1.43153E-06	0	3.33547E-08	0
13	R06_Z	LinStatic		-3.5461E-06	0	1.09119E-07	0	2.09817E-08	0
13	R07_Z	LinStatic		2.56537E-06	0	5.0005E-07	0	1.22287E-08	0
13	R08_Z	LinStatic		-3.22539E-06	0	-9.69301E-09	0	-1.74698E-09	0
13	R09_Z	LinStatic		2.00044E-06	0	7.27216E-08	0	-2.31737E-10	0
13	R10_Z	LinStatic		2.01177E-06	0	6.03764E-08	0	7.71982E-10	0
13	R11_Z	LinStatic		6.96819E-06	0	2.43777E-07	0	4.69843E-09	0
13	R12_Z	LinStatic		-4.58956E-06	0	-1.68472E-07	0	-3.12483E-09	0
13	R_X	LinStatic		0.009369021	0	0.000389676	0	7.26476E-06	0
13	R_Y	LinStatic		0	0.030337057	0	-0.000174084	0	8.24816E-06
13	Cap_R_X	LinStatic		0.000756207	0	2.74865E-05	0	5.21336E-07	0
13	Cap_w_Y	LinStatic		1.49711E-05	0	-0.00036106	0	9.1424E-06	0
13	Cap_w_Z	LinStatic		1.49711E-05	0	-0.00036106	0	9.1424E-06	0
13	Col_w_X	LinStatic		2.25099E-19	0	-0.000573645	0	-1.93338E-20	0
13	Col_w_Y	LinStatic		2.25099E-19	0	-0.000573645	0	-1.93338E-20	0
13	Cais_w_X	LinStatic		6.71803E-20	0	-0.000167626	0	-5.886E-21	0
13	Cais_w_Y	LinStatic		6.71803E-20	0	-0.000167626	0	-5.886E-21	0
13	DC	LinStatic		-0.000899715	0	-0.011626277	0	0.000155993	0
13	DW	LinStatic		-0.000158312	0	-0.001897284	0	2.04634E-05	0
13	WS3	LinStatic		-0.025276263	-0.04277525	-0.001507715	0.000245458	-2.16763E-05	-1.16299E-05
13	WL5	LinStatic		-0.006466455	-0.013348305	-0.000313779	7.65969E-05	-4.75805E-06	-3.62919E-06
13	PL	LinStatic		-5.23535E-05	0	-0.000627431	0	6.76723E-06	0
13	LL-1 Lane	LinStatic		-0.000203515	0	-0.00384085	0	2.74327E-05	0
13	LL-2 Lane	LinStatic		-0.000311891	0	-0.005725723	0	4.18738E-05	0
13	LL-3 Lane	LinStatic		-0.000362494	0	-0.006438367	0	4.84974E-05	0
13	LL-7 Lane	LinStatic		-0.000395963	0	-0.005335576	0	5.16525E-05	0
13	CE-1 Lane	LinStatic		-0.020243472	-0.020629198	-0.001000036	0.000118377	-1.47885E-05	-5.60875E-06
13	CE-2 Lane	LinStatic		-0.0337393	-0.034584244	-0.001667393	0.000198456	-2.46549E-05	-9.4029E-06
13	CE-3 Lane	LinStatic		-0.042984145	-0.043988732	-0.002114306	0.000252422	-3.0543E-05	-1.19598E-05
13	CE-7 Lane	LinStatic		-0.076756604	-0.078269606	-0.003792239	0.000449136	-5.60797E-05	-2.12803E-05
13	BR-1 Lane	LinStatic		-0.006839385	-0.070078601	-0.000284464	0.000402134	-5.30328E-06	-1.90533E-05
13	BR-2 Lane	LinStatic		-0.011336515	-0.116494297	-0.000471508	0.000668482	-8.79036E-06	-3.16729E-05
13	BR-3 Lane	LinStatic		-0.014521982	-0.148651577	-0.000603998	0.000853011	-1.12604E-05	-4.0416E-05
13	BR-7 Lane	LinStatic		-0.025858498	-0.265145874	-0.001075507	0.001521493	-2.00507E-05	-7.20889E-05

13	WSub3: 45deg	LinStatic	-0.000720193	0	0.000214974	0	-1.59236E-06	0
13	WSub3: 30deg	LinStatic	-0.000794915	0	0.000168324	0	-1.09595E-06	0
13	WSub3: 15deg	LinStatic	-0.000809291	0	0.000112658	0	-6.49254E-07	0
13	WSub3: 0deg	LinStatic	-0.000772528	0	9.31536E-05	0	-1.26315E-06	0
13	WSub3: -15deg	LinStatic	-0.000682682	0	7.02868E-05	0	-1.74914E-06	0
13	WSub3: -30deg	LinStatic	-0.000547463	0	4.5009E-05	0	-2.20384E-06	0
13	WSub3: -45deg	LinStatic	-0.000381696	0	1.19332E-05	0	-2.45484E-06	0
13	WA	LinStatic	-8.60268E-20	0	0.000199436	0	6.51307E-21	0
13	WS3: 45deg	Combination	-0.025996456	-0.04277525	-0.00129274	0.000245458	-2.32687E-05	-1.16299E-05
13	WS3: 30deg	Combination	-0.026071178	-0.04277525	-0.001339391	0.000245458	-2.27723E-05	-1.16299E-05
13	WS3: 15deg	Combination	-0.026085554	-0.04277525	-0.001395057	0.000245458	-2.23256E-05	-1.16299E-05
13	WS3: 0deg	Combination	-0.026048791	-0.04277525	-0.001414561	0.000245458	-2.29395E-05	-1.16299E-05
13	WS3: -15deg	Combination	-0.025958945	-0.04277525	-0.001437428	0.000245458	-2.34255E-05	-1.16299E-05
13	WS3: -30deg	Combination	-0.025823726	-0.04277525	-0.001462706	0.000245458	-2.38802E-05	-1.16299E-05
13	WServ1: -45deg	Combination	-0.009554779	-0.015826842	-0.000541201	9.08196E-05	-8.83566E-06	-4.30307E-06
13	WS5: 45deg	Combination	-0.019048739	-0.034051526	-0.000939466	0.000195399	-1.60201E-05	-9.25807E-06
13	WS5: 30deg	Combination	-0.019084905	-0.034051526	-0.000962044	0.000195399	-1.57798E-05	-9.25807E-06
13	WS5: 15deg	Combination	-0.019091863	-0.034051526	-0.000988987	0.000195399	-1.55636E-05	-9.25807E-06
13	WS5: 0deg	Combination	-0.01907407	-0.034051526	-0.000998427	0.000195399	-1.58608E-05	-9.25807E-06
13	WS5: -15deg	Combination	-0.019030584	-0.034051526	-0.001009494	0.000195399	-1.6096E-05	-9.25807E-06
13	WS5: -30deg	Combination	-0.018965138	-0.034051526	-0.001021729	0.000195399	-1.6316E-05	-9.25807E-06
13	WS5: -45deg	Combination	-0.018884907	-0.034051526	-0.001037738	0.000195399	-1.64375E-05	-9.25807E-06
13	LL - 1 Lane	Combination	-0.027338726	-0.090707799	-0.005752781	0.000520511	1.41082E-05	-2.4662E-05
13	WS5 + WA	Combination	-0.018700166	-0.034051526	-0.000844078	0.000195399	-1.52494E-05	-9.25807E-06
13	LL - 2 Lane	Combination	-0.045440061	-0.151078542	-0.008492054	0.000866938	1.51958E-05	-4.10758E-05
13	LL - 3 Lane	Combination	-0.057920975	-0.192640309	-0.009784102	0.001105433	1.34612E-05	-5.23758E-05
13	LL - 7 Lane	Combination	-0.103063418	-0.34341548	-0.010830753	0.001970629	-1.77107E-05	-9.33692E-05
13	LL Envelope	Combination Max	-0.027338726	-0.090707799	-0.005752781	0.001970629	1.51958E-05	-2.4662E-05
13	LL Envelope	Combination Min	-0.103063418	-0.34341548	-0.010830753	0.000520511	-1.77107E-05	-9.33692E-05
13	WS3 & WA envelope	Combination Max	-0.009554779	-0.015826842	-0.000541201	0.000245458	-8.83566E-06	-4.30307E-06
13	WS3 & WA envelope	Combination Min	-0.026085554	-0.04277525	-0.001462706	9.08196E-05	-2.38802E-05	-1.16299E-05
13	WS3 + WA	Combination	-0.025276263	-0.04277525	-0.001308279	0.000245458	-2.16763E-05	-1.16299E-05
13	WS5 & WA envelope	Combination Max	-0.018700166	-0.034051526	-0.000844078	0.000195399	-1.52494E-05	-9.25807E-06
13	WS5 & WA envelope	Combination Min	-0.019091863	-0.034051526	-0.001037738	0.000195399	-1.64375E-05	-9.25807E-06
13	Strength 1 - Max	Combination Max	-0.049154355	-0.158738648	-0.029752519	0.003448601	0.000283135	-4.31585E-05
13	Strength 1 - Max	Combination Min	-0.181672565	-0.60097709	-0.038638971	0.000910894	0.000225548	-0.000163396
13	Strength 1 - Min	Combination Max	-0.048719037	-0.158738648	-0.023369002	0.003448601	0.000202504	-4.31585E-05
13	Strength 1 - Min	Combination Min	-0.181237248	-0.60097709	-0.032255454	0.000910894	0.000144917	-0.000163396
13	Strength 3 - Max	Combination Max	-0.010866363	-0.015826842	-0.02042579	0.000245458	0.000247706	-4.30307E-06
13	Strength 3 - Max	Combination Min	-0.027397138	-0.04277525	-0.021347294	9.08196E-05	0.000232662	-1.16299E-05
13	Strength 3 - Min	Combination Max	-0.010431045	-0.015826842	-0.014042273	0.000245458	0.000167075	-4.30307E-06
13	Strength 3 - Min	Combination Min	-0.02696182	-0.04277525	-0.014963778	9.08196E-05	0.000152031	-1.16299E-05

13	Strength 5 - Max	Combination	Max	-0.05691903	-0.156507055	-0.02849492	0.002855748	0.000261807	-4.25518E-05
13	Strength 5 - Max	Combination	Min	-0.159539061	-0.497662424	-0.035543843	0.000898088	0.000216195	-0.000135306
13	Strength 5 - Min	Combination	Max	-0.056483713	-0.156507055	-0.022111403	0.002855748	0.000181176	-4.25518E-05
13	Strength 5 - Min	Combination	Min	-0.159103743	-0.497662424	-0.029160326	0.000898088	0.000135564	-0.000135306
13	Service 1	Combination	Max	-0.037708548	-0.106534642	-0.021639414	0.002061449	0.000208316	-2.89651E-05
13	Service 1	Combination	Min	-0.113732678	-0.359242323	-0.026900168	0.00061133	0.000174595	-9.76723E-05
13	WServ1: 45deg	Combination		-0.009618689	-0.015826842	-0.000478314	9.08196E-05	-8.60941E-06	-4.30307E-06
13	WServ1: 30deg	Combination		-0.009646336	-0.015826842	-0.000495575	9.08196E-05	-8.42574E-06	-4.30307E-06
13	WServ1: 15deg	Combination		-0.009651655	-0.015826842	-0.000516171	9.08196E-05	-8.26046E-06	-4.30307E-06
13	WServ1: 0deg	Combination		-0.009638053	-0.015826842	-0.000523388	9.08196E-05	-8.48761E-06	-4.30307E-06
13	WServ1: -15deg	Combination		-0.00960481	-0.015826842	-0.000531848	9.08196E-05	-8.66742E-06	-4.30307E-06
13	WServ1: -30deg	Combination		-0.009554779	-0.015826842	-0.000541201	9.08196E-05	-8.83566E-06	-4.30307E-06
13	WServ1 + WA	Combination		-0.009352217	-0.015826842	-0.000358419	9.08196E-05	-8.02024E-06	-4.30307E-06
13	WServ1 & WA envelope	Combination	Max	-0.009352217	-0.015826842	-0.000358419	9.08196E-05	-8.02024E-06	-4.30307E-06
13	WServ1 & WA envelope	Combination	Min	-0.009651655	-0.015826842	-0.000541201	9.08196E-05	-8.83566E-06	-4.30307E-06
13	Strength Envelope	Combination	Max	-0.010431045	-0.015826842	-0.014042273	0.003448601	0.000283135	-4.30307E-06
13	Strength Envelope	Combination	Min	-0.181672565	-0.60097709	-0.038638971	9.08196E-05	0.000135564	-0.000163396
14	DEAD	LinStatic		-4.04218E-05	0	-0.002004654	0	-2.46845E-05	0
14	R01_Z	LinStatic		1.47659E-05	0	-5.36679E-07	0	1.01238E-08	0
14	R02_Z	LinStatic		-7.89463E-06	0	2.79014E-07	0	-5.38958E-09	0
14	R03_Z	LinStatic		-1.49691E-06	0	4.16779E-08	0	-5.82485E-10	0
14	R04_Z	LinStatic		-3.89134E-06	0	1.33384E-07	0	-1.1996E-09	0
14	R05_Z	LinStatic		3.59114E-06	0	-6.24477E-08	0	3.02283E-09	0
14	R06_Z	LinStatic		-3.28289E-06	0	4.53929E-07	0	-9.58529E-09	0
14	R07_Z	LinStatic		2.85832E-06	0	2.76343E-07	0	-1.86395E-08	0
14	R08_Z	LinStatic		-3.07587E-06	0	-8.02317E-07	0	-3.37201E-08	0
14	R09_Z	LinStatic		2.43156E-06	0	-4.31066E-06	0	2.98636E-08	0
14	R10_Z	LinStatic		2.42464E-06	0	-9.04151E-06	0	3.73288E-07	0
14	R11_Z	LinStatic		7.88358E-06	0	-5.78543E-06	0	9.31559E-07	0
14	R12_Z	LinStatic		-4.83431E-06	0	5.88389E-05	0	-4.1207E-08	0
14	R_X	LinStatic		0.009354452	0	-0.000377353	0	6.95399E-06	0
14	R_Y	LinStatic		0	0.028482763	0	-0.000166939	0	-1.26462E-05
14	Cap_R_X	LinStatic		0.000816892	0	-2.96003E-05	0	5.63708E-07	0
14	Cap_w_Y	LinStatic		-1.49711E-05	0	-0.00036106	0	-9.1424E-06	0
14	Cap_w_Z	LinStatic		-1.49711E-05	0	-0.00036106	0	-9.1424E-06	0
14	Col_w_X	LinStatic		2.95771E-19	0	-0.000573645	0	2.5411E-20	0
14	Col_w_Y	LinStatic		2.95771E-19	0	-0.000573645	0	2.5411E-20	0
14	Cais_w_X	LinStatic		8.73184E-20	0	-0.000167626	0	6.77626E-21	0
14	Cais_w_Y	LinStatic		8.73184E-20	0	-0.000167626	0	6.77626E-21	0
14	DC	LinStatic		-0.001497988	0	-0.005920134	0	-0.00022062	0
14	DW	LinStatic		-0.000239918	0	-0.000999346	0	-3.1322E-05	0
14	WS3	LinStatic		-0.025185434	-0.040160696	0.002270931	0.000235383	1.21656E-05	1.78312E-05

14	WL5	LinStatic	-0.006455992	-0.012532416	0.000285892	7.3453E-05	-4.2722E-06	5.56434E-06
14	PL	LinStatic	-7.93407E-05	0	-0.000330483	0	-1.03582E-05	0
14	LL-1 Lane	LinStatic	-0.000225918	0	0.000974775	0	1.38731E-05	0
14	LL-2 Lane	LinStatic	-0.00035541	0	0.001240746	0	1.51905E-05	0
14	LL-3 Lane	LinStatic	-0.000425863	0	0.001092	0	9.26934E-06	0
14	LL-7 Lane	LinStatic	-0.000565307	0	-0.001547223	0	-5.55286E-05	0
14	CE-1 Lane	LinStatic	-0.020210556	-0.019368279	0.000905032	0.000113518	-1.31606E-05	8.59943E-06
14	CE-2 Lane	LinStatic	-0.033684434	-0.03247035	0.001508832	0.00019031	-2.19369E-05	1.44167E-05
14	CE-3 Lane	LinStatic	-0.042912125	-0.041300007	0.001437792	0.000242061	-2.7628E-05	1.8337E-05
14	CE-7 Lane	LinStatic	-0.076631793	-0.073485529	0.003431867	0.000430701	-4.99036E-05	3.26272E-05
14	BR-1 Lane	LinStatic	-0.00682875	-0.065795183	0.000275468	0.000385628	-5.07641E-06	2.92128E-05
14	BR-2 Lane	LinStatic	-0.011318887	-0.109373811	0.000456598	0.000641044	-8.41433E-06	4.85615E-05
14	BR-3 Lane	LinStatic	-0.014499401	-0.139565539	0.000584898	0.000817999	-1.07787E-05	6.19665E-05
14	BR-7 Lane	LinStatic	-0.025818289	-0.24893935	0.001041496	0.001459043	-1.9193E-05	0.000110528
14	WSub3: 45deg	LinStatic	-0.00077425	0	0.000269207	0	5.61565E-07	0
14	WSub3: 30deg	LinStatic	-0.000856838	0	0.000228265	0	-4.33491E-08	0
14	WSub3: 15deg	LinStatic	-0.000873924	0	0.000173741	0	-5.11743E-07	0
14	WSub3: 0deg	LinStatic	-0.000832032	0	0.000151382	0	1.5641E-07	0
14	WSub3: -15deg	LinStatic	-0.000733106	0	0.000121665	0	7.72599E-07	0
14	WSub3: -30deg	LinStatic	-0.000585168	0	8.61115E-05	0	1.42261E-06	0
14	WSub3: -45deg	LinStatic	-0.000404853	0	4.04766E-05	0	1.91232E-06	0
14	WA	LinStatic	-1.11033E-19	0	0.000199436	0	-8.89385E-21	0
14	WS3: 45deg	Combination	-0.025959685	-0.040160696	0.002540138	0.000235383	1.27271E-05	1.78312E-05
14	WS3: 30deg	Combination	-0.026042272	-0.040160696	0.002499196	0.000235383	1.21222E-05	1.78312E-05
14	WS3: 15deg	Combination	-0.026059359	-0.040160696	0.002444671	0.000235383	1.16538E-05	1.78312E-05
14	WS3: 0deg	Combination	-0.026017466	-0.040160696	0.002422313	0.000235383	1.2322E-05	1.78312E-05
14	WS3: -15deg	Combination	-0.025918541	-0.040160696	0.002392596	0.000235383	1.29382E-05	1.78312E-05
14	WS3: -30deg	Combination	-0.025770602	-0.040160696	0.002357042	0.000235383	1.35882E-05	1.78312E-05
14	WServ1: -45deg	Combination	-0.009535123	-0.014859458	0.000872106	8.70918E-05	5.02763E-06	6.59753E-06
14	WS5: 45deg	Combination	-0.019020479	-0.031970193	0.001515318	0.000187378	1.88774E-06	1.41946E-05
14	WS5: 30deg	Combination	-0.019060452	-0.031970193	0.001495502	0.000187378	1.59496E-06	1.41946E-05
14	WS5: 15deg	Combination	-0.019068721	-0.031970193	0.001469112	0.000187378	1.36825E-06	1.41946E-05
14	WS5: 0deg	Combination	-0.019048445	-0.031970193	0.001458291	0.000187378	1.69164E-06	1.41946E-05
14	WS5: -15deg	Combination	-0.019000566	-0.031970193	0.001443908	0.000187378	1.98988E-06	1.41946E-05
14	WS5: -30deg	Combination	-0.018928963	-0.031970193	0.0014267	0.000187378	2.30448E-06	1.41946E-05
14	WS5: -45deg	Combination	-0.018841691	-0.031970193	0.001404613	0.000187378	2.5415E-06	1.41946E-05
14	LL - 1 Lane	Combination	-0.027344565	-0.085163462	0.001824792	0.000499146	-1.47221E-05	3.78122E-05
14	WS5 + WA	Combination	-0.018645742	-0.031970193	0.001584458	0.000187378	1.61594E-06	1.41946E-05
14	LL - 2 Lane	Combination	-0.045438072	-0.141844161	0.002875692	0.000831354	-2.55189E-05	6.29782E-05
14	LL - 3 Lane	Combination	-0.05791673	-0.180865546	0.002784207	0.00106006	-3.94955E-05	8.03035E-05
14	LL - 7 Lane	Combination	-0.103094729	-0.322424879	0.002595656	0.001889744	-0.000134983	0.000143155
14	LL Envelope	Combination Max	-0.027344565	-0.085163462	0.002875692	0.001889744	-1.47221E-05	0.000143155

14	LL Envelope	Combination Min	-0.103094729	-0.322424879	0.001824792	0.000499146	-0.000134983	3.78122E-05
14	WS3 & WA envelope	Combination Max	-0.009535123	-0.014859458	0.002540138	0.000235383	1.35882E-05	1.78312E-05
14	WS3 & WA envelope	Combination Min	-0.026059359	-0.040160696	0.000872106	8.70918E-05	5.02763E-06	6.59753E-06
14	WS3 + WA	Combination	-0.025185434	-0.040160696	0.002470366	0.000235383	1.21656E-05	1.78312E-05
14	WS5 & WA envelope	Combination Max	-0.018645742	-0.031970193	0.001584458	0.000187378	2.5415E-06	1.41946E-05
14	WS5 & WA envelope	Combination Min	-0.019068721	-0.031970193	0.001404613	0.000187378	1.36825E-06	1.41946E-05
14	Strength 1 - Max	Combination Max	-0.050135878	-0.149036058	-0.006173106	0.003307052	-0.000379377	0.000250522
14	Strength 1 - Max	Combination Min	-0.182698666	-0.564243538	-0.008012182	0.000873506	-0.000589835	6.61713E-05
14	Strength 1 - Min	Combination Max	-0.049393505	-0.149036058	-0.002549986	0.003307052	-0.000266897	0.000250522
14	Strength 1 - Min	Combination Min	-0.181956293	-0.564243538	-0.004389063	0.000873506	-0.000477354	6.61713E-05
14	Strength 3 - Max	Combination Max	-0.011818012	-0.014859458	-0.008864866	0.000235383	-0.000340025	1.78312E-05
14	Strength 3 - Max	Combination Min	-0.028342248	-0.040160696	-0.010532898	8.70918E-05	-0.000348586	6.59753E-06
14	Strength 3 - Min	Combination Max	-0.011075639	-0.014859458	-0.005241746	0.000235383	-0.000227545	1.78312E-05
14	Strength 3 - Min	Combination Min	-0.027599874	-0.040160696	-0.006909778	8.70918E-05	-0.000236106	6.59753E-06
14	Strength 5 - Max	Combination Max	-0.057843794	-0.146940866	-0.005938361	0.002738533	-0.000370947	0.000207454
14	Strength 5 - Max	Combination Min	-0.160529496	-0.467243779	-0.007536922	0.000861226	-0.000534473	6.52411E-05
14	Strength 5 - Min	Combination Max	-0.057101421	-0.146940866	-0.002315241	0.002738533	-0.000258467	0.000207454
14	Strength 5 - Min	Combination Min	-0.159787122	-0.467243779	-0.003913802	0.000861226	-0.000421993	6.52411E-05
14	Service 1	Combination Max	-0.038441504	-0.100022919	-0.005008761	0.001976836	-0.000286321	0.000149753
14	Service 1	Combination Min	-0.11451502	-0.337284337	-0.006227236	0.000586238	-0.000407298	4.44097E-05
14	WServ1: 45deg	Combination	-0.009605083	-0.014859458	0.000939851	8.70918E-05	4.70904E-06	6.59753E-06
14	WServ1: 30deg	Combination	-0.009635641	-0.014859458	0.000924703	8.70918E-05	4.48522E-06	6.59753E-06
14	WServ1: 15deg	Combination	-0.009641963	-0.014859458	0.000904528	8.70918E-05	4.31192E-06	6.59753E-06
14	WServ1: 0deg	Combination	-0.009626462	-0.014859458	0.000896256	8.70918E-05	4.55913E-06	6.59753E-06
14	WServ1: -15deg	Combination	-0.00958986	-0.014859458	0.00088526	8.70918E-05	4.78712E-06	6.59753E-06
14	WServ1: -30deg	Combination	-0.009535123	-0.014859458	0.000872106	8.70918E-05	5.02763E-06	6.59753E-06
14	WServ1 + WA	Combination	-0.009318611	-0.014859458	0.00103968	8.70918E-05	4.50126E-06	6.59753E-06
14	WServ1 & WA envelope	Combination Max	-0.009318611	-0.014859458	0.00103968	8.70918E-05	5.02763E-06	6.59753E-06
14	WServ1 & WA envelope	Combination Min	-0.009641963	-0.014859458	0.000872106	8.70918E-05	4.31192E-06	6.59753E-06
14	Strength Envelope	Combination Max	-0.011075639	-0.014859458	-0.002315241	0.003307052	-0.000227545	0.000250522
14	Strength Envelope	Combination Min	-0.182698666	-0.564243538	-0.010532898	8.70918E-05	-0.000589835	6.59753E-06
15	DEAD	LinStatic	4.04218E-05	0	-0.002587775	0	2.49244E-05	0
15	R01_Z	LinStatic	1.58459E-05	0	7.44579E-05	0	6.51774E-07	0
15	R02_Z	LinStatic	-8.83479E-06	0	2.35917E-05	0	-9.14068E-07	0
15	R03_Z	LinStatic	-1.96256E-06	0	2.37089E-06	0	-5.35943E-07	0
15	R04_Z	LinStatic	-4.38139E-06	0	-3.47422E-06	0	-7.72045E-08	0
15	R05_Z	LinStatic	3.40306E-06	0	-2.24538E-06	0	3.33547E-08	0
15	R06_Z	LinStatic	-3.5461E-06	0	-4.02833E-07	0	2.09817E-08	0
15	R07_Z	LinStatic	2.56537E-06	0	2.01669E-07	0	1.22287E-08	0
15	R08_Z	LinStatic	-3.22539E-06	0	3.29333E-08	0	-1.74698E-09	0
15	R09_Z	LinStatic	2.00044E-06	0	7.8376E-08	0	-2.31737E-10	0
15	R10_Z	LinStatic	2.01177E-06	0	4.154E-08	0	7.71982E-10	0

15	R11_Z	LinStatic	6.96819E-06	0	1.29136E-07	0	4.69843E-09	0
15	R12_Z	LinStatic	-4.58956E-06	0	-9.22262E-08	0	-3.12483E-09	0
15	R_X	LinStatic	0.009369021	0	0.000212416	0	7.26476E-06	0
15	R_Y	LinStatic	0	0.030538312	0	-0.000174084	0	8.24816E-06
15	Cap_R_X	LinStatic	0.000756207	0	1.47659E-05	0	5.21336E-07	0
15	Cap_w_Y	LinStatic	1.49711E-05	0	-0.000577031	0	9.23125E-06	0
15	Cap_w_Z	LinStatic	1.49711E-05	0	-0.000577031	0	9.23125E-06	0
15	Col_w_X	LinStatic	2.25099E-19	0	-0.000573645	0	-1.94818E-20	0
15	Col_w_Y	LinStatic	2.25099E-19	0	-0.000573645	0	-1.94818E-20	0
15	Cais_w_X	LinStatic	6.71803E-20	0	-0.000167626	0	-5.92923E-21	0
15	Cais_w_Y	LinStatic	6.71803E-20	0	-0.000167626	0	-5.92923E-21	0
15	DC	LinStatic	-0.000899715	0	-0.015432508	0	0.000155993	0
15	DW	LinStatic	-0.000158312	0	-0.002396591	0	2.04634E-05	0
15	WS3	LinStatic	-0.025276263	-0.04305902	-0.000978812	0.000245458	-2.16763E-05	-1.16299E-05
15	WL5	LinStatic	-0.006466455	-0.013436857	-0.000197683	7.65969E-05	-4.75805E-06	-3.62919E-06
15	PL	LinStatic	-5.23535E-05	0	-0.000792551	0	6.76723E-06	0
15	LL-1 Lane	LinStatic	-0.000203515	0	-0.004510209	0	2.74327E-05	0
15	LL-2 Lane	LinStatic	-0.000311891	0	-0.006747444	0	4.18738E-05	0
15	LL-3 Lane	LinStatic	-0.000362494	0	-0.007621703	0	4.84974E-05	0
15	LL-7 Lane	LinStatic	-0.000395963	0	-0.006595896	0	5.16525E-05	0
15	CE-1 Lane	LinStatic	-0.020243472	-0.020766052	-0.000639197	0.000118377	-1.47885E-05	-5.60875E-06
15	CE-2 Lane	LinStatic	-0.0337393	-0.034813675	-0.001065812	0.000198456	-2.46549E-05	-9.4029E-06
15	CE-3 Lane	LinStatic	-0.042984145	-0.044280552	-0.001369056	0.000252422	-3.0543E-05	-1.19598E-05
15	CE-7 Lane	LinStatic	-0.076756604	-0.078788844	-0.002423895	0.000449136	-5.60797E-05	-2.12803E-05
15	BR-1 Lane	LinStatic	-0.006839385	-0.0705435	-0.000155064	0.000402134	-5.30328E-06	-1.90533E-05
15	BR-2 Lane	LinStatic	-0.011336515	-0.117267117	-0.000257024	0.000668482	-8.79036E-06	-3.16729E-05
15	BR-3 Lane	LinStatic	-0.014521982	-0.149637727	-0.000329245	0.000853011	-1.12604E-05	-4.0416E-05
15	BR-7 Lane	LinStatic	-0.025858498	-0.266904844	-0.000586269	0.001521493	-2.00507E-05	-7.20889E-05
15	WSub3: 45deg	LinStatic	-0.000720193	0	0.000252975	0	-1.60302E-06	0
15	WSub3: 30deg	LinStatic	-0.000794915	0	0.000194639	0	-1.10128E-06	0
15	WSub3: 15deg	LinStatic	-0.000809291	0	0.000128428	0	-6.50142E-07	0
15	WSub3: 0deg	LinStatic	-0.000772528	0	0.000123406	0	-1.27026E-06	0
15	WSub3: -15deg	LinStatic	-0.000682682	0	0.000111971	0	-1.76158E-06	0
15	WSub3: -30deg	LinStatic	-0.000547463	0	9.7362E-05	0	-2.22161E-06	0
15	WSub3: -45deg	LinStatic	-0.000381696	0	7.01264E-05	0	-2.47617E-06	0
15	WA	LinStatic	-8.60268E-20	0	0.000199436	0	6.56451E-21	0
15	WS3: 45deg	Combination	-0.025996456	-0.04305902	-0.000725837	0.000245458	-2.32793E-05	-1.16299E-05
15	WS3: 30deg	Combination	-0.026071178	-0.04305902	-0.000784173	0.000245458	-2.27776E-05	-1.16299E-05
15	WS3: 15deg	Combination	-0.026085554	-0.04305902	-0.000850384	0.000245458	-2.23265E-05	-1.16299E-05
15	WS3: 0deg	Combination	-0.026048791	-0.04305902	-0.000855406	0.000245458	-2.29466E-05	-1.16299E-05
15	WS3: -15deg	Combination	-0.025958945	-0.04305902	-0.000866841	0.000245458	-2.34379E-05	-1.16299E-05
15	WS3: -30deg	Combination	-0.025823726	-0.04305902	-0.00088145	0.000245458	-2.38979E-05	-1.16299E-05

15	WServ1: -45deg	Combination	-0.009554779	-0.015931837	-0.000326137	9.08196E-06	-8.84224E-06	-4.30307E-06
15	WS5: 45deg	Combination	-0.019048739	-0.034277423	-0.000548988	0.000195399	-1.60252E-05	-9.25807E-06
15	WS5: 30deg	Combination	-0.019084905	-0.034277423	-0.000577223	0.000195399	-1.57824E-05	-9.25807E-06
15	WS5: 15deg	Combination	-0.019091863	-0.034277423	-0.000609269	0.000195399	-1.55641E-05	-9.25807E-06
15	WS5: 0deg	Combination	-0.01907407	-0.034277423	-0.000611699	0.000195399	-1.58642E-05	-9.25807E-06
15	WS5: -15deg	Combination	-0.019030584	-0.034277423	-0.000617234	0.000195399	-1.6102E-05	-9.25807E-06
15	WS5: -30deg	Combination	-0.018965138	-0.034277423	-0.000624305	0.000195399	-1.63246E-05	-9.25807E-06
15	WS5: -45deg	Combination	-0.018884907	-0.034277423	-0.000637487	0.000195399	-1.64479E-05	-9.25807E-06
15	LL - 1 Lane	Combination	-0.027338726	-0.091309552	-0.006097021	0.000520511	1.41082E-05	-2.4662E-05
15	WS5 + WA	Combination	-0.018700166	-0.034277423	-0.000471993	0.000195399	-1.52494E-05	-9.25807E-06
15	LL - 2 Lane	Combination	-0.045440061	-0.152080792	-0.008862831	0.000866938	1.51958E-05	-4.10758E-05
15	LL - 3 Lane	Combination	-0.057920975	-0.193918279	-0.010112555	0.001105433	1.34612E-05	-5.23758E-05
15	LL - 7 Lane	Combination	-0.103063418	-0.345693688	-0.010398611	0.001970629	-1.77107E-05	-9.33692E-05
15	LL Envelope	Combination Max	-0.027338726	-0.091309552	-0.006097021	0.001970629	1.51958E-05	-2.4662E-05
15	LL Envelope	Combination Min	-0.103063418	-0.345693688	-0.010398611	0.000520511	-1.77107E-05	-9.33692E-05
15	WS3 & WA envelope	Combination Max	-0.009554779	-0.015931837	-0.000326137	0.000245458	-8.84224E-06	-4.30307E-06
15	WS3 & WA envelope	Combination Min	-0.026085554	-0.04305902	-0.00088145	9.08196E-05	-2.38979E-05	-1.16299E-05
15	WS3 + WA	Combination	-0.025276263	-0.04305902	-0.000779377	0.000245458	-2.16763E-05	-1.16299E-05
15	WS5 & WA envelope	Combination Max	-0.018700166	-0.034277423	-0.000471993	0.000195399	-1.52494E-05	-9.25807E-06
15	WS5 & WA envelope	Combination Min	-0.019091863	-0.034277423	-0.000637487	0.000195399	-1.64479E-05	-9.25807E-06
15	Strength 1 - Max	Combination Max	-0.049154355	-0.159791716	-0.036590589	0.003448601	0.000283434	-4.31585E-05
15	Strength 1 - Max	Combination Min	-0.181672565	-0.604963955	-0.044118373	0.000910894	0.000225848	-0.000163396
15	Strength 1 - Min	Combination Max	-0.048719037	-0.159791716	-0.028246389	0.003448601	0.000202719	-4.31585E-05
15	Strength 1 - Min	Combination Min	-0.181237248	-0.604963955	-0.035774172	0.000910894	0.000145133	-0.000163396
15	Strength 3 - Max	Combination Max	-0.010866363	-0.015931837	-0.026446376	0.000245458	0.000248	-4.30307E-06
15	Strength 3 - Max	Combination Min	-0.027397138	-0.04305902	-0.027001689	9.08196E-05	0.000232944	-1.16299E-05
15	Strength 3 - Min	Combination Max	-0.010431045	-0.015931837	-0.018102175	0.000245458	0.000167285	-4.30307E-06
15	Strength 3 - Min	Combination Min	-0.02696182	-0.04305902	-0.018657488	9.08196E-05	0.000152229	-1.16299E-05
15	Strength 5 - Max	Combination Max	-0.05691903	-0.157545318	-0.034823209	0.002855748	0.000262107	-4.25518E-05
15	Strength 5 - Max	Combination Min	-0.159539061	-0.500963902	-0.040795851	0.000898088	0.000216485	-0.000135306
15	Strength 5 - Min	Combination Max	-0.056483713	-0.157545318	-0.026479008	0.002855748	0.000181392	-4.25518E-05
15	Strength 5 - Min	Combination Min	-0.159103743	-0.500963902	-0.03245165	0.000898088	0.00013577	-0.000135306
15	Service 1	Combination Max	-0.037708548	-0.107241389	-0.026676619	0.002061449	0.000208556	-2.89651E-05
15	Service 1	Combination Min	-0.113732678	-0.361625526	-0.031141621	0.00061133	0.000174828	-9.76723E-05
15	WServ1: 45deg	Combination	-0.009618689	-0.015931837	-0.00026856	9.08196E-05	-8.61336E-06	-4.30307E-06
15	WServ1: 30deg	Combination	-0.009646336	-0.015931837	-0.000290144	9.08196E-05	-8.42771E-06	-4.30307E-06
15	WServ1: 15deg	Combination	-0.009651655	-0.015931837	-0.000314642	9.08196E-05	-8.26079E-06	-4.30307E-06
15	WServ1: 0deg	Combination	-0.009638053	-0.015931837	-0.0003165	9.08196E-05	-8.49024E-06	-4.30307E-06
15	WServ1: -15deg	Combination	-0.00960481	-0.015931837	-0.000320731	9.08196E-05	-8.67202E-06	-4.30307E-06
15	WServ1: -30deg	Combination	-0.009554779	-0.015931837	-0.000326137	9.08196E-05	-8.84224E-06	-4.30307E-06
15	WServ1 + WA	Combination	-0.009352217	-0.015931837	-0.000162725	9.08196E-05	-8.02024E-06	-4.30307E-06
15	WServ1 & WA envelope	Combination Max	-0.009352217	-0.015931837	-0.000162725	9.08196E-05	-8.02024E-06	-4.30307E-06

15	WServ1 & WA envelope	Combination	Min	-0.009651655	-0.015931837	-0.000326137	9.08196E-05	-8.84224E-06	-4.30307E-06
15	Strength Envelope	Combination	Max	-0.010431045	-0.015931837	-0.018102175	0.003448601	0.000283434	-4.30307E-06
15	Strength Envelope	Combination	Min	-0.181672565	-0.604963955	-0.044118373	9.08196E-05	0.00013577	-0.000163396
16	DEAD	LinStatic		0.00071338	0	-0.002587775	0	2.49244E-05	0
16	R01_Z	LinStatic		3.34438E-05	0	7.44579E-05	0	6.51774E-07	0
16	R02_Z	LinStatic		-3.35146E-05	0	2.35917E-05	0	-9.14068E-07	0
16	R03_Z	LinStatic		-1.6433E-05	0	2.37089E-06	0	-5.35943E-07	0
16	R04_Z	LinStatic		-6.46591E-06	0	-3.47422E-06	0	-7.72045E-08	0
16	R05_Z	LinStatic		4.30363E-06	0	-2.24538E-06	0	3.33547E-08	0
16	R06_Z	LinStatic		-2.97959E-06	0	-4.02833E-07	0	2.09817E-08	0
16	R07_Z	LinStatic		2.89554E-06	0	2.01669E-07	0	1.22287E-08	0
16	R08_Z	LinStatic		-3.27256E-06	0	3.29333E-08	0	-1.74698E-09	0
16	R09_Z	LinStatic		1.99418E-06	0	7.8376E-08	0	-2.31737E-10	0
16	R10_Z	LinStatic		2.03261E-06	0	4.154E-08	0	7.71982E-10	0
16	R11_Z	LinStatic		7.09505E-06	0	1.29136E-07	0	4.69843E-09	0
16	R12_Z	LinStatic		-4.67393E-06	0	-9.22262E-08	0	-3.12483E-09	0
16	R_X	LinStatic		0.00956517	0	0.000212416	0	7.26476E-06	0
16	R_Y	LinStatic		0	0.035238576	0	-0.000174084	0	8.24816E-06
16	Cap_R_X	LinStatic		0.000770283	0	1.47659E-05	0	5.21336E-07	0
16	Cap_w_Y	LinStatic		0.000264215	0	-0.000577031	0	9.23125E-06	0
16	Cap_w_Z	LinStatic		0.000264215	0	-0.000577031	0	9.23125E-06	0
16	Col_w_X	LinStatic		-3.00908E-19	0	-0.000573645	0	-1.94818E-20	0
16	Col_w_Y	LinStatic		-3.00908E-19	0	-0.000573645	0	-1.94818E-20	0
16	Cais_w_X	LinStatic		-9.29089E-20	0	-0.000167626	0	-5.92923E-21	0
16	Cais_w_Y	LinStatic		-9.29089E-20	0	-0.000167626	0	-5.92923E-21	0
16	DC	LinStatic		0.003312098	0	-0.015432508	0	0.000155993	0
16	DW	LinStatic		0.0003942	0	-0.002396591	0	2.04634E-05	0
16	WS3	LinStatic		-0.025861524	-0.049686392	-0.000978812	0.000245458	-2.16763E-05	-1.16299E-05
16	WL5	LinStatic		-0.006594922	-0.015504973	-0.000197683	7.65969E-05	-4.75805E-06	-3.62919E-06
16	PL	LinStatic		0.000130362	0	-0.000792551	0	6.76723E-06	0
16	LL-1 Lane	LinStatic		0.000537168	0	-0.004510209	0	2.74327E-05	0
16	LL-2 Lane	LinStatic		0.000818702	0	-0.006747444	0	4.18738E-05	0
16	LL-3 Lane	LinStatic		0.000946935	0	-0.007621703	0	4.84974E-05	0
16	LL-7 Lane	LinStatic		0.000998654	0	-0.006595896	0	5.16525E-05	0
16	CE-1 Lane	LinStatic		-0.020642761	-0.023962232	-0.000639197	0.000118377	-1.47885E-05	-5.60875E-06
16	CE-2 Lane	LinStatic		-0.034404984	-0.040171977	-0.001065812	0.000198456	-2.46549E-05	-9.4029E-06
16	CE-3 Lane	LinStatic		-0.043808808	-0.051095935	-0.001369056	0.000252422	-3.0543E-05	-1.19598E-05
16	CE-7 Lane	LinStatic		-0.078270755	-0.090915526	-0.002423895	0.000449136	-5.60797E-05	-2.12803E-05
16	BR-1 Lane	LinStatic		-0.006982574	-0.081401111	-0.000155064	0.000402134	-5.30328E-06	-1.90533E-05
16	BR-2 Lane	LinStatic		-0.011573855	-0.135316132	-0.000257024	0.000668482	-8.79036E-06	-3.16729E-05
16	BR-3 Lane	LinStatic		-0.014826013	-0.172669023	-0.000329245	0.000853011	-1.12604E-05	-4.0416E-05
16	BR-7 Lane	LinStatic		-0.026399868	-0.307985155	-0.000586269	0.001521493	-2.00507E-05	-7.20889E-05

16	WSub3: 45deg	LinStatic	-0.000763474	0	0.000252975	0	-1.60302E-06	0
16	WSub3: 30deg	LinStatic	-0.00082465	0	0.000194639	0	-1.10128E-06	0
16	WSub3: 15deg	LinStatic	-0.000826845	0	0.000128428	0	-6.50142E-07	0
16	WSub3: 0deg	LinStatic	-0.000806825	0	0.000123406	0	-1.27026E-06	0
16	WSub3: -15deg	LinStatic	-0.000730244	0	0.000111971	0	-1.76158E-06	0
16	WSub3: -30deg	LinStatic	-0.000607446	0	9.7362E-05	0	-2.22161E-06	0
16	WSub3: -45deg	LinStatic	-0.000448553	0	7.01264E-05	0	-2.47617E-06	0
16	WA	LinStatic	9.12149E-20	0	0.000199436	0	6.56451E-21	0
16	WS3: 45deg	Combination	-0.026624998	-0.049686392	-0.000725837	0.000245458	-2.32793E-05	-1.16299E-05
16	WS3: 30deg	Combination	-0.026686173	-0.049686392	-0.000784173	0.000245458	-2.27776E-05	-1.16299E-05
16	WS3: 15deg	Combination	-0.026688368	-0.049686392	-0.000850384	0.000245458	-2.23265E-05	-1.16299E-05
16	WS3: 0deg	Combination	-0.026668349	-0.049686392	-0.000855406	0.000245458	-2.29466E-05	-1.16299E-05
16	WS3: -15deg	Combination	-0.026591768	-0.049686392	-0.000866841	0.000245458	-2.34379E-05	-1.16299E-05
16	WS3: -30deg	Combination	-0.02646897	-0.049686392	-0.00088145	0.000245458	-2.38979E-05	-1.16299E-05
16	WServ1: -45deg	Combination	-0.009793519	-0.018383965	-0.000326137	9.08196E-05	-8.84224E-06	-4.30307E-06
16	WS5: 45deg	Combination	-0.019481421	-0.039553187	-0.000548988	0.000195399	-1.60252E-05	-9.25807E-06
16	WS5: 30deg	Combination	-0.01951103	-0.039553187	-0.000577223	0.000195399	-1.57824E-05	-9.25807E-06
16	WS5: 15deg	Combination	-0.019512092	-0.039553187	-0.000609269	0.000195399	-1.55641E-05	-9.25807E-06
16	WS5: 0deg	Combination	-0.019502403	-0.039553187	-0.000611699	0.000195399	-1.58642E-05	-9.25807E-06
16	WS5: -15deg	Combination	-0.019465338	-0.039553187	-0.000617234	0.000195399	-1.6102E-05	-9.25807E-06
16	WS5: -30deg	Combination	-0.019405904	-0.039553187	-0.000624305	0.000195399	-1.63246E-05	-9.25807E-06
16	WS5: -45deg	Combination	-0.019328999	-0.039553187	-0.000637487	0.000195399	-1.64479E-05	-9.25807E-06
16	LL - 1 Lane	Combination	-0.026957805	-0.105363343	-0.006097021	0.000520511	1.41082E-05	-2.4662E-05
16	WS5 + WA	Combination	-0.0191119	-0.039553187	-0.000471993	0.000195399	-1.52494E-05	-9.25807E-06
16	LL - 2 Lane	Combination	-0.045029775	-0.175488109	-0.008862831	0.000866938	1.51958E-05	-4.10758E-05
16	LL - 3 Lane	Combination	-0.057557523	-0.223764958	-0.010112555	0.001105433	1.34612E-05	-5.23758E-05
16	LL - 7 Lane	Combination	-0.103541607	-0.398900682	-0.01039811	0.001970629	-1.77107E-05	-9.33692E-05
16	LL Envelope	Combination Max	-0.026957805	-0.105363343	-0.006097021	0.001970629	1.51958E-05	-2.4662E-05
16	LL Envelope	Combination Min	-0.103541607	-0.398900682	-0.01039811	0.000520511	-1.77107E-05	-9.33692E-05
16	WS3 & WA envelope	Combination Max	-0.009793519	-0.018383965	-0.000326137	0.000245458	-8.84224E-06	-4.30307E-06
16	WS3 & WA envelope	Combination Min	-0.026688368	-0.049686392	-0.00088145	9.08196E-05	-2.38979E-05	-1.16299E-05
16	WS3 + WA	Combination	-0.025861524	-0.049686392	-0.000779377	0.000245458	-2.16763E-05	-1.16299E-05
16	WS5 & WA envelope	Combination Max	-0.0191119	-0.039553187	-0.000471993	0.000195399	-1.52494E-05	-9.25807E-06
16	WS5 & WA envelope	Combination Min	-0.019512092	-0.039553187	-0.000637487	0.000195399	-1.64479E-05	-9.25807E-06
16	Strength 1 - Max	Combination Max	-0.041553011	-0.18438585	-0.036590589	0.003448601	0.000283434	-4.31585E-05
16	Strength 1 - Max	Combination Min	-0.175574666	-0.698076193	-0.044118373	0.000910894	0.000225848	-0.000163396
16	Strength 1 - Min	Combination Max	-0.043296998	-0.18438585	-0.028246389	0.003448601	0.000202719	-4.31585E-05
16	Strength 1 - Min	Combination Min	-0.177318653	-0.698076193	-0.035774172	0.000910894	0.000145133	-0.000163396
16	Strength 3 - Max	Combination Max	-0.004170372	-0.018383965	-0.026446376	0.000245458	0.000248	-4.30307E-06
16	Strength 3 - Max	Combination Min	-0.021065221	-0.049686392	-0.027001689	9.08196E-05	0.000232944	-1.16299E-05
16	Strength 3 - Min	Combination Max	-0.005914359	-0.018383965	-0.018102175	0.000245458	0.000167285	-4.30307E-06
16	Strength 3 - Min	Combination Min	-0.022809208	-0.049686392	-0.018657488	9.08196E-05	0.000152229	-1.16299E-05

16	Strength 5 - Max	Combination	Max	-0.049881788	-0.1817937	-0.034823209	0.002855748	0.000262107	-4.25518E-05
16	Strength 5 - Max	Combination	Min	-0.153670115	-0.578069108	-0.040795851	0.000898088	0.000216485	-0.000135306
16	Strength 5 - Min	Combination	Max	-0.051625776	-0.1817937	-0.026479008	0.002855748	0.000181392	-4.25518E-05
16	Strength 5 - Min	Combination	Min	-0.155414102	-0.578069108	-0.03245165	0.000898088	0.00013577	-0.000135306
16	Service 1	Combination	Max	-0.032106891	-0.123747308	-0.026676619	0.002061449	0.000208556	-2.89651E-05
16	Service 1	Combination	Min	-0.108996626	-0.417284647	-0.031141621	0.00061133	0.000174828	-9.76723E-05
16	WServ1: 45deg	Combination		-0.009851249	-0.018383965	-0.00026856	9.08196E-05	-8.61336E-06	-4.30307E-06
16	WServ1: 30deg	Combination		-0.009873884	-0.018383965	-0.000290144	9.08196E-05	-8.42771E-06	-4.30307E-06
16	WServ1: 15deg	Combination		-0.009874696	-0.018383965	-0.000314642	9.08196E-05	-8.26079E-06	-4.30307E-06
16	WServ1: 0deg	Combination		-0.009867289	-0.018383965	-0.0003165	9.08196E-05	-8.49024E-06	-4.30307E-06
16	WServ1: -15deg	Combination		-0.009838954	-0.018383965	-0.000320731	9.08196E-05	-8.67202E-06	-4.30307E-06
16	WServ1: -30deg	Combination		-0.009793519	-0.018383965	-0.000326137	9.08196E-05	-8.84224E-06	-4.30307E-06
16	WServ1 + WA	Combination		-0.009568764	-0.018383965	-0.000162725	9.08196E-05	-8.02024E-06	-4.30307E-06
16	WServ1 & WA envelope	Combination	Max	-0.009568764	-0.018383965	-0.000162725	9.08196E-05	-8.02024E-06	-4.30307E-06
16	WServ1 & WA envelope	Combination	Min	-0.009874696	-0.018383965	-0.000326137	9.08196E-05	-8.84224E-06	-4.30307E-06
16	Strength Envelope	Combination	Max	-0.004170372	-0.018383965	-0.018102175	0.003448601	0.000283434	-4.30307E-06
16	Strength Envelope	Combination	Min	-0.177318653	-0.698076193	-0.044118373	9.08196E-05	0.00013577	-0.000163396
17	DEAD	LinStatic		3.37405E-05	0	-0.005039055	0	1.19734E-05	0
17	R01_Z	LinStatic		1.57132E-05	0	2.35917E-05	0	3.41308E-07	0
17	R02_Z	LinStatic		-8.61009E-06	0	0.000109253	0	-2.03233E-07	0
17	R03_Z	LinStatic		-1.82418E-06	0	5.63709E-05	0	-4.21447E-07	0
17	R04_Z	LinStatic		-4.36991E-06	0	5.31949E-06	0	-1.55693E-07	0
17	R05_Z	LinStatic		3.40121E-06	0	-4.78942E-06	0	-3.20429E-08	0
17	R06_Z	LinStatic		-3.55899E-06	0	-2.58824E-06	0	1.23803E-08	0
17	R07_Z	LinStatic		2.56741E-06	0	-9.93481E-07	0	1.35266E-08	0
17	R08_Z	LinStatic		-3.23158E-06	0	5.04877E-08	0	2.80364E-09	0
17	R09_Z	LinStatic		2.00462E-06	0	1.70834E-07	0	-3.5461E-10	0
17	R10_Z	LinStatic		2.01571E-06	0	4.34672E-08	0	-4.18145E-10	0
17	R11_Z	LinStatic		6.98131E-06	0	-6.66874E-08	0	8.06346E-13	0
17	R12_Z	LinStatic		-4.59819E-06	0	4.21124E-08	0	-2.14856E-10	0
17	R_X	LinStatic		0.009376056	0	-0.000103125	0	7.09216E-07	0
17	R_Y	LinStatic		0	0.031360597	0	-0.000176544	0	7.68401E-06
17	Cap_R_X	LinStatic		0.000757628	0	-7.89463E-06	0	3.00532E-08	0
17	Cap_w_Y	LinStatic		1.24965E-05	0	-0.001484912	0	4.43459E-06	0
17	Cap_w_Z	LinStatic		1.24965E-05	0	-0.001484912	0	4.43459E-06	0
17	Col_w_X	LinStatic		2.30533E-19	0	-0.000573645	0	-1.24276E-20	0
17	Col_w_Y	LinStatic		2.30533E-19	0	-0.000573645	0	-1.24276E-20	0
17	Cais_w_X	LinStatic		6.87802E-20	0	-0.000167626	0	-3.57673E-21	0
17	Cais_w_Y	LinStatic		6.87802E-20	0	-0.000167626	0	-3.57673E-21	0
17	DC	LinStatic		-0.000944278	0	-0.032696715	0	8.52701E-05	0
17	DW	LinStatic		-0.000164276	0	-0.004717893	0	1.12221E-05	0
17	WS3	LinStatic		-0.025294705	-0.044218442	3.58675E-05	0.000248927	-4.3965E-06	-1.08345E-05

17	WL5	LinStatic	-0.006471385	-0.013798663	-1.11861E-05	7.76793E-05	-3.94263E-07	-3.38096E-06
17	PL	LinStatic	-5.43258E-05	0	-0.001560204	0	3.71112E-06	0
17	LL-1 Lane	LinStatic	-0.000211605	0	-0.007764641	0	1.23263E-05	0
17	LL-2 Lane	LinStatic	-0.000324231	0	-0.011700136	0	1.91084E-05	0
17	LL-3 Lane	LinStatic	-0.000376771	0	-0.013336583	0	2.25346E-05	0
17	LL-7 Lane	LinStatic	-0.000411057	0	-0.012515295	0	2.7184E-05	0
17	CE-1 Lane	LinStatic	-0.020258936	-0.021325206	-6.82796E-05	0.00012005	-1.19387E-06	-5.22513E-06
17	CE-2 Lane	LinStatic	-0.033765073	-0.035751081	-0.00011363	0.00020126	-1.99448E-06	-8.75977E-06
17	CE-3 Lane	LinStatic	-0.043017173	-0.045472866	-0.000241488	0.000255989	-2.03832E-06	-1.11418E-05
17	CE-7 Lane	LinStatic	-0.076815238	-0.080910342	-0.000258558	0.000455483	-4.53077E-06	-1.98247E-05
17	BR-1 Lane	LinStatic	-0.006844521	-0.07244298	7.52812E-05	0.000407816	-5.17728E-07	-1.77501E-05
17	BR-2 Lane	LinStatic	-0.011345028	-0.120424694	0.000124781	0.000677929	-8.58152E-07	-2.95066E-05
17	BR-3 Lane	LinStatic	-0.014532887	-0.153666928	0.000159844	0.000865065	-1.09929E-06	-3.76517E-05
17	BR-7 Lane	LinStatic	-0.025877915	-0.274091622	0.000284625	0.001542994	-1.95744E-06	-6.71583E-05
17	WSub3: 45deg	LinStatic	-0.000721246	0	0.000383449	0	-5.60701E-07	0
17	WSub3: 30deg	LinStatic	-0.000796259	0	0.000272905	0	-2.97631E-07	0
17	WSub3: 15deg	LinStatic	-0.000810787	0	0.000161754	0	-7.65029E-08	0
17	WSub3: 0deg	LinStatic	-0.00077378	0	0.000219151	0	-3.85421E-07	0
17	WSub3: -15deg	LinStatic	-0.000683614	0	0.000259469	0	-6.4789E-07	0
17	WSub3: -30deg	LinStatic	-0.000547991	0	0.000295254	0	-9.08556E-07	0
17	WSub3: -45deg	LinStatic	-0.000381813	0	0.000299348	0	-1.07933E-06	0
17	WA	LinStatic	-8.80326E-20	0	0.000199436	0	4.35428E-21	0
17	WS3: 45deg	Combination	-0.02601595	-0.044218442	0.000419316	0.000248927	-4.9572E-06	-1.08345E-05
17	WS3: 30deg	Combination	-0.026090963	-0.044218442	0.000308773	0.000248927	-4.69413E-06	-1.08345E-05
17	WS3: 15deg	Combination	-0.026105491	-0.044218442	0.000197621	0.000248927	-4.473E-06	-1.08345E-05
17	WS3: 0deg	Combination	-0.026068485	-0.044218442	0.000255018	0.000248927	-4.78192E-06	-1.08345E-05
17	WS3: -15deg	Combination	-0.025978319	-0.044218442	0.000295337	0.000248927	-5.04439E-06	-1.08345E-05
17	WS3: -30deg	Combination	-0.025842696	-0.044218442	0.000331121	0.000248927	-5.30506E-06	-1.08345E-05
17	WServ1: -45deg	Combination	-0.009561797	-0.016360824	0.000122515	9.21029E-05	-1.96287E-06	-4.00875E-06
17	WS5: 45deg	Combination	-0.019063105	-0.035200389	0.000191763	0.00019816	-2.79355E-06	-8.62484E-06
17	WS5: 30deg	Combination	-0.01909941	-0.035200389	0.00013826	0.00019816	-2.66622E-06	-8.62484E-06
17	WS5: 15deg	Combination	-0.019106443	-0.035200389	8.44627E-05	0.00019816	-2.5592E-06	-8.62484E-06
17	WS5: 0deg	Combination	-0.019088531	-0.035200389	0.000112243	0.00019816	-2.70871E-06	-8.62484E-06
17	WS5: -15deg	Combination	-0.019044891	-0.035200389	0.000131757	0.00019816	-2.83575E-06	-8.62484E-06
17	WS5: -30deg	Combination	-0.01897925	-0.035200389	0.000149077	0.00019816	-2.96191E-06	-8.62484E-06
17	WS5: -45deg	Combination	-0.018898819	-0.035200389	0.000151058	0.00019816	-3.04456E-06	-8.62484E-06
17	LL - 1 Lane	Combination	-0.027369388	-0.093768186	-0.009317844	0.000527866	1.43259E-05	-2.29752E-05
17	WS5 + WA	Combination	-0.018714022	-0.035200389	0.000205609	0.00019816	-2.52217E-06	-8.62484E-06
17	LL - 2 Lane	Combination	-0.045488657	-0.156175776	-0.013249189	0.000879189	1.99669E-05	-3.82664E-05
17	LL - 3 Lane	Combination	-0.057981157	-0.199139794	-0.014978431	0.001121054	2.31081E-05	-4.87935E-05
17	LL - 7 Lane	Combination	-0.103158535	-0.355001964	-0.014049432	0.001998477	2.44069E-05	-8.6983E-05
17	LL Envelope	Combination Max	-0.027369388	-0.093768186	-0.009317844	0.001998477	2.44069E-05	-2.29752E-05

17	LL Envelope	Combination Min	-0.103158535	-0.355001964	-0.014978431	0.000527866	1.43259E-05	-8.6983E-05
17	WS3 & WA envelope	Combination Max	-0.009561797	-0.016360824	0.000419316	0.000248927	-1.96287E-06	-4.00875E-06
17	WS3 & WA envelope	Combination Min	-0.026105491	-0.044218442	0.000122515	9.21029E-05	-5.30506E-06	-1.08345E-05
17	WS3 + WA	Combination	-0.025294705	-0.044218442	0.000235303	0.000248927	-4.3965E-06	-1.08345E-05
17	WS5 & WA envelope	Combination Max	-0.018714022	-0.035200389	0.000205609	0.00019816	-2.52217E-06	-8.62484E-06
17	WS5 & WA envelope	Combination Min	-0.019106443	-0.035200389	8.44627E-05	0.00019816	-3.04456E-06	-8.62484E-06
17	Strength 1 - Max	Combination Max	-0.049281015	-0.164094326	-0.070353343	0.003497334	0.0001811	-4.02066E-05
17	Strength 1 - Max	Combination Min	-0.181912022	-0.621253436	-0.08025937	0.000923766	0.000163458	-0.00015222
17	Strength 1 - Min	Combination Max	-0.048822692	-0.164094326	-0.053135614	0.003497334	0.000137526	-4.02066E-05
17	Strength 1 - Min	Combination Min	-0.181453699	-0.621253436	-0.063041642	0.000923766	0.000119884	-0.00015222
17	Strength 3 - Max	Combination Max	-0.010946383	-0.016360824	-0.053827236	0.000248927	0.000136425	-4.00875E-06
17	Strength 3 - Max	Combination Min	-0.027490076	-0.044218442	-0.054124037	9.21029E-05	0.000133082	-1.08345E-05
17	Strength 3 - Min	Combination Max	-0.01048806	-0.016360824	-0.036609507	0.000248927	9.28506E-05	-4.00875E-06
17	Strength 3 - Min	Combination Min	-0.027031754	-0.044218442	-0.036906308	9.21029E-05	8.95084E-05	-1.08345E-05
17	Strength 5 - Max	Combination Max	-0.057047281	-0.161787441	-0.066620031	0.002896104	0.000168815	-3.96414E-05
17	Strength 5 - Max	Combination Min	-0.15975505	-0.51445304	-0.074382971	0.000910779	0.000154683	-0.000126052
17	Strength 5 - Min	Combination Max	-0.056588959	-0.161787441	-0.049402303	0.002896104	0.000125241	-3.96414E-05
17	Strength 5 - Min	Combination Min	-0.159296728	-0.51445304	-0.057165242	0.000910779	0.000111109	-0.000126052
17	Service 1	Combination Max	-0.037803242	-0.11012901	-0.0515588	0.00209058	0.000131246	-2.69839E-05
17	Service 1	Combination Min	-0.11389238	-0.371362787	-0.057358974	0.000619969	0.000120829	-9.09918E-05
17	WServ1: 45deg	Combination	-0.009625902	-0.016360824	0.000155147	9.21029E-05	-1.83416E-06	-4.00875E-06
17	WServ1: 30deg	Combination	-0.009653656	-0.016360824	0.000114246	9.21029E-05	-1.73683E-06	-4.00875E-06
17	WServ1: 15deg	Combination	-0.009659032	-0.016360824	7.31199E-05	9.21029E-05	-1.65501E-06	-4.00875E-06
17	WServ1: 0deg	Combination	-0.009645339	-0.016360824	9.43567E-05	9.21029E-05	-1.76931E-06	-4.00875E-06
17	WServ1: -15deg	Combination	-0.009611978	-0.016360824	0.000109275	9.21029E-05	-1.86642E-06	-4.00875E-06
17	WServ1: -30deg	Combination	-0.009561797	-0.016360824	0.000122515	9.21029E-05	-1.96287E-06	-4.00875E-06
17	WServ1 + WA	Combination	-0.009359041	-0.016360824	0.000212707	9.21029E-05	-1.6267E-06	-4.00875E-06
17	WServ1 & WA envelope	Combination Max	-0.009359041	-0.016360824	0.000212707	9.21029E-05	-1.6267E-06	-4.00875E-06
17	WServ1 & WA envelope	Combination Min	-0.009659032	-0.016360824	7.31199E-05	9.21029E-05	-1.96287E-06	-4.00875E-06
17	Strength Envelope	Combination Max	-0.01048806	-0.016360824	-0.036609507	0.003497334	0.0001811	-4.00875E-06
17	Strength Envelope	Combination Min	-0.181912022	-0.621253436	-0.08025937	9.21029E-05	8.95084E-05	-0.00015222
18	DEAD	LinStatic	0.000357022	0	-0.005039055	0	1.19734E-05	0
18	R01_Z	LinStatic	2.49285E-05	0	2.35917E-05	0	3.41308E-07	0
18	R02_Z	LinStatic	-1.40974E-05	0	0.000109253	0	-2.03233E-07	0
18	R03_Z	LinStatic	-1.32032E-05	0	5.63709E-05	0	-4.21447E-07	0
18	R04_Z	LinStatic	-8.57362E-06	0	5.31949E-06	0	-1.55693E-07	0
18	R05_Z	LinStatic	2.53605E-06	0	-4.78942E-06	0	-3.20429E-08	0
18	R06_Z	LinStatic	-3.22472E-06	0	-2.58824E-06	0	1.23803E-08	0
18	R07_Z	LinStatic	2.93263E-06	0	-9.93481E-07	0	1.35266E-08	0
18	R08_Z	LinStatic	-3.15588E-06	0	5.04877E-08	0	2.80364E-09	0
18	R09_Z	LinStatic	1.99505E-06	0	1.70834E-07	0	-3.5461E-10	0
18	R10_Z	LinStatic	2.00442E-06	0	4.34672E-08	0	-4.18145E-10	0

18	R11_Z	LinStatic	6.98133E-06	0	-6.66874E-08	0	8.06346E-13	0
18	R12_Z	LinStatic	-4.60399E-06	0	4.21124E-08	0	-2.14856E-10	0
18	R_X	LinStatic	0.009395205	0	-0.000103125	0	7.09216E-07	0
18	R_Y	LinStatic	0	0.036127282	0	-0.000176544	0	7.68401E-06
18	Cap_R_X	LinStatic	0.000758439	0	-7.89463E-06	0	3.00532E-08	0
18	Cap_w_Y	LinStatic	0.00013223	0	-0.001484912	0	4.43459E-06	0
18	Cap_w_Z	LinStatic	0.00013223	0	-0.001484912	0	4.43459E-06	0
18	Col_w_X	LinStatic	-1.05012E-19	0	-0.000573645	0	-1.24276E-20	0
18	Col_w_Y	LinStatic	-1.05012E-19	0	-0.000573645	0	-1.24276E-20	0
18	Cais_w_X	LinStatic	-2.77914E-20	0	-0.000167626	0	-3.57673E-21	0
18	Cais_w_Y	LinStatic	-2.77914E-20	0	-0.000167626	0	-3.57673E-21	0
18	DC	LinStatic	0.001358015	0	-0.032696715	0	8.52701E-05	0
18	DW	LinStatic	0.00013872	0	-0.004717893	0	1.12221E-05	0
18	WS3	LinStatic	-0.02541341	-0.050939468	3.58675E-05	0.000248927	-4.3965E-06	-1.08345E-05
18	WL5	LinStatic	-0.00648203	-0.015896004	-1.11861E-05	7.76793E-05	-3.94263E-07	-3.38096E-06
18	PL	LinStatic	4.58745E-05	0	-0.001560204	0	3.71112E-06	0
18	LL-1 Lane	LinStatic	0.000121206	0	-0.007764641	0	1.23263E-05	0
18	LL-2 Lane	LinStatic	0.000191695	0	-0.011700136	0	1.91084E-05	0
18	LL-3 Lane	LinStatic	0.000231663	0	-0.013336583	0	2.25346E-05	0
18	LL-7 Lane	LinStatic	0.00032291 1	0	-0.012515295	0	2.7184E-05	0
18	CE-1 Lane	LinStatic	-0.020291171	-0.024566552	-6.82796E-05	0.00012005	-1.19387E-06	-5.22513E-06
18	CE-2 Lane	LinStatic	-0.033818924	-0.041185102	-0.00011363	0.00020126	-1.99448E-06	-8.75977E-06
18	CE-3 Lane	LinStatic	-0.043072208	-0.05238456	-0.000241488	0.000255989	-2.03832E-06	-1.11418E-05
18	CE-7 Lane	LinStatic	-0.076937569	-0.093208389	-0.000258558	0.000455483	-4.53077E-06	-1.98247E-05
18	BR-1 Lane	LinStatic	-0.0068585	-0.083454022	7.52812E-05	0.000407816	-5.17728E-07	-1.77501E-05
18	BR-2 Lane	LinStatic	-0.011368198	-0.138728765	0.000124781	0.000677929	-8.58152E-07	-2.95066E-05
18	BR-3 Lane	LinStatic	-0.014562568	-0.177023684	0.000159844	0.000865065	-1.09929E-06	-3.76517E-05
18	BR-7 Lane	LinStatic	-0.025930765	-0.315752448	0.000284625	0.001542994	-1.95744E-06	-6.71583E-05
18	WSub3: 45deg	LinStatic	-0.000736385	0	0.000383449	0	-5.60701E-07	0
18	WSub3: 30deg	LinStatic	-0.000804295	0	0.000272905	0	-2.97631E-07	0
18	WSub3: 15deg	LinStatic	-0.000812852	0	0.000161754	0	-7.65029E-08	0
18	WSub3: 0deg	LinStatic	-0.000784186	0	0.000219151	0	-3.85421E-07	0
18	WSub3: -15deg	LinStatic	-0.000701107	0	0.000259469	0	-6.4789E-07	0
18	WSub3: -30deg	LinStatic	-0.000572522	0	0.000295254	0	-9.08556E-07	0
18	WSub3: -45deg	LinStatic	-0.000410955	0	0.000299348	0	-1.07933E-06	0
18	WA	LinStatic	2.9533E-20	0	0.000199436	0	4.35428E-21	0
18	WS3: 45deg	Combination	-0.026149795	-0.050939468	0.000419316	0.000248927	-4.9572E-06	-1.08345E-05
18	WS3: 30deg	Combination	-0.026217705	-0.050939468	0.000308773	0.000248927	-4.69413E-06	-1.08345E-05
18	WS3: 15deg	Combination	-0.026226262	-0.050939468	0.000197621	0.000248927	-4.473E-06	-1.08345E-05
18	WS3: 0deg	Combination	-0.026197596	-0.050939468	0.000255018	0.000248927	-4.78192E-06	-1.08345E-05
18	WS3: -15deg	Combination	-0.026114518	-0.050939468	0.000295337	0.000248927	-5.04439E-06	-1.08345E-05
18	WS3: -30deg	Combination	-0.025985932	-0.050939468	0.000331121	0.000248927	-5.30506E-06	-1.08345E-05

18	WServ1: -45deg	Combination	-0.009614795	-0.018847603	0.000122515	9.21029E-05	-1.96287E-06	-4.00875E-06
18	WS5: 45deg	Combination	-0.019138531	-0.040550707	0.000191763	0.00019816	-2.79355E-06	-8.62484E-06
18	WS5: 30deg	Combination	-0.019171399	-0.040550707	0.00013826	0.00019816	-2.66622E-06	-8.62484E-06
18	WS5: 15deg	Combination	-0.019175541	-0.040550707	8.44627E-05	0.00019816	-2.5592E-06	-8.62484E-06
18	WS5: 0deg	Combination	-0.019161667	-0.040550707	0.000112243	0.00019816	-2.70871E-06	-8.62484E-06
18	WS5: -15deg	Combination	-0.019121456	-0.040550707	0.000131757	0.00019816	-2.83575E-06	-8.62484E-06
18	WS5: -30deg	Combination	-0.019059221	-0.040550707	0.000149077	0.00019816	-2.96191E-06	-8.62484E-06
18	WS5: -45deg	Combination	-0.018981023	-0.040550707	0.000151058	0.00019816	-3.04456E-06	-8.62484E-06
18	LL - 1 Lane	Combination	-0.02698259	-0.108020574	-0.009317844	0.000527866	1.43259E-05	-2.29752E-05
18	WS5 + WA	Combination	-0.01878212	-0.040550707	0.000205609	0.00019816	-2.52217E-06	-8.62484E-06
18	LL - 2 Lane	Combination	-0.044949552	-0.179913867	-0.013249189	0.000879189	1.99669E-05	-3.82664E-05
18	LL - 3 Lane	Combination	-0.057357237	-0.229408243	-0.014978431	0.001121054	2.31081E-05	-4.87935E-05
18	LL - 7 Lane	Combination	-0.102499549	-0.408960837	-0.014049432	0.001998477	2.44069E-05	-8.6983E-05
18	LL Envelope	Combination Max	-0.02698259	-0.108020574	-0.009317844	0.001998477	2.44069E-05	-2.29752E-05
18	LL Envelope	Combination Min	-0.102499549	-0.408960837	-0.014978431	0.000527866	1.43259E-05	-8.6983E-05
18	WS3 & WA envelope	Combination Max	-0.009614795	-0.018847603	0.000419316	0.000248927	-1.96287E-06	-4.00875E-06
18	WS3 & WA envelope	Combination Min	-0.026226262	-0.050939468	0.000122515	9.21029E-05	-5.30506E-06	-1.08345E-05
18	WS3 + WA	Combination	-0.02541341	-0.050939468	0.000235303	0.000248927	-4.3965E-06	-1.08345E-05
18	WS5 & WA envelope	Combination Max	-0.01878212	-0.040550707	0.000205609	0.00019816	-2.52217E-06	-8.62484E-06
18	WS5 & WA envelope	Combination Min	-0.019175541	-0.040550707	8.44627E-05	0.00019816	-3.04456E-06	-8.62484E-06
18	Strength 1 - Max	Combination Max	-0.044867656	-0.189036005	-0.070353343	0.003497334	0.0001811	-4.02066E-05
18	Strength 1 - Max	Combination Min	-0.177022334	-0.715681465	-0.08025937	0.000923766	0.000163458	-0.00015222
18	Strength 1 - Min	Combination Max	-0.045585831	-0.189036005	-0.053135614	0.003497334	0.000137526	-4.02066E-05
18	Strength 1 - Min	Combination Min	-0.177740509	-0.715681465	-0.063041642	0.000923766	0.000119884	-0.00015222
18	Strength 3 - Max	Combination Max	-0.007262919	-0.018847603	-0.053827236	0.000248927	0.000136425	-4.00875E-06
18	Strength 3 - Max	Combination Min	-0.023874386	-0.050939468	-0.054124037	9.21029E-05	0.000133082	-1.08345E-05
18	Strength 3 - Min	Combination Max	-0.007981094	-0.018847603	-0.036609507	0.000248927	9.28506E-05	-4.00875E-06
18	Strength 3 - Min	Combination Min	-0.024592561	-0.050939468	-0.036906308	9.21029E-05	8.95084E-05	-1.08345E-05
18	Strength 5 - Max	Combination Max	-0.052856741	-0.186378482	-0.066620031	0.002896104	0.000168815	-3.96414E-05
18	Strength 5 - Max	Combination Min	-0.155198056	-0.592647837	-0.074382971	0.000910779	0.000154683	-0.000126052
18	Strength 5 - Min	Combination Max	-0.053574915	-0.186378482	-0.049402303	0.002896104	0.000125241	-3.96414E-05
18	Strength 5 - Min	Combination Min	-0.155916231	-0.592647837	-0.057165242	0.000910779	0.000111109	-0.000126052
18	Service 1	Combination Max	-0.034531795	-0.126868178	-0.0515588	0.00209058	0.000131246	-2.69839E-05
18	Service 1	Combination Min	-0.110349509	-0.42780844	-0.057358974	0.000619969	0.000120829	-9.09918E-05
18	WServ1: 45deg	Combination	-0.009675424	-0.018847603	0.000155147	9.21029E-05	-1.83416E-06	-4.00875E-06
18	WServ1: 30deg	Combination	-0.009700551	-0.018847603	0.000114246	9.21029E-05	-1.73683E-06	-4.00875E-06
18	WServ1: 15deg	Combination	-0.009703717	-0.018847603	7.31199E-05	9.21029E-05	-1.65501E-06	-4.00875E-06
18	WServ1: 0deg	Combination	-0.009693111	-0.018847603	9.43567E-05	9.21029E-05	-1.76931E-06	-4.00875E-06
18	WServ1: -15deg	Combination	-0.009662371	-0.018847603	0.000109275	9.21029E-05	-1.86642E-06	-4.00875E-06
18	WServ1: -30deg	Combination	-0.009614795	-0.018847603	0.000122515	9.21029E-05	-1.96287E-06	-4.00875E-06
18	WServ1 + WA	Combination	-0.009402962	-0.018847603	0.000212707	9.21029E-05	-1.6267E-06	-4.00875E-06
18	WServ1 & WA envelope	Combination Max	-0.009402962	-0.018847603	0.000212707	9.21029E-05	-1.6267E-06	-4.00875E-06

18	WServ1 & WA envelope	Combination	Min	-0.009703717	-0.018847603	7.31199E-05	9.21029E-05	-1.96287E-06	-4.00875E-06
18	Strength Envelope	Combination	Max	-0.007262919	-0.018847603	-0.036609507	0.003497334	0.0001811	-4.00875E-06
18	Strength Envelope	Combination	Min	-0.177740509	-0.715681465	-0.08025937	9.21029E-05	8.95084E-05	-0.00015222
19	DEAD	LinStatic		2.60667E-05	0	-0.004632979	0	-8.55805E-06	0
19	R01_Z	LinStatic		1.55609E-05	0	2.37089E-06	0	1.26959E-07	0
19	R02_Z	LinStatic		-8.35202E-06	0	5.63709E-05	0	6.89282E-07	0
19	R03_Z	LinStatic		-1.66525E-06	0	7.3219E-05	0	2.62465E-07	0
19	R04_Z	LinStatic		-4.35672E-06	0	3.04639E-05	0	-4.1171E-07	0
19	R05_Z	LinStatic		3.39909E-06	0	7.58732E-06	0	-2.76476E-07	0
19	R06_Z	LinStatic		-3.57379E-06	0	-1.95835E-06	0	-3.90666E-08	0
19	R07_Z	LinStatic		2.56975E-06	0	-2.52093E-06	0	1.8865E-08	0
19	R08_Z	LinStatic		-3.23868E-06	0	-5.9346E-07	0	1.14522E-08	0
19	R09_Z	LinStatic		2.00943E-06	0	4.19104E-08	0	4.71867E-09	0
19	R10_Z	LinStatic		2.02024E-06	0	8.30384E-08	0	3.10964E-10	0
19	R11_Z	LinStatic		6.99638E-06	0	4.10107E-08	0	-5.93814E-10	0
19	R12_Z	LinStatic		-4.60811E-06	0	1.69675E-08	0	-4.73416E-10	0
19	R_X	LinStatic		0.009375053	0	-2.50119E-05	0	4.64961E-07	0
19	R_Y	LinStatic		0	0.031991435	0	-0.000177736	0	5.38381E-06
19	Cap_R_X	LinStatic		0.00075926	0	-1.49691E-06	0	2.66032E-08	0
19	Cap_w_Y	LinStatic		9.65433E-06	0	-0.001334514	0	-3.16965E-06	0
19	Cap_w_Z	LinStatic		9.65433E-06	0	-0.001334514	0	-3.16965E-06	0
19	Col_w_X	LinStatic		2.37001E-19	0	-0.000573645	0	2.5411E-21	0
19	Col_w_Y	LinStatic		2.37001E-19	0	-0.000573645	0	2.5411E-21	0
19	Cais_w_X	LinStatic		7.0564E-20	0	-0.000167626	0	2.11758E-22	0
19	Cais_w_Y	LinStatic		7.0564E-20	0	-0.000167626	0	2.11758E-22	0
19	DC	LinStatic		-0.00099546	0	-0.029313663	0	-6.61966E-05	0
19	DW	LinStatic		-0.000171126	0	-0.004179242	0	-9.76291E-06	0
19	WS3	LinStatic		-0.02529136	-0.045107923	0.000211922	0.000250607	-6.36145E-06	-7.59118E-06
19	WL5	LinStatic		-0.00647078	-0.014076231	-4.38432E-05	7.82037E-05	-6.42916E-07	-2.36888E-06
19	PL	LinStatic		-5.65911E-05	0	-0.001382073	0	-3.22859E-06	0
19	LL-1 Lane	LinStatic		-0.000220897	0	-0.006156081	0	-2.53209E-05	0
19	LL-2 Lane	LinStatic		-0.000338403	0	-0.009339562	0	-3.73436E-05	0
19	LL-3 Lane	LinStatic		-0.000393169	0	-0.010734501	0	-4.1426E-05	0
19	LL-7 Lane	LinStatic		-0.000428393	0	-0.010782711	0	-2.97916E-05	0
19	CE-1 Lane	LinStatic		-0.020257078	-0.021754176	-0.000162002	0.00012086	-2.14402E-06	-3.66099E-06
19	CE-2 Lane	LinStatic		-0.033761973	-0.036470235	-0.000269601	0.000202619	-3.57262E-06	-6.13755E-06
19	CE-3 Lane	LinStatic		-0.043013414	-0.04638758	-0.000424831	0.000257717	-5.81499E-06	-7.80653E-06
19	CE-7 Lane	LinStatic		-0.076808188	-0.082537901	-0.000613888	0.000458558	-8.1228E-06	-1.38902E-05
19	BR-1 Lane	LinStatic		-0.006843788	-0.073900214	1.82587E-05	0.000410569	-3.39422E-07	-1.24366E-05
19	BR-2 Lane	LinStatic		-0.011343814	-0.122847109	3.02644E-05	0.000682505	-5.62603E-07	-2.06738E-05
19	BR-3 Lane	LinStatic		-0.014531332	-0.15675803	3.87684E-05	0.000870905	-7.2069E-07	-2.63807E-05
19	BR-7 Lane	LinStatic		-0.025875145	-0.279605138	6.90328E-05	0.001553409	-1.28329E-06	-4.70545E-05

19	WSub3: 45deg	LinStatic	-0.000722455	0	0.000359323	0	3.55085E-07	0
19	WSub3: 30deg	LinStatic	-0.000797802	0	0.000257164	0	1.62245E-07	0
19	WSub3: 15deg	LinStatic	-0.000812505	0	0.000153404	0	3.23108E-09	0
19	WSub3: 0deg	LinStatic	-0.000775217	0	0.000200593	0	2.26437E-07	0
19	WSub3: -15deg	LinStatic	-0.000684685	0	0.000232655	0	4.19808E-07	0
19	WSub3: -30deg	LinStatic	-0.000548598	0	0.000260568	0	6.14775E-07	0
19	WSub3: -45deg	LinStatic	-0.000381947	0	0.000260054	0	7.47414E-07	0
19	WA	LinStatic	-9.03077E-20	0	0.000199436	0	-7.41154E-22	0
19	WS3: 45deg	Combination	-0.026013816	-0.045107923	0.000571245	0.000250607	-6.00636E-06	-7.59118E-06
19	WS3: 30deg	Combination	-0.026089162	-0.045107923	0.000469086	0.000250607	-6.1992E-06	-7.59118E-06
19	WS3: 15deg	Combination	-0.026103865	-0.045107923	0.000365326	0.000250607	-6.35822E-06	-7.59118E-06
19	WS3: 0deg	Combination	-0.026066578	-0.045107923	0.000412515	0.000250607	-6.13501E-06	-7.59118E-06
19	WS3: -15deg	Combination	-0.025976046	-0.045107923	0.000444577	0.000250607	-5.94164E-06	-7.59118E-06
19	WS3: -30deg	Combination	-0.025839958	-0.045107923	0.00047249	0.000250607	-5.74667E-06	-7.59118E-06
19	WServ1: -45deg	Combination	-0.009560785	-0.016689931	0.000174821	9.27247E-05	-2.12627E-06	-2.80873E-06
19	WS5: 45deg	Combination	-0.019061466	-0.035908466	0.000232639	0.000199498	-3.55E-06	-6.04301E-06
19	WS5: 30deg	Combination	-0.019097934	-0.035908466	0.000183194	0.000199498	-3.64333E-06	-6.04301E-06
19	WS5: 15deg	Combination	-0.01910505	-0.035908466	0.000132975	0.000199498	-3.72029E-06	-6.04301E-06
19	WS5: 0deg	Combination	-0.019087003	-0.035908466	0.000155814	0.000199498	-3.61226E-06	-6.04301E-06
19	WS5: -15deg	Combination	-0.019043186	-0.035908466	0.000171332	0.000199498	-3.51867E-06	-6.04301E-06
19	WS5: -30deg	Combination	-0.018977319	-0.035908466	0.000184842	0.000199498	-3.42431E-06	-6.04301E-06
19	WS5: -45deg	Combination	-0.01889666	-0.035908466	0.000184593	0.000199498	-3.36011E-06	-6.04301E-06
19	LL - 1 Lane	Combination	-0.027378354	-0.095654389	-0.007681897	0.00053143	-3.10329E-05	-1.60976E-05
19	WS5 + WA	Combination	-0.018711798	-0.035908466	0.000258163	0.000199498	-3.72186E-06	-6.04301E-06
19	LL - 2 Lane	Combination	-0.045500781	-0.159317344	-0.010960971	0.000885123	-4.47074E-05	-2.68114E-05
19	LL - 3 Lane	Combination	-0.057994505	-0.20314561	-0.012502635	0.001128621	-5.11903E-05	-3.41872E-05
19	LL - 7 Lane	Combination	-0.103168317	-0.36214304	-0.012709638	0.002011967	-4.24263E-05	-6.09448E-05
19	LL Envelope	Combination Max	-0.027378354	-0.095654389	-0.007681897	0.002011967	-3.10329E-05	-1.60976E-05
19	LL Envelope	Combination Min	-0.103168317	-0.36214304	-0.012709638	0.00053143	-5.11903E-05	-6.09448E-05
19	WS3 & WA envelope	Combination Max	-0.009560785	-0.016689931	0.000571245	0.000250607	-2.12627E-06	-2.80873E-06
19	WS3 & WA envelope	Combination Min	-0.026103865	-0.045107923	0.000174821	9.27247E-05	-6.36145E-06	-7.59118E-06
19	WS3 + WA	Combination	-0.02529136	-0.045107923	0.000411357	0.000250607	-6.36145E-06	-7.59118E-06
19	WS5 & WA envelope	Combination Max	-0.018711798	-0.035908466	0.000258163	0.000199498	-3.36011E-06	-6.04301E-06
19	WS5 & WA envelope	Combination Min	-0.01910505	-0.035908466	0.000132975	0.000199498	-3.72186E-06	-6.04301E-06
19	Strength 1 - Max	Combination Max	-0.049380549	-0.167395182	-0.06194605	0.003520943	-0.000162395	-2.81708E-05
19	Strength 1 - Max	Combination Min	-0.182012985	-0.63375032	-0.070744597	0.000930002	-0.000197671	-0.000106653
19	Strength 1 - Min	Combination Max	-0.048895805	-0.167395182	-0.04651237	0.003520943	-0.000127933	-2.81708E-05
19	Strength 1 - Min	Combination Min	-0.181528241	-0.63375032	-0.055310917	0.000930002	-0.000163208	-0.000106653
19	Strength 3 - Max	Combination Max	-0.011029214	-0.016689931	-0.048130921	0.000250607	-0.000110214	-2.80873E-06
19	Strength 3 - Max	Combination Min	-0.027572294	-0.045107923	-0.048527345	9.27247E-05	-0.000114449	-7.59118E-06
19	Strength 3 - Min	Combination Max	-0.01054447	-0.016689931	-0.03269724	0.000250607	-7.57514E-05	-2.80873E-06
19	Strength 3 - Min	Combination Min	-0.02708755	-0.045107923	-0.033093664	9.27247E-05	-7.99865E-05	-7.59118E-06

19	Strength 5 - Max	Combination	Max	-0.057141005	-0.165041892	-0.058814564	0.002915654	-0.000153342	-2.77748E-05
19	Strength 5 - Max	Combination	Min	-0.159850708	-0.52480157	-0.065727203	0.000916927	-0.000180916	-8.83184E-05
19	Strength 5 - Min	Combination	Max	-0.056656261	-0.165041892	-0.043380884	0.002915654	-0.00011888	-2.77748E-05
19	Strength 5 - Min	Combination	Min	-0.159365964	-0.52480157	-0.050293522	0.000916927	-0.000146454	-8.83184E-05
19	Service 1	Combination	Max	-0.037876676	-0.112344321	-0.045529935	0.002104692	-0.000117677	-1.89063E-05
19	Service 1	Combination	Min	-0.113967266	-0.378832971	-0.050700352	0.000624154	-0.000138062	-6.37535E-05
19	WServ1: 45deg	Combination		-0.009625112	-0.016689931	0.000211361	9.27247E-05	-2.22235E-06	-2.80873E-06
19	WServ1: 30deg	Combination		-0.00965299	-0.016689931	0.000173562	9.27247E-05	-2.2937E-06	-2.80873E-06
19	WServ1: 15deg	Combination		-0.00965843	-0.016689931	0.000135171	9.27247E-05	-2.35254E-06	-2.80873E-06
19	WServ1: 0deg	Combination		-0.009644634	-0.016689931	0.000152631	9.27247E-05	-2.26995E-06	-2.80873E-06
19	WServ1: -15deg	Combination		-0.009611137	-0.016689931	0.000164494	9.27247E-05	-2.19841E-06	-2.80873E-06
19	WServ1: -30deg	Combination		-0.009560785	-0.016689931	0.000174821	9.27247E-05	-2.12627E-06	-2.80873E-06
19	WServ1 + WA	Combination		-0.009357803	-0.016689931	0.000277847	9.27247E-05	-2.35374E-06	-2.80873E-06
19	WServ1 & WA envelope	Combination	Max	-0.009357803	-0.016689931	0.000277847	9.27247E-05	-2.12627E-06	-2.80873E-06
19	WServ1 & WA envelope	Combination	Min	-0.00965843	-0.016689931	0.000135171	9.27247E-05	-2.35374E-06	-2.80873E-06
19	Strength Envelope	Combination	Max	-0.01054447	-0.016689931	-0.03269724	0.003520943	-7.57514E-05	-2.80873E-06
19	Strength Envelope	Combination	Min	-0.182012985	-0.63375032	-0.070744597	9.27247E-05	-0.000197671	-0.000106653
20	DEAD	LinStatic		-0.000205001	0	-0.004632979	0	-8.55805E-06	0
20	R01_Z	LinStatic		1.89888E-05	0	2.37089E-06	0	1.26959E-07	0
20	R02_Z	LinStatic		1.02586E-05	0	5.63709E-05	0	6.89282E-07	0
20	R03_Z	LinStatic		5.4213E-06	0	7.3219E-05	0	2.62465E-07	0
20	R04_Z	LinStatic		-1.54729E-05	0	3.04639E-05	0	-4.1171E-07	0
20	R05_Z	LinStatic		-4.06575E-06	0	7.58732E-06	0	-2.76476E-07	0
20	R06_Z	LinStatic		-4.62859E-06	0	-1.95835E-06	0	-3.90666E-08	0
20	R07_Z	LinStatic		3.07911E-06	0	-2.52093E-06	0	1.8865E-08	0
20	R08_Z	LinStatic		-2.92947E-06	0	-5.9346E-07	0	1.14522E-08	0
20	R09_Z	LinStatic		2.13684E-06	0	4.19104E-08	0	4.71867E-09	0
20	R10_Z	LinStatic		2.02864E-06	0	8.30384E-08	0	3.10964E-10	0
20	R11_Z	LinStatic		6.98035E-06	0	4.10107E-08	0	-5.93814E-10	0
20	R12_Z	LinStatic		-4.62089E-06	0	1.69675E-08	0	-4.73416E-10	0
20	R_X	LinStatic		0.009387607	0	-2.50119E-05	0	4.64961E-07	0
20	R_Y	LinStatic		0	0.036790297	0	-0.000177736	0	5.38381E-06
20	Cap_R_X	LinStatic		0.000759978	0	-1.49691E-06	0	2.66032E-08	0
20	Cap_w_Y	LinStatic		-7.59261E-05	0	-0.001334514	0	-3.16965E-06	0
20	Cap_w_Z	LinStatic		-7.59261E-05	0	-0.001334514	0	-3.16965E-06	0
20	Col_w_X	LinStatic		3.0561E-19	0	-0.000573645	0	2.5411E-21	0
20	Col_w_Y	LinStatic		3.0561E-19	0	-0.000573645	0	2.5411E-21	0
20	Cais_w_X	LinStatic		7.62815E-20	0	-0.000167626	0	2.11758E-22	0
20	Cais_w_Y	LinStatic		7.62815E-20	0	-0.000167626	0	2.11758E-22	0
20	DC	LinStatic		-0.002782768	0	-0.029313663	0	-6.61966E-05	0
20	DW	LinStatic		-0.000434724	0	-0.004179242	0	-9.76291E-06	0
20	WS3	LinStatic		-0.025463119	-0.051874318	0.000211922	0.000250607	-6.36145E-06	-7.59118E-06

20	WL5	LinStatic	-0.006488138	-0.016187731	-4.38432E-05	7.82037E-05	-6.42916E-07	-2.36888E-06
20	PL	LinStatic	-0.000143763	0	-0.001382073	0	-3.22859E-06	0
20	LL-1 Lane	LinStatic	-0.000904561	0	-0.006156081	0	-2.53209E-05	0
20	LL-2 Lane	LinStatic	-0.001346681	0	-0.009339562	0	-3.73436E-05	0
20	LL-3 Lane	LinStatic	-0.00151167	0	-0.010734501	0	-4.1426E-05	0
20	LL-7 Lane	LinStatic	-0.001232767	0	-0.010782711	0	-2.97916E-05	0
20	CE-1 Lane	LinStatic	-0.020314966	-0.025017402	-0.000162002	0.00012086	-2.14402E-06	-3.66099E-06
20	CE-2 Lane	LinStatic	-0.033858434	-0.041940938	-0.000269601	0.000202619	-3.57262E-06	-6.13755E-06
20	CE-3 Lane	LinStatic	-0.043170419	-0.05334593	-0.000424831	0.000257717	-5.81499E-06	-7.80653E-06
20	CE-7 Lane	LinStatic	-0.077027504	-0.094918965	-0.000613888	0.000458558	-8.1228E-06	-1.38902E-05
20	BR-1 Lane	LinStatic	-0.006852953	-0.084985585	1.82587E-05	0.000410569	-3.39422E-07	-1.24366E-05
20	BR-2 Lane	LinStatic	-0.011359004	-0.141274739	3.02644E-05	0.000682505	-5.62603E-07	-2.06738E-05
20	BR-3 Lane	LinStatic	-0.01455079	-0.180272454	3.87684E-05	0.000870905	-7.2069E-07	-2.63807E-05
20	BR-7 Lane	LinStatic	-0.025909794	-0.321547193	6.90328E-05	0.001553409	-1.28329E-06	-4.70545E-05
20	WSub3: 45deg	LinStatic	-0.000712868	0	0.000359323	0	3.55085E-07	0
20	WSub3: 30deg	LinStatic	-0.000793421	0	0.000257164	0	1.62245E-07	0
20	WSub3: 15deg	LinStatic	-0.000812417	0	0.000153404	0	3.23108E-09	0
20	WSub3: 0deg	LinStatic	-0.000769104	0	0.000200593	0	2.26437E-07	0
20	WSub3: -15deg	LinStatic	-0.000673351	0	0.000232655	0	4.19808E-07	0
20	WSub3: -30deg	LinStatic	-0.000531999	0	0.000260568	0	6.14775E-07	0
20	WSub3: -45deg	LinStatic	-0.000361767	0	0.000260054	0	7.47414E-07	0
20	WA	LinStatic	-1.10319E-19	0	0.000199436	0	-7.41154E-22	0
20	WS3: 45deg	Combination	-0.026175987	-0.051874318	0.000571245	0.000250607	-6.00636E-06	-7.59118E-06
20	WS3: 30deg	Combination	-0.026256541	-0.051874318	0.000469086	0.000250607	-6.1992E-06	-7.59118E-06
20	WS3: 15deg	Combination	-0.026275537	-0.051874318	0.000365326	0.000250607	-6.35822E-06	-7.59118E-06
20	WS3: 0deg	Combination	-0.026232223	-0.051874318	0.000412515	0.000250607	-6.13501E-06	-7.59118E-06
20	WS3: -15deg	Combination	-0.02613647	-0.051874318	0.000444577	0.000250607	-5.94164E-06	-7.59118E-06
20	WS3: -30deg	Combination	-0.025995118	-0.051874318	0.00047249	0.000250607	-5.74667E-06	-7.59118E-06
20	WServ1: -45deg	Combination	-0.009618194	-0.019193498	0.000174821	9.27247E-05	-2.12627E-06	-2.80873E-06
20	WS5: 45deg	Combination	-0.019157316	-0.041294901	0.000232639	0.000199498	-3.55E-06	-6.04301E-06
20	WS5: 30deg	Combination	-0.019196304	-0.041294901	0.000183194	0.000199498	-3.64333E-06	-6.04301E-06
20	WS5: 15deg	Combination	-0.019205498	-0.041294901	0.000132975	0.000199498	-3.72029E-06	-6.04301E-06
20	WS5: 0deg	Combination	-0.019184534	-0.041294901	0.000155814	0.000199498	-3.61226E-06	-6.04301E-06
20	WS5: -15deg	Combination	-0.01913819	-0.041294901	0.000171332	0.000199498	-3.51867E-06	-6.04301E-06
20	WS5: -30deg	Combination	-0.019069776	-0.041294901	0.000184842	0.000199498	-3.42431E-06	-6.04301E-06
20	WS5: -45deg	Combination	-0.018987383	-0.041294901	0.000184593	0.000199498	-3.36011E-06	-6.04301E-06
20	LL - 1 Lane	Combination	-0.028216243	-0.110002987	-0.007681897	0.00053143	-3.10329E-05	-1.60976E-05
20	WS5 + WA	Combination	-0.018812288	-0.041294901	0.000258163	0.000199498	-3.72186E-06	-6.04301E-06
20	LL - 2 Lane	Combination	-0.046707882	-0.183215677	-0.010960971	0.000885123	-4.47074E-05	-2.68114E-05
20	LL - 3 Lane	Combination	-0.059376642	-0.233618384	-0.012502635	0.001128621	-5.11903E-05	-3.41872E-05
20	LL - 7 Lane	Combination	-0.104313828	-0.416466158	-0.012709638	0.002011967	-4.24263E-05	-6.09448E-05
20	LL Envelope	Combination Max	-0.028216243	-0.110002987	-0.007681897	0.002011967	-3.10329E-05	-1.60976E-05

20	LL Envelope	Combination Min	-0.104313828	-0.416466158	-0.012709638	0.00053143	-5.11903E-05	-6.09448E-05
20	WS3 & WA envelope	Combination Max	-0.009618194	-0.019193498	0.000571245	0.000250607	-2.12627E-06	-2.80873E-06
20	WS3 & WA envelope	Combination Min	-0.026275537	-0.051874318	0.000174821	9.27247E-05	-6.36145E-06	-7.59118E-06
20	WS3 + WA	Combination	-0.025463119	-0.051874318	0.000411357	0.000250607	-6.36145E-06	-7.59118E-06
20	WS5 & WA envelope	Combination Max	-0.018812288	-0.041294901	0.000258163	0.000199498	-3.36011E-06	-6.04301E-06
20	WS5 & WA envelope	Combination Min	-0.019205498	-0.041294901	0.000132975	0.000199498	-3.72186E-06	-6.04301E-06
20	Strength 1 - Max	Combination Max	-0.053765222	-0.192505227	-0.06194605	0.003520943	-0.000162395	-2.81708E-05
20	Strength 1 - Max	Combination Min	-0.186935996	-0.728815777	-0.070744597	0.000930002	-0.000197671	-0.000106653
20	Strength 1 - Min	Combination Max	-0.052349988	-0.192505227	-0.04651237	0.003520943	-0.000127933	-2.81708E-05
20	Strength 1 - Min	Combination Min	-0.185520762	-0.728815777	-0.055310917	0.000930002	-0.000163208	-0.000106653
20	Strength 3 - Max	Combination Max	-0.014004991	-0.019193498	-0.048130921	0.000250607	-0.000110214	-2.80873E-06
20	Strength 3 - Max	Combination Min	-0.030662334	-0.051874318	-0.048527345	9.27247E-05	-0.000114449	-7.59118E-06
20	Strength 3 - Min	Combination Max	-0.012589756	-0.019193498	-0.03269724	0.000250607	-7.57514E-05	-2.80873E-06
20	Strength 3 - Min	Combination Min	-0.029247099	-0.051874318	-0.033093664	9.27247E-05	-7.99865E-05	-7.59118E-06
20	Strength 5 - Max	Combination Max	-0.061291013	-0.189798933	-0.058814564	0.002915654	-0.000153342	-2.77748E-05
20	Strength 5 - Max	Combination Min	-0.164415963	-0.603524214	-0.065727203	0.000916927	-0.000180916	-8.83184E-05
20	Strength 5 - Min	Combination Max	-0.059875779	-0.189798933	-0.043380884	0.002915654	-0.00011888	-2.77748E-05
20	Strength 5 - Min	Combination Min	-0.163000728	-0.603524214	-0.050293522	0.000916927	-0.000146454	-8.83184E-05
20	Service 1	Combination Max	-0.04106009	-0.129196485	-0.045529935	0.002104692	-0.000117677	-1.89063E-05
20	Service 1	Combination Min	-0.11745827	-0.435659656	-0.050700352	0.000624154	-0.000138062	-6.37535E-05
20	WServ1: 45deg	Combination	-0.009685115	-0.019193498	0.000211361	9.27247E-05	-2.22235E-06	-2.80873E-06
20	WServ1: 30deg	Combination	-0.00971492	-0.019193498	0.000173562	9.27247E-05	-2.2937E-06	-2.80873E-06
20	WServ1: 15deg	Combination	-0.009721949	-0.019193498	0.000135171	9.27247E-05	-2.35254E-06	-2.80873E-06
20	WServ1: 0deg	Combination	-0.009705922	-0.019193498	0.000152631	9.27247E-05	-2.26995E-06	-2.80873E-06
20	WServ1: -15deg	Combination	-0.009670494	-0.019193498	0.000164494	9.27247E-05	-2.19841E-06	-2.80873E-06
20	WServ1: -30deg	Combination	-0.009618194	-0.019193498	0.000174821	9.27247E-05	-2.12627E-06	-2.80873E-06
20	WServ1 + WA	Combination	-0.009421354	-0.019193498	0.000277847	9.27247E-05	-2.35374E-06	-2.80873E-06
20	WServ1 & WA envelope	Combination Max	-0.009421354	-0.019193498	0.000277847	9.27247E-05	-2.12627E-06	-2.80873E-06
20	WServ1 & WA envelope	Combination Min	-0.009721949	-0.019193498	0.000135171	9.27247E-05	-2.35374E-06	-2.80873E-06
20	Strength Envelope	Combination Max	-0.012589756	-0.019193498	-0.03269724	0.003520943	-7.57514E-05	-2.80873E-06
20	Strength Envelope	Combination Min	-0.186935996	-0.728815777	-0.070744597	9.27247E-05	-0.000197671	-0.000106653
21	DEAD	LinStatic	1.87281E-05	0	-0.004873739	0	5.83287E-06	0
21	R01_Z	LinStatic	1.54164E-05	0	-3.47422E-06	0	1.7569E-08	0
21	R02_Z	LinStatic	-8.22357E-06	0	5.31949E-06	0	2.65635E-07	0
21	R03_Z	LinStatic	-1.5881E-06	0	3.04639E-05	0	2.99138E-07	0
21	R04_Z	LinStatic	-4.24094E-06	0	9.1651E-05	0	-2.25942E-07	0
21	R05_Z	LinStatic	3.48358E-06	0	5.48425E-05	0	-4.89978E-07	0
21	R06_Z	LinStatic	-3.58083E-06	0	6.15779E-06	0	-1.48413E-07	0
21	R07_Z	LinStatic	2.57177E-06	0	-4.78129E-06	0	-1.93688E-08	0
21	R08_Z	LinStatic	-3.25403E-06	0	-2.42471E-06	0	1.32317E-08	0
21	R09_Z	LinStatic	2.01588E-06	0	-8.41667E-07	0	1.26857E-08	0
21	R10_Z	LinStatic	2.02777E-06	0	-9.11978E-09	0	2.78303E-09	0

21	R11_Z	LinStatic	7.02252E-06	0	1.47127E-07	0	-9.94163E-10	0
21	R12_Z	LinStatic	-4.62507E-06	0	8.51345E-08	0	-3.44979E-10	0
21	R_X	LinStatic	0.00937804	0	-5.04909E-05	0	-2.94228E-07	0
21	R_Y	LinStatic	0	0.03248849	0	-0.000179251	0	4.2998E-06
21	Cap_R_X	LinStatic	0.000762068	0	-3.89134E-06	0	-3.71315E-08	0
21	Cap_w_Y	LinStatic	6.93634E-06	0	-0.001423684	0	2.16032E-06	0
21	Cap_w_Z	LinStatic	6.93634E-06	0	-0.001423684	0	2.16032E-06	0
21	Col_w_X	LinStatic	2.42685E-19	0	-0.000573645	0	4.87044E-21	0
21	Col_w_Y	LinStatic	2.42685E-19	0	-0.000573645	0	4.87044E-21	0
21	Cais_w_X	LinStatic	7.21753E-20	0	-0.000167626	0	1.58819E-21	0
21	Cais_w_Y	LinStatic	7.21753E-20	0	-0.000167626	0	1.58819E-21	0
21	DC	LinStatic	-0.001045484	0	-0.031558727	0	4.90419E-05	0
21	DW	LinStatic	-0.000177813	0	-0.004483311	0	6.93489E-06	0
21	WS3	LinStatic	-0.025297507	-0.045808771	0.000966617	0.000252743	-5.31354E-06	-6.06271E-06
21	WL5	LinStatic	-0.006472883	-0.014294936	-8.457E-06	7.88702E-05	1.11048E-07	-1.89191E-06
21	PL	LinStatic	-5.88026E-05	0	-0.001482628	0	2.29336E-06	0
21	LL-1 Lane	LinStatic	-0.000227356	0	-0.005246665	0	-1.57952E-06	0
21	LL-2 Lane	LinStatic	-0.000348533	0	-0.008092686	0	-1.24335E-06	0
21	LL-3 Lane	LinStatic	-0.000405275	0	-0.009487288	0	1.86148E-07	0
21	LL-7 Lane	LinStatic	-0.000444219	0	-0.010995982	0	1.29269E-05	0
21	CE-1 Lane	LinStatic	-0.02026368	-0.022092173	-4.37595E-05	0.00012189	3.0928E-07	-2.92386E-06
21	CE-2 Lane	LinStatic	-0.033772975	-0.037036879	-7.27136E-05	0.000204346	5.1515E-07	-4.90177E-06
21	CE-3 Lane	LinStatic	-0.043027231	-0.047108311	2.03999E-05	0.000259913	-3.22116E-07	-6.23471E-06
21	CE-7 Lane	LinStatic	-0.076833221	-0.083820305	-0.000166678	0.000462466	1.17751E-06	-1.10935E-05
21	BR-1 Lane	LinStatic	-0.006845969	-0.075048413	3.68583E-05	0.000414069	2.14786E-07	-9.93253E-06
21	BR-2 Lane	LinStatic	-0.011347428	-0.124755803	6.10939E-05	0.000688322	3.56015E-07	-1.65112E-05
21	BR-3 Lane	LinStatic	-0.014535962	-0.159193603	7.82608E-05	0.000878327	4.56053E-07	-2.1069E-05
21	BR-7 Lane	LinStatic	-0.025883391	-0.283949406	0.000139355	0.001566649	8.12068E-07	-3.75802E-05
21	WSub3: 45deg	LinStatic	-0.000724797	0	0.000372298	0	-2.23964E-07	0
21	WSub3: 30deg	LinStatic	-0.000800587	0	0.000265028	0	-9.06311E-08	0
21	WSub3: 15deg	LinStatic	-0.000815482	0	0.000156858	0	1.81275E-08	0
21	WSub3: 0deg	LinStatic	-0.000777864	0	0.000210169	0	-1.34951E-07	0
21	WSub3: -15deg	LinStatic	-0.000686832	0	0.000247294	0	-2.69026E-07	0
21	WSub3: -30deg	LinStatic	-0.000550076	0	0.000280126	0	-4.05329E-07	0
21	WSub3: -45deg	LinStatic	-0.000382699	0	0.000282652	0	-4.99911E-07	0
21	WA	LinStatic	-9.23221E-20	0	0.000199436	0	-1.90582E-21	0
21	WS3: 45deg	Combination	-0.026022303	-0.045808771	0.001338915	0.000252743	-5.5375E-06	-6.06271E-06
21	WS3: 30deg	Combination	-0.026098094	-0.045808771	0.001231645	0.000252743	-5.40417E-06	-6.06271E-06
21	WS3: 15deg	Combination	-0.026112989	-0.045808771	0.001123475	0.000252743	-5.29541E-06	-6.06271E-06
21	WS3: 0deg	Combination	-0.026075371	-0.045808771	0.001176786	0.000252743	-5.44849E-06	-6.06271E-06
21	WS3: -15deg	Combination	-0.025984339	-0.045808771	0.001213911	0.000252743	-5.58257E-06	-6.06271E-06
21	WS3: -30deg	Combination	-0.025847583	-0.045808771	0.001246742	0.000252743	-5.71887E-06	-6.06271E-06

21	WServ1: -45deg	Combination	-0.009563606	-0.016949245	0.000461295	9.3515E-05	-2.11598E-06	-2.2432E-06
21	WS5: 45deg	Combination	-0.019067678	-0.036466381	0.000639578	0.000201198	-2.5691E-06	-4.82626E-06
21	WS5: 30deg	Combination	-0.01910436	-0.036466381	0.000587659	0.000201198	-2.50457E-06	-4.82626E-06
21	WS5: 15deg	Combination	-0.019111569	-0.036466381	0.000535305	0.000201198	-2.45193E-06	-4.82626E-06
21	WS5: 0deg	Combination	-0.019093362	-0.036466381	0.000561107	0.000201198	-2.52602E-06	-4.82626E-06
21	WS5: -15deg	Combination	-0.019049303	-0.036466381	0.000579076	0.000201198	-2.59091E-06	-4.82626E-06
21	WS5: -30deg	Combination	-0.018983113	-0.036466381	0.000594966	0.000201198	-2.65689E-06	-4.82626E-06
21	WS5: -45deg	Combination	-0.018902102	-0.036466381	0.000596189	0.000201198	-2.70266E-06	-4.82626E-06
21	LL - 1 Lane	Combination	-0.027395808	-0.097140586	-0.006736194	0.000535959	1.23791E-06	-1.28564E-05
21	WS5 + WA	Combination	-0.018716876	-0.036466381	0.000658821	0.000201198	-2.46071E-06	-4.82626E-06
21	LL - 2 Lane	Combination	-0.045527739	-0.161792682	-0.009586934	0.000892668	1.92118E-06	-2.1413E-05
21	LL - 3 Lane	Combination	-0.05802727	-0.206301914	-0.010871255	0.001138241	2.61345E-06	-2.73037E-05
21	LL - 7 Lane	Combination	-0.103219633	-0.367769712	-0.012505933	0.002029116	1.72099E-05	-4.86737E-05
21	LL Envelope	Combination Max	-0.027395808	-0.097140586	-0.006736194	0.002029116	1.72099E-05	-1.28564E-05
21	LL Envelope	Combination Min	-0.103219633	-0.367769712	-0.012505933	0.000535959	1.23791E-06	-4.86737E-05
21	WS3 & WA envelope	Combination Max	-0.009563606	-0.016949245	0.001338915	0.000252743	-2.11598E-06	-2.2432E-06
21	WS3 & WA envelope	Combination Min	-0.026112989	-0.045808771	0.000461295	9.3515E-05	-5.71887E-06	-6.06271E-06
21	WS3 + WA	Combination	-0.025297507	-0.045808771	0.001166052	0.000252743	-5.31354E-06	-6.06271E-06
21	WS5 & WA envelope	Combination Max	-0.018716876	-0.036466381	0.000658821	0.000201198	-2.45193E-06	-4.82626E-06
21	WS5 & WA envelope	Combination Min	-0.019111569	-0.036466381	0.000535305	0.000201198	-2.70266E-06	-4.82626E-06
21	Strength 1 - Max	Combination Max	-0.049492828	-0.169996026	-0.063854454	0.003550953	0.000109113	-2.24987E-05
21	Strength 1 - Max	Combination Min	-0.182184522	-0.643596995	-0.073951498	0.000937928	8.11621E-05	-8.5179E-05
21	Strength 1 - Min	Combination Max	-0.048982323	-0.169996026	-0.047292276	0.003550953	8.40122E-05	-2.24987E-05
21	Strength 1 - Min	Combination Min	-0.181674017	-0.643596995	-0.05738932	0.000937928	5.60613E-05	-8.5179E-05
21	Strength 3 - Max	Combination Max	-0.01111377	-0.016949245	-0.050926636	0.000252743	7.68798E-05	-2.2432E-06
21	Strength 3 - Max	Combination Min	-0.027663153	-0.045808771	-0.051804256	9.3515E-05	7.32769E-05	-6.06271E-06
21	Strength 3 - Min	Combination Max	-0.010603264	-0.016949245	-0.034364458	0.000252743	5.1779E-05	-2.2432E-06
21	Strength 3 - Min	Combination Min	-0.027152647	-0.045808771	-0.035242078	9.3515E-05	4.81761E-05	-6.06271E-06
21	Strength 5 - Max	Combination Max	-0.057251381	-0.167606173	-0.060700591	0.002940504	9.97772E-05	-2.21824E-05
21	Strength 5 - Max	Combination Min	-0.160008239	-0.532955492	-0.068613256	0.000924743	7.79643E-05	-7.05358E-05
21	Strength 5 - Min	Combination Max	-0.056740876	-0.167606173	-0.044138413	0.002940504	7.46764E-05	-2.21824E-05
21	Strength 5 - Min	Combination Min	-0.159497733	-0.532955492	-0.052051078	0.000924743	5.28635E-05	-7.05358E-05
21	Service 1	Combination Max	-0.037960454	-0.114089832	-0.047094888	0.002122631	7.70602E-05	-1.50996E-05
21	Service 1	Combination Min	-0.114086008	-0.384718957	-0.053006026	0.000629474	6.09316E-05	-5.09169E-05
21	WServ1: 45deg	Combination	-0.009628252	-0.016949245	0.000495398	9.3515E-05	-2.04888E-06	-2.2432E-06
21	WServ1: 30deg	Combination	-0.009656295	-0.016949245	0.000455709	9.3515E-05	-1.99954E-06	-2.2432E-06
21	WServ1: 15deg	Combination	-0.009661806	-0.016949245	0.000415686	9.3515E-05	-1.9593E-06	-2.2432E-06
21	WServ1: 0deg	Combination	-0.009647887	-0.016949245	0.000435411	9.3515E-05	-2.01594E-06	-2.2432E-06
21	WServ1: -15deg	Combination	-0.009614205	-0.016949245	0.000449147	9.3515E-05	-2.06555E-06	-2.2432E-06
21	WServ1: -30deg	Combination	-0.009563606	-0.016949245	0.000461295	9.3515E-05	-2.11598E-06	-2.2432E-06
21	WServ1 + WA	Combination	-0.009360077	-0.016949245	0.000557084	9.3515E-05	-1.96601E-06	-2.2432E-06
21	WServ1 & WA envelope	Combination Max	-0.009360077	-0.016949245	0.000557084	9.3515E-05	-1.9593E-06	-2.2432E-06

21	WServ1 & WA envelope	Combination	Min	-0.009661806	-0.016949245	0.000415686	9.3515E-05	-2.11598E-06	-2.2432E-06
21	Strength Envelope	Combination	Max	-0.010603264	-0.016949245	-0.034364458	0.003550953	0.000109113	-2.2432E-06
21	Strength Envelope	Combination	Min	-0.182184522	-0.643596995	-0.073951498	9.3515E-05	4.81761E-05	-8.5179E-05
22	DEAD	LinStatic		0.000176215	0	-0.004873739	0	5.83287E-06	0
22	R01_Z	LinStatic		1.58908E-05	0	-3.47422E-06	0	1.7569E-08	0
22	R02_Z	LinStatic		-1.05143E-06	0	5.31949E-06	0	2.65635E-07	0
22	R03_Z	LinStatic		6.48862E-06	0	3.04639E-05	0	2.99138E-07	0
22	R04_Z	LinStatic		-1.03414E-05	0	9.1651E-05	0	-2.25942E-07	0
22	R05_Z	LinStatic		-9.74582E-06	0	5.48425E-05	0	-4.89978E-07	0
22	R06_Z	LinStatic		-7.58797E-06	0	6.15779E-06	0	-1.48413E-07	0
22	R07_Z	LinStatic		2.04882E-06	0	-4.78129E-06	0	-1.93688E-08	0
22	R08_Z	LinStatic		-2.89678E-06	0	-2.42471E-06	0	1.32317E-08	0
22	R09_Z	LinStatic		2.35839E-06	0	-8.41667E-07	0	1.26857E-08	0
22	R10_Z	LinStatic		2.10291E-06	0	-9.11978E-09	0	2.78303E-09	0
22	R11_Z	LinStatic		6.99568E-06	0	1.47127E-07	0	-9.94163E-10	0
22	R12_Z	LinStatic		-4.63439E-06	0	8.51345E-08	0	-3.44979E-10	0
22	R_X	LinStatic		0.009370096	0	-5.04909E-05	0	-2.94228E-07	0
22	R_Y	LinStatic		0	0.037328254	0	-0.000179251	0	4.2998E-06
22	Cap_R_X	LinStatic		0.000761065	0	-3.89134E-06	0	-3.71315E-08	0
22	Cap_w_Y	LinStatic		6.5265E-05	0	-0.001423684	0	2.16032E-06	0
22	Cap_w_Z	LinStatic		6.5265E-05	0	-0.001423684	0	2.16032E-06	0
22	Col_w_X	LinStatic		3.74187E-19	0	-0.000573645	0	4.87044E-21	0
22	Col_w_Y	LinStatic		3.74187E-19	0	-0.000573645	0	4.87044E-21	0
22	Cais_w_X	LinStatic		1.15056E-19	0	-0.000167626	0	1.58819E-21	0
22	Cais_w_Y	LinStatic		1.15056E-19	0	-0.000167626	0	1.58819E-21	0
22	DC	LinStatic		0.000278646	0	-0.031558727	0	4.90419E-05	0
22	DW	LinStatic		9.42908E-06	0	-0.00448311	0	6.93489E-06	0
22	WS3	LinStatic		-0.025440972	-0.052632838	0.000966617	0.000252743	-5.31354E-06	-6.06271E-06
22	WL5	LinStatic		-0.006469885	-0.016424432	-8.457E-06	7.88702E-05	1.11048E-07	-1.89191E-06
22	PL	LinStatic		3.11819E-06	0	-0.001482628	0	2.29336E-06	0
22	LL-1 Lane	LinStatic		-0.000270003	0	-0.005246665	0	-1.57952E-06	0
22	LL-2 Lane	LinStatic		-0.000382103	0	-0.008092686	0	-1.24335E-06	0
22	LL-3 Lane	LinStatic		-0.000400249	0	-0.009487288	0	1.86148E-07	0
22	LL-7 Lane	LinStatic		-9.51912E-05	0	-0.010995982	0	1.29269E-05	0
22	CE-1 Lane	LinStatic		-0.020255329	-0.025383213	-4.37595E-05	0.00012189	3.0928E-07	-2.92386E-06
22	CE-2 Lane	LinStatic		-0.033759066	-0.04255421	-7.27136E-05	0.000204346	5.1515E-07	-4.90177E-06
22	CE-3 Lane	LinStatic		-0.043035928	-0.054125969	2.03999E-05	0.000259913	-3.22116E-07	-6.23471E-06
22	CE-7 Lane	LinStatic		-0.076801428	-0.096306896	-0.000166678	0.000462466	1.17751E-06	-1.10935E-05
22	BR-1 Lane	LinStatic		-0.00684017	-0.086228267	3.68583E-05	0.000414069	2.14786E-07	-9.93253E-06
22	BR-2 Lane	LinStatic		-0.011337816	-0.143340496	6.10939E-05	0.000688322	3.56015E-07	-1.65112E-05
22	BR-3 Lane	LinStatic		-0.014523649	-0.182908446	7.82608E-05	0.000878327	4.56053E-07	-2.1069E-05
22	BR-7 Lane	LinStatic		-0.025861465	-0.326248942	0.000139355	0.001566649	8.12068E-07	-3.75802E-05

22	WSub3: 45deg	LinStatic	-0.000730844	0	0.000372298	0	-2.23964E-07	0
22	WSub3: 30deg	LinStatic	-0.000803034	0	0.000265028	0	-9.06311E-08	0
22	WSub3: 15deg	LinStatic	-0.000814992	0	0.000156858	0	1.81275E-08	0
22	WSub3: 0deg	LinStatic	-0.000781508	0	0.000210169	0	-1.34951E-07	0
22	WSub3: -15deg	LinStatic	-0.000694096	0	0.000247294	0	-2.69026E-07	0
22	WSub3: -30deg	LinStatic	-0.00056102	0	0.000280126	0	-4.05329E-07	0
22	WSub3: -45deg	LinStatic	-0.000396196	0	0.000282652	0	-4.99911E-07	0
22	WA	LinStatic	-1.43779E-19	0	0.000199436	0	-1.90582E-21	0
22	WS3: 45deg	Combination	-0.026171816	-0.052632838	0.001338915	0.000252743	-5.5375E-06	-6.06271E-06
22	WS3: 30deg	Combination	-0.026244007	-0.052632838	0.001231645	0.000252743	-5.40417E-06	-6.06271E-06
22	WS3: 15deg	Combination	-0.026255965	-0.052632838	0.001123475	0.000252743	-5.29541E-06	-6.06271E-06
22	WS3: 0deg	Combination	-0.02622248	-0.052632838	0.001176786	0.000252743	-5.44849E-06	-6.06271E-06
22	WS3: -15deg	Combination	-0.026135068	-0.052632838	0.001213911	0.000252743	-5.58257E-06	-6.06271E-06
22	WS3: -30deg	Combination	-0.026001992	-0.052632838	0.001246742	0.000252743	-5.71887E-06	-6.06271E-06
22	WServ1: -45deg	Combination	-0.009620737	-0.01947415	0.000461295	9.3515E-05	-2.11598E-06	-2.2432E-06
22	WS5: 45deg	Combination	-0.019137044	-0.041898726	0.000639578	0.000201198	-2.5691E-06	-4.82626E-06
22	WS5: 30deg	Combination	-0.019171984	-0.041898726	0.000587659	0.000201198	-2.50457E-06	-4.82626E-06
22	WS5: 15deg	Combination	-0.019177772	-0.041898726	0.000535305	0.000201198	-2.45193E-06	-4.82626E-06
22	WS5: 0deg	Combination	-0.019161565	-0.041898726	0.000561107	0.000201198	-2.52602E-06	-4.82626E-06
22	WS5: -15deg	Combination	-0.019119258	-0.041898726	0.000579076	0.000201198	-2.59091E-06	-4.82626E-06
22	WS5: -30deg	Combination	-0.019054849	-0.041898726	0.000594966	0.000201198	-2.65689E-06	-4.82626E-06
22	WS5: -45deg	Combination	-0.018975074	-0.041898726	0.000596189	0.000201198	-2.70266E-06	-4.82626E-06
22	LL - 1 Lane	Combination	-0.027362384	-0.11161148	-0.006736194	0.000535959	1.23791E-06	-1.28564E-05
22	WS5 + WA	Combination	-0.018783315	-0.041898726	0.000658821	0.000201198	-2.46071E-06	-4.82626E-06
22	LL - 2 Lane	Combination	-0.045475867	-0.185894706	-0.009586934	0.000892668	1.92118E-06	-2.1413E-05
22	LL - 3 Lane	Combination	-0.057956707	-0.237034414	-0.010871255	0.001138241	2.61345E-06	-2.73037E-05
22	LL - 7 Lane	Combination	-0.102754966	-0.422555837	-0.012505933	0.002029116	1.72099E-05	-4.86737E-05
22	LL Envelope	Combination Max	-0.027362384	-0.11161148	-0.006736194	0.002029116	1.72099E-05	-1.28564E-05
22	LL Envelope	Combination Min	-0.102754966	-0.422555837	-0.012505933	0.000535959	1.23791E-06	-4.86737E-05
22	WS3 & WA envelope	Combination Max	-0.009620737	-0.01947415	0.001338915	0.000252743	-2.11598E-06	-2.2432E-06
22	WS3 & WA envelope	Combination Min	-0.026255965	-0.052632838	0.000461295	9.3515E-05	-5.71887E-06	-6.06271E-06
22	WS3 + WA	Combination	-0.025440972	-0.052632838	0.001166052	0.000252743	-5.31354E-06	-6.06271E-06
22	WS5 & WA envelope	Combination Max	-0.018783315	-0.041898726	0.000658821	0.000201198	-2.45193E-06	-4.82626E-06
22	WS5 & WA envelope	Combination Min	-0.019177772	-0.041898726	0.000535305	0.000201198	-2.70266E-06	-4.82626E-06
22	Strength 1 - Max	Combination Max	-0.047301452	-0.19532009	-0.063854454	0.003550953	0.000109113	-2.24987E-05
22	Strength 1 - Max	Combination Min	-0.17923847	-0.739472716	-0.073951498	0.000937928	8.11621E-05	-8.5179E-05
22	Strength 1 - Min	Combination Max	-0.047468668	-0.19532009	-0.047292276	0.003550953	8.40122E-05	-2.24987E-05
22	Strength 1 - Min	Combination Min	-0.179405686	-0.739472716	-0.05738932	0.000937928	5.60613E-05	-8.5179E-05
22	Strength 3 - Max	Combination Max	-0.009038016	-0.01947415	-0.050926636	0.000252743	7.68798E-05	-2.2432E-06
22	Strength 3 - Max	Combination Min	-0.025673244	-0.052632838	-0.051804256	9.3515E-05	7.32769E-05	-6.06271E-06
22	Strength 3 - Min	Combination Max	-0.009205233	-0.01947415	-0.034364458	0.000252743	5.1779E-05	-2.2432E-06
22	Strength 3 - Min	Combination Min	-0.02584046	-0.052632838	-0.035242078	9.3515E-05	4.81761E-05	-6.06271E-06

22	Strength 5 - Max	Combination	Max	-0.055139813	-0.192574224	-0.060700591	0.002940504	9.97772E-05	-2.21824E-05
22	Strength 5 - Max	Combination	Min	-0.157314255	-0.612349106	-0.068613256	0.000924743	7.79643E-05	-7.05358E-05
22	Strength 5 - Min	Combination	Max	-0.055307029	-0.192574224	-0.044138413	0.002940504	7.46764E-05	-2.21824E-05
22	Strength 5 - Min	Combination	Min	-0.157481471	-0.612349106	-0.052051078	0.000924743	5.28635E-05	-7.05358E-05
22	Service 1	Combination	Max	-0.036311253	-0.13108563	-0.047094888	0.002122631	7.70602E-05	-1.50996E-05
22	Service 1	Combination	Min	-0.112005382	-0.442029988	-0.053006026	0.000629474	6.09316E-05	-5.09169E-05
22	WServ1: 45deg	Combination		-0.009683572	-0.01947415	0.000495398	9.3515E-05	-2.04888E-06	-2.2432E-06
22	WServ1: 30deg	Combination		-0.009710282	-0.01947415	0.000455709	9.3515E-05	-1.99954E-06	-2.2432E-06
22	WServ1: 15deg	Combination		-0.009714707	-0.01947415	0.000415686	9.3515E-05	-1.9593E-06	-2.2432E-06
22	WServ1: 0deg	Combination		-0.009702318	-0.01947415	0.00043541 1	9.3515E-05	-2.01594E-06	-2.2432E-06
22	WServ1: -15deg	Combination		-0.009669975	-0.01947415	0.000449147	9.3515E-05	-2.06555E-06	-2.2432E-06
22	WServ1: -30deg	Combination		-0.009620737	-0.01947415	0.000461295	9.3515E-05	-2.11598E-06	-2.2432E-06
22	WServ1 + WA	Combination		-0.00941316	-0.01947415	0.000557084	9.3515E-05	-1.96601E-06	-2.2432E-06
22	WServ1 & WA envelope	Combination	Max	-0.00941316	-0.01947415	0.000557084	9.3515E-05	-1.9593E-06	-2.2432E-06
22	WServ1 & WA envelope	Combination	Min	-0.009714707	-0.01947415	0.000415686	9.3515E-05	-2.11598E-06	-2.2432E-06
22	Strength Envelope	Combination	Max	-0.009038016	-0.01947415	-0.034364458	0.003550953	0.000109113	-2.2432E-06
22	Strength Envelope	Combination	Min	-0.179405686	-0.739472716	-0.073951498	9.3515E-05	4.81761E-05	-8.5179E-05
23	DEAD	LinStatic		1.15393E-05	0	-0.004643279	0	-8.4357E-06	0
23	R01_Z	LinStatic		1.52756E-05	0	-2.24538E-06	0	-2.13256E-08	0
23	R02_Z	LinStatic		-8.1585E-06	0	-4.78942E-06	0	1.50785E-08	0
23	R03_Z	LinStatic		-1.55096E-06	0	7.58732E-06	0	1.64367E-07	0
23	R04_Z	LinStatic		-4.07452E-06	0	5.48425E-05	0	5.64636E-07	0
23	R05_Z	LinStatic		3.61077E-06	0	8.26288E-05	0	2.55E-07	0
23	R06_Z	LinStatic		-3.58406E-06	0	2.86697E-05	0	-3.31274E-07	0
23	R07_Z	LinStatic		2.57364E-06	0	5.64769E-06	0	-2.59277E-07	0
23	R08_Z	LinStatic		-3.27347E-06	0	-1.88301E-06	0	-4.48594E-08	0
23	R09_Z	LinStatic		2.02315E-06	0	-2.35394E-06	0	1.67327E-08	0
23	R10_Z	LinStatic		2.03679E-06	0	-5.88347E-07	0	1.11325E-08	0
23	R11_Z	LinStatic		7.05414E-06	0	1.05103E-07	0	4.715E-09	0
23	R12_Z	LinStatic		-4.64553E-06	0	7.52144E-08	0	1.40369E-10	0
23	R_X	LinStatic		0.009377624	0	4.2652E-05	0	3.02661E-07	0
23	R_Y	LinStatic		0	0.032772761	0	-0.000179962	0	1.56098E-06
23	Cap_R_X	LinStatic		0.000765459	0	3.59114E-06	0	1.06462E-08	0
23	Cap_w_Y	LinStatic		4.2738E-06	0	-0.001338329	0	-3.12433E-06	0
23	Cap_w_Z	LinStatic		4.2738E-06	0	-0.001338329	0	-3.12433E-06	0
23	Col_w_X	LinStatic		2.47995E-19	0	-0.000573645	0	4.29571E-21	0
23	Col_w_Y	LinStatic		2.47995E-19	0	-0.000573645	0	4.29571E-21	0
23	Cais_w_X	LinStatic		7.37051E-20	0	-0.000167626	0	1.56398E-21	0
23	Cais_w_Y	LinStatic		7.37051E-20	0	-0.000167626	0	1.56398E-21	0
23	DC	LinStatic		-0.001095042	0	-0.029857328	0	-6.70865E-05	0
23	DW	LinStatic		-0.000184434	0	-0.00424439	0	-9.49292E-06	0
23	WS3	LinStatic		-0.02529383	-0.046209594	0.001079872	0.000253746	-3.10056E-06	-2.20098E-06

23	WL5	LinStatic	-0.006472616	-0.014420015	-5.69395E-05	7.91831E-05	-4.3368E-07	-6.8683E-07
23	PL	LinStatic	-6.09923E-05	0	-0.001403617	0	-3.1393E-06	0
23	LL-1 Lane	LinStatic	-0.000232438	0	-0.004144929	0	-1.92302E-05	0
23	LL-2 Lane	LinStatic	-0.000356697	0	-0.006494323	0	-2.86655E-05	0
23	LL-3 Lane	LinStatic	-0.000415298	0	-0.00775273	0	-3.22326E-05	0
23	LL-7 Lane	LinStatic	-0.000459335	0	-0.010063674	0	-2.67054E-05	0
23	CE-1 Lane	LinStatic	-0.020262853	-0.022285478	-0.00018925	0.000122374	-1.44671E-06	-1.06147E-06
23	CE-2 Lane	LinStatic	-0.033771597	-0.037360948	-0.000315025	0.000205156	-2.41157E-06	-1.77952E-06
23	CE-3 Lane	LinStatic	-0.043025063	-0.047520504	-0.000314705	0.000260944	-2.32878E-06	-2.26342E-06
23	CE-7 Lane	LinStatic	-0.076830089	-0.084553724	-0.000717972	0.000464301	-5.49192E-06	-4.02732E-06
23	BR-1 Lane	LinStatic	-0.006845666	-0.075705079	-3.1136E-05	0.000415711	-2.20942E-07	-3.60586E-06
23	BR-2 Lane	LinStatic	-0.011346925	-0.125847404	-5.16089E-05	0.000691052	-3.66219E-07	-5.99416E-06
23	BR-3 Lane	LinStatic	-0.014535318	-0.160586531	-6.61106E-05	0.000881811	-4.69124E-07	-7.64879E-06
23	BR-7 Lane	LinStatic	-0.025882243	-0.286433935	-0.00011772	0.001572864	-8.35343E-07	-1.36429E-05
23	WSub3: 45deg	LinStatic	-0.000727699	0	0.000354947	0	3.64806E-07	0
23	WSub3: 30deg	LinStatic	-0.000803988	0	0.00025205	0	1.76281E-07	0
23	WSub3: 15deg	LinStatic	-0.000819084	0	0.000147998	0	1.98519E-08	0
23	WSub3: 0deg	LinStatic	-0.00078111	0	0.000195708	0	2.39087E-07	0
23	WSub3: -15deg	LinStatic	-0.000689511	0	0.00022861	0	4.27825E-07	0
23	WSub3: -30deg	LinStatic	-0.000551985	0	0.000257667	0	6.17201E-07	0
23	WSub3: -45deg	LinStatic	-0.000383755	0	0.000258425	0	7.44517E-07	0
23	WA	LinStatic	-9.42126E-20	0	0.000199436	0	-1.56461E-21	0
23	WS3: 45deg	Combination	-0.026021529	-0.046209594	0.001434819	0.000253746	-2.73575E-06	-2.20098E-06
23	WS3: 30deg	Combination	-0.026097818	-0.046209594	0.001331922	0.000253746	-2.92428E-06	-2.20098E-06
23	WS3: 15deg	Combination	-0.026112914	-0.046209594	0.00122787	0.000253746	-3.08071E-06	-2.20098E-06
23	WS3: 0deg	Combination	-0.02607494	-0.046209594	0.00127558	0.000253746	-2.86147E-06	-2.20098E-06
23	WS3: -15deg	Combination	-0.025983341	-0.046209594	0.001308482	0.000253746	-2.67273E-06	-2.20098E-06
23	WS3: -30deg	Combination	-0.025845815	-0.046209594	0.001337539	0.000253746	-2.48336E-06	-2.20098E-06
23	WServ1: -45deg	Combination	-0.009562952	-0.01709755	0.000494889	9.38859E-05	-9.18842E-07	-8.14362E-07
23	WS5: 45deg	Combination	-0.019067036	-0.036785458	0.000637513	0.000201996	-1.75778E-06	-1.7521E-06
23	WS5: 30deg	Combination	-0.01910396	-0.036785458	0.00058711	0.000201996	-1.84903E-06	-1.7521E-06
23	WS5: 15deg	Combination	-0.019111267	-0.036785458	0.00053735	0.000201996	-1.92474E-06	-1.7521E-06
23	WS5: 0deg	Combination	-0.019092887	-0.036785458	0.000560441	0.000201996	-1.81863E-06	-1.7521E-06
23	WS5: -15deg	Combination	-0.019048553	-0.036785458	0.000576366	0.000201996	-1.72728E-06	-1.7521E-06
23	WS5: -30deg	Combination	-0.018981991	-0.036785458	0.000590429	0.000201996	-1.63563E-06	-1.7521E-06
23	WS5: -45deg	Combination	-0.018900567	-0.036785458	0.000590796	0.000201996	-1.574E-06	-1.7521E-06
23	LL - 1 Lane	Combination	-0.027401949	-0.097990557	-0.005768932	0.000538085	-2.40372E-05	-4.66732E-06
23	WS5 + WA	Combination	-0.01871483	-0.036785458	0.000665154	0.000201996	-1.93435E-06	-1.7521E-06
23	LL - 2 Lane	Combination	-0.045536212	-0.163208352	-0.008264574	0.000896208	-3.45826E-05	-7.77367E-06
23	LL - 3 Lane	Combination	-0.058036671	-0.208107035	-0.009537162	0.001142756	-3.81698E-05	-9.91221E-06
23	LL - 7 Lane	Combination	-0.103232659	-0.370987659	-0.012302982	0.002037164	-3.61719E-05	-1.76703E-05
23	LL Envelope	Combination Max	-0.027401949	-0.097990557	-0.005768932	0.002037164	-2.40372E-05	-4.66732E-06

23	LL Envelope	Combination	Min	-0.103232659	-0.370987659	-0.012302982	0.000538085	-3.81698E-05	-1.76703E-05
23	WS3 & WA envelope	Combination	Max	-0.009562952	-0.01709755	0.001434819	0.000253746	-9.18842E-07	-8.14362E-07
23	WS3 & WA envelope	Combination	Min	-0.026112914	-0.046209594	0.000494889	9.38859E-05	-3.10056E-06	-2.20098E-06
23	WS3 + WA	Combination		-0.02529383	-0.046209594	0.001279307	0.000253746	-3.10056E-06	-2.20098E-06
23	WS5 & WA envelope	Combination	Max	-0.01871483	-0.036785458	0.000665154	0.000201996	-1.574E-06	-1.7521E-06
23	WS5 & WA envelope	Combination	Min	-0.019111267	-0.036785458	0.00053735	0.000201996	-1.93435E-06	-1.7521E-06
23	Strength 1 - Max	Combination	Max	-0.049584441	-0.171483474	-0.059388538	0.003565038	-0.000150707	-8.16782E-06
23	Strength 1 - Max	Combination	Min	-0.182288183	-0.649228403	-0.070823126	0.000941649	-0.000175439	-3.0923E-05
23	Strength 1 - Min	Combination	Max	-0.049048446	-0.171483474	-0.043705595	0.003565038	-0.000116205	-8.16782E-06
23	Strength 1 - Min	Combination	Min	-0.181752188	-0.649228403	-0.055140183	0.000941649	-0.000140937	-3.0923E-05
23	Strength 3 - Max	Combination	Max	-0.011193981	-0.01709755	-0.048057524	0.000253746	-0.000109561	-8.14362E-07
23	Strength 3 - Max	Combination	Min	-0.027743943	-0.046209594	-0.048997454	9.38859E-05	-0.000111743	-2.20098E-06
23	Strength 3 - Min	Combination	Max	-0.010657986	-0.01709755	-0.032374581	0.000253746	-7.50592E-05	-8.14362E-07
23	Strength 3 - Min	Combination	Min	-0.027207948	-0.046209594	-0.03331451	9.38859E-05	-7.72409E-05	-2.20098E-06
23	Strength 5 - Max	Combination	Max	-0.057338491	-0.16907271	-0.056615247	0.002952168	-0.000142666	-8.05299E-06
23	Strength 5 - Max	Combination	Min	-0.160106386	-0.537618798	-0.065564019	0.00092841	-0.000162106	-2.5607E-05
23	Strength 5 - Min	Combination	Max	-0.056802496	-0.16907271	-0.040932303	0.002952168	-0.000108165	-8.05299E-06
23	Strength 5 - Min	Combination	Min	-0.159570391	-0.537618798	-0.049881076	0.00092841	-0.000127604	-2.5607E-05
23	Service 1	Combination	Max	-0.038028603	-0.115088106	-0.04391494	0.00213105	-0.000109971	-5.48169E-06
23	Service 1	Combination	Min	-0.114162374	-0.388085209	-0.050593667	0.000631971	-0.000124332	-1.84846E-05
23	WServ1: 45deg	Combination		-0.009627966	-0.01709755	0.000530883	9.38859E-05	-1.01223E-06	-8.14362E-07
23	WServ1: 30deg	Combination		-0.009656193	-0.01709755	0.000492811	9.38859E-05	-1.08198E-06	-8.14362E-07
23	WServ1: 15deg	Combination		-0.009661778	-0.01709755	0.000454312	9.38859E-05	-1.13986E-06	-8.14362E-07
23	WServ1: 0deg	Combination		-0.009647728	-0.01709755	0.000471965	9.38859E-05	-1.05874E-06	-8.14362E-07
23	WServ1: -15deg	Combination		-0.009613836	-0.01709755	0.000484138	9.38859E-05	-9.88912E-07	-8.14362E-07
23	WServ1: -30deg	Combination		-0.009562952	-0.01709755	0.000494889	9.38859E-05	-9.18842E-07	-8.14362E-07
23	WServ1 + WA	Combination		-0.009358717	-0.01709755	0.000598988	9.38859E-05	-1.14721E-06	-8.14362E-07
23	WServ1 & WA envelope	Combination	Max	-0.009358717	-0.01709755	0.000598988	9.38859E-05	-9.18842E-07	-8.14362E-07
23	WServ1 & WA envelope	Combination	Min	-0.009661778	-0.01709755	0.000454312	9.38859E-05	-1.14721E-06	-8.14362E-07
23	Strength Envelope	Combination	Max	-0.010657986	-0.01709755	-0.032374581	0.003565038	-7.50592E-05	-8.14362E-07
23	Strength Envelope	Combination	Min	-0.182288183	-0.649228403	-0.070823126	9.38859E-05	-0.000175439	-3.0923E-05
24	DEAD	LinStatic		-0.000216225	0	-0.004643279	0	-8.4357E-06	0
24	R01_Z	LinStatic		1.46998E-05	0	-2.24538E-06	0	-2.13256E-08	0
24	R02_Z	LinStatic		-7.75138E-06	0	-4.78942E-06	0	1.50785E-08	0
24	R03_Z	LinStatic		2.88694E-06	0	7.58732E-06	0	1.64367E-07	0
24	R04_Z	LinStatic		1.11707E-05	0	5.48425E-05	0	5.64636E-07	0
24	R05_Z	LinStatic		1.04958E-05	0	8.26288E-05	0	2.55E-07	0
24	R06_Z	LinStatic		-1.25285E-05	0	2.86697E-05	0	-3.31274E-07	0
24	R07_Z	LinStatic		-4.42683E-06	0	5.64769E-06	0	-2.59277E-07	0
24	R08_Z	LinStatic		-4.48467E-06	0	-1.88301E-06	0	-4.48594E-08	0
24	R09_Z	LinStatic		2.47493E-06	0	-2.35394E-06	0	1.67327E-08	0
24	R10_Z	LinStatic		2.33737E-06	0	-5.88347E-07	0	1.11325E-08	0

24	R11_Z	LinStatic	7.18144E-06	0	1.05103E-07	0	4.715E-09	0
24	R12_Z	LinStatic	-4.64174E-06	0	7.52144E-08	0	1.40369E-10	0
24	R_X	LinStatic	0.009385796	0	4.2652E-05	0	3.02661E-07	0
24	R_Y	LinStatic	0	0.037631722	0	-0.000179962	0	1.56098E-06
24	Cap_R_X	LinStatic	0.000765746	0	3.59114E-06	0	1.06462E-08	0
24	Cap_w_Y	LinStatic	-8.00832E-05	0	-0.001338329	0	-3.12433E-06	0
24	Cap_w_Z	LinStatic	-8.00832E-05	0	-0.001338329	0	-3.12433E-06	0
24	Col_w_X	LinStatic	3.63979E-19	0	-0.000573645	0	4.29571E-21	0
24	Col_w_Y	LinStatic	3.63979E-19	0	-0.000573645	0	4.29571E-21	0
24	Cais_w_X	LinStatic	1.15932E-19	0	-0.000167626	0	1.56398E-21	0
24	Cais_w_Y	LinStatic	1.15932E-19	0	-0.000167626	0	1.56398E-21	0
24	DC	LinStatic	-0.002906377	0	-0.029857328	0	-6.70865E-05	0
24	DW	LinStatic	-0.000440743	0	-0.00424439	0	-9.49292E-06	0
24	WS3	LinStatic	-0.025377545	-0.053060728	0.001079872	0.000253746	-3.10056E-06	-2.20098E-06
24	WL5	LinStatic	-0.006484326	-0.016557958	-5.69395E-05	7.91831E-05	-4.3368E-07	-6.8683E-07
24	PL	LinStatic	-0.000145753	0	-0.001403617	0	-3.1393E-06	0
24	LL-1 Lane	LinStatic	-0.000751654	0	-0.004144929	0	-1.92302E-05	0
24	LL-2 Lane	LinStatic	-0.001130666	0	-0.006494323	0	-2.86655E-05	0
24	LL-3 Lane	LinStatic	-0.001285577	0	-0.00775273	0	-3.22326E-05	0
24	LL-7 Lane	LinStatic	-0.00118038	0	-0.010063674	0	-2.67054E-05	0
24	CE-1 Lane	LinStatic	-0.020301914	-0.025589571	-0.00018925	0.000122374	-1.44671E-06	-1.06147E-06
24	CE-2 Lane	LinStatic	-0.033836709	-0.042900163	-0.000315025	0.000205156	-2.41157E-06	-1.77952E-06
24	CE-3 Lane	LinStatic	-0.043087941	-0.054565997	-0.000314705	0.000260944	-2.32878E-06	-2.26342E-06
24	CE-7 Lane	LinStatic	-0.07697837	-0.097089843	-0.000717972	0.000464301	-5.49192E-06	-4.02732E-06
24	BR-1 Lane	LinStatic	-0.006851631	-0.086929278	-3.1136E-05	0.000415711	-2.20942E-07	-3.60586E-06
24	BR-2 Lane	LinStatic	-0.011356813	-0.144505813	-5.16089E-05	0.000691052	-3.66219E-07	-5.99416E-06
24	BR-3 Lane	LinStatic	-0.014547984	-0.184395439	-6.61106E-05	0.000881811	-4.69124E-07	-7.64879E-06
24	BR-7 Lane	LinStatic	-0.025904798	-0.328901252	-0.00011772	0.001572864	-8.35343E-07	-1.36429E-05
24	WSub3: 45deg	LinStatic	-0.000717849	0	0.000354947	0	3.64806E-07	0
24	WSub3: 30deg	LinStatic	-0.000799229	0	0.00025205	0	1.76281E-07	0
24	WSub3: 15deg	LinStatic	-0.000818548	0	0.000147998	0	1.98519E-08	0
24	WSub3: 0deg	LinStatic	-0.000774655	0	0.000195708	0	2.39087E-07	0
24	WSub3: -15deg	LinStatic	-0.00067796	0	0.00022861	0	4.27825E-07	0
24	WSub3: -30deg	LinStatic	-0.000535321	0	0.000257667	0	6.17201E-07	0
24	WSub3: -45deg	LinStatic	-0.000363653	0	0.000258425	0	7.44517E-07	0
24	WA	LinStatic	-1.36457E-19	0	0.000199436	0	-1.56461E-21	0
24	WS3: 45deg	Combination	-0.026095394	-0.053060728	0.001434819	0.000253746	-2.73575E-06	-2.20098E-06
24	WS3: 30deg	Combination	-0.026176774	-0.053060728	0.001331922	0.000253746	-2.92428E-06	-2.20098E-06
24	WS3: 15deg	Combination	-0.026196093	-0.053060728	0.00122787	0.000253746	-3.08071E-06	-2.20098E-06
24	WS3: 0deg	Combination	-0.0261522	-0.053060728	0.00127558	0.000253746	-2.86147E-06	-2.20098E-06
24	WS3: -15deg	Combination	-0.026055505	-0.053060728	0.001308482	0.000253746	-2.67273E-06	-2.20098E-06
24	WS3: -30deg	Combination	-0.025912866	-0.053060728	0.001337539	0.000253746	-2.48336E-06	-2.20098E-06

24	WServ1: -45deg	Combination	-0.00958776	-0.019632469	0.000494889	9.38859E-05	-9.18842E-07	-8.14362E-07
24	WS5: 45deg	Combination	-0.019114496	-0.04223935	0.000637513	0.000201996	-1.75778E-06	-1.7521E-06
24	WS5: 30deg	Combination	-0.019153884	-0.04223935	0.00058711	0.000201996	-1.84903E-06	-1.7521E-06
24	WS5: 15deg	Combination	-0.019163235	-0.04223935	0.00053735	0.000201996	-1.92474E-06	-1.7521E-06
24	WS5: 0deg	Combination	-0.01914199	-0.04223935	0.000560441	0.000201996	-1.81863E-06	-1.7521E-06
24	WS5: -15deg	Combination	-0.01909519	-0.04223935	0.000576366	0.000201996	-1.72728E-06	-1.7521E-06
24	WS5: -30deg	Combination	-0.019026153	-0.04223935	0.000590429	0.000201996	-1.63563E-06	-1.7521E-06
24	WS5: -45deg	Combination	-0.018943066	-0.04223935	0.000590796	0.000201996	-1.574E-06	-1.7521E-06
24	LL - 1 Lane	Combination	-0.028050953	-0.112518849	-0.005768932	0.000538085	-2.40372E-05	-4.66732E-06
24	WS5 + WA	Combination	-0.018767057	-0.04223935	0.000665154	0.000201996	-1.93435E-06	-1.7521E-06
24	LL - 2 Lane	Combination	-0.046469942	-0.187405976	-0.008264574	0.000896208	-3.45826E-05	-7.77367E-06
24	LL - 3 Lane	Combination	-0.059067255	-0.238961436	-0.009537162	0.001142756	-3.81698E-05	-9.91221E-06
24	LL - 7 Lane	Combination	-0.104209301	-0.425991095	-0.012302982	0.002037164	-3.61719E-05	-1.76703E-05
24	LL Envelope	Combination Max	-0.028050953	-0.112518849	-0.005768932	0.002037164	-2.40372E-05	-4.66732E-06
24	LL Envelope	Combination Min	-0.104209301	-0.425991095	-0.012302982	0.000538085	-3.81698E-05	-1.76703E-05
24	WS3 & WA envelope	Combination Max	-0.00958776	-0.019632469	0.001434819	0.000253746	-9.18842E-07	-8.14362E-07
24	WS3 & WA envelope	Combination Min	-0.026196093	-0.053060728	0.000494889	9.38859E-05	-3.10056E-06	-2.20098E-06
24	WS3 + WA	Combination	-0.025377545	-0.053060728	0.001279307	0.000253746	-3.10056E-06	-2.20098E-06
24	WS5 & WA envelope	Combination Max	-0.018767057	-0.04223935	0.000665154	0.000201996	-1.574E-06	-1.7521E-06
24	WS5 & WA envelope	Combination Min	-0.019163235	-0.04223935	0.00053735	0.000201996	-1.93435E-06	-1.7521E-06
24	Strength 1 - Max	Combination Max	-0.053653533	-0.196907986	-0.059388538	0.003565038	-0.000150707	-8.16782E-06
24	Strength 1 - Max	Combination Min	-0.186930643	-0.745484416	-0.070823126	0.000941649	-0.000175439	-3.0923E-05
24	Strength 1 - Min	Combination Max	-0.052185991	-0.196907986	-0.043705595	0.003565038	-0.000116205	-8.16782E-06
24	Strength 1 - Min	Combination Min	-0.185463101	-0.745484416	-0.055140183	0.000941649	-0.000140937	-3.0923E-05
24	Strength 3 - Max	Combination Max	-0.014152127	-0.019632469	-0.048057524	0.000253746	-0.000109561	-8.14362E-07
24	Strength 3 - Max	Combination Min	-0.030760459	-0.053060728	-0.048997454	9.38859E-05	-0.000111743	-2.20098E-06
24	Strength 3 - Min	Combination Max	-0.012684585	-0.019632469	-0.032374581	0.000253746	-7.50592E-05	-8.14362E-07
24	Strength 3 - Min	Combination Min	-0.029292917	-0.053060728	-0.03331451	9.38859E-05	-7.72409E-05	-2.20098E-06
24	Strength 5 - Max	Combination Max	-0.06120021	-0.194139797	-0.056615247	0.002952168	-0.000142666	-8.05299E-06
24	Strength 5 - Max	Combination Min	-0.164410157	-0.617327328	-0.065564019	0.00092841	-0.000162106	-2.5607E-05
24	Strength 5 - Min	Combination Max	-0.059732668	-0.194139797	-0.040932303	0.002952168	-0.000108165	-8.05299E-06
24	Strength 5 - Min	Combination Min	-0.162942615	-0.617327328	-0.049881076	0.00092841	-0.000127604	-2.5607E-05
24	Service 1	Combination Max	-0.041003989	-0.132151319	-0.04391494	0.00213105	-0.000109971	-5.48169E-06
24	Service 1	Combination Min	-0.117465199	-0.445623564	-0.050593667	0.000631971	-0.000124332	-1.84846E-05
24	WServ1: 45deg	Combination	-0.009655296	-0.019632469	0.000530883	9.38859E-05	-1.01223E-06	-8.14362E-07
24	WServ1: 30deg	Combination	-0.009685406	-0.019632469	0.00049281	9.38859E-05	-1.08198E-06	-8.14362E-07
24	WServ1: 15deg	Combination	-0.009692554	-0.019632469	0.000454312	9.38859E-05	-1.13986E-06	-8.14362E-07
24	WServ1: 0deg	Combination	-0.009676314	-0.019632469	0.000471965	9.38859E-05	-1.05874E-06	-8.14362E-07
24	WServ1: -15deg	Combination	-0.009640537	-0.019632469	0.000484138	9.38859E-05	-9.88912E-07	-8.14362E-07
24	WServ1: -30deg	Combination	-0.00958776	-0.019632469	0.000494889	9.38859E-05	-9.18842E-07	-8.14362E-07
24	WServ1 + WA	Combination	-0.009389692	-0.019632469	0.000598988	9.38859E-05	-1.14721E-06	-8.14362E-07
24	WServ1 & WA envelope	Combination Max	-0.009389692	-0.019632469	0.000598988	9.38859E-05	-9.18842E-07	-8.14362E-07

24	WServ1 & WA envelope	Combination	Min	-0.009692554	-0.019632469	0.000454312	9.38859E-05	-1.14721E-06	-8.14362E-07
24	Strength Envelope	Combination	Max	-0.012684585	-0.019632469	-0.032374581	0.003565038	-7.50592E-05	-8.14362E-07
24	Strength Envelope	Combination	Min	-0.186930643	-0.745484416	-0.070823126	9.38859E-05	-0.000175439	-3.0923E-05
25	DEAD	LinStatic		4.39857E-06	0	-0.004550941	0	7.82157E-06	0
25	R01_Z	LinStatic		1.51538E-05	0	-4.02833E-07	0	-1.04108E-08	0
25	R02_Z	LinStatic		-8.09969E-06	0	-2.58824E-06	0	-1.81358E-08	0
25	R03_Z	LinStatic		-1.52884E-06	0	-1.95835E-06	0	4.34759E-08	0
25	R04_Z	LinStatic		-3.97831E-06	0	6.15779E-06	0	2.64658E-07	0
25	R05_Z	LinStatic		3.67206E-06	0	2.86697E-05	0	3.51415E-07	0
25	R06_Z	LinStatic		-3.52504E-06	0	7.9334E-05	0	-2.55218E-07	0
25	R07_Z	LinStatic		2.64696E-06	0	5.42085E-05	0	-5.85854E-07	0
25	R08_Z	LinStatic		-3.2818E-06	0	8.05341E-06	0	-1.6662E-07	0
25	R09_Z	LinStatic		2.03021E-06	0	-4.43822E-06	0	-8.10954E-09	0
25	R10_Z	LinStatic		2.04546E-06	0	-2.4975E-06	0	1.69774E-08	0
25	R11_Z	LinStatic		7.09211E-06	0	-9.14885E-07	0	1.46419E-08	0
25	R12_Z	LinStatic		-4.67124E-06	0	2.4581E-08	0	2.62637E-09	0
25	R_X	LinStatic		0.009376891	0	-4.15966E-05	0	5.29511E-07	0
25	R_Y	LinStatic		0	0.032872005	0	-0.00018004	0	5.21652E-07
25	Cap_R_X	LinStatic		0.000769691	0	-3.28289E-06	0	2.74093E-08	0
25	Cap_w_Y	LinStatic		1.6291E-06	0	-0.001304129	0	2.89688E-06	0
25	Cap_w_Z	LinStatic		1.6291E-06	0	-0.001304129	0	2.89688E-06	0
25	Col_w_X	LinStatic		2.53242E-19	0	-0.000573645	0	-6.1124E-22	0
25	Col_w_Y	LinStatic		2.53242E-19	0	-0.000573645	0	-6.1124E-22	0
25	Cais_w_X	LinStatic		7.51565E-20	0	-0.000167626	0	-1.61567E-22	0
25	Cais_w_Y	LinStatic		7.51565E-20	0	-0.000167626	0	-1.61567E-22	0
25	DC	LinStatic		-0.001145602	0	-0.029103729	0	6.21816E-05	0
25	DW	LinStatic		-0.000191235	0	-0.004141928	0	8.87252E-06	0
25	WS3	LinStatic		-0.025288392	-0.046349527	0.001905127	0.000253857	-1.02175E-05	-7.35529E-07
25	WL5	LinStatic		-0.006472103	-0.014463682	2.25034E-05	7.92177E-05	-5.15146E-07	-2.29527E-07
25	PL	LinStatic		-6.32414E-05	0	-0.001369733	0	2.93414E-06	0
25	LL-1 Lane	LinStatic		-0.000235983	0	-0.002785907	0	-3.97298E-06	0
25	LL-2 Lane	LinStatic		-0.000362707	0	-0.004549987	0	-4.36882E-06	0
25	LL-3 Lane	LinStatic		-0.000423089	0	-0.005682597	0	-2.69842E-06	0
25	LL-7 Lane	LinStatic		-0.000474156	0	-0.00929006	0	1.57094E-05	0
25	CE-1 Lane	LinStatic		-0.020261244	-0.022352963	6.78963E-05	0.000122427	-1.6733E-06	-3.54723E-07
25	CE-2 Lane	LinStatic		-0.033768915	-0.037474086	0.000113452	0.000205246	-2.78445E-06	-5.94683E-07
25	CE-3 Lane	LinStatic		-0.043021294	-0.047664407	0.000159223	0.000261058	-3.16521E-06	-7.56396E-07
25	CE-7 Lane	LinStatic		-0.07682399	-0.084809773	0.000257615	0.000464504	-6.34392E-06	-1.34586E-06
25	BR-1 Lane	LinStatic		-0.00684513	-0.075934331	3.03656E-05	0.000415893	-3.86543E-07	-1.20502E-06
25	BR-2 Lane	LinStatic		-0.011346038	-0.126228499	5.03319E-05	0.000691355	-6.40709E-07	-2.00314E-06
25	BR-3 Lane	LinStatic		-0.01453418	-0.161072824	6.44748E-05	0.000882197	-8.20743E-07	-2.5561E-06
25	BR-7 Lane	LinStatic		-0.025880218	-0.287301323	0.000114807	0.001573552	-1.46145E-06	-4.55924E-06

25	WSub3: 45deg	LinStatic	-0.000731402	0	0.000357374	0	-3.73664E-07	0
25	WSub3: 30deg	LinStatic	-0.000808273	0	0.000257216	0	-2.02592E-07	0
25	WSub3: 15deg	LinStatic	-0.000823586	0	0.000155012	0	-5.82967E-08	0
25	WSub3: 0deg	LinStatic	-0.000785215	0	0.000199984	0	-2.59708E-07	0
25	WSub3: -15deg	LinStatic	-0.00069295	0	0.000230009	0	-4.30231E-07	0
25	WSub3: -30deg	LinStatic	-0.000554503	0	0.000255777	0	-5.9911E-07	0
25	WSub3: -45deg	LinStatic	-0.000385236	0	0.000253655	0	-7.08955E-07	0
25	WA	LinStatic	-9.60863E-20	0	0.000199436	0	3.34784E-22	0
25	WS3: 45deg	Combination	-0.026019794	-0.046349527	0.0022625	0.000253857	-1.05911E-05	-7.35529E-07
25	WS3: 30deg	Combination	-0.026096665	-0.046349527	0.002162343	0.000253857	-1.04201E-05	-7.35529E-07
25	WS3: 15deg	Combination	-0.026111977	-0.046349527	0.002060138	0.000253857	-1.02758E-05	-7.35529E-07
25	WS3: 0deg	Combination	-0.026073607	-0.046349527	0.002105111	0.000253857	-1.04772E-05	-7.35529E-07
25	WS3: -15deg	Combination	-0.025981342	-0.046349527	0.002135136	0.000253857	-1.06477E-05	-7.35529E-07
25	WS3: -30deg	Combination	-0.025842895	-0.046349527	0.002160903	0.000253857	-1.08166E-05	-7.35529E-07
25	WServ1: -45deg	Combination	-0.009561871	-0.017149325	0.000799534	9.3927E-05	-4.00214E-06	-2.72146E-07
25	WS5: 45deg	Combination	-0.019065683	-0.036896853	0.001117553	0.000202084	-5.64126E-06	-5.85523E-07
25	WS5: 30deg	Combination	-0.019102889	-0.036896853	0.001069077	0.000202084	-5.55846E-06	-5.85523E-07
25	WS5: 15deg	Combination	-0.0191103	-0.036896853	0.00101961	0.000202084	-5.48862E-06	-5.85523E-07
25	WS5: 0deg	Combination	-0.019091729	-0.036896853	0.001041377	0.000202084	-5.5861E-06	-5.85523E-07
25	WS5: -15deg	Combination	-0.019047073	-0.036896853	0.001055909	0.000202084	-5.66864E-06	-5.85523E-07
25	WS5: -30deg	Combination	-0.018980065	-0.036896853	0.001068381	0.000202084	-5.75038E-06	-5.85523E-07
25	WS5: -45deg	Combination	-0.018898139	-0.036896853	0.001067353	0.000202084	-5.80354E-06	-5.85523E-07
25	LL - 1 Lane	Combination	-0.027405599	-0.098287295	-0.004057378	0.00053832	-3.09869E-06	-1.55974E-06
25	WS5 + WA	Combination	-0.018711685	-0.036896853	0.00114402	0.000202084	-5.46041E-06	-5.85523E-07
25	LL - 2 Lane	Combination	-0.045540901	-0.163702584	-0.005755936	0.000896601	-4.85985E-06	-2.59783E-06
25	LL - 3 Lane	Combination	-0.058041805	-0.208737231	-0.006828633	0.001143256	-3.75024E-06	-3.31249E-06
25	LL - 7 Lane	Combination	-0.103241606	-0.372111096	-0.010287371	0.002038056	1.08382E-05	-5.9051E-06
25	LL Envelope	Combination Max	-0.027405599	-0.098287295	-0.004057378	0.002038056	1.08382E-05	-1.55974E-06
25	LL Envelope	Combination Min	-0.103241606	-0.372111096	-0.010287371	0.00053832	-4.85985E-06	-5.9051E-06
25	WS3 & WA envelope	Combination Max	-0.009561871	-0.017149325	0.0022625	0.000253857	-4.00214E-06	-2.72146E-07
25	WS3 & WA envelope	Combination Min	-0.026111977	-0.046349527	0.000799534	9.3927E-05	-1.08166E-05	-7.35529E-07
25	WS3 + WA	Combination	-0.025288392	-0.046349527	0.002104562	0.000253857	-1.02175E-05	-7.35529E-07
25	WS5 & WA envelope	Combination Max	-0.018711685	-0.036896853	0.00114402	0.000202084	-5.46041E-06	-5.85523E-07
25	WS5 & WA envelope	Combination Min	-0.0191103	-0.036896853	0.00101961	0.000202084	-5.80354E-06	-5.85523E-07
25	Strength 1 - Max	Combination Max	-0.049673156	-0.172002766	-0.055182206	0.003566598	0.00011978	-2.72954E-06
25	Strength 1 - Max	Combination Min	-0.182386167	-0.651194417	-0.066084694	0.000942061	9.2308E-05	-1.03339E-05
25	Strength 1 - Min	Combination Max	-0.049111184	-0.172002766	-0.039882432	0.003566598	8.77368E-05	-2.72954E-06
25	Strength 1 - Min	Combination Min	-0.181824196	-0.651194417	-0.050784921	0.000942061	6.02652E-05	-1.03339E-05
25	Strength 3 - Max	Combination Max	-0.011275228	-0.017149325	-0.04601873	0.000253857	9.68106E-05	-2.72146E-07
25	Strength 3 - Max	Combination Min	-0.027825334	-0.046349527	-0.047481696	9.3927E-05	8.99961E-05	-7.35529E-07
25	Strength 3 - Min	Combination Max	-0.010713257	-0.017149325	-0.030718957	0.000253857	6.47678E-05	-2.72146E-07
25	Strength 3 - Min	Combination Min	-0.027263363	-0.046349527	-0.032181922	9.3927E-05	5.79534E-05	-7.35529E-07

25	Strength 5 - Max	Combination	Max	-0.057422601	-0.169584701	-0.05261467	0.00295346	0.000109984	-2.69117E-06
25	Strength 5 - Max	Combination	Min	-0.160199825	-0.539246832	-0.061149571	0.000928817	8.84484E-05	-8.55741E-06
25	Strength 5 - Min	Combination	Max	-0.05686063	-0.169584701	-0.037314897	0.00295346	7.79411E-05	-2.69117E-06
25	Strength 5 - Min	Combination	Min	-0.159637854	-0.539246832	-0.045849798	0.000928817	5.64056E-05	-8.55741E-06
25	Service 1	Combination	Max	-0.038094743	-0.11543662	-0.040949644	0.002131983	8.59334E-05	-1.83189E-06
25	Service 1	Combination	Min	-0.114235476	-0.389260421	-0.047321719	0.000632247	7.00137E-05	-6.17725E-06
25	WServ1: 45deg	Combination		-0.009627324	-0.017149325	0.000837125	9.3927E-05	-3.91872E-06	-2.72146E-07
25	WServ1: 30deg	Combination		-0.009655766	-0.017149325	0.000800067	9.3927E-05	-3.85543E-06	-2.72146E-07
25	WServ1: 15deg	Combination		-0.009661432	-0.017149325	0.000762251	9.3927E-05	-3.80204E-06	-2.72146E-07
25	WServ1: 0deg	Combination		-0.009647234	-0.017149325	0.000778891	9.3927E-05	-3.87656E-06	-2.72146E-07
25	WServ1: -15deg	Combination		-0.009613096	-0.017149325	0.00079	9.3927E-05	-3.93965E-06	-2.72146E-07
25	WServ1: -30deg	Combination		-0.009561871	-0.017149325	0.000799534	9.3927E-05	-4.00214E-06	-2.72146E-07
25	WServ1 + WA	Combination		-0.009356705	-0.017149325	0.000904332	9.3927E-05	-3.78047E-06	-2.72146E-07
25	WServ1 & WA envelope	Combination	Max	-0.009356705	-0.017149325	0.000904332	9.3927E-05	-3.78047E-06	-2.72146E-07
25	WServ1 & WA envelope	Combination	Min	-0.009661432	-0.017149325	0.000762251	9.3927E-05	-4.00214E-06	-2.72146E-07
25	Strength Envelope	Combination	Max	-0.010713257	-0.017149325	-0.030718957	0.003566598	0.00011978	-2.72146E-07
25	Strength Envelope	Combination	Min	-0.182386167	-0.651194417	-0.066084694	9.3927E-05	5.64056E-05	-1.03339E-05
26	DEAD	LinStatic		0.000215581	0	-0.004550941	0	7.82157E-06	0
26	R01_Z	LinStatic		1.48727E-05	0	-4.02833E-07	0	-1.04108E-08	0
26	R02_Z	LinStatic		-8.58935E-06	0	-2.58824E-06	0	-1.81358E-08	0
26	R03_Z	LinStatic		-3.5499E-07	0	-1.95835E-06	0	4.34759E-08	0
26	R04_Z	LinStatic		3.16746E-06	0	6.15779E-06	0	2.64658E-07	0
26	R05_Z	LinStatic		1.31603E-05	0	2.86697E-05	0	3.51415E-07	0
26	R06_Z	LinStatic		-1.04159E-05	0	7.9334E-05	0	-2.55218E-07	0
26	R07_Z	LinStatic		-1.31711E-05	0	5.42085E-05	0	-5.85854E-07	0
26	R08_Z	LinStatic		-7.78055E-06	0	8.05341E-06	0	-1.6662E-07	0
26	R09_Z	LinStatic		1.81126E-06	0	-4.43822E-06	0	-8.10954E-09	0
26	R10_Z	LinStatic		2.50385E-06	0	-2.4975E-06	0	1.69774E-08	0
26	R11_Z	LinStatic		7.48745E-06	0	-9.14885E-07	0	1.46419E-08	0
26	R12_Z	LinStatic		-4.60033E-06	0	2.4581E-08	0	2.62637E-09	0
26	R_X	LinStatic		0.009391187	0	-4.15966E-05	0	5.29511E-07	0
26	R_Y	LinStatic		0	0.037733093	0	-0.00018004	0	5.21652E-07
26	Cap_R_X	LinStatic		0.000770431	0	-3.28289E-06	0	2.74093E-08	0
26	Cap_w_Y	LinStatic		7.98448E-05	0	-0.001304129	0	2.89688E-06	0
26	Cap_w_Z	LinStatic		7.98448E-05	0	-0.001304129	0	2.89688E-06	0
26	Col_w_X	LinStatic		2.36738E-19	0	-0.000573645	0	-6.1124E-22	0
26	Col_w_Y	LinStatic		2.36738E-19	0	-0.000573645	0	-6.1124E-22	0
26	Cais_w_X	LinStatic		7.07942E-20	0	-0.000167626	0	-1.61567E-22	0
26	Cais_w_Y	LinStatic		7.07942E-20	0	-0.000167626	0	-1.61567E-22	0
26	DC	LinStatic		0.000533301	0	-0.029103729	0	6.21816E-05	0
26	DW	LinStatic		4.83225E-05	0	-0.004141928	0	8.87252E-06	0
26	WS3	LinStatic		-0.025564264	-0.053203661	0.001905127	0.000253857	-1.02175E-05	-7.35529E-07

26	WL5	LinStatic	-0.006486012	-0.016602561	2.25034E-05	7.92177E-05	-5.15146E-07	-2.29527E-07
26	PL	LinStatic	1.59802E-05	0	-0.001369733	0	2.93414E-06	0
26	LL-1 Lane	LinStatic	-0.000343254	0	-0.002785907	0	-3.97298E-06	0
26	LL-2 Lane	LinStatic	-0.000480665	0	-0.004549987	0	-4.36882E-06	0
26	LL-3 Lane	LinStatic	-0.000495946	0	-0.005682597	0	-2.69842E-06	0
26	LL-7 Lane	LinStatic	-5.00011E-05	0	-0.00929006	0	1.57094E-05	0
26	CE-1 Lane	LinStatic	-0.020306424	-0.025658503	6.78963E-05	0.000122427	-1.6733E-06	-3.54723E-07
26	CE-2 Lane	LinStatic	-0.033844095	-0.043015726	0.000113452	0.000205246	-2.78445E-06	-5.94683E-07
26	CE-3 Lane	LinStatic	-0.043106755	-0.054712985	0.000159223	0.000261058	-3.16521E-06	-7.56396E-07
26	CE-7 Lane	LinStatic	-0.076995276	-0.097351379	0.000257615	0.000464504	-6.34392E-06	-1.34586E-06
26	BR-1 Lane	LinStatic	-0.006855567	-0.087163444	3.03656E-05	0.000415893	-3.86543E-07	-1.20502E-06
26	BR-2 Lane	LinStatic	-0.011363337	-0.144895076	5.03319E-05	0.000691355	-6.40709E-07	-2.00314E-06
26	BR-3 Lane	LinStatic	-0.014556341	-0.184892155	6.44748E-05	0.000882197	-8.20743E-07	-2.5561E-06
26	BR-7 Lane	LinStatic	-0.025919677	-0.329787231	0.000114807	0.001573552	-1.46145E-06	-4.55924E-06
26	WSub3: 45deg	LinStatic	-0.000741491	0	0.000357374	0	-3.73664E-07	0
26	WSub3: 30deg	LinStatic	-0.000813743	0	0.000257216	0	-2.02592E-07	0
26	WSub3: 15deg	LinStatic	-0.00082516	0	0.000155012	0	-5.82967E-08	0
26	WSub3: 0deg	LinStatic	-0.000792227	0	0.000199984	0	-2.59708E-07	0
26	WSub3: -15deg	LinStatic	-0.000704566	0	0.000230009	0	-4.30231E-07	0
26	WSub3: -30deg	LinStatic	-0.000570679	0	0.000255777	0	-5.9911E-07	0
26	WSub3: -45deg	LinStatic	-0.000404378	0	0.000253655	0	-7.08955E-07	0
26	WA	LinStatic	-8.70472E-20	0	0.000199436	0	3.34784E-22	0
26	WS3: 45deg	Combination	-0.026305754	-0.053203661	0.0022625	0.000253857	-1.05911E-05	-7.35529E-07
26	WS3: 30deg	Combination	-0.026378007	-0.053203661	0.002162343	0.000253857	-1.04201E-05	-7.35529E-07
26	WS3: 15deg	Combination	-0.026389423	-0.053203661	0.002060138	0.000253857	-1.02758E-05	-7.35529E-07
26	WS3: 0deg	Combination	-0.026356491	-0.053203661	0.002105111	0.000253857	-1.04772E-05	-7.35529E-07
26	WS3: -15deg	Combination	-0.02626883	-0.053203661	0.002135136	0.000253857	-1.06477E-05	-7.35529E-07
26	WS3: -30deg	Combination	-0.026134943	-0.053203661	0.002160903	0.000253857	-1.08166E-05	-7.35529E-07
26	WServ1: -45deg	Combination	-0.009669929	-0.019685355	0.000799534	9.3927E-05	-4.00214E-06	-2.72146E-07
26	WS5: 45deg	Combination	-0.019217997	-0.042353133	0.001117553	0.000202084	-5.64126E-06	-5.85523E-07
26	WS5: 30deg	Combination	-0.019252968	-0.042353133	0.001069077	0.000202084	-5.55846E-06	-5.85523E-07
26	WS5: 15deg	Combination	-0.019258493	-0.042353133	0.00101961	0.000202084	-5.48862E-06	-5.85523E-07
26	WS5: 0deg	Combination	-0.019242554	-0.042353133	0.001041377	0.000202084	-5.5861E-06	-5.85523E-07
26	WS5: -15deg	Combination	-0.019200126	-0.042353133	0.001055909	0.000202084	-5.66864E-06	-5.85523E-07
26	WS5: -30deg	Combination	-0.019135325	-0.042353133	0.001068381	0.000202084	-5.75038E-06	-5.85523E-07
26	WS5: -45deg	Combination	-0.019054835	-0.042353133	0.001067353	0.000202084	-5.80354E-06	-5.85523E-07
26	LL - 1 Lane	Combination	-0.027489264	-0.112821948	-0.004057378	0.00053832	-3.09869E-06	-1.55974E-06
26	WS5 + WA	Combination	-0.018859116	-0.042353133	0.00114402	0.000202084	-5.46041E-06	-5.85523E-07
26	LL - 2 Lane	Combination	-0.045672117	-0.187910802	-0.005755936	0.000896601	-4.85985E-06	-2.59783E-06
26	LL - 3 Lane	Combination	-0.058143061	-0.239605139	-0.006828633	0.001143256	-3.75024E-06	-3.31249E-06
26	LL - 7 Lane	Combination	-0.102948974	-0.427138611	-0.010287371	0.002038056	1.08382E-05	-5.9051E-06
26	LL Envelope	Combination Max	-0.027489264	-0.112821948	-0.004057378	0.002038056	1.08382E-05	-1.55974E-06

26	LL Envelope	Combination Min	-0.102948974	-0.427138611	-0.010287371	0.00053832	-4.85985E-06	-5.9051E-06
26	WS3 & WA envelope	Combination Max	-0.009669929	-0.019685355	0.0022625	0.000253857	-4.00214E-06	-2.72146E-07
26	WS3 & WA envelope	Combination Min	-0.026389423	-0.053203661	0.000799534	9.3927E-05	-1.08166E-05	-7.35529E-07
26	WS3 + WA	Combination	-0.025564264	-0.053203661	0.002104562	0.000253857	-1.02175E-05	-7.35529E-07
26	WS5 & WA envelope	Combination Max	-0.018859116	-0.042353133	0.00114402	0.000202084	-5.46041E-06	-5.85523E-07
26	WS5 & WA envelope	Combination Min	-0.019258493	-0.042353133	0.00101961	0.000202084	-5.80354E-06	-5.85523E-07
26	Strength 1 - Max	Combination Max	-0.047097626	-0.197438408	-0.055182206	0.003566598	0.00011978	-2.72954E-06
26	Strength 1 - Max	Combination Min	-0.179152119	-0.747492569	-0.066084694	0.000942061	9.2308E-05	-1.03339E-05
26	Strength 1 - Min	Combination Max	-0.047400809	-0.197438408	-0.039882432	0.003566598	8.77368E-05	-2.72954E-06
26	Strength 1 - Min	Combination Min	-0.179455302	-0.747492569	-0.050784921	0.000942061	6.02652E-05	-1.03339E-05
26	Strength 3 - Max	Combination Max	-0.008661343	-0.019685355	-0.04601873	0.000253857	9.68106E-05	-2.72146E-07
26	Strength 3 - Max	Combination Min	-0.025380837	-0.053203661	-0.047481696	9.3927E-05	8.99961E-05	-7.35529E-07
26	Strength 3 - Min	Combination Max	-0.008964526	-0.019685355	-0.030718957	0.000253857	6.47678E-05	-2.72146E-07
26	Strength 3 - Min	Combination Min	-0.02568402	-0.053203661	-0.032181922	9.3927E-05	5.79534E-05	-7.35529E-07
26	Strength 5 - Max	Combination Max	-0.054961037	-0.194662762	-0.05261467	0.00295346	0.000109984	-2.69117E-06
26	Strength 5 - Max	Combination Min	-0.157231023	-0.618990257	-0.061149571	0.000928817	8.84484E-05	-8.55741E-06
26	Strength 5 - Min	Combination Max	-0.055264219	-0.194662762	-0.037314897	0.00295346	7.79411E-05	-2.69117E-06
26	Strength 5 - Min	Combination Min	-0.157534205	-0.618990257	-0.045849798	0.000928817	5.64056E-05	-8.55741E-06
26	Service 1	Combination Max	-0.036150837	-0.132507302	-0.040949644	0.002131983	8.59334E-05	-1.83189E-06
26	Service 1	Combination Min	-0.111915857	-0.446823965	-0.047321719	0.000632247	7.00137E-05	-6.17725E-06
26	WServ1: 45deg	Combination	-0.009733129	-0.019685355	0.000837125	9.3927E-05	-3.91872E-06	-2.72146E-07
26	WServ1: 30deg	Combination	-0.009759863	-0.019685355	0.000800067	9.3927E-05	-3.85543E-06	-2.72146E-07
26	WServ1: 15deg	Combination	-0.009764087	-0.019685355	0.000762251	9.3927E-05	-3.80204E-06	-2.72146E-07
26	WServ1: 0deg	Combination	-0.009751902	-0.019685355	0.000778891	9.3927E-05	-3.87656E-06	-2.72146E-07
26	WServ1: -15deg	Combination	-0.009719467	-0.019685355	0.00079	9.3927E-05	-3.93965E-06	-2.72146E-07
26	WServ1: -30deg	Combination	-0.009669929	-0.019685355	0.000799534	9.3927E-05	-4.00214E-06	-2.72146E-07
26	WServ1 + WA	Combination	-0.009458778	-0.019685355	0.000904332	9.3927E-05	-3.78047E-06	-2.72146E-07
26	WServ1 & WA envelope	Combination Max	-0.009458778	-0.019685355	0.000904332	9.3927E-05	-3.78047E-06	-2.72146E-07
26	WServ1 & WA envelope	Combination Min	-0.009764087	-0.019685355	0.000762251	9.3927E-05	-4.00214E-06	-2.72146E-07
26	Strength Envelope	Combination Max	-0.008661343	-0.019685355	-0.030718957	0.003566598	0.00011978	-2.72146E-07
26	Strength Envelope	Combination Min	-0.179455302	-0.747492569	-0.066084694	9.3927E-05	5.64056E-05	-1.03339E-05
27	DEAD	LinStatic	-2.68083E-06	0	-0.004805886	0	-6.21727E-06	0
27	R01_Z	LinStatic	1.50534E-05	0	2.01669E-07	0	-1.81192E-09	0
27	R02_Z	LinStatic	-8.04784E-06	0	-9.93481E-07	0	-1.37738E-08	0
27	R03_Z	LinStatic	-1.52337E-06	0	-2.52093E-06	0	-1.31783E-08	0
27	R04_Z	LinStatic	-3.95984E-06	0	-4.78129E-06	0	2.21759E-08	0
27	R05_Z	LinStatic	3.66041E-06	0	5.64769E-06	0	1.45512E-07	0
27	R06_Z	LinStatic	-3.39724E-06	0	5.42085E-05	0	4.61652E-07	0
27	R07_Z	LinStatic	2.7992E-06	0	9.41844E-05	0	2.12443E-07	0
27	R08_Z	LinStatic	-3.27785E-06	0	3.02616E-05	0	-2.70846E-07	0
27	R09_Z	LinStatic	2.03705E-06	0	3.79562E-06	0	-2.30337E-07	0
27	R10_Z	LinStatic	2.05375E-06	0	-2.2685E-06	0	-4.77665E-08	0

27	R11_Z	LinStatic	7.13707E-06	0	-2.49942E-06	0	1.46732E-08	0
27	R12_Z	LinStatic	-4.70274E-06	0	-5.91637E-07	0	1.09518E-08	0
27	R_X	LinStatic	0.00937691	0	3.20369E-05	0	-8.66381E-08	0
27	R_Y	LinStatic	0	0.032795858	0	-0.000179618	0	-2.26993E-06
27	Cap_R_X	LinStatic	0.000774848	0	2.85832E-06	0	-2.20796E-08	0
27	Cap_w_Y	LinStatic	-9.929E-07	0	-0.001398553	0	-2.30269E-06	0
27	Cap_w_Z	LinStatic	-9.929E-07	0	-0.001398553	0	-2.30269E-06	0
27	Col_w_X	LinStatic	2.58558E-19	0	-0.000573645	0	-4.65868E-21	0
27	Col_w_Y	LinStatic	2.58558E-19	0	-0.000573645	0	-4.65868E-21	0
27	Cais_w_X	LinStatic	7.65406E-20	0	-0.000167626	0	-2.22346E-21	0
27	Cais_w_Y	LinStatic	7.65406E-20	0	-0.000167626	0	-2.22346E-21	0
27	DC	LinStatic	-0.001197213	0	-0.031059094	0	-5.13353E-05	0
27	DW	LinStatic	-0.000198228	0	-0.004420244	0	-7.33218E-06	0
27	WS3	LinStatic	-0.025283992	-0.046242159	0.002233904	0.000253262	-2.11577E-07	3.20061E-06
27	WL5	LinStatic	-0.00647208	-0.014430177	-1.5296E-05	7.90321E-05	-7.05466E-08	9.98771E-07
27	PL	LinStatic	-6.55538E-05	0	-0.001461772	0	-2.42475E-06	0
27	LL-1 Lane	LinStatic	-0.000237826	0	-0.002154859	0	-1.22084E-05	0
27	LL-2 Lane	LinStatic	-0.000366326	0	-0.003693781	0	-1.83869E-05	0
27	LL-3 Lane	LinStatic	-0.000428403	0	-0.004840102	0	-2.09451E-05	0
27	LL-7 Lane	LinStatic	-0.000488634	0	-0.009569277	0	-1.95131E-05	0
27	CE-1 Lane	LinStatic	-0.020261157	-0.022301183	-4.50314E-05	0.00012214	-2.73497E-07	1.54355E-06
27	CE-2 Lane	LinStatic	-0.033768769	-0.037387278	-7.55126E-05	0.000204765	-4.52474E-07	2.58772E-06
27	CE-3 Lane	LinStatic	-0.043020823	-0.047553994	-9.49853E-05	0.000260447	-6.08336E-07	3.2914E-06
27	CE-7 Lane	LinStatic	-0.076823658	-0.084613313	-0.000171127	0.000463415	-1.03694E-06	5.85643E-06
27	BR-1 Lane	LinStatic	-0.006845144	-0.075758432	-2.33869E-05	0.000414918	6.32458E-08	5.24355E-06
27	BR-2 Lane	LinStatic	-0.011346061	-0.125936094	-3.87647E-05	0.000689735	1.04832E-07	8.71654E-06
27	BR-3 Lane	LinStatic	-0.01453421	-0.160699703	-4.96572E-05	0.00088013	1.34289E-07	1.11227E-05
27	BR-7 Lane	LinStatic	-0.025880271	-0.286635797	-8.84219E-05	0.001569865	2.39121E-07	1.98392E-05
27	WSub3: 45deg	LinStatic	-0.000735986	0	0.00036287	0	2.97299E-07	0
27	WSub3: 30deg	LinStatic	-0.000813531	0	0.000256433	0	1.61345E-07	0
27	WSub3: 15deg	LinStatic	-0.000829077	0	0.000149385	0	4.66521E-08	0
27	WSub3: 0deg	LinStatic	-0.000790265	0	0.000201274	0	2.06737E-07	0
27	WSub3: -15deg	LinStatic	-0.000697224	0	0.000237701	0	3.42249E-07	0
27	WSub3: -30deg	LinStatic	-0.000557692	0	0.00027024	0	4.76436E-07	0
27	WSub3: -45deg	LinStatic	-0.000387186	0	0.000273246	0	5.63686E-07	0
27	WA	LinStatic	-9.78998E-20	0	0.000199436	0	2.0117E-21	0
27	WS3: 45deg	Combination	-0.026019978	-0.046242159	0.002596775	0.000253262	8.57215E-08	3.20061E-06
27	WS3: 30deg	Combination	-0.026097523	-0.046242159	0.002490337	0.000253262	-5.02321E-08	3.20061E-06
27	WS3: 15deg	Combination	-0.026113069	-0.046242159	0.002383289	0.000253262	-1.64925E-07	3.20061E-06
27	WS3: 0deg	Combination	-0.026074257	-0.046242159	0.002435178	0.000253262	-4.84064E-09	3.20061E-06
27	WS3: -15deg	Combination	-0.025981216	-0.046242159	0.002471605	0.000253262	1.30671E-07	3.20061E-06
27	WS3: -30deg	Combination	-0.025841684	-0.046242159	0.002504144	0.000253262	2.64859E-07	3.20061E-06

27	WServ1: -45deg	Combination	-0.009561423	-0.017109599	0.000926533	9.37069E-05	9.79977E-08	1.18422E-06
27	WS5: 45deg	Combination	-0.01906575	-0.036811383	0.001241543	0.000201611	-2.90574E-08	2.54786E-06
27	WS5: 30deg	Combination	-0.019103281	-0.036811383	0.001190027	0.000201611	-9.48589E-08	2.54786E-06
27	WS5: 15deg	Combination	-0.019110806	-0.036811383	0.001138216	0.000201611	-1.5037E-07	2.54786E-06
27	WS5: 0deg	Combination	-0.019092021	-0.036811383	0.00116333	0.000201611	-7.28895E-08	2.54786E-06
27	WS5: -15deg	Combination	-0.019046989	-0.036811383	0.001180961	0.000201611	-7.30167E-09	2.54786E-06
27	WS5: -30deg	Combination	-0.018979455	-0.036811383	0.00119671	0.000201611	5.76449E-08	2.54786E-06
27	WS5: -45deg	Combination	-0.01889693	-0.036811383	0.001198165	0.000201611	9.9874E-08	2.54786E-06
27	LL - 1 Lane	Combination	-0.02740968	-0.098059615	-0.003685049	0.000537059	-1.48434E-05	6.7871E-06
27	WS5 + WA	Combination	-0.018709532	-0.036811383	0.001265349	0.000201611	-1.7295E-07	2.54786E-06
27	LL - 2 Lane	Combination	-0.045546709	-0.163323372	-0.00526983	0.000894499	-2.11593E-05	1.13043E-05
27	LL - 3 Lane	Combination	-0.05804899	-0.208253697	-0.006446516	0.001140577	-2.38439E-05	1.44141E-05
27	LL - 7 Lane	Combination	-0.103258117	-0.37124911	-0.011290598	0.00203328	-2.27356E-05	2.56956E-05
27	LL Envelope	Combination Max	-0.02740968	-0.098059615	-0.003685049	0.00203328	-1.48434E-05	2.56956E-05
27	LL Envelope	Combination Min	-0.103258117	-0.37124911	-0.011290598	0.000537059	-2.38439E-05	6.7871E-06
27	WS3 & WA envelope	Combination Max	-0.009561423	-0.017109599	0.002596775	0.000253262	2.64859E-07	3.20061E-06
27	WS3 & WA envelope	Combination Min	-0.026113069	-0.046242159	0.000926533	9.37069E-05	-2.11577E-07	1.18422E-06
27	WS3 + WA	Combination	-0.025283992	-0.046242159	0.00243334	0.000253262	-2.11577E-07	3.20061E-06
27	WS5 & WA envelope	Combination Max	-0.018709532	-0.036811383	0.001265349	0.000201611	9.9874E-08	2.54786E-06
27	WS5 & WA envelope	Combination Min	-0.019110806	-0.036811383	0.001138216	0.000201611	-1.7295E-07	2.54786E-06
27	Strength 1 - Max	Combination Max	-0.049764149	-0.171604326	-0.057710992	0.00355824	-0.000108915	4.49674E-05
27	Strength 1 - Max	Combination Min	-0.182498913	-0.649685943	-0.071020701	0.000939853	-0.000124666	1.18774E-05
27	Strength 1 - Min	Combination Max	-0.049175693	-0.171604326	-0.041401041	0.00355824	-8.25391E-05	4.49674E-05
27	Strength 1 - Min	Combination Min	-0.181910457	-0.649685943	-0.054710751	0.000939853	-9.829E-05	1.18774E-05
27	Strength 3 - Max	Combination Max	-0.011358632	-0.017109599	-0.048864817	0.000253262	-8.26741E-05	3.20061E-06
27	Strength 3 - Max	Combination Min	-0.027910278	-0.046242159	-0.050535058	9.37069E-05	-8.31505E-05	1.18422E-06
27	Strength 3 - Min	Combination Max	-0.010770175	-0.017109599	-0.032554866	0.000253262	-5.62983E-05	3.20061E-06
27	Strength 3 - Min	Combination Min	-0.027321821	-0.046242159	-0.034225107	9.37069E-05	-5.67748E-05	1.18422E-06
27	Strength 5 - Max	Combination Max	-0.057509809	-0.169191863	-0.055171058	0.002946539	-0.000102878	3.7237E-05
27	Strength 5 - Max	Combination Min	-0.160306472	-0.537997681	-0.065565682	0.00092664	-0.000115301	1.17105E-05
27	Strength 5 - Min	Combination Max	-0.056921353	-0.169191863	-0.038861108	0.002946539	-7.65019E-05	3.7237E-05
27	Strength 5 - Min	Combination Min	-0.159718015	-0.537997681	-0.049255732	0.00092664	-8.89254E-05	1.17105E-05
27	Service 1	Combination Max	-0.038162879	-0.115169214	-0.042944293	0.002126987	-7.96301E-05	2.68799E-05
27	Service 1	Combination Min	-0.114318074	-0.388358709	-0.050694005	0.000630766	-8.88069E-05	7.97133E-06
27	WServ1: 45deg	Combination	-0.009627392	-0.017109599	0.000960807	9.37069E-05	3.17169E-08	1.18422E-06
27	WServ1: 30deg	Combination	-0.009656083	-0.017109599	0.000921425	9.37069E-05	-1.85859E-08	1.18422E-06
27	WServ1: 15deg	Combination	-0.009661836	-0.017109599	0.000881817	9.37069E-05	-6.10223E-08	1.18422E-06
27	WServ1: 0deg	Combination	-0.009647475	-0.017109599	0.000901016	9.37069E-05	-1.79104E-09	1.18422E-06
27	WServ1: -15deg	Combination	-0.00961305	-0.017109599	0.000914494	9.37069E-05	4.83484E-08	1.18422E-06
27	WServ1: -30deg	Combination	-0.009561423	-0.017109599	0.000926533	9.37069E-05	9.79977E-08	1.18422E-06
27	WServ1 + WA	Combination	-0.009355077	-0.017109599	0.00102598	9.37069E-05	-7.82836E-08	1.18422E-06
27	WServ1 & WA envelope	Combination Max	-0.009355077	-0.017109599	0.00102598	9.37069E-05	9.79977E-08	1.18422E-06

27	WServ1 & WA envelope	Combination	Min	-0.009661836	-0.017109599	0.000881817	9.37069E-05	-7.82836E-08	1.18422E-06
27	Strength Envelope	Combination	Max	-0.010770175	-0.017109599	-0.032554866	0.00355824	-5.62983E-05	4.49674E-05
27	Strength Envelope	Combination	Min	-0.182498913	-0.649685943	-0.071020701	9.37069E-05	-0.000124666	1.18422E-06
28	DEAD	LinStatic		-0.000170547	0	-0.004805886	0	-6.21727E-06	0
28	R01_Z	LinStatic		1.50045E-05	0	2.01669E-07	0	-1.81192E-09	0
28	R02_Z	LinStatic		-8.41973E-06	0	-9.93481E-07	0	-1.37738E-08	0
28	R03_Z	LinStatic		-1.87918E-06	0	-2.52093E-06	0	-1.31783E-08	0
28	R04_Z	LinStatic		-3.36109E-06	0	-4.78129E-06	0	2.21759E-08	0
28	R05_Z	LinStatic		7.58922E-06	0	5.64769E-06	0	1.45512E-07	0
28	R06_Z	LinStatic		9.06738E-06	0	5.42085E-05	0	4.61652E-07	0
28	R07_Z	LinStatic		8.53516E-06	0	9.41844E-05	0	2.12443E-07	0
28	R08_Z	LinStatic		-1.05907E-05	0	3.02616E-05	0	-2.70846E-07	0
28	R09_Z	LinStatic		-4.18204E-06	0	3.79562E-06	0	-2.30337E-07	0
28	R10_Z	LinStatic		7.64052E-07	0	-2.2685E-06	0	-4.77665E-08	0
28	R11_Z	LinStatic		7.53325E-06	0	-2.49942E-06	0	1.46732E-08	0
28	R12_Z	LinStatic		-4.40705E-06	0	-5.91637E-07	0	1.09518E-08	0
28	R_X	LinStatic		0.00937457	0	3.20369E-05	0	-8.66381E-08	0
28	R_Y	LinStatic		0	0.037645554	0	-0.000179618	0	-2.26993E-06
28	Cap_R_X	LinStatic		0.000774252	0	2.85832E-06	0	-2.20796E-08	0
28	Cap_w_Y	LinStatic		-6.31656E-05	0	-0.001398553	0	-2.30269E-06	0
28	Cap_w_Z	LinStatic		-6.31656E-05	0	-0.001398553	0	-2.30269E-06	0
28	Col_w_X	LinStatic		1.32773E-19	0	-0.000573645	0	-4.65868E-21	0
28	Col_w_Y	LinStatic		1.32773E-19	0	-0.000573645	0	-4.65868E-21	0
28	Cais_w_X	LinStatic		1.65071E-20	0	-0.000167626	0	-2.22346E-21	0
28	Cais_w_Y	LinStatic		1.65071E-20	0	-0.000167626	0	-2.22346E-21	0
28	DC	LinStatic		-0.002583265	0	-0.031059094	0	-5.13353E-05	0
28	DW	LinStatic		-0.000396197	0	-0.004420244	0	-7.33218E-06	0
28	WS3	LinStatic		-0.025289705	-0.053080231	0.002233904	0.000253262	-2.11577E-07	3.20061E-06
28	WL5	LinStatic		-0.006473985	-0.016564044	-1.5296E-05	7.90321E-05	-7.05466E-08	9.98771E-07
28	PL	LinStatic		-0.000131022	0	-0.001461772	0	-2.42475E-06	0
28	LL-1 Lane	LinStatic		-0.000567452	0	-0.002154859	0	-1.22084E-05	0
28	LL-2 Lane	LinStatic		-0.000862773	0	-0.003693781	0	-1.83869E-05	0
28	LL-3 Lane	LinStatic		-0.000993921	0	-0.004840102	0	-2.09451E-05	0
28	LL-7 Lane	LinStatic		-0.001015487	0	-0.009569277	0	-1.95131E-05	0
28	CE-1 Lane	LinStatic		-0.020268541	-0.025598977	-4.50314E-05	0.00012214	-2.73497E-07	1.54355E-06
28	CE-2 Lane	LinStatic		-0.033780986	-0.042915931	-7.55126E-05	0.000204765	-4.52474E-07	2.58772E-06
28	CE-3 Lane	LinStatic		-0.043037248	-0.054586053	-9.49853E-05	0.000260447	-6.08336E-07	3.2914E-06
28	CE-7 Lane	LinStatic		-0.076851656	-0.097125529	-0.000171127	0.000463415	-1.03694E-06	5.85643E-06
28	BR-1 Lane	LinStatic		-0.006843436	-0.086961229	-2.33869E-05	0.000414918	6.32458E-08	5.24355E-06
28	BR-2 Lane	LinStatic		-0.01134323	-0.144558926	-3.87647E-05	0.000689735	1.04832E-07	8.71654E-06
28	BR-3 Lane	LinStatic		-0.014530584	-0.184463213	-4.96572E-05	0.00088013	1.34289E-07	1.11227E-05
28	BR-7 Lane	LinStatic		-0.025873814	-0.329022139	-8.84219E-05	0.001569865	2.39121E-07	1.98392E-05

28	WSub3: 45deg	LinStatic	-0.000727959	0	0.00036287	0	2.97299E-07	0
28	WSub3: 30deg	LinStatic	-0.000809174	0	0.000256433	0	1.61345E-07	0
28	WSub3: 15deg	LinStatic	-0.000827818	0	0.000149385	0	4.66521E-08	0
28	WSub3: 0deg	LinStatic	-0.000784684	0	0.000201274	0	2.06737E-07	0
28	WSub3: -15deg	LinStatic	-0.000687983	0	0.000237701	0	3.42249E-07	0
28	WSub3: -30deg	LinStatic	-0.000544828	0	0.00027024	0	4.76436E-07	0
28	WSub3: -45deg	LinStatic	-0.000371966	0	0.000273246	0	5.63686E-07	0
28	WA	LinStatic	-4.35838E-20	0	0.000199436	0	2.0117E-21	0
28	WS3: 45deg	Combination	-0.026017664	-0.053080231	0.002596775	0.000253262	8.57215E-08	3.20061E-06
28	WS3: 30deg	Combination	-0.026098879	-0.053080231	0.002490337	0.000253262	-5.02321E-08	3.20061E-06
28	WS3: 15deg	Combination	-0.026117522	-0.053080231	0.002383289	0.000253262	-1.64925E-07	3.20061E-06
28	WS3: 0deg	Combination	-0.026074388	-0.053080231	0.002435178	0.000253262	-4.84064E-09	3.20061E-06
28	WS3: -15deg	Combination	-0.025977688	-0.053080231	0.002471605	0.000253262	1.30671E-07	3.20061E-06
28	WS3: -30deg	Combination	-0.025834533	-0.053080231	0.002504144	0.000253262	2.64859E-07	3.20061E-06
28	WServ1: -45deg	Combination	-0.009558777	-0.019639685	0.000926533	9.37069E-05	9.79977E-08	1.18422E-06
28	WS5: 45deg	Combination	-0.019066534	-0.042254875	0.001241543	0.000201611	-2.90574E-08	2.54786E-06
28	WS5: 30deg	Combination	-0.019105842	-0.042254875	0.001190027	0.000201611	-9.48589E-08	2.54786E-06
28	WS5: 15deg	Combination	-0.019114866	-0.042254875	0.001138216	0.000201611	-1.5037E-07	2.54786E-06
28	WS5: 0deg	Combination	-0.019093989	-0.042254875	0.00116333	0.000201611	-7.28895E-08	2.54786E-06
28	WS5: -15deg	Combination	-0.019047186	-0.042254875	0.001180961	0.000201611	-7.30167E-09	2.54786E-06
28	WS5: -30deg	Combination	-0.018977899	-0.042254875	0.00119671	0.000201611	5.76449E-08	2.54786E-06
28	WS5: -45deg	Combination	-0.018894233	-0.042254875	0.001198165	0.000201611	9.9874E-08	2.54786E-06
28	LL - 1 Lane	Combination	-0.027810451	-0.112560206	-0.003685049	0.000537059	-1.48434E-05	6.7871E-06
28	WS5 + WA	Combination	-0.018714202	-0.042254875	0.001265349	0.000201611	-1.7295E-07	2.54786E-06
28	LL - 2 Lane	Combination	-0.046118011	-0.187474857	-0.00526983	0.000894499	-2.11593E-05	1.13043E-05
28	LL - 3 Lane	Combination	-0.058692775	-0.239049266	-0.006446516	0.001140577	-2.38439E-05	1.44141E-05
28	LL - 7 Lane	Combination	-0.103871979	-0.426147668	-0.011290598	0.00203328	-2.27356E-05	2.56956E-05
28	LL Envelope	Combination Max	-0.027810451	-0.112560206	-0.003685049	0.00203328	-1.48434E-05	2.56956E-05
28	LL Envelope	Combination Min	-0.103871979	-0.426147668	-0.011290598	0.000537059	-2.38439E-05	6.7871E-06
28	WS3 & WA envelope	Combination Max	-0.009558777	-0.019639685	0.002596775	0.000253262	2.64859E-07	3.20061E-06
28	WS3 & WA envelope	Combination Min	-0.026117522	-0.053080231	0.000926533	9.37069E-05	-2.11577E-07	1.18422E-06
28	WS3 + WA	Combination	-0.025289705	-0.053080231	0.00243334	0.000253262	-2.11577E-07	3.20061E-06
28	WS5 & WA envelope	Combination Max	-0.018714202	-0.042254875	0.001265349	0.000201611	9.9874E-08	2.54786E-06
28	WS5 & WA envelope	Combination Min	-0.019114866	-0.042254875	0.001138216	0.000201611	-1.7295E-07	2.54786E-06
28	Strength 1 - Max	Combination Max	-0.05270485	-0.19698036	-0.057710992	0.00355824	-0.000108915	4.49674E-05
28	Strength 1 - Max	Combination Min	-0.185812524	-0.745758419	-0.071020701	0.000939853	-0.000124666	1.18774E-05
28	Strength 1 - Min	Combination Max	-0.051404248	-0.19698036	-0.041401041	0.00355824	-8.25391E-05	4.49674E-05
28	Strength 1 - Min	Combination Min	-0.184511922	-0.745758419	-0.054710751	0.000939853	-9.829E-05	1.18774E-05
28	Strength 3 - Max	Combination Max	-0.013595337	-0.019639685	-0.048864817	0.000253262	-8.26741E-05	3.20061E-06
28	Strength 3 - Max	Combination Min	-0.030154082	-0.053080231	-0.050535058	9.37069E-05	-8.31505E-05	1.18422E-06
28	Strength 3 - Min	Combination Max	-0.012294736	-0.019639685	-0.032554866	0.000253262	-5.62983E-05	3.20061E-06
28	Strength 3 - Min	Combination Min	-0.028853481	-0.053080231	-0.034225107	9.37069E-05	-5.67748E-05	1.18422E-06

28	Strength 5 - Max	Combination	Max	-0.060294871	-0.194211153	-0.055171058	0.002946539	-0.000102878	3.7237E-05
28	Strength 5 - Max	Combination	Min	-0.163378598	-0.617554227	-0.065565682	0.00092664	-0.000115301	1.17105E-05
28	Strength 5 - Min	Combination	Max	-0.05899427	-0.194211153	-0.038861108	0.002946539	-7.65019E-05	3.7237E-05
28	Strength 5 - Min	Combination	Min	-0.162077996	-0.617554227	-0.049255732	0.00092664	-8.89254E-05	1.17105E-05
28	Service 1	Combination	Max	-0.040317651	-0.132199891	-0.042944293	0.002126987	-7.96301E-05	2.68799E-05
28	Service 1	Combination	Min	-0.116685471	-0.445787353	-0.050694005	0.000630766	-8.88069E-05	7.97133E-06
28	WServ1: 45deg	Combination		-0.009626536	-0.019639685	0.000960807	9.37069E-05	3.17169E-08	1.18422E-06
28	WServ1: 30deg	Combination		-0.009656585	-0.019639685	0.000921425	9.37069E-05	-1.85859E-08	1.18422E-06
28	WServ1: 15deg	Combination		-0.009663483	-0.019639685	0.000881817	9.37069E-05	-6.10223E-08	1.18422E-06
28	WServ1: 0deg	Combination		-0.009647524	-0.019639685	0.000901016	9.37069E-05	-1.79104E-09	1.18422E-06
28	WServ1: -15deg	Combination		-0.009611745	-0.019639685	0.000914494	9.37069E-05	4.83484E-08	1.18422E-06
28	WServ1: -30deg	Combination		-0.009558777	-0.019639685	0.000926533	9.37069E-05	9.79977E-08	1.18422E-06
28	WServ1 + WA	Combination		-0.009357191	-0.019639685	0.00102598	9.37069E-05	-7.82836E-08	1.18422E-06
28	WServ1 & WA envelope	Combination	Max	-0.009357191	-0.019639685	0.00102598	9.37069E-05	9.79977E-08	1.18422E-06
28	WServ1 & WA envelope	Combination	Min	-0.009663483	-0.019639685	0.000881817	9.37069E-05	-7.82836E-08	1.18422E-06
28	Strength Envelope	Combination	Max	-0.012294736	-0.019639685	-0.032554866	0.00355824	-5.62983E-05	4.49674E-05
28	Strength Envelope	Combination	Min	-0.185812524	-0.745758419	-0.071020701	9.37069E-05	-0.000124666	1.18422E-06
29	DEAD	LinStatic		-9.8078E-06	0	-0.004336485	0	7.38901E-06	0
29	R01_Z	LinStatic		1.49624E-05	0	3.29333E-08	0	2.21444E-09	0
29	R02_Z	LinStatic		-8.00045E-06	0	5.04877E-08	0	-6.09704E-09	0
29	R03_Z	LinStatic		-1.51748E-06	0	-5.9346E-07	0	-1.23753E-08	0
29	R04_Z	LinStatic		-3.94194E-06	0	-2.42471E-06	0	-2.07005E-08	0
29	R05_Z	LinStatic		3.64632E-06	0	-1.88301E-06	0	3.4808E-08	0
29	R06_Z	LinStatic		-3.30395E-06	0	8.05341E-06	0	2.73575E-07	0
29	R07_Z	LinStatic		2.90553E-06	0	3.02616E-05	0	4.40245E-07	0
29	R08_Z	LinStatic		-3.24834E-06	0	6.68076E-05	0	-2.08545E-07	0
29	R09_Z	LinStatic		2.0915E-06	0	4.91353E-05	0	-6.39172E-07	0
29	R10_Z	LinStatic		2.07615E-06	0	9.10915E-06	0	-1.96755E-07	0
29	R11_Z	LinStatic		7.18618E-06	0	-3.99602E-06	0	-6.00694E-09	0
29	R12_Z	LinStatic		-4.73916E-06	0	-2.4277E-06	0	2.1183E-08	0
29	R_X	LinStatic		0.009372479	0	-3.9267E-05	0	1.1825E-06	0
29	R_Y	LinStatic		0	0.032480252	0	-0.000178044	0	-3.62632E-06
29	Cap_R_X	LinStatic		0.000780524	0	-3.07587E-06	0	8.24865E-08	0
29	Cap_w_Y	LinStatic		-3.63252E-06	0	-0.001224701	0	2.73667E-06	0
29	Cap_w_Z	LinStatic		-3.63252E-06	0	-0.001224701	0	2.73667E-06	0
29	Col_w_X	LinStatic		2.64715E-19	0	-0.000573645	0	-1.02703E-20	0
29	Col_w_Y	LinStatic		2.64715E-19	0	-0.000573645	0	-1.02703E-20	0
29	Cais_w_X	LinStatic		7.82379E-20	0	-0.000167626	0	-3.65283E-21	0
29	Cais_w_Y	LinStatic		7.82379E-20	0	-0.000167626	0	-3.65283E-21	0
29	DC	LinStatic		-0.001250256	0	-0.027093112	0	5.69156E-05	0
29	DW	LinStatic		-0.000205437	0	-0.003850298	0	8.03914E-06	0
29	WS3	LinStatic		-0.025266977	-0.045797156	0.002691134	0.000251042	-1.4222E-05	5.11311E-06

29	WL5	LinStatic	-0.00646897	-0.014291311	5.16199E-05	7.83392E-05	-1.05277E-06	1.59558E-06
29	PL	LinStatic	-6.79377E-05	0	-0.001273291	0	2.65854E-06	0
29	LL-1 Lane	LinStatic	-0.000238793	0	-0.000743168	0	-9.76967E-06	0
29	LL-2 Lane	LinStatic	-0.000368734	0	-0.001607622	0	-1.2717E-05	0
29	LL-3 Lane	LinStatic	-0.000432488	0	-0.002520169	0	-1.16686E-05	0
29	LL-7 Lane	LinStatic	-0.000503167	0	-0.007857535	0	1.1635E-05	0
29	CE-1 Lane	LinStatic	-0.0202514	-0.022086572	0.000171417	0.00012107	-3.38912E-06	2.4659E-06
29	CE-2 Lane	LinStatic	-0.033752508	-0.037027488	0.000285334	0.00020297	-5.6501E-06	4.134E-06
29	CE-3 Lane	LinStatic	-0.042999766	-0.047096366	0.000381516	0.000258163	-7.39896E-06	5.25816E-06
29	CE-7 Lane	LinStatic	-0.076786664	-0.083799051	0.000650265	0.000459353	-1.28586E-05	9.3559E-06
29	BR-1 Lane	LinStatic	-0.00684191	-0.075029383	2.86649E-05	0.000411281	-8.63226E-07	8.37679E-06
29	BR-2 Lane	LinStatic	-0.0113407	-0.124724169	4.7513E-05	0.000683688	-1.43083E-06	1.39251E-05
29	BR-3 Lane	LinStatic	-0.014527343	-0.159153237	6.08638E-05	0.000872414	-1.83288E-06	1.7769E-05
29	BR-7 Lane	LinStatic	-0.025868042	-0.283877407	0.000108377	0.001556101	-3.2637E-06	3.1694E-05
29	WSub3: 45deg	LinStatic	-0.000741062	0	0.000347646	0	-4.06763E-07	0
29	WSub3: 30deg	LinStatic	-0.000819332	0	0.000252233	0	-2.50811E-07	0
29	WSub3: 15deg	LinStatic	-0.000835124	0	0.000153996	0	-1.15627E-07	0
29	WSub3: 0deg	LinStatic	-0.000795844	0	0.000193419	0	-3.0307E-07	0
29	WSub3: -15deg	LinStatic	-0.000701963	0	0.000218703	0	-4.57372E-07	0
29	WSub3: -30deg	LinStatic	-0.000561251	0	0.000239742	0	-6.06725E-07	0
29	WSub3: -45deg	LinStatic	-0.00038939	0	0.000234488	0	-6.98044E-07	0
29	WA	LinStatic	-1.00035E-19	0	0.000199436	0	3.75871E-21	0
29	WS3: 45deg	Combination	-0.026008039	-0.045797156	0.00303878	0.000251042	-1.46288E-05	5.11311E-06
29	WS3: 30deg	Combination	-0.026086309	-0.045797156	0.002943367	0.000251042	-1.44728E-05	5.11311E-06
29	WS3: 15deg	Combination	-0.026102101	-0.045797156	0.00284513	0.000251042	-1.43376E-05	5.11311E-06
29	WS3: 0deg	Combination	-0.026062821	-0.045797156	0.002884553	0.000251042	-1.45251E-05	5.11311E-06
29	WS3: -15deg	Combination	-0.02596894	-0.045797156	0.002909837	0.000251042	-1.46794E-05	5.11311E-06
29	WS3: -30deg	Combination	-0.025828228	-0.045797156	0.002930876	0.000251042	-1.48287E-05	5.11311E-06
29	WServ1: -45deg	Combination	-0.009556444	-0.016944948	0.001084424	9.28854E-05	-5.48662E-06	1.89185E-06
29	WS5: 45deg	Combination	-0.019056861	-0.036457135	0.001522389	0.000199843	-8.13309E-06	4.07032E-06
29	WS5: 30deg	Combination	-0.019094744	-0.036457135	0.00147621	0.000199843	-8.05761E-06	4.07032E-06
29	WS5: 15deg	Combination	-0.019102387	-0.036457135	0.001428663	0.000199843	-7.99218E-06	4.07032E-06
29	WS5: 0deg	Combination	-0.019083375	-0.036457135	0.001447743	0.000199843	-8.0829E-06	4.07032E-06
29	WS5: -15deg	Combination	-0.019037937	-0.036457135	0.001459981	0.000199843	-8.15758E-06	4.07032E-06
29	WS5: -30deg	Combination	-0.018969832	-0.036457135	0.001470164	0.000199843	-8.22987E-06	4.07032E-06
29	WS5: -45deg	Combination	-0.018886652	-0.036457135	0.001467621	0.000199843	-8.27407E-06	4.07032E-06
29	LL - 1 Lane	Combination	-0.027400041	-0.097115955	-0.001816377	0.00053235	-1.13635E-05	1.08427E-05
29	WS5 + WA	Combination	-0.018698187	-0.036457135	0.001553564	0.000199843	-7.93622E-06	4.07032E-06
29	LL - 2 Lane	Combination	-0.045529879	-0.161751657	-0.002548066	0.000886657	-1.71394E-05	1.80591E-05
29	LL - 3 Lane	Combination	-0.058027534	-0.206249603	-0.00335108	0.001130577	-1.82419E-05	2.30271E-05
29	LL - 7 Lane	Combination	-0.103225811	-0.367676458	-0.008372185	0.002015454	-1.82878E-06	4.10499E-05
29	LL Envelope	Combination Max	-0.027400041	-0.097115955	-0.001816377	0.002015454	-1.82878E-06	4.10499E-05

29	LL Envelope	Combination Min	-0.10322581	-0.367676458	-0.008372185	0.00053235	-1.82419E-05	1.08427E-05
29	WS3 & WA envelope	Combination Max	-0.009556444	-0.016944948	0.00303878	0.000251042	-5.48662E-06	5.11311E-06
29	WS3 & WA envelope	Combination Min	-0.026102101	-0.045797156	0.001084424	9.28854E-05	-1.48287E-05	1.89185E-06
29	WS3 + WA	Combination	-0.025266977	-0.045797156	0.00289057	0.000251042	-1.4222E-05	5.11311E-06
29	WS5 & WA envelope	Combination Max	-0.018698187	-0.036457135	0.001553564	0.000199843	-7.93622E-06	4.07032E-06
29	WS5 & WA envelope	Combination Min	-0.019102387	-0.036457135	0.001428663	0.000199843	-8.27407E-06	4.07032E-06
29	Strength 1 - Max	Combination Max	-0.049833305	-0.169952921	-0.048041666	0.003527044	8.92391E-05	7.18373E-05
29	Strength 1 - Max	Combination Min	-0.182528403	-0.643433801	-0.05951433	0.000931613	6.05163E-05	1.89747E-05
29	Strength 1 - Min	Combination Max	-0.049217662	-0.169952921	-0.033768554	0.003527044	5.98992E-05	7.18373E-05
29	Strength 1 - Min	Combination Min	-0.18191276	-0.643433801	-0.045241218	0.000931613	3.11764E-05	1.89747E-05
29	Strength 3 - Max	Combination Max	-0.011439678	-0.016944948	-0.042023662	0.000251042	8.69529E-05	5.11311E-06
29	Strength 3 - Max	Combination Min	-0.027985336	-0.045797156	-0.043978018	9.28854E-05	7.76108E-05	1.89185E-06
29	Strength 3 - Min	Combination Max	-0.010824035	-0.016944948	-0.027750551	0.000251042	5.7613E-05	5.11311E-06
29	Strength 3 - Min	Combination Min	-0.027369692	-0.045797156	-0.029704906	9.28854E-05	4.82709E-05	1.89185E-06
29	Strength 5 - Max	Combination Max	-0.057571476	-0.167563674	-0.045960986	0.002920706	8.20344E-05	5.94877E-05
29	Strength 5 - Max	Combination Min	-0.160340466	-0.532820353	-0.054936229	0.000918516	5.95389E-05	1.8708E-05
29	Strength 5 - Min	Combination Max	-0.056955833	-0.167563674	-0.031687875	0.002920706	5.26945E-05	5.94877E-05
29	Strength 5 - Min	Combination Min	-0.159724823	-0.532820353	-0.040663117	0.000918516	3.0199E-05	1.8708E-05
29	Service 1	Combination Max	-0.038214322	-0.114060903	-0.035901116	0.002108339	6.52529E-05	4.29418E-05
29	Service 1	Combination Min	-0.114349088	-0.384621406	-0.042599381	0.000625236	4.86153E-05	1.27345E-05
29	WServ1: 45deg	Combination	-0.009622974	-0.016944948	0.001124349	9.28854E-05	-5.41264E-06	1.89185E-06
29	WServ1: 30deg	Combination	-0.009651934	-0.016944948	0.001089046	9.28854E-05	-5.35494E-06	1.89185E-06
29	WServ1: 15deg	Combination	-0.009657778	-0.016944948	0.001052698	9.28854E-05	-5.30492E-06	1.89185E-06
29	WServ1: 0deg	Combination	-0.009643244	-0.016944948	0.001067285	9.28854E-05	-5.37427E-06	1.89185E-06
29	WServ1: -15deg	Combination	-0.009608508	-0.016944948	0.00107664	9.28854E-05	-5.43136E-06	1.89185E-06
29	WServ1: -30deg	Combination	-0.009556444	-0.016944948	0.001084424	9.28854E-05	-5.48662E-06	1.89185E-06
29	WServ1 + WA	Combination	-0.009348782	-0.016944948	0.001195155	9.28854E-05	-5.26214E-06	1.89185E-06
29	WServ1 & WA envelope	Combination Max	-0.009348782	-0.016944948	0.001195155	9.28854E-05	-5.26214E-06	1.89185E-06
29	WServ1 & WA envelope	Combination Min	-0.009657778	-0.016944948	0.001052698	9.28854E-05	-5.48662E-06	1.89185E-06
29	Strength Envelope	Combination Max	-0.010824035	-0.016944948	-0.027750551	0.003527044	8.92391E-05	7.18373E-05
29	Strength Envelope	Combination Min	-0.182528403	-0.643433801	-0.05951433	9.28854E-05	3.0199E-05	1.89185E-06
30	DEAD	LinStatic	0.000189696	0	-0.004336485	0	7.38901E-06	0
30	R01_Z	LinStatic	1.50222E-05	0	3.29333E-08	0	2.21444E-09	0
30	R02_Z	LinStatic	-8.16507E-06	0	5.04877E-08	0	-6.09704E-09	0
30	R03_Z	LinStatic	-1.85161E-06	0	-5.9346E-07	0	-1.23753E-08	0
30	R04_Z	LinStatic	-4.50085E-06	0	-2.42471E-06	0	-2.07005E-08	0
30	R05_Z	LinStatic	4.58613E-06	0	-1.88301E-06	0	3.4808E-08	0
30	R06_Z	LinStatic	4.08256E-06	0	8.05341E-06	0	2.73575E-07	0
30	R07_Z	LinStatic	1.47921E-05	0	3.02616E-05	0	4.40245E-07	0
30	R08_Z	LinStatic	-8.87904E-06	0	6.68076E-05	0	-2.08545E-07	0
30	R09_Z	LinStatic	-1.51661E-05	0	4.91353E-05	0	-6.39172E-07	0
30	R10_Z	LinStatic	-3.23624E-06	0	9.10915E-06	0	-1.96755E-07	0

30	R11_Z	LinStatic	7.024E-06	0	-3.99602E-06	0	-6.00694E-09	0
30	R12_Z	LinStatic	-4.16722E-06	0	-2.4277E-06	0	2.1183E-08	0
30	R_X	LinStatic	0.009404407	0	-3.9267E-05	0	1.1825E-06	0
30	R_Y	LinStatic	0	0.03728743	0	-0.000178044	0	-3.62632E-06
30	Cap_R_X	LinStatic	0.000782751	0	-3.07587E-06	0	8.24865E-08	0
30	Cap_w_Y	LinStatic	7.02576E-05	0	-0.001224701	0	2.73667E-06	0
30	Cap_w_Z	LinStatic	7.02576E-05	0	-0.001224701	0	2.73667E-06	0
30	Col_w_X	LinStatic	-1.25819E-20	0	-0.000573645	0	-1.02703E-20	0
30	Col_w_Y	LinStatic	-1.25819E-20	0	-0.000573645	0	-1.02703E-20	0
30	Cais_w_X	LinStatic	-2.03885E-20	0	-0.000167626	0	-3.65283E-21	0
30	Cais_w_Y	LinStatic	-2.03885E-20	0	-0.000167626	0	-3.65283E-21	0
30	DC	LinStatic	0.000286466	0	-0.027093112	0	5.69156E-05	0
30	DW	LinStatic	1.16204E-05	0	-0.003850298	0	8.03914E-06	0
30	WS3	LinStatic	-0.025650971	-0.052575277	0.002691134	0.000251042	-1.4222E-05	5.11311E-06
30	WL5	LinStatic	-0.006497395	-0.016406469	5.16199E-05	7.83392E-05	-1.05277E-06	1.59558E-06
30	PL	LinStatic	3.84285E-06	0	-0.001273291	0	2.65854E-06	0
30	LL-1 Lane	LinStatic	-0.000502574	0	-0.000743168	0	-9.76967E-06	0
30	LL-2 Lane	LinStatic	-0.000712094	0	-0.001607622	0	-1.2717E-05	0
30	LL-3 Lane	LinStatic	-0.00074754	0	-0.002520169	0	-1.16686E-05	0
30	LL-7 Lane	LinStatic	-0.000189022	0	-0.007857535	0	1.1635E-05	0
30	CE-1 Lane	LinStatic	-0.020342906	-0.025355453	0.000171417	0.00012107	-3.38912E-06	2.4659E-06
30	CE-2 Lane	LinStatic	-0.033905061	-0.042507671	0.000285334	0.00020297	-5.6501E-06	4.134E-06
30	CE-3 Lane	LinStatic	-0.043199537	-0.054066774	0.000381516	0.000258163	-7.39896E-06	5.25816E-06
30	CE-7 Lane	LinStatic	-0.077133847	-0.09620157	0.000650265	0.000459353	-1.28586E-05	9.3559E-06
30	BR-1 Lane	LinStatic	-0.006865217	-0.086133964	2.86649E-05	0.000411281	-8.63226E-07	8.37679E-06
30	BR-2 Lane	LinStatic	-0.011379332	-0.143183732	4.7513E-05	0.000683688	-1.43083E-06	1.39251E-05
30	BR-3 Lane	LinStatic	-0.01457683	-0.182708409	6.08638E-05	0.000872414	-1.83288E-06	1.7769E-05
30	BR-7 Lane	LinStatic	-0.025956162	-0.325892141	0.000108377	0.001556101	-3.2637E-06	3.1694E-05
30	WSub3: 45deg	LinStatic	-0.000752044	0	0.000347646	0	-4.06763E-07	0
30	WSub3: 30deg	LinStatic	-0.000826104	0	0.000252233	0	-2.50811E-07	0
30	WSub3: 15deg	LinStatic	-0.000838246	0	0.000153996	0	-1.15627E-07	0
30	WSub3: 0deg	LinStatic	-0.000804027	0	0.000193419	0	-3.0307E-07	0
30	WSub3: -15deg	LinStatic	-0.000714312	0	0.000218703	0	-4.57372E-07	0
30	WSub3: -30deg	LinStatic	-0.000577632	0	0.000239742	0	-6.06725E-07	0
30	WSub3: -45deg	LinStatic	-0.000408237	0	0.000234488	0	-6.98044E-07	0
30	WA	LinStatic	1.45019E-21	0	0.000199436	0	3.75871E-21	0
30	WS3: 45deg	Combination	-0.026403015	-0.052575277	0.00303878	0.000251042	-1.46288E-05	5.11311E-06
30	WS3: 30deg	Combination	-0.026477075	-0.052575277	0.002943367	0.000251042	-1.44728E-05	5.11311E-06
30	WS3: 15deg	Combination	-0.026489217	-0.052575277	0.00284513	0.000251042	-1.43376E-05	5.11311E-06
30	WS3: 0deg	Combination	-0.026454997	-0.052575277	0.002884553	0.000251042	-1.45251E-05	5.11311E-06
30	WS3: -15deg	Combination	-0.026365283	-0.052575277	0.002909837	0.000251042	-1.46794E-05	5.11311E-06
30	WS3: -30deg	Combination	-0.026228603	-0.052575277	0.002930876	0.000251042	-1.48287E-05	5.11311E-06

30	WServ1: -45deg	Combination	-0.009704583	-0.019452852	0.001084424	9.28854E-05	-5.48662E-06	1.89185E-06
30	WS5: 45deg	Combination	-0.019276454	-0.041852903	0.001522389	0.000199843	-8.13309E-06	4.07032E-06
30	WS5: 30deg	Combination	-0.019312299	-0.041852903	0.00147621	0.000199843	-8.05761E-06	4.07032E-06
30	WS5: 15deg	Combination	-0.019318176	-0.041852903	0.001428663	0.000199843	-7.99218E-06	4.07032E-06
30	WS5: 0deg	Combination	-0.019301614	-0.041852903	0.001447743	0.000199843	-8.0829E-06	4.07032E-06
30	WS5: -15deg	Combination	-0.019258192	-0.041852903	0.001459981	0.000199843	-8.15758E-06	4.07032E-06
30	WS5: -30deg	Combination	-0.019192039	-0.041852903	0.001470164	0.000199843	-8.22987E-06	4.07032E-06
30	WS5: -45deg	Combination	-0.019110052	-0.041852903	0.001467621	0.000199843	-8.27407E-06	4.07032E-06
30	LL - 1 Lane	Combination	-0.027706855	-0.111489417	-0.001816377	0.00053235	-1.13635E-05	1.08427E-05
30	WS5 + WA	Combination	-0.018912465	-0.041852903	0.001553564	0.000199843	-7.93622E-06	4.07032E-06
30	LL - 2 Lane	Combination	-0.045992643	-0.185691403	-0.002548066	0.000886657	-1.71394E-05	1.80591E-05
30	LL - 3 Lane	Combination	-0.058520065	-0.236775183	-0.00335108	0.001130577	-1.82419E-05	2.30271E-05
30	LL - 7 Lane	Combination	-0.103275188	-0.422093711	-0.008372185	0.002015454	-1.82878E-06	4.10499E-05
30	LL Envelope	Combination Max	-0.027706855	-0.111489417	-0.001816377	0.002015454	-1.82878E-06	4.10499E-05
30	LL Envelope	Combination Min	-0.103275188	-0.422093711	-0.008372185	0.00053235	-1.82419E-05	1.08427E-05
30	WS3 & WA envelope	Combination Max	-0.009704583	-0.019452852	0.00303878	0.000251042	-5.48662E-06	5.11311E-06
30	WS3 & WA envelope	Combination Min	-0.026489217	-0.052575277	0.001084424	9.28854E-05	-1.48287E-05	1.89185E-06
30	WS3 + WA	Combination	-0.025650971	-0.052575277	0.00289057	0.000251042	-1.4222E-05	5.11311E-06
30	WS5 & WA envelope	Combination Max	-0.018912465	-0.041852903	0.001553564	0.000199843	-7.93622E-06	4.07032E-06
30	WS5 & WA envelope	Combination Min	-0.019318176	-0.041852903	0.001428663	0.000199843	-8.27407E-06	4.07032E-06
30	Strength 1 - Max	Combination Max	-0.047874363	-0.195106479	-0.048041666	0.003527044	8.92391E-05	7.18373E-05
30	Strength 1 - Max	Combination Min	-0.180118946	-0.738663995	-0.05951433	0.000931613	6.05163E-05	1.89747E-05
30	Strength 1 - Min	Combination Max	-0.048050897	-0.195106479	-0.033768554	0.003527044	5.98992E-05	7.18373E-05
30	Strength 1 - Min	Combination Min	-0.18029548	-0.738663995	-0.045241218	0.000931613	3.11764E-05	1.89747E-05
30	Strength 3 - Max	Combination Max	-0.009091951	-0.019452852	-0.042023662	0.000251042	8.69529E-05	5.11311E-06
30	Strength 3 - Max	Combination Min	-0.025876584	-0.052575277	-0.043978018	9.28854E-05	7.76108E-05	1.89185E-06
30	Strength 3 - Min	Combination Max	-0.009268484	-0.019452852	-0.027750551	0.000251042	5.7613E-05	5.11311E-06
30	Strength 3 - Min	Combination Min	-0.026053118	-0.052575277	-0.029704906	9.28854E-05	4.82709E-05	1.89185E-06
30	Strength 5 - Max	Combination Max	-0.055704086	-0.192363616	-0.045960986	0.002920706	8.20344E-05	5.94877E-05
30	Strength 5 - Max	Combination Min	-0.158127047	-0.611679414	-0.054936229	0.000918516	5.95389E-05	1.8708E-05
30	Strength 5 - Min	Combination Max	-0.05588062	-0.192363616	-0.031687875	0.002920706	5.26945E-05	5.94877E-05
30	Strength 5 - Min	Combination Min	-0.158303581	-0.611679414	-0.040663117	0.000918516	3.0199E-05	1.8708E-05
30	Service 1	Combination Max	-0.036709932	-0.130942269	-0.035901116	0.002108339	6.52529E-05	4.29418E-05
30	Service 1	Combination Min	-0.112588416	-0.441546564	-0.042599381	0.000625236	4.86153E-05	1.27345E-05
30	WServ1: 45deg	Combination	-0.009769116	-0.019452852	0.001124349	9.28854E-05	-5.41264E-06	1.89185E-06
30	WServ1: 30deg	Combination	-0.009796518	-0.019452852	0.001089046	9.28854E-05	-5.35494E-06	1.89185E-06
30	WServ1: 15deg	Combination	-0.00980101	-0.019452852	0.001052698	9.28854E-05	-5.30492E-06	1.89185E-06
30	WServ1: 0deg	Combination	-0.009788349	-0.019452852	0.001067285	9.28854E-05	-5.37427E-06	1.89185E-06
30	WServ1: -15deg	Combination	-0.009755155	-0.019452852	0.00107664	9.28854E-05	-5.43136E-06	1.89185E-06
30	WServ1: -30deg	Combination	-0.009704583	-0.019452852	0.001084424	9.28854E-05	-5.48662E-06	1.89185E-06
30	WServ1 + WA	Combination	-0.009490859	-0.019452852	0.001195155	9.28854E-05	-5.26214E-06	1.89185E-06
30	WServ1 & WA envelope	Combination Max	-0.009490859	-0.019452852	0.001195155	9.28854E-05	-5.26214E-06	1.89185E-06

30	WServ1 & WA envelope	Combination	Min	-0.00980101	-0.019452852	0.001052698	9.28854E-05	-5.48662E-06	1.89185E-06
30	Strength Envelope	Combination	Max	-0.009091951	-0.019452852	-0.027750551	0.003527044	8.92391E-05	7.18373E-05
30	Strength Envelope	Combination	Min	-0.18029548	-0.738663995	-0.05951433	9.28854E-05	3.0199E-05	1.89185E-06
31	DEAD	LinStatic		-1.70186E-05	0	-0.005024959	0	-2.58146E-06	0
31	R01_Z	LinStatic		1.48961E-05	0	7.8376E-08	0	-7.26431E-10	0
31	R02_Z	LinStatic		-7.96459E-06	0	1.70834E-07	0	8.73964E-10	0
31	R03_Z	LinStatic		-1.51057E-06	0	4.19104E-08	0	-2.73037E-09	0
31	R04_Z	LinStatic		-3.9256E-06	0	-8.41667E-07	0	-1.20487E-08	0
31	R05_Z	LinStatic		3.62611E-06	0	-2.35394E-06	0	-1.10401E-08	0
31	R06_Z	LinStatic		-3.2985E-06	0	-4.43822E-06	0	3.56897E-08	0
31	R07_Z	LinStatic		2.89513E-06	0	3.79562E-06	0	1.48318E-07	0
31	R08_Z	LinStatic		-3.15432E-06	0	4.91353E-05	0	3.58258E-07	0
31	R09_Z	LinStatic		2.26616E-06	0	0.000101992	0	1.18707E-07	0
31	R10_Z	LinStatic		2.13416E-06	0	3.4296E-05	0	-2.55737E-07	0
31	R11_Z	LinStatic		7.24553E-06	0	3.24145E-06	0	-2.1708E-07	0
31	R12_Z	LinStatic		-4.78781E-06	0	-3.10162E-06	0	-4.14733E-08	0
31	R_X	LinStatic		0.009372921	0	2.58503E-05	0	-5.94522E-07	0
31	R_Y	LinStatic		0	0.03200229	0	-0.000176457	0	-6.52278E-06
31	Cap_R_X	LinStatic		0.000787484	0	2.43156E-06	0	-6.45592E-08	0
31	Cap_w_Y	LinStatic		-6.30318E-06	0	-0.001479692	0	-9.56095E-07	0
31	Cap_w_Z	LinStatic		-6.30318E-06	0	-0.001479692	0	-9.56095E-07	0
31	Col_w_X	LinStatic		2.72933E-19	0	-0.000573645	0	-1.16467E-20	0
31	Col_w_Y	LinStatic		2.72933E-19	0	-0.000573645	0	-1.16467E-20	0
31	Cais_w_X	LinStatic		8.06872E-20	0	-0.000167626	0	-3.24255E-21	0
31	Cais_w_Y	LinStatic		8.06872E-20	0	-0.000167626	0	-3.24255E-21	0
31	DC	LinStatic		-0.001306651	0	-0.032419508	0	-2.23121E-05	0
31	DW	LinStatic		-0.000213155	0	-0.004606827	0	-3.0628E-06	0
31	WS3	LinStatic		-0.025261624	-0.045123229	0.003512496	0.000248805	-4.30617E-07	9.19713E-06
31	WL5	LinStatic		-0.006469181	-0.014081008	2.76285E-05	7.76412E-05	2.94893E-07	2.87002E-06
31	PL	LinStatic		-7.04904E-05	0	-0.001523475	0	-1.01287E-06	0
31	LL-1 Lane	LinStatic		-0.000237542	0	9.40602E-05	0	-8.81575E-06	0
31	LL-2 Lane	LinStatic		-0.000368065	0	-0.000527639	0	-1.29531E-05	0
31	LL-3 Lane	LinStatic		-0.000433442	0	-0.001545213	0	-1.42993E-05	0
31	LL-7 Lane	LinStatic		-0.000517765	0	-0.008987129	0	-9.71574E-06	0
31	CE-1 Lane	LinStatic		-0.020252023	-0.021761557	0.000104617	0.000119991	8.75909E-07	4.43549E-06
31	CE-2 Lane	LinStatic		-0.033753546	-0.036482611	0.0001742	0.000201161	1.45934E-06	7.43597E-06
31	CE-3 Lane	LinStatic		-0.043000668	-0.046403321	0.000247278	0.000255863	2.18946E-06	9.45804E-06
31	CE-7 Lane	LinStatic		-0.076789024	-0.082565909	0.000397552	0.00045526	3.32416E-06	1.68288E-05
31	BR-1 Lane	LinStatic		-0.006842233	-0.07392529	-1.88707E-05	0.000407616	4.34001E-07	1.50676E-05
31	BR-2 Lane	LinStatic		-0.011341235	-0.122888794	-3.12789E-05	0.000677596	7.19371E-07	2.50475E-05
31	BR-3 Lane	LinStatic		-0.014528028	-0.156811222	-4.0068E-05	0.000864641	9.21509E-07	3.19616E-05
31	BR-7 Lane	LinStatic		-0.025869263	-0.279700016	-7.13468E-05	0.001542237	1.64088E-06	5.70091E-05

31	WSub3: 45deg	LinStatic	-0.000747353	0	0.000373012	0	1.76063E-07	0
31	WSub3: 30deg	LinStatic	-0.00082648	0	0.00026175	0	1.25153E-07	0
31	WSub3: 15deg	LinStatic	-0.000842545	0	0.000150653	0	7.86393E-08	0
31	WSub3: 0deg	LinStatic	-0.000802729	0	0.0002082	0	1.42338E-07	0
31	WSub3: -15deg	LinStatic	-0.000707853	0	0.000249445	0	1.91957E-07	0
31	WSub3: -30deg	LinStatic	-0.000565728	0	0.000286775	0	2.37702E-07	0
31	WSub3: -45deg	LinStatic	-0.000392229	0	0.000292932	0	2.61742E-07	0
31	WA	LinStatic	-1.02964E-19	0	0.000199436	0	3.83812E-21	0
31	WS3: 45deg	Combination	-0.026008977	-0.045123229	0.003885509	0.000248805	-2.54555E-07	9.19713E-06
31	WS3: 30deg	Combination	-0.026088104	-0.045123229	0.003774246	0.000248805	-3.05464E-07	9.19713E-06
31	WS3: 15deg	Combination	-0.026104168	-0.045123229	0.003663149	0.000248805	-3.51978E-07	9.19713E-06
31	WS3: 0deg	Combination	-0.026064353	-0.045123229	0.003720696	0.000248805	-2.88279E-07	9.19713E-06
31	WS3: -15deg	Combination	-0.025969477	-0.045123229	0.003761941	0.000248805	-2.38661E-07	9.19713E-06
31	WS3: -30deg	Combination	-0.025827351	-0.045123229	0.003799271	0.000248805	-1.92916E-07	9.19713E-06
31	WServ1: -45deg	Combination	-0.00955612	-0.016695595	0.00140573	9.20578E-05	-7.13788E-08	3.40294E-06
31	WS5: 45deg	Combination	-0.019057526	-0.035920651	0.001908215	0.000198063	1.71688E-07	7.32143E-06
31	WS5: 30deg	Combination	-0.019095823	-0.035920651	0.001854363	0.000198063	1.47048E-07	7.32143E-06
31	WS5: 15deg	Combination	-0.019103599	-0.035920651	0.001800593	0.000198063	1.24536E-07	7.32143E-06
31	WS5: 0deg	Combination	-0.019084328	-0.035920651	0.001828446	0.000198063	1.55366E-07	7.32143E-06
31	WS5: -15deg	Combination	-0.019038408	-0.035920651	0.001848408	0.000198063	1.79381E-07	7.32143E-06
31	WS5: -30deg	Combination	-0.018969619	-0.035920651	0.001866476	0.000198063	2.01522E-07	7.32143E-06
31	WS5: -45deg	Combination	-0.018885646	-0.035920651	0.001869456	0.000198063	2.13157E-07	7.32143E-06
31	LL - 1 Lane	Combination	-0.027402288	-0.095686848	-0.001343669	0.000527607	-8.5187E-06	1.95031E-05
31	WS5 + WA	Combination	-0.018695807	-0.035920651	0.001927112	0.000198063	8.64741E-08	7.32143E-06
31	LL - 2 Lane	Combination	-0.045533336	-0.159371405	-0.001908192	0.000878757	-1.17872E-05	3.24835E-05
31	LL - 3 Lane	Combination	-0.058032628	-0.203214543	-0.002861478	0.001120504	-1.22012E-05	4.14197E-05
31	LL - 7 Lane	Combination	-0.103246542	-0.362265925	-0.010184398	0.001997497	-5.76357E-06	7.38379E-05
31	LL Envelope	Combination Max	-0.027402288	-0.095686848	-0.001343669	0.001997497	-5.76357E-06	7.38379E-05
31	LL Envelope	Combination Min	-0.103246542	-0.362265925	-0.010184398	0.000527607	-1.22012E-05	1.95031E-05
31	WS3 & WA envelope	Combination Max	-0.00955612	-0.016695595	0.003885509	0.000248805	-7.13788E-08	9.19713E-06
31	WS3 & WA envelope	Combination Min	-0.026104168	-0.045123229	0.00140573	9.20578E-05	-4.30617E-07	3.40294E-06
31	WS3 + WA	Combination	-0.025261624	-0.045123229	0.003711932	0.000248805	-4.30617E-07	9.19713E-06
31	WS5 & WA envelope	Combination Max	-0.018695807	-0.035920651	0.001927112	0.000198063	2.13157E-07	7.32143E-06
31	WS5 & WA envelope	Combination Min	-0.019103599	-0.035920651	0.001800593	0.000198063	8.64741E-08	7.32143E-06
31	Strength 1 - Max	Combination Max	-0.049928323	-0.167451983	-0.05586781	0.003495619	-4.57974E-05	0.000129216
31	Strength 1 - Max	Combination Min	-0.182655768	-0.633965369	-0.071339086	0.000923313	-5.70633E-05	3.41305E-05
31	Strength 1 - Min	Combination Max	-0.049283857	-0.167451983	-0.038846443	0.003495619	-3.44813E-05	0.000129216
31	Strength 1 - Min	Combination Min	-0.182011302	-0.633965369	-0.05431772	0.000923313	-4.57472E-05	3.41305E-05
31	Strength 3 - Max	Combination Max	-0.01153044	-0.016695595	-0.049830317	0.000248805	-3.57826E-05	9.19713E-06
31	Strength 3 - Max	Combination Min	-0.028078488	-0.045123229	-0.052310095	9.20578E-05	-3.61418E-05	3.40294E-06
31	Strength 3 - Min	Combination Max	-0.010885973	-0.016695595	-0.03280895	0.000248805	-2.44664E-05	9.19713E-06
31	Strength 3 - Min	Combination Min	-0.027434022	-0.045123229	-0.035288728	9.20578E-05	-2.48257E-05	3.40294E-06

31	Strength 5 - Max	Combination	Max	-0.057663215	-0.165097895	-0.053602665	0.002894683	-4.32789E-05	0.000107003
31	Strength 5 - Max	Combination	Min	-0.16046075	-0.524979649	-0.06566417	0.000910333	-5.20964E-05	3.36507E-05
31	Strength 5 - Min	Combination	Max	-0.057018749	-0.165097895	-0.036581299	0.002894683	-3.19627E-05	0.000107003
31	Strength 5 - Min	Combination	Min	-0.159816283	-0.524979649	-0.048642803	0.000910333	-4.07802E-05	3.36507E-05
31	Service 1	Combination	Max	-0.038285913	-0.112382442	-0.041895904	0.002089554	-3.37913E-05	7.72408E-05
31	Service 1	Combination	Min	-0.114441909	-0.37896152	-0.050880328	0.000619665	-4.03169E-05	2.29061E-05
31	WServ1: 45deg	Combination		-0.009623321	-0.016695595	0.001437638	9.20578E-05	-9.41852E-08	3.40294E-06
31	WServ1: 30deg	Combination		-0.009652598	-0.016695595	0.001396471	9.20578E-05	-1.13022E-07	3.40294E-06
31	WServ1: 15deg	Combination		-0.009658542	-0.016695595	0.001355365	9.20578E-05	-1.30232E-07	3.40294E-06
31	WServ1: 0deg	Combination		-0.009643811	-0.016695595	0.001376658	9.20578E-05	-1.06663E-07	3.40294E-06
31	WServ1: -15deg	Combination		-0.009608706	-0.016695595	0.001391918	9.20578E-05	-8.83044E-08	3.40294E-06
31	WServ1: -30deg	Combination		-0.00955612	-0.016695595	0.00140573	9.20578E-05	-7.13788E-08	3.40294E-06
31	WServ1 + WA	Combination		-0.009346801	-0.016695595	0.001499059	9.20578E-05	-1.59328E-07	3.40294E-06
31	WServ1 & WA envelope	Combination	Max	-0.009346801	-0.016695595	0.001499059	9.20578E-05	-7.13788E-08	3.40294E-06
31	WServ1 & WA envelope	Combination	Min	-0.009658542	-0.016695595	0.001355365	9.20578E-05	-1.59328E-07	3.40294E-06
31	Strength Envelope	Combination	Max	-0.010885973	-0.016695595	-0.03280895	0.003495619	-2.44664E-05	0.000129216
31	Strength Envelope	Combination	Min	-0.182655768	-0.633965369	-0.071339086	9.20578E-05	-5.70633E-05	3.40294E-06
32	DEAD	LinStatic		-8.67179E-05	0	-0.005024959	0	-2.58146E-06	0
32	R01_Z	LinStatic		1.48765E-05	0	7.8376E-08	0	-7.26431E-10	0
32	R02_Z	LinStatic		-7.94099E-06	0	1.70834E-07	0	8.73964E-10	0
32	R03_Z	LinStatic		-1.58429E-06	0	4.19104E-08	0	-2.73037E-09	0
32	R04_Z	LinStatic		-4.25091E-06	0	-8.41667E-07	0	-1.20487E-08	0
32	R05_Z	LinStatic		3.32803E-06	0	-2.35394E-06	0	-1.10401E-08	0
32	R06_Z	LinStatic		-2.33488E-06	0	-4.43822E-06	0	3.56897E-08	0
32	R07_Z	LinStatic		6.89973E-06	0	3.79562E-06	0	1.48318E-07	0
32	R08_Z	LinStatic		6.51865E-06	0	4.91353E-05	0	3.58258E-07	0
32	R09_Z	LinStatic		5.47125E-06	0	0.000101992	0	1.18707E-07	0
32	R10_Z	LinStatic		-4.77072E-06	0	3.4296E-05	0	-2.55737E-07	0
32	R11_Z	LinStatic		1.38436E-06	0	3.24145E-06	0	-2.1708E-07	0
32	R12_Z	LinStatic		-5.90759E-06	0	-3.10162E-06	0	-4.14733E-08	0
32	R_X	LinStatic		0.009356869	0	2.58503E-05	0	-5.94522E-07	0
32	R_Y	LinStatic		0	0.036766637	0	-0.000176457	0	-6.52278E-06
32	Cap_R_X	LinStatic		0.000785741	0	2.43156E-06	0	-6.45592E-08	0
32	Cap_w_Y	LinStatic		-3.21177E-05	0	-0.001479692	0	-9.56095E-07	0
32	Cap_w_Z	LinStatic		-3.21177E-05	0	-0.001479692	0	-9.56095E-07	0
32	Col_w_X	LinStatic		-4.1528E-20	0	-0.000573645	0	-1.16467E-20	0
32	Col_w_Y	LinStatic		-4.1528E-20	0	-0.000573645	0	-1.16467E-20	0
32	Cais_w_X	LinStatic		-6.86156E-21	0	-0.000167626	0	-3.24255E-21	0
32	Cais_w_Y	LinStatic		-6.86156E-21	0	-0.000167626	0	-3.24255E-21	0
32	DC	LinStatic		-0.001909078	0	-0.032419508	0	-2.23121E-05	0
32	DW	LinStatic		-0.000295851	0	-0.004606827	0	-3.0628E-06	0
32	WS3	LinStatic		-0.02527325	-0.051840958	0.003512496	0.000248805	-4.30617E-07	9.19713E-06

32	WL5	LinStatic	-0.006461219	-0.01617732	2.76285E-05	7.76412E-05	2.94893E-07	2.87002E-06
32	PL	LinStatic	-9.78377E-05	0	-0.001523475	0	-1.01287E-06	0
32	LL-1 Lane	LinStatic	-0.000475567	0	9.40602E-05	0	-8.81575E-06	0
32	LL-2 Lane	LinStatic	-0.000717798	0	-0.000527639	0	-1.29531E-05	0
32	LL-3 Lane	LinStatic	-0.000819524	0	-0.001545213	0	-1.42993E-05	0
32	LL-7 Lane	LinStatic	-0.00078009	0	-0.008987129	0	-9.71574E-06	0
32	CE-1 Lane	LinStatic	-0.020228374	-0.025001313	0.000104617	0.000119991	8.75909E-07	4.43549E-06
32	CE-2 Lane	LinStatic	-0.033714144	-0.041913966	0.0001742	0.000201161	1.45934E-06	7.43597E-06
32	CE-3 Lane	LinStatic	-0.042941553	-0.053311624	0.000247278	0.000255863	2.18946E-06	9.45804E-06
32	CE-7 Lane	LinStatic	-0.076699272	-0.094857923	0.000397552	0.00045526	3.32416E-06	1.68288E-05
32	BR-1 Lane	LinStatic	-0.006830514	-0.084930931	-1.88707E-05	0.000407616	4.34001E-07	1.50676E-05
32	BR-2 Lane	LinStatic	-0.011321812	-0.141183886	-3.12789E-05	0.000677596	7.19371E-07	2.50475E-05
32	BR-3 Lane	LinStatic	-0.014503147	-0.180156521	-4.0068E-05	0.000864641	9.21509E-07	3.19616E-05
32	BR-7 Lane	LinStatic	-0.025824959	-0.321340407	-7.13468E-05	0.001542237	1.64088E-06	5.70091E-05
32	WSub3: 45deg	LinStatic	-0.000742599	0	0.000373012	0	1.76063E-07	0
32	WSub3: 30deg	LinStatic	-0.000823101	0	0.00026175	0	1.25153E-07	0
32	WSub3: 15deg	LinStatic	-0.000840421	0	0.000150653	0	7.86393E-08	0
32	WSub3: 0deg	LinStatic	-0.000798886	0	0.0002082	0	1.42338E-07	0
32	WSub3: -15deg	LinStatic	-0.00070267	0	0.000249445	0	1.91957E-07	0
32	WSub3: -30deg	LinStatic	-0.00055931	0	0.000286775	0	2.37702E-07	0
32	WSub3: -45deg	LinStatic	-0.000385162	0	0.000292932	0	2.61742E-07	0
32	WA	LinStatic	6.65016E-22	0	0.000199436	0	3.83812E-21	0
32	WS3: 45deg	Combination	-0.02601585	-0.051840958	0.003885509	0.000248805	-2.54555E-07	9.19713E-06
32	WS3: 30deg	Combination	-0.026096351	-0.051840958	0.003774246	0.000248805	-3.05464E-07	9.19713E-06
32	WS3: 15deg	Combination	-0.026113672	-0.051840958	0.003663149	0.000248805	-3.51978E-07	9.19713E-06
32	WS3: 0deg	Combination	-0.026072136	-0.051840958	0.003720696	0.000248805	-2.88279E-07	9.19713E-06
32	WS3: -15deg	Combination	-0.025975921	-0.051840958	0.003761941	0.000248805	-2.38661E-07	9.19713E-06
32	WS3: -30deg	Combination	-0.02583256	-0.051840958	0.003799271	0.000248805	-1.92916E-07	9.19713E-06
32	WServ1: -45deg	Combination	-0.009558047	-0.019181155	0.00140573	9.20578E-05	-7.13788E-08	3.40294E-06
32	WS5: 45deg	Combination	-0.01905289	-0.041268344	0.001908215	0.000198063	1.71688E-07	7.32143E-06
32	WS5: 30deg	Combination	-0.019091853	-0.041268344	0.001854363	0.000198063	1.47048E-07	7.32143E-06
32	WS5: 15deg	Combination	-0.019100236	-0.041268344	0.001800593	0.000198063	1.24536E-07	7.32143E-06
32	WS5: 0deg	Combination	-0.019080133	-0.041268344	0.001828446	0.000198063	1.55366E-07	7.32143E-06
32	WS5: -15deg	Combination	-0.019033564	-0.041268344	0.001848408	0.000198063	1.79381E-07	7.32143E-06
32	WS5: -30deg	Combination	-0.018964178	-0.041268344	0.001866476	0.000198063	2.01522E-07	7.32143E-06
32	WS5: -45deg	Combination	-0.018879891	-0.041268344	0.001869456	0.000198063	2.13157E-07	7.32143E-06
32	LL - 1 Lane	Combination	-0.027632293	-0.109932245	-0.001343669	0.000527607	-8.5187E-06	1.95031E-05
32	WS5 + WA	Combination	-0.018693472	-0.041268344	0.001927112	0.000198063	8.64741E-08	7.32143E-06
32	LL - 2 Lane	Combination	-0.045851591	-0.183097852	-0.001908192	0.000878757	-1.17872E-05	3.24835E-05
32	LL - 3 Lane	Combination	-0.058362061	-0.233468145	-0.002861478	0.001120504	-1.22012E-05	4.14197E-05
32	LL - 7 Lane	Combination	-0.103402158	-0.416198331	-0.010184398	0.001997497	-5.76357E-06	7.38379E-05
32	LL Envelope	Combination Max	-0.027632293	-0.109932245	-0.001343669	0.001997497	-5.76357E-06	7.38379E-05

32	LL Envelope	Combination Min	-0.103402158	-0.416198331	-0.010184398	0.000527607	-1.22012E-05	1.95031E-05
32	WS3 & WA envelope	Combination Max	-0.009558047	-0.019181155	0.003885509	0.000248805	-7.13788E-08	9.19713E-06
32	WS3 & WA envelope	Combination Min	-0.026113672	-0.051840958	0.00140573	9.20578E-05	-4.30617E-07	3.40294E-06
32	WS3 + WA	Combination	-0.02527325	-0.051840958	0.003711932	0.000248805	-4.30617E-07	9.19713E-06
32	WS5 & WA envelope	Combination Max	-0.018693472	-0.041268344	0.001927112	0.000198063	2.13157E-07	7.32143E-06
32	WS5 & WA envelope	Combination Min	-0.019100236	-0.041268344	0.001800593	0.000198063	8.64741E-08	7.32143E-06
32	Strength 1 - Max	Combination Max	-0.051295034	-0.192381428	-0.05586781	0.003495619	-4.57974E-05	0.000129216
32	Strength 1 - Max	Combination Min	-0.183892299	-0.728347079	-0.071339086	0.000923313	-5.70633E-05	3.41305E-05
32	Strength 1 - Min	Combination Max	-0.050345032	-0.192381428	-0.038846443	0.003495619	-3.44813E-05	0.000129216
32	Strength 1 - Min	Combination Min	-0.182942297	-0.728347079	-0.05431772	0.000923313	-4.57472E-05	3.41305E-05
32	Strength 3 - Max	Combination Max	-0.012496569	-0.019181155	-0.049830317	0.000248805	-3.57826E-05	9.19713E-06
32	Strength 3 - Max	Combination Min	-0.029052194	-0.051840958	-0.052310095	9.20578E-05	-3.61418E-05	3.40294E-06
32	Strength 3 - Min	Combination Max	-0.011546567	-0.019181155	-0.03280895	0.000248805	-2.44664E-05	9.19713E-06
32	Strength 3 - Min	Combination Min	-0.028102192	-0.051840958	-0.035288728	9.20578E-05	-2.48257E-05	3.40294E-06
32	Strength 5 - Max	Combination Max	-0.058935589	-0.189676874	-0.053602665	0.002894683	-4.32789E-05	0.000107003
32	Strength 5 - Max	Combination Min	-0.161631672	-0.603136091	-0.06566417	0.000910333	-5.20964E-05	3.36507E-05
32	Strength 5 - Min	Combination Max	-0.057985587	-0.189676874	-0.036581299	0.002894683	-3.19627E-05	0.000107003
32	Strength 5 - Min	Combination Min	-0.16068167	-0.603136091	-0.048642803	0.000910333	-4.07802E-05	3.36507E-05
32	Service 1	Combination Max	-0.039275043	-0.129113399	-0.041895904	0.002089554	-3.37913E-05	7.72408E-05
32	Service 1	Combination Min	-0.115355864	-0.435379485	-0.050880328	0.000619665	-4.03169E-05	2.29061E-05
32	WServ1: 45deg	Combination	-0.009625864	-0.019181155	0.001437638	9.20578E-05	-9.41852E-08	3.40294E-06
32	WServ1: 30deg	Combination	-0.00965565	-0.019181155	0.001396471	9.20578E-05	-1.13022E-07	3.40294E-06
32	WServ1: 15deg	Combination	-0.009662059	-0.019181155	0.001355365	9.20578E-05	-1.30232E-07	3.40294E-06
32	WServ1: 0deg	Combination	-0.009646691	-0.019181155	0.001376658	9.20578E-05	-1.06663E-07	3.40294E-06
32	WServ1: -15deg	Combination	-0.009611091	-0.019181155	0.001391918	9.20578E-05	-8.83044E-08	3.40294E-06
32	WServ1: -30deg	Combination	-0.009558047	-0.019181155	0.00140573	9.20578E-05	-7.13788E-08	3.40294E-06
32	WServ1 + WA	Combination	-0.009351103	-0.019181155	0.001499059	9.20578E-05	-1.59328E-07	3.40294E-06
32	WServ1 & WA envelope	Combination Max	-0.009351103	-0.019181155	0.001499059	9.20578E-05	-7.13788E-08	3.40294E-06
32	WServ1 & WA envelope	Combination Min	-0.009662059	-0.019181155	0.001355365	9.20578E-05	-1.59328E-07	3.40294E-06
32	Strength Envelope	Combination Max	-0.011546567	-0.019181155	-0.03280895	0.003495619	-2.44664E-05	0.000129216
32	Strength Envelope	Combination Min	-0.183892299	-0.728347079	-0.071339086	9.20578E-05	-5.70633E-05	3.40294E-06
33	DEAD	LinStatic	-2.42928E-05	0	-0.004315781	0	4.71692E-06	0
33	R01_Z	LinStatic	1.48329E-05	0	4.154E-08	0	2.38733E-09	0
33	R02_Z	LinStatic	-7.93048E-06	0	4.34672E-08	0	-1.64578E-10	0
33	R03_Z	LinStatic	-1.50399E-06	0	8.30384E-08	0	-6.88335E-11	0
33	R04_Z	LinStatic	-3.90995E-06	0	-9.11978E-09	0	-5.23034E-09	0
33	R05_Z	LinStatic	3.60708E-06	0	-5.88347E-07	0	-1.19843E-08	0
33	R06_Z	LinStatic	-3.29309E-06	0	-2.4975E-06	0	-2.22688E-08	0
33	R07_Z	LinStatic	2.8845E-06	0	-2.2685E-06	0	2.44067E-08	0
33	R08_Z	LinStatic	-3.06955E-06	0	9.10915E-06	0	2.63743E-07	0
33	R09_Z	LinStatic	2.4245E-06	0	3.4296E-05	0	5.29946E-07	0
33	R10_Z	LinStatic	2.19723E-06	0	5.87087E-05	0	-1.13536E-07	0

33	R11_Z	LinStatic	7.3252E-06	0	4.54306E-05	0	-6.78656E-07	0
33	R12_Z	LinStatic	-4.83195E-06	0	8.14647E-06	0	-2.1591E-07	0
33	R_X	LinStatic	0.009364888	0	2.76234E-05	0	1.52415E-06	0
33	R_Y	LinStatic	0	0.031219413	0	-0.000173297	0	-8.47829E-06
33	Cap_R_X	LinStatic	0.000794637	0	2.42464E-06	0	1.14127E-07	0
33	Cap_w_Y	LinStatic	-8.99733E-06	0	-0.001217033	0	1.74701E-06	0
33	Cap_w_Z	LinStatic	-8.99733E-06	0	-0.001217033	0	1.74701E-06	0
33	Col_w_X	LinStatic	2.81056E-19	0	-0.000573645	0	9.31736E-21	0
33	Col_w_Y	LinStatic	2.81056E-19	0	-0.000573645	0	9.31736E-21	0
33	Cais_w_X	LinStatic	8.31019E-20	0	-0.000167626	0	3.28225E-21	0
33	Cais_w_Y	LinStatic	8.31019E-20	0	-0.000167626	0	3.28225E-21	0
33	DC	LinStatic	-0.00136911	0	-0.026603602	0	3.63911E-05	0
33	DW	LinStatic	-0.000221018	0	-0.003809042	0	5.75387E-06	0
33	WS3	LinStatic	-0.025233104	-0.044019372	0.003429101	0.000244349	-1.55953E-05	1.19544E-05
33	WL5	LinStatic	-0.006463537	-0.013736542	3.63831E-05	7.62506E-05	-1.33927E-06	3.73045E-06
33	PL	LinStatic	-7.30906E-05	0	-0.001259648	0	1.9028E-06	0
33	LL-1 Lane	LinStatic	-0.000235943	0	0.001166635	0	-1.41961E-05	0
33	LL-2 Lane	LinStatic	-0.000366925	0	0.001109168	0	-1.9322E-05	0
33	LL-3 Lane	LinStatic	-0.00043393	0	0.000349897	0	-1.91124E-05	0
33	LL-7 Lane	LinStatic	-0.000532498	0	-0.006972006	0	5.29262E-06	0
33	CE-1 Lane	LinStatic	-0.020234314	-0.021229201	0.000136288	0.000117842	-4.30966E-06	5.76524E-06
33	CE-2 Lane	LinStatic	-0.033724031	-0.035590131	0.000226889	0.000197558	-7.18307E-06	9.66525E-06
33	CE-3 Lane	LinStatic	-0.042962653	-0.045268149	0.000222352	0.00025128	-7.37997E-06	1.22935E-05
33	CE-7 Lane	LinStatic	-0.076721876	-0.080546085	0.000516623	0.000447106	-1.63346E-05	2.1874E-05
33	BR-1 Lane	LinStatic	-0.006836368	-0.072116844	-2.01651E-05	0.000400316	-1.11263E-06	1.95848E-05
33	BR-2 Lane	LinStatic	-0.011331514	-0.119882545	-3.34243E-05	0.00066546	-1.84422E-06	3.25566E-05
33	BR-3 Lane	LinStatic	-0.014515576	-0.152975123	-4.28162E-05	0.000849154	-2.36243E-06	4.15436E-05
33	BR-7 Lane	LinStatic	-0.025847091	-0.272857668	-7.62405E-05	0.001514614	-4.20664E-06	7.41002E-05
33	WSub3: 45deg	LinStatic	-0.000753825	0	0.0003415	0	-3.18061E-07	0
33	WSub3: 30deg	LinStatic	-0.000833829	0	0.000245997	0	-2.24653E-07	0
33	WSub3: 15deg	LinStatic	-0.000850171	0	0.000148034	0	-1.39586E-07	0
33	WSub3: 0deg	LinStatic	-0.00080981	0	0.000187195	0	-2.5617E-07	0
33	WSub3: -15deg	LinStatic	-0.000713913	0	0.000212679	0	-3.47295E-07	0
33	WSub3: -30deg	LinStatic	-0.000570339	0	0.000234248	0	-4.31572E-07	0
33	WSub3: -45deg	LinStatic	-0.000395159	0	0.000229898	0	-4.76345E-07	0
33	WA	LinStatic	-1.05873E-19	0	0.000199436	0	-3.17637E-21	0
33	WS3: 45deg	Combination	-0.025986929	-0.044019372	0.003770601	0.000244349	-1.59134E-05	1.19544E-05
33	WS3: 30deg	Combination	-0.026066932	-0.044019372	0.003675098	0.000244349	-1.582E-05	1.19544E-05
33	WS3: 15deg	Combination	-0.026083275	-0.044019372	0.003577134	0.000244349	-1.57349E-05	1.19544E-05
33	WS3: 0deg	Combination	-0.026042913	-0.044019372	0.003616295	0.000244349	-1.58515E-05	1.19544E-05
33	WS3: -15deg	Combination	-0.025947017	-0.044019372	0.003641779	0.000244349	-1.59426E-05	1.19544E-05
33	WS3: -30deg	Combination	-0.025803442	-0.044019372	0.003663349	0.000244349	-1.60269E-05	1.19544E-05

33	WServ1: -45deg	Combination	-0.009547274	-0.016287168	0.001355439	9.0409E-05	-5.92996E-06	4.42312E-06
33	WS5: 45deg	Combination	-0.01904121	-0.035041918	0.001861354	0.000194515	-9.04136E-06	9.51637E-06
33	WS5: 30deg	Combination	-0.019079932	-0.035041918	0.001815131	0.000194515	-8.99615E-06	9.51637E-06
33	WS5: 15deg	Combination	-0.019087842	-0.035041918	0.001767716	0.000194515	-8.95498E-06	9.51637E-06
33	WS5: 0deg	Combination	-0.019068307	-0.035041918	0.00178667	0.000194515	-9.0114E-06	9.51637E-06
33	WS5: -15deg	Combination	-0.019021893	-0.035041918	0.001799004	0.000194515	-9.05551E-06	9.51637E-06
33	WS5: -30deg	Combination	-0.018952403	-0.035041918	0.001809444	0.000194515	-9.0963E-06	9.51637E-06
33	WS5: -45deg	Combination	-0.018867616	-0.035041918	0.001807338	0.000194515	-9.11797E-06	9.51637E-06
33	LL - 1 Lane	Combination	-0.027379716	-0.093346044	2.311E-05	0.000518158	-1.77156E-05	2.53501E-05
33	WS5 + WA	Combination	-0.018676359	-0.035041918	0.001895503	0.000194515	-8.88742E-06	9.51637E-06
33	LL - 2 Lane	Combination	-0.045495561	-0.155472676	4.29849E-05	0.000863018	-2.64465E-05	4.22219E-05
33	LL - 3 Lane	Combination	-0.057985249	-0.198243272	-0.000730215	0.001100435	-2.6952E-05	5.38371E-05
33	LL - 7 Lane	Combination	-0.103174555	-0.353403754	-0.007791271	0.00196172	-1.33458E-05	9.59742E-05
33	LL Envelope	Combination Max	-0.027379716	-0.093346044	4.29849E-05	0.00196172	-1.33458E-05	9.59742E-05
33	LL Envelope	Combination Min	-0.103174555	-0.353403754	-0.007791271	0.000518158	-2.6952E-05	2.53501E-05
33	WS3 & WA envelope	Combination Max	-0.009547274	-0.016287168	0.003770601	0.000244349	-5.92996E-06	1.19544E-05
33	WS3 & WA envelope	Combination Min	-0.026083275	-0.044019372	0.001355439	9.0409E-05	-1.60269E-05	4.42312E-06
33	WS3 + WA	Combination	-0.025233104	-0.044019372	0.003628536	0.000244349	-1.55953E-05	1.19544E-05
33	WS5 & WA envelope	Combination Max	-0.018676359	-0.035041918	0.001895503	0.000194515	-8.88742E-06	9.51637E-06
33	WS5 & WA envelope	Combination Min	-0.019087842	-0.035041918	0.001767716	0.000194515	-9.11797E-06	9.51637E-06
33	Strength 1 - Max	Combination Max	-0.049981285	-0.163355578	-0.044088133	0.00343301	3.66607E-05	0.000167955
33	Strength 1 - Max	Combination Min	-0.182622253	-0.618456569	-0.057798081	0.000906776	1.28499E-05	4.43626E-05
33	Strength 1 - Min	Combination Max	-0.049307548	-0.163355578	-0.030028663	0.00343301	1.73821E-05	0.000167955
33	Strength 1 - Min	Combination Min	-0.181948516	-0.618456569	-0.043738611	0.000906776	-6.4287E-06	4.43626E-05
33	Strength 3 - Max	Combination Max	-0.011614056	-0.016287168	-0.040592192	0.000244349	5.40859E-05	1.19544E-05
33	Strength 3 - Max	Combination Min	-0.028150057	-0.044019372	-0.043007353	9.0409E-05	4.3989E-05	4.42312E-06
33	Strength 3 - Min	Combination Max	-0.010940319	-0.016287168	-0.026532722	0.000244349	3.48073E-05	1.19544E-05
33	Strength 3 - Min	Combination Min	-0.02747632	-0.044019372	-0.028947883	9.0409E-05	2.47104E-05	4.42312E-06
33	Strength 5 - Max	Combination Max	-0.057705758	-0.161059078	-0.042409259	0.002842837	3.31116E-05	0.000139082
33	Strength 5 - Max	Combination Min	-0.160440273	-0.512136985	-0.053113292	0.000894028	1.45127E-05	4.3739E-05
33	Strength 5 - Min	Combination Max	-0.057032021	-0.161059078	-0.028349789	0.002842837	1.3833E-05	0.000139082
33	Strength 5 - Min	Combination Min	-0.159766536	-0.512136985	-0.039053822	0.000894028	-4.76587E-06	4.3739E-05
33	Service 1	Combination Max	-0.038325186	-0.109633212	-0.033217238	0.002052129	2.77459E-05	0.000100397
33	Service 1	Combination Min	-0.114434589	-0.369690921	-0.041196157	0.000608566	1.398E-05	2.97732E-05
33	WServ1: 45deg	Combination	-0.009615164	-0.016287168	0.001395122	9.0409E-05	-5.88796E-06	4.42312E-06
33	WServ1: 30deg	Combination	-0.009644765	-0.016287168	0.001359786	9.0409E-05	-5.8534E-06	4.42312E-06
33	WServ1: 15deg	Combination	-0.009650812	-0.016287168	0.00132354	9.0409E-05	-5.82192E-06	4.42312E-06
33	WServ1: 0deg	Combination	-0.009635878	-0.016287168	0.001338029	9.0409E-05	-5.86506E-06	4.42312E-06
33	WServ1: -15deg	Combination	-0.009600396	-0.016287168	0.001347458	9.0409E-05	-5.89877E-06	4.42312E-06
33	WServ1: -30deg	Combination	-0.009547274	-0.016287168	0.001355439	9.0409E-05	-5.92996E-06	4.42312E-06
33	WServ1 + WA	Combination	-0.009336248	-0.016287168	0.001468203	9.0409E-05	-5.77028E-06	4.42312E-06
33	WServ1 & WA envelope	Combination Max	-0.009336248	-0.016287168	0.001468203	9.0409E-05	-5.77028E-06	4.42312E-06

33	WServ1 & WA envelope	Combination	Min	-0.009650812	-0.016287168	0.00132354	9.0409E-05	-5.92996E-06	4.42312E-06
33	Strength Envelope	Combination	Max	-0.010940319	-0.016287168	-0.026532722	0.00343301	5.40859E-05	0.000167955
33	Strength Envelope	Combination	Min	-0.182622253	-0.618456569	-0.057798081	9.0409E-05	-6.4287E-06	4.42312E-06
34	DEAD	LinStatic		0.000103064	0	-0.004315781	0	4.71692E-06	0
34	R01_Z	LinStatic		1.48974E-05	0	4.154E-08	0	2.38733E-09	0
34	R02_Z	LinStatic		-7.93492E-06	0	4.34672E-08	0	-1.64578E-10	0
34	R03_Z	LinStatic		-1.50585E-06	0	8.30384E-08	0	-6.88335E-11	0
34	R04_Z	LinStatic		-4.05117E-06	0	-9.11978E-09	0	-5.23034E-09	0
34	R05_Z	LinStatic		3.28351E-06	0	-5.88347E-07	0	-1.19843E-08	0
34	R06_Z	LinStatic		-3.89434E-06	0	-2.4975E-06	0	-2.22688E-08	0
34	R07_Z	LinStatic		3.54349E-06	0	-2.2685E-06	0	2.44067E-08	0
34	R08_Z	LinStatic		4.05151E-06	0	9.10915E-06	0	2.63743E-07	0
34	R09_Z	LinStatic		1.6733E-05	0	3.4296E-05	0	5.29946E-07	0
34	R10_Z	LinStatic		-8.68246E-07	0	5.87087E-05	0	-1.13536E-07	0
34	R11_Z	LinStatic		-1.09985E-05	0	4.54306E-05	0	-6.78656E-07	0
34	R12_Z	LinStatic		-1.06615E-05	0	8.14647E-06	0	-2.1591E-07	0
34	R_X	LinStatic		0.00940604	0	2.76234E-05	0	1.52415E-06	0
34	R_Y	LinStatic		0	0.035898427	0	-0.000173297	0	-8.47829E-06
34	Cap_R_X	LinStatic		0.000797718	0	2.42464E-06	0	1.14127E-07	0
34	Cap_w_Y	LinStatic		3.81718E-05	0	-0.001217033	0	1.74701E-06	0
34	Cap_w_Z	LinStatic		3.81718E-05	0	-0.001217033	0	1.74701E-06	0
34	Col_w_X	LinStatic		5.32625E-19	0	-0.000573645	0	9.31736E-21	0
34	Col_w_Y	LinStatic		5.32625E-19	0	-0.000573645	0	9.31736E-21	0
34	Cais_w_X	LinStatic		1.71723E-19	0	-0.000167626	0	3.28225E-21	0
34	Cais_w_Y	LinStatic		1.71723E-19	0	-0.000167626	0	3.28225E-21	0
34	DC	LinStatic		-0.00038135	0	-0.026603602	0	3.63911E-05	0
34	DW	LinStatic		-6.56638E-05	0	-0.003809042	0	5.75387E-06	0
34	WS3	LinStatic		-0.025654178	-0.050616782	0.003429101	0.000244349	-1.55953E-05	1.19544E-05
34	WL5	LinStatic		-0.006499697	-0.015795308	3.63831E-05	7.62506E-05	-1.33927E-06	3.73045E-06
34	PL	LinStatic		-2.1715E-05	0	-0.001259648	0	1.9028E-06	0
34	LL-1 Lane	LinStatic		-0.000619238	0	0.001166635	0	-1.41961E-05	0
34	LL-2 Lane	LinStatic		-0.000888618	0	0.001109168	0	-1.9322E-05	0
34	LL-3 Lane	LinStatic		-0.000949964	0	0.000349897	0	-1.91124E-05	0
34	LL-7 Lane	LinStatic		-0.000389597	0	-0.006972006	0	5.29262E-06	0
34	CE-1 Lane	LinStatic		-0.020350675	-0.02441093	0.000136288	0.000117842	-4.30966E-06	5.76524E-06
34	CE-2 Lane	LinStatic		-0.033917974	-0.040924207	0.000226889	0.000197558	-7.18307E-06	9.66525E-06
34	CE-3 Lane	LinStatic		-0.043161912	-0.052052719	0.000222352	0.00025128	-7.37997E-06	1.22935E-05
34	CE-7 Lane	LinStatic		-0.077162909	-0.092617942	0.000516623	0.000447106	-1.63346E-05	2.1874E-05
34	BR-1 Lane	LinStatic		-0.006866409	-0.082925367	-2.01651E-05	0.000400316	-1.11263E-06	1.95848E-05
34	BR-2 Lane	LinStatic		-0.011381308	-0.13784996	-3.34243E-05	0.00066546	-1.84422E-06	3.25566E-05
34	BR-3 Lane	LinStatic		-0.014579362	-0.175902293	-4.28162E-05	0.000849154	-2.36243E-06	4.15436E-05
34	BR-7 Lane	LinStatic		-0.02596067	-0.313752254	-7.62405E-05	0.001514614	-4.20664E-06	7.41002E-05

34	WSub3: 45deg	LinStatic	-0.000762413	0	0.0003415	0	-3.18061E-07	0
34	WSub3: 30deg	LinStatic	-0.000839894	0	0.000245997	0	-2.24653E-07	0
34	WSub3: 15deg	LinStatic	-0.00085394	0	0.000148034	0	-1.39586E-07	0
34	WSub3: 0deg	LinStatic	-0.000816726	0	0.000187195	0	-2.5617E-07	0
34	WSub3: -15deg	LinStatic	-0.00072329	0	0.000212679	0	-3.47295E-07	0
34	WSub3: -30deg	LinStatic	-0.000581991	0	0.000234248	0	-4.31572E-07	0
34	WSub3: -45deg	LinStatic	-0.00040802	0	0.000229898	0	-4.76345E-07	0
34	WA	LinStatic	-1.91635E-19	0	0.000199436	0	-3.17637E-21	0
34	WS3: 45deg	Combination	-0.02641659	-0.050616782	0.003770601	0.000244349	-1.59134E-05	1.19544E-05
34	WS3: 30deg	Combination	-0.026494072	-0.050616782	0.003675098	0.000244349	-1.582E-05	1.19544E-05
34	WS3: 15deg	Combination	-0.026508118	-0.050616782	0.003577134	0.000244349	-1.57349E-05	1.19544E-05
34	WS3: 0deg	Combination	-0.026470904	-0.050616782	0.003616295	0.000244349	-1.58515E-05	1.19544E-05
34	WS3: -15deg	Combination	-0.026377468	-0.050616782	0.003641779	0.000244349	-1.59426E-05	1.19544E-05
34	WS3: -30deg	Combination	-0.026236169	-0.050616782	0.003663349	0.000244349	-1.60269E-05	1.19544E-05
34	WServ1: -45deg	Combination	-0.009707383	-0.018728209	0.001355439	9.0409E-05	-5.92996E-06	4.42312E-06
34	WS5: 45deg	Combination	-0.019285327	-0.040293831	0.001861354	0.000194515	-9.04136E-06	9.51637E-06
34	WS5: 30deg	Combination	-0.019322828	-0.040293831	0.001815131	0.000194515	-8.99615E-06	9.51637E-06
34	WS5: 15deg	Combination	-0.019329626	-0.040293831	0.001767716	0.000194515	-8.95498E-06	9.51637E-06
34	WS5: 0deg	Combination	-0.019311615	-0.040293831	0.00178667	0.000194515	-9.0114E-06	9.51637E-06
34	WS5: -15deg	Combination	-0.019266392	-0.040293831	0.001799004	0.000194515	-9.05551E-06	9.51637E-06
34	WS5: -30deg	Combination	-0.019198003	-0.040293831	0.001809444	0.000194515	-9.0963E-06	9.51637E-06
34	WS5: -45deg	Combination	-0.019113801	-0.040293831	0.001807338	0.000194515	-9.11797E-06	9.51637E-06
34	LL - 1 Lane	Combination	-0.027858037	-0.107336297	2.311E-05	0.000518158	-1.77156E-05	2.53501E-05
34	WS5 + WA	Combination	-0.018916319	-0.040293831	0.001895503	0.000194515	-8.88742E-06	9.51637E-06
34	LL - 2 Lane	Combination	-0.046209615	-0.178774167	4.29849E-05	0.000863018	-2.64465E-05	4.22219E-05
34	LL - 3 Lane	Combination	-0.058712953	-0.227955013	-0.000730215	0.001100435	-2.6952E-05	5.38371E-05
34	LL - 7 Lane	Combination	-0.103534891	-0.406370196	-0.007791271	0.00196172	-1.33458E-05	9.59742E-05
34	LL Envelope	Combination Max	-0.027858037	-0.107336297	4.29849E-05	0.00196172	-1.33458E-05	9.59742E-05
34	LL Envelope	Combination Min	-0.103534891	-0.406370196	-0.007791271	0.000518158	-2.6952E-05	2.53501E-05
34	WS3 & WA envelope	Combination Max	-0.009707383	-0.018728209	0.003770601	0.000244349	-5.92996E-06	1.19544E-05
34	WS3 & WA envelope	Combination Min	-0.026508118	-0.050616782	0.001355439	9.0409E-05	-1.60269E-05	4.42312E-06
34	WS3 + WA	Combination	-0.025654178	-0.050616782	0.003628536	0.000244349	-1.55953E-05	1.19544E-05
34	WS5 & WA envelope	Combination Max	-0.018916319	-0.040293831	0.001895503	0.000194515	-8.88742E-06	9.51637E-06
34	WS5 & WA envelope	Combination Min	-0.019329626	-0.040293831	0.001767716	0.000194515	-9.11797E-06	9.51637E-06
34	Strength 1 - Max	Combination Max	-0.049197918	-0.18783852	-0.044088133	0.00343301	3.66607E-05	0.000167955
34	Strength 1 - Max	Combination Min	-0.181632413	-0.711147843	-0.057798081	0.000906776	1.28499E-05	4.43626E-05
34	Strength 1 - Min	Combination Max	-0.049044703	-0.18783852	-0.030028663	0.00343301	1.73821E-05	0.000167955
34	Strength 1 - Min	Combination Min	-0.181479199	-0.711147843	-0.043738611	0.000906776	-6.4287E-06	4.43626E-05
34	Strength 3 - Max	Combination Max	-0.010153736	-0.018728209	-0.040592192	0.000244349	5.40859E-05	1.19544E-05
34	Strength 3 - Max	Combination Min	-0.026954471	-0.050616782	-0.043007353	9.0409E-05	4.3989E-05	4.42312E-06
34	Strength 3 - Min	Combination Max	-0.010000522	-0.018728209	-0.026532722	0.000244349	3.48073E-05	1.19544E-05
34	Strength 3 - Min	Combination Min	-0.026801257	-0.050616782	-0.028947883	9.0409E-05	2.47104E-05	4.42312E-06

34	Strength 5 - Max	Combination	Max	-0.056971022	-0.185197832	-0.042409259	0.002842837	3.31116E-05	0.000139082
34	Strength 5 - Max	Combination	Min	-0.159548083	-0.588893595	-0.053113292	0.000894028	1.45127E-05	4.3739E-05
34	Strength 5 - Min	Combination	Max	-0.056817808	-0.185197832	-0.028349789	0.002842837	1.3833E-05	0.000139082
34	Strength 5 - Min	Combination	Min	-0.159394869	-0.588893595	-0.039053822	0.000894028	-4.76587E-06	4.3739E-05
34	Service 1	Combination	Max	-0.037694032	-0.126064507	-0.033217238	0.002052129	2.77459E-05	0.000100397
34	Service 1	Combination	Min	-0.113686845	-0.425098405	-0.041196157	0.000608566	1.398E-05	2.97732E-05
34	WServ1: 45deg	Combination		-0.009774138	-0.018728209	0.001395122	9.0409E-05	-5.88796E-06	4.42312E-06
34	WServ1: 30deg	Combination		-0.009802807	-0.018728209	0.001359786	9.0409E-05	-5.8534E-06	4.42312E-06
34	WServ1: 15deg	Combination		-0.009808004	-0.018728209	0.00132354	9.0409E-05	-5.82192E-06	4.42312E-06
34	WServ1: 0deg	Combination		-0.009794234	-0.018728209	0.001338029	9.0409E-05	-5.86506E-06	4.42312E-06
34	WServ1: -15deg	Combination		-0.009759663	-0.018728209	0.001347458	9.0409E-05	-5.89877E-06	4.42312E-06
34	WServ1: -30deg	Combination		-0.009707383	-0.018728209	0.001355439	9.0409E-05	-5.92996E-06	4.42312E-06
34	WServ1 + WA	Combination		-0.009492046	-0.018728209	0.001468203	9.0409E-05	-5.77028E-06	4.42312E-06
34	WServ1 & WA envelope	Combination	Max	-0.009492046	-0.018728209	0.001468203	9.0409E-05	-5.77028E-06	4.42312E-06
34	WServ1 & WA envelope	Combination	Min	-0.009808004	-0.018728209	0.00132354	9.0409E-05	-5.92996E-06	4.42312E-06
34	Strength Envelope	Combination	Max	-0.010000522	-0.018728209	-0.026532722	0.00343301	5.40859E-05	0.000167955
34	Strength Envelope	Combination	Min	-0.181632413	-0.711147843	-0.057798081	9.0409E-05	-6.4287E-06	4.42312E-06
35	DEAD	LinStatic		-3.20291E-05	0	-0.005222082	0	-4.89825E-06	0
35	R01_Z	LinStatic		1.48008E-05	0	1.29136E-07	0	-4.31506E-10	0
35	R02_Z	LinStatic		-7.91329E-06	0	-6.66874E-08	0	5.51491E-10	0
35	R03_Z	LinStatic		-1.5006E-06	0	4.10107E-08	0	4.69925E-10	0
35	R04_Z	LinStatic		-3.90102E-06	0	1.47127E-07	0	1.22742E-10	0
35	R05_Z	LinStatic		3.59944E-06	0	1.05103E-07	0	-3.0279E-09	0
35	R06_Z	LinStatic		-3.28819E-06	0	-9.14885E-07	0	-1.20579E-08	0
35	R07_Z	LinStatic		2.87194E-06	0	-2.49942E-06	0	-1.12042E-08	0
35	R08_Z	LinStatic		-3.07258E-06	0	-3.99602E-06	0	4.46217E-08	0
35	R09_Z	LinStatic		2.42789E-06	0	3.24145E-06	0	1.67409E-07	0
35	R10_Z	LinStatic		2.30631E-06	0	4.54306E-05	0	2.86671E-07	0
35	R11_Z	LinStatic		7.59303E-06	0	0.000114306	0	2.27908E-08	0
35	R12_Z	LinStatic		-4.83308E-06	0	3.78776E-05	0	-2.89562E-07	0
35	R_X	LinStatic		0.009365878	0	8.91967E-05	0	-2.06553E-08	0
35	R_Y	LinStatic		0	0.030276611	0	-0.000171325	0	-1.10657E-05
35	Cap_R_X	LinStatic		0.000803463	0	7.88358E-06	0	-2.30882E-08	0
35	Cap_w_Y	LinStatic		-1.18626E-05	0	-0.0015527	0	-1.81417E-06	0
35	Cap_w_Z	LinStatic		-1.18626E-05	0	-0.0015527	0	-1.81417E-06	0
35	Col_w_X	LinStatic		2.8813E-19	0	-0.000573645	0	3.43313E-20	0
35	Col_w_Y	LinStatic		2.8813E-19	0	-0.000573645	0	3.43313E-20	0
35	Cais_w_X	LinStatic		8.51282E-20	0	-0.000167626	0	1.02852E-20	0
35	Cais_w_Y	LinStatic		8.51282E-20	0	-0.000167626	0	1.02852E-20	0
35	DC	LinStatic		-0.001428221	0	-0.033740553	0	-4.21616E-05	0
35	DW	LinStatic		-0.000230084	0	-0.004905092	0	-5.22277E-06	0
35	WS3	LinStatic		-0.025226427	-0.042690022	0.004780949	0.000241569	2.55796E-06	1.56026E-05

35	WL5	LinStatic	-0.006464055	-0.013321709	2.6649E-05	7.53832E-05	1.44197E-08	4.86891E-06
35	PL	LinStatic	-7.60885E-05	0	-0.001622111	0	-1.72717E-06	0
35	LL-1 Lane	LinStatic	-0.000231135	0	0.002526749	0	-3.02453E-06	0
35	LL-2 Lane	LinStatic	-0.000361402	0	0.002882206	0	-5.04478E-06	0
35	LL-3 Lane	LinStatic	-0.00043006	0	0.001981692	0	-6.43467E-06	0
35	LL-7 Lane	LinStatic	-0.000548235	0	-0.008546498	0	-1.15091E-05	0
35	CE-1 Lane	LinStatic	-0.020235869	-0.020588096	0.000118966	0.000116501	4.65705E-08	7.52468E-06
35	CE-2 Lane	LinStatic	-0.033726622	-0.034515337	0.000198266	0.000195311	7.41721E-08	1.26149E-05
35	CE-3 Lane	LinStatic	-0.042965937	-0.043901086	-5.96473E-05	0.000248422	2.48837E-06	1.60453E-05
35	CE-7 Lane	LinStatic	-0.076727771	-0.078113657	0.00045091 1	0.000442019	1.74303E-07	2.85495E-05
35	BR-1 Lane	LinStatic	-0.006837091	-0.069938972	-6.51136E-05	0.000395762	1.50784E-08	2.55618E-05
35	BR-2 Lane	LinStatic	-0.011332712	-0.116262187	-0.000107928	0.000657889	2.49929E-08	4.24923E-05
35	BR-3 Lane	LinStatic	-0.014517111	-0.148355395	-0.000138255	0.000839494	3.20157E-08	5.4222E-05
35	BR-7 Lane	LinStatic	-0.025849824	-0.264617582	-0.000246183	0.001497384	5.70086E-08	9.67143E-05
35	WSub3: 45deg	LinStatic	-0.000761867	0	0.000376594	0	2.39634E-07	0
35	WSub3: 30deg	LinStatic	-0.000842925	0	0.000260405	0	1.33093E-07	0
35	WSub3: 15deg	LinStatic	-0.000859587	0	0.000145549	0	4.28461E-08	0
35	WSub3: 0deg	LinStatic	-0.000818584	0	0.00020848	0	1.68683E-07	0
35	WSub3: -15deg	LinStatic	-0.000721456	0	0.000254759	0	2.74763E-07	0
35	WSub3: -30deg	LinStatic	-0.000576121	0	0.000297451	0	3.79457E-07	0
35	WSub3: -45deg	LinStatic	-0.000398885	0	0.000307728	0	4.46944E-07	0
35	WA	LinStatic	-1.08348E-19	0	0.000199436	0	-1.20338E-20	0
35	WS3: 45deg	Combination	-0.025988293	-0.042690022	0.005157542	0.000241569	2.7976E-06	1.56026E-05
35	WS3: 30deg	Combination	-0.026069352	-0.042690022	0.005041354	0.000241569	2.69106E-06	1.56026E-05
35	WS3: 15deg	Combination	-0.026086014	-0.042690022	0.004926498	0.000241569	2.60081E-06	1.56026E-05
35	WS3: 0deg	Combination	-0.02604501	-0.042690022	0.004989428	0.000241569	2.72665E-06	1.56026E-05
35	WS3: -15deg	Combination	-0.025947883	-0.042690022	0.005035708	0.000241569	2.83273E-06	1.56026E-05
35	WS3: -30deg	Combination	-0.025802548	-0.042690022	0.0050784	0.000241569	2.93742E-06	1.56026E-05
35	WServ1: -45deg	Combination	-0.009546943	-0.015795308	0.001879008	8.93805E-05	1.08685E-06	5.77298E-06
35	WS5: 45deg	Combination	-0.019042389	-0.033983679	0.0025229	0.000192302	1.36846E-06	1.24206E-05
35	WS5: 30deg	Combination	-0.019081621	-0.033983679	0.002466664	0.000192302	1.31689E-06	1.24206E-05
35	WS5: 15deg	Combination	-0.019089686	-0.033983679	0.002411074	0.000192302	1.27321E-06	1.24206E-05
35	WS5: 0deg	Combination	-0.01906984	-0.033983679	0.002441532	0.000192302	1.33412E-06	1.24206E-05
35	WS5: -15deg	Combination	-0.01902283	-0.033983679	0.002463931	0.000192302	1.38546E-06	1.24206E-05
35	WS5: -30deg	Combination	-0.018952488	-0.033983679	0.002484594	0.000192302	1.43613E-06	1.24206E-05
35	WS5: -45deg	Combination	-0.018866706	-0.033983679	0.002489569	0.000192302	1.4688E-06	1.24206E-05
35	LL - 1 Lane	Combination	-0.027380183	-0.090527067	0.000958491	0.000512263	-4.69005E-06	3.30865E-05
35	WS5 + WA	Combination	-0.018673645	-0.033983679	0.002540064	0.000192302	1.25247E-06	1.24206E-05
35	LL - 2 Lane	Combination	-0.045496825	-0.150777524	0.001350434	0.0008532	-6.67278E-06	5.51072E-05
35	LL - 3 Lane	Combination	-0.057989196	-0.192256481	0.000161679	0.001087916	-5.64145E-06	7.02672E-05
35	LL - 7 Lane	Combination	-0.103201918	-0.342731239	-0.009963881	0.001939403	-1.3005E-05	0.000125264
35	LL Envelope	Combination Max	-0.027380183	-0.090527067	0.001350434	0.001939403	-4.69005E-06	0.000125264

35	LL Envelope	Combination	Min	-0.103201918	-0.342731239	-0.009963881	0.000512263	-1.3005E-05	3.30865E-05
35	WS3 & WA envelope	Combination	Max	-0.009546943	-0.015795308	0.005157542	0.000241569	2.93742E-06	1.56026E-05
35	WS3 & WA envelope	Combination	Min	-0.026086014	-0.042690022	0.001879008	8.93805E-05	1.08685E-06	5.77298E-06
35	WS3 + WA	Combination		-0.025226427	-0.042690022	0.004980384	0.000241569	2.55796E-06	1.56026E-05
35	WS5 & WA envelope	Combination	Max	-0.018673645	-0.033983679	0.002540064	0.000192302	1.4688E-06	1.24206E-05
35	WS5 & WA envelope	Combination	Min	-0.019089686	-0.033983679	0.002411074	0.000192302	1.25247E-06	1.24206E-05
35	Strength 1 - Max	Combination	Max	-0.050085758	-0.158422368	-0.053498237	0.003393956	-7.48665E-05	0.000219212
35	Strength 1 - Max	Combination	Min	-0.182773795	-0.599779667	-0.073298288	0.00089646	-8.94176E-05	5.79013E-05
35	Strength 1 - Min	Combination	Max	-0.0493791	-0.158422368	-0.035691987	0.003393956	-5.39562E-05	0.000219212
35	Strength 1 - Min	Combination	Min	-0.182067136	-0.599779667	-0.055492037	0.00089646	-6.85073E-05	5.79013E-05
35	Strength 3 - Max	Combination	Max	-0.011717381	-0.015795308	-0.050903389	0.000241569	-6.37215E-05	1.56026E-05
35	Strength 3 - Max	Combination	Min	-0.028256452	-0.042690022	-0.054181924	8.93805E-05	-6.55721E-05	5.77298E-06
35	Strength 3 - Min	Combination	Max	-0.011010722	-0.015795308	-0.033097139	0.000241569	-4.28112E-05	1.56026E-05
35	Strength 3 - Min	Combination	Min	-0.027549794	-0.042690022	-0.036375673	8.93805E-05	-4.46618E-05	5.77298E-06
35	Strength 5 - Max	Combination	Max	-0.057807331	-0.15619522	-0.051697782	0.002810497	-7.15217E-05	0.000181527
35	Strength 5 - Max	Combination	Min	-0.160582713	-0.496670851	-0.067101097	0.000883857	-8.29632E-05	5.70873E-05
35	Strength 5 - Min	Combination	Max	-0.057100672	-0.15619522	-0.033891532	0.002810497	-5.06114E-05	0.000181527
35	Strength 5 - Min	Combination	Min	-0.159876054	-0.496670851	-0.049294846	0.000883857	-6.20529E-05	5.70873E-05
35	Service 1	Combination	Max	-0.038404295	-0.106322375	-0.040548907	0.002028784	-5.58858E-05	0.000131037
35	Service 1	Combination	Min	-0.114544077	-0.358526547	-0.052008804	0.000601643	-6.43411E-05	3.88594E-05
35	WServ1: 45deg	Combination		-0.009615669	-0.015795308	0.001908291	8.93805E-05	1.03511E-06	5.77298E-06
35	WServ1: 30deg	Combination		-0.00964566	-0.015795308	0.001865301	8.93805E-05	9.95691E-07	5.77298E-06
35	WServ1: 15deg	Combination		-0.009651825	-0.015795308	0.001822804	8.93805E-05	9.623E-07	5.77298E-06
35	WServ1: 0deg	Combination		-0.009636654	-0.015795308	0.001846089	8.93805E-05	1.00886E-06	5.77298E-06
35	WServ1: -15deg	Combination		-0.009600717	-0.015795308	0.001863212	8.93805E-05	1.04811E-06	5.77298E-06
35	WServ1: -30deg	Combination		-0.009546943	-0.015795308	0.001879008	8.93805E-05	1.08685E-06	5.77298E-06
35	WServ1 + WA	Combination		-0.009333778	-0.015795308	0.001968387	8.93805E-05	9.46447E-07	5.77298E-06
35	WServ1 & WA envelope	Combination	Max	-0.009333778	-0.015795308	0.001968387	8.93805E-05	1.08685E-06	5.77298E-06
35	WServ1 & WA envelope	Combination	Min	-0.009651825	-0.015795308	0.001822804	8.93805E-05	9.46447E-07	5.77298E-06
35	Strength Envelope	Combination	Max	-0.011010722	-0.015795308	-0.033097139	0.003393956	-4.28112E-05	0.000219212
35	Strength Envelope	Combination	Min	-0.182773795	-0.599779667	-0.073298288	8.93805E-05	-8.94176E-05	5.77298E-06
36	DEAD	LinStatic		-0.000164282	0	-0.005222082	0	-4.89825E-06	0
36	R01_Z	LinStatic		1.47891E-05	0	1.29136E-07	0	-4.31506E-10	0
36	R02_Z	LinStatic		-7.8984E-06	0	-6.66874E-08	0	5.51491E-10	0
36	R03_Z	LinStatic		-1.48791E-06	0	4.10107E-08	0	4.69925E-10	0
36	R04_Z	LinStatic		-3.89771E-06	0	1.47127E-07	0	1.22742E-10	0
36	R05_Z	LinStatic		3.51768E-06	0	1.05103E-07	0	-3.0279E-09	0
36	R06_Z	LinStatic		-3.61376E-06	0	-9.14885E-07	0	-1.20579E-08	0
36	R07_Z	LinStatic		2.56943E-06	0	-2.49942E-06	0	-1.12042E-08	0
36	R08_Z	LinStatic		-1.8678E-06	0	-3.99602E-06	0	4.46217E-08	0
36	R09_Z	LinStatic		6.94792E-06	0	3.24145E-06	0	1.67409E-07	0
36	R10_Z	LinStatic		1.00464E-05	0	4.54306E-05	0	2.86671E-07	0

36	R11_Z	LinStatic	8.20838E-06	0	0.000114306	0	2.27908E-08	0
36	R12_Z	LinStatic	-1.26513E-05	0	3.78776E-05	0	-2.89562E-07	0
36	R_X	LinStatic	0.00936532	0	8.91967E-05	0	-2.06553E-08	0
36	R_Y	LinStatic	0	0.034902397	0	-0.000171325	0	-1.10657E-05
36	Cap_R_X	LinStatic	0.00080284	0	7.88358E-06	0	-2.30882E-08	0
36	Cap_w_Y	LinStatic	-6.08451E-05	0	-0.0015527	0	-1.81417E-06	0
36	Cap_w_Z	LinStatic	-6.08451E-05	0	-0.0015527	0	-1.81417E-06	0
36	Col_w_X	LinStatic	1.21508E-18	0	-0.000573645	0	3.43313E-20	0
36	Col_w_Y	LinStatic	1.21508E-18	0	-0.000573645	0	3.43313E-20	0
36	Cais_w_X	LinStatic	3.62828E-19	0	-0.000167626	0	1.02852E-20	0
36	Cais_w_Y	LinStatic	3.62828E-19	0	-0.000167626	0	1.02852E-20	0
36	DC	LinStatic	-0.002566584	0	-0.033740553	0	-4.21616E-05	0
36	DW	LinStatic	-0.000371098	0	-0.004905092	0	-5.22277E-06	0
36	WS3	LinStatic	-0.025157362	-0.049212379	0.004780949	0.000241569	2.55796E-06	1.56026E-05
36	WL5	LinStatic	-0.006463665	-0.015357054	2.6649E-05	7.53832E-05	1.44197E-08	4.86891E-06
36	PL	LinStatic	-0.000122722	0	-0.001622111	0	-1.72717E-06	0
36	LL-1 Lane	LinStatic	-0.000312797	0	0.002526749	0	-3.02453E-06	0
36	LL-2 Lane	LinStatic	-0.000497611	0	0.002882206	0	-5.04478E-06	0
36	LL-3 Lane	LinStatic	-0.000603797	0	0.001981692	0	-6.43467E-06	0
36	LL-7 Lane	LinStatic	-0.000858981	0	-0.008546498	0	-1.15091E-05	0
36	CE-1 Lane	LinStatic	-0.020234611	-0.02373363	0.000118966	0.000116501	4.65705E-08	7.52468E-06
36	CE-2 Lane	LinStatic	-0.03372462	-0.039788732	0.000198266	0.000195311	7.41721E-08	1.26149E-05
36	CE-3 Lane	LinStatic	-0.04289875	-0.050608475	-5.96473E-05	0.000248422	2.48837E-06	1.60453E-05
36	CE-7 Lane	LinStatic	-0.076723065	-0.090048183	0.000450911	0.000442019	1.74303E-07	2.85495E-05
36	BR-1 Lane	LinStatic	-0.006836684	-0.080624536	-6.51136E-05	0.000395762	1.50784E-08	2.55618E-05
36	BR-2 Lane	LinStatic	-0.011332038	-0.134025203	-0.000107928	0.000657889	2.49929E-08	4.24923E-05
36	BR-3 Lane	LinStatic	-0.014516247	-0.171021743	-0.000138255	0.000839494	3.20157E-08	5.4222E-05
36	BR-7 Lane	LinStatic	-0.025848284	-0.305046945	-0.000246183	0.001497384	5.70086E-08	9.67143E-05
36	WSub3: 45deg	LinStatic	-0.000755396	0	0.000376594	0	2.39634E-07	0
36	WSub3: 30deg	LinStatic	-0.000839331	0	0.000260405	0	1.33093E-07	0
36	WSub3: 15deg	LinStatic	-0.00085843	0	0.000145549	0	4.28461E-08	0
36	WSub3: 0deg	LinStatic	-0.000814029	0	0.00020848	0	1.68683E-07	0
36	WSub3: -15deg	LinStatic	-0.000714038	0	0.000254759	0	2.74763E-07	0
36	WSub3: -30deg	LinStatic	-0.000565876	0	0.000297451	0	3.79457E-07	0
36	WSub3: -45deg	LinStatic	-0.000386817	0	0.000307728	0	4.46944E-07	0
36	WA	LinStatic	-4.33261E-19	0	0.000199436	0	-1.20338E-20	0
36	WS3: 45deg	Combination	-0.025912758	-0.049212379	0.005157542	0.000241569	2.7976E-06	1.56026E-05
36	WS3: 30deg	Combination	-0.025996693	-0.049212379	0.005041354	0.000241569	2.69106E-06	1.56026E-05
36	WS3: 15deg	Combination	-0.026015792	-0.049212379	0.004926498	0.000241569	2.60081E-06	1.56026E-05
36	WS3: 0deg	Combination	-0.025971391	-0.049212379	0.004989428	0.000241569	2.72665E-06	1.56026E-05
36	WS3: -15deg	Combination	-0.025871399	-0.049212379	0.005035708	0.000241569	2.83273E-06	1.56026E-05
36	WS3: -30deg	Combination	-0.025723238	-0.049212379	0.0050784	0.000241569	2.93742E-06	1.56026E-05

36	WServ1: -45deg	Combination	-0.009517598	-0.01820858	0.001879008	8.93805E-05	1.08685E-06	5.77298E-06
36	WS5: 45deg	Combination	-0.019005441	-0.039175846	0.0025229	0.000192302	1.36846E-06	1.24206E-05
36	WS5: 30deg	Combination	-0.019046065	-0.039175846	0.002466664	0.000192302	1.31689E-06	1.24206E-05
36	WS5: 15deg	Combination	-0.019055309	-0.039175846	0.002411074	0.000192302	1.27321E-06	1.24206E-05
36	WS5: 0deg	Combination	-0.019033819	-0.039175846	0.002441532	0.000192302	1.33412E-06	1.24206E-05
36	WS5: -15deg	Combination	-0.018985423	-0.039175846	0.002463931	0.000192302	1.38546E-06	1.24206E-05
36	WS5: -30deg	Combination	-0.018913712	-0.039175846	0.002484594	0.000192302	1.43613E-06	1.24206E-05
36	WS5: -45deg	Combination	-0.018827048	-0.039175846	0.002489569	0.000192302	1.4688E-06	1.24206E-05
36	LL - 1 Lane	Combination	-0.027506814	-0.104358166	0.000958491	0.000512263	-4.69005E-06	3.30865E-05
36	WS5 + WA	Combination	-0.018639829	-0.039175846	0.002540064	0.000192302	1.25247E-06	1.24206E-05
36	LL - 2 Lane	Combination	-0.04567699	-0.173813935	0.001350434	0.0008532	-6.67278E-06	5.51072E-05
36	LL - 3 Lane	Combination	-0.058141516	-0.221630218	0.000161679	0.001087916	-5.64145E-06	7.02672E-05
36	LL - 7 Lane	Combination	-0.103553052	-0.395095128	-0.009963881	0.001939403	-1.3005E-05	0.000125264
36	LL Envelope	Combination Max	-0.027506814	-0.104358166	0.001350434	0.001939403	-4.69005E-06	0.000125264
36	LL Envelope	Combination Min	-0.103553052	-0.395095128	-0.009963881	0.000512263	-1.3005E-05	3.30865E-05
36	WS3 & WA envelope	Combination Max	-0.009517598	-0.01820858	0.005157542	0.000241569	2.93742E-06	1.56026E-05
36	WS3 & WA envelope	Combination Min	-0.026015792	-0.049212379	0.001879008	8.93805E-05	1.08685E-06	5.77298E-06
36	WS3 + WA	Combination	-0.025157362	-0.049212379	0.004980384	0.000241569	2.55796E-06	1.56026E-05
36	WS5 & WA envelope	Combination Max	-0.018639829	-0.039175846	0.002540064	0.000192302	1.4688E-06	1.24206E-05
36	WS5 & WA envelope	Combination Min	-0.019055309	-0.039175846	0.002411074	0.000192302	1.25247E-06	1.24206E-05
36	Strength 1 - Max	Combination Max	-0.052107155	-0.18262679	-0.053498237	0.003393956	-7.48665E-05	0.000219212
36	Strength 1 - Max	Combination Min	-0.18518807	-0.691416475	-0.073298288	0.00089646	-8.94176E-05	5.79013E-05
36	Strength 1 - Min	Combination Max	-0.050835918	-0.18262679	-0.035691987	0.003393956	-5.39562E-05	0.000219212
36	Strength 1 - Min	Combination Min	-0.183916834	-0.691416475	-0.055492037	0.00089646	-6.85073E-05	5.79013E-05
36	Strength 3 - Max	Combination Max	-0.013487828	-0.01820858	-0.050903389	0.000241569	-6.37215E-05	1.56026E-05
36	Strength 3 - Max	Combination Min	-0.029986022	-0.049212379	-0.054181924	8.93805E-05	-6.55721E-05	5.77298E-06
36	Strength 3 - Min	Combination Max	-0.012216591	-0.01820858	-0.033097139	0.000241569	-4.28112E-05	1.56026E-05
36	Strength 3 - Min	Combination Min	-0.028714785	-0.049212379	-0.036375673	8.93805E-05	-4.46618E-05	5.77298E-06
36	Strength 5 - Max	Combination Max	-0.059744258	-0.180059369	-0.051697782	0.002810497	-7.15217E-05	0.000181527
36	Strength 5 - Max	Combination Min	-0.162822159	-0.572554269	-0.067101097	0.000883857	-8.29632E-05	5.70873E-05
36	Strength 5 - Min	Combination Max	-0.058473021	-0.180059369	-0.033891532	0.002810497	-5.06114E-05	0.000181527
36	Strength 5 - Min	Combination Min	-0.161550922	-0.572554269	-0.049294846	0.000883857	-6.20529E-05	5.70873E-05
36	Service 1	Combination Max	-0.039917002	-0.122566746	-0.040548907	0.002028784	-5.58858E-05	0.000131037
36	Service 1	Combination Min	-0.116280859	-0.413303709	-0.052008804	0.000601643	-6.43411E-05	3.88594E-05
36	WServ1: 45deg	Combination	-0.009587721	-0.01820858	0.001908291	8.93805E-05	1.03511E-06	5.77298E-06
36	WServ1: 30deg	Combination	-0.009618776	-0.01820858	0.001865301	8.93805E-05	9.95691E-07	5.77298E-06
36	WServ1: 15deg	Combination	-0.009625843	-0.01820858	0.001822804	8.93805E-05	9.623E-07	5.77298E-06
36	WServ1: 0deg	Combination	-0.009609415	-0.01820858	0.001846089	8.93805E-05	1.00886E-06	5.77298E-06
36	WServ1: -15deg	Combination	-0.009572418	-0.01820858	0.001863212	8.93805E-05	1.04811E-06	5.77298E-06
36	WServ1: -30deg	Combination	-0.009517598	-0.01820858	0.001879008	8.93805E-05	1.08685E-06	5.77298E-06
36	WServ1 + WA	Combination	-0.009308224	-0.01820858	0.001968387	8.93805E-05	9.46447E-07	5.77298E-06
36	WServ1 & WA envelope	Combination Max	-0.009308224	-0.01820858	0.001968387	8.93805E-05	1.08685E-06	5.77298E-06

36	WServ1 & WA envelope	Combination	Min	-0.009625843	-0.01820858	0.001822804	8.93805E-05	9.46447E-07	5.77298E-06
36	Strength Envelope	Combination	Max	-0.012216591	-0.01820858	-0.033097139	0.003393956	-4.28112E-05	0.000219212
36	Strength Envelope	Combination	Min	-0.18518807	-0.691416475	-0.073298288	8.93805E-05	-8.94176E-05	5.77298E-06
37	DEAD	LinStatic		-3.96873E-05	0	-0.003157956	0	-2.62321E-05	0
37	R01_Z	LinStatic		1.4769E-05	0	-9.22262E-08	0	8.6342E-09	0
37	R02_Z	LinStatic		-7.89626E-06	0	4.21124E-08	0	-4.59043E-09	0
37	R03_Z	LinStatic		-1.49724E-06	0	1.69675E-08	0	-4.22352E-10	0
37	R04_Z	LinStatic		-3.89219E-06	0	8.51345E-08	0	-7.87583E-10	0
37	R05_Z	LinStatic		3.59187E-06	0	7.52144E-08	0	2.64558E-09	0
37	R06_Z	LinStatic		-3.28335E-06	0	2.4581E-08	0	-9.44412E-09	0
37	R07_Z	LinStatic		2.85951E-06	0	-5.91637E-07	0	-1.92852E-08	0
37	R08_Z	LinStatic		-3.07558E-06	0	-2.4277E-06	0	-3.34863E-08	0
37	R09_Z	LinStatic		2.43123E-06	0	-3.10162E-06	0	3.12738E-08	0
37	R10_Z	LinStatic		2.41428E-06	0	8.14647E-06	0	3.8015E-07	0
37	R11_Z	LinStatic		7.85815E-06	0	3.78776E-05	0	9.43176E-07	0
37	R12_Z	LinStatic		-4.83421E-06	0	5.96006E-05	0	-5.96395E-08	0
37	R_X	LinStatic		0.00935637	0	-7.20144E-05	0	6.02833E-06	0
37	R_Y	LinStatic		0	0.029062085	0	-0.000167488	0	-1.27034E-05
37	Cap_R_X	LinStatic		0.000812201	0	-4.83431E-06	0	4.81778E-07	0
37	Cap_w_Y	LinStatic		-1.4699E-05	0	-0.000788209	0	-9.71561E-06	0
37	Cap_w_Z	LinStatic		-1.4699E-05	0	-0.000788209	0	-9.71561E-06	0
37	Col_w_X	LinStatic		2.95132E-19	0	-0.000573645	0	2.58345E-20	0
37	Col_w_Y	LinStatic		2.95132E-19	0	-0.000573645	0	2.58345E-20	0
37	Cais_w_X	LinStatic		8.71341E-20	0	-0.000167626	0	7.41154E-21	0
37	Cais_w_Y	LinStatic		8.71341E-20	0	-0.000167626	0	7.41154E-21	0
37	DC	LinStatic		-0.001491882	0	-0.016595829	0	-0.000221119	0
37	DW	LinStatic		-0.000239057	0	-0.002522281	0	-3.13395E-05	0
37	WS3	LinStatic		-0.0251915	-0.04097754	0.002963202	0.000236157	1.46185E-05	1.79119E-05
37	WL5	LinStatic		-0.006457331	-0.012787318	0.000101189	7.36945E-05	-3.6353E-06	5.58951E-06
37	PL	LinStatic		-7.90561E-05	0	-0.000834117	0	-1.03639E-05	0
37	LL-1 Lane	LinStatic		-0.000226375	0	0.00167394	0	1.37531E-05	0
37	LL-2 Lane	LinStatic		-0.000355934	0	0.002014327	0	1.50174E-05	0
37	LL-3 Lane	LinStatic		-0.00042623	0	0.001579545	0	9.08337E-06	0
37	LL-7 Lane	LinStatic		-0.000563813	0	-0.004236745	0	-5.56135E-05	0
37	CE-1 Lane	LinStatic		-0.020214754	-0.019762218	0.000337352	0.000113892	-1.11675E-05	8.63834E-06
37	CE-2 Lane	LinStatic		-0.033691431	-0.033130777	0.000562602	0.000190936	-1.86152E-05	1.44819E-05
37	CE-3 Lane	LinStatic		-0.042921048	-0.042140024	0.000225115	0.000242857	-2.324E-05	1.842E-05
37	CE-7 Lane	LinStatic		-0.076647711	-0.07498018	0.001279293	0.000432118	-4.23464E-05	3.27749E-05
37	BR-1 Lane	LinStatic		-0.00683015	-0.067133417	5.25705E-05	0.000386896	-4.40068E-06	2.9345E-05
37	BR-2 Lane	LinStatic		-0.011321208	-0.111598408	8.71374E-05	0.000643152	-7.29428E-06	4.87812E-05
37	BR-3 Lane	LinStatic		-0.014502374	-0.142404219	0.000111622	0.000820689	-9.34392E-06	6.22469E-05
37	BR-7 Lane	LinStatic		-0.025823582	-0.254002627	0.00019876	0.001463841	-1.66382E-05	0.000111028

37	WSub3: 45deg	LinStatic	-0.000769827	0	0.000296937	0	7.08184E-07	0
37	WSub3: 30deg	LinStatic	-0.000851929	0	0.00022789	0	7.70697E-08	0
37	WSub3: 15deg	LinStatic	-0.000868908	0	0.000151512	0	-4.18346E-07	0
37	WSub3: 0deg	LinStatic	-0.000827269	0	0.000160293	0	2.85835E-07	0
37	WSub3: -15deg	LinStatic	-0.000728923	0	0.000159176	0	9.26585E-07	0
37	WSub3: -30deg	LinStatic	-0.000581845	0	0.00015371	0	1.59624E-06	0
37	WSub3: -45deg	LinStatic	-0.000402573	0	0.000130609	0	2.09086E-06	0
37	WA	LinStatic	-1.10799E-19	0	0.000199436	0	-9.1056E-21	0
37	WS3: 45deg	Combination	-0.025961327	-0.04097754	0.003260139	0.000236157	1.53267E-05	1.79119E-05
37	WS3: 30deg	Combination	-0.026043429	-0.04097754	0.003191092	0.000236157	1.46956E-05	1.79119E-05
37	WS3: 15deg	Combination	-0.026060408	-0.04097754	0.003114714	0.000236157	1.42002E-05	1.79119E-05
37	WS3: 0deg	Combination	-0.026018769	-0.04097754	0.003123495	0.000236157	1.49044E-05	1.79119E-05
37	WS3: -15deg	Combination	-0.025920423	-0.04097754	0.003122378	0.000236157	1.55451E-05	1.79119E-05
37	WS3: -30deg	Combination	-0.025773345	-0.04097754	0.003116912	0.000236157	1.62148E-05	1.79119E-05
37	WServ1: -45deg	Combination	-0.009536138	-0.01516169	0.001153257	8.73783E-05	5.99947E-06	6.62739E-06
37	WS5: 45deg	Combination	-0.019022613	-0.032620447	0.001679097	0.000187995	3.78283E-06	1.42589E-05
37	WS5: 30deg	Combination	-0.019062351	-0.032620447	0.001645678	0.000187995	3.47737E-06	1.42589E-05
37	WS5: 15deg	Combination	-0.019070569	-0.032620447	0.001608711	0.000187995	3.23759E-06	1.42589E-05
37	WS5: 0deg	Combination	-0.019050415	-0.032620447	0.001612961	0.000187995	3.57841E-06	1.42589E-05
37	WS5: -15deg	Combination	-0.019002816	-0.032620447	0.00161242	0.000187995	3.88854E-06	1.42589E-05
37	WS5: -30deg	Combination	-0.01893163	-0.032620447	0.001609775	0.000187995	4.21265E-06	1.42589E-05
37	WS5: -45deg	Combination	-0.018844862	-0.032620447	0.001598594	0.000187995	4.45204E-06	1.42589E-05
37	LL - 1 Lane	Combination	-0.027350335	-0.086895635	0.001229747	0.000500788	-1.2179E-05	3.79833E-05
37	WS5 + WA	Combination	-0.018650017	-0.032620447	0.001734815	0.000187995	3.44007E-06	1.42589E-05
37	LL - 2 Lane	Combination	-0.04544763	-0.144729185	0.001829949	0.000834088	-2.1256E-05	6.32631E-05
37	LL - 3 Lane	Combination	-0.057928708	-0.184544243	0.001082165	0.001063546	-3.38645E-05	8.06669E-05
37	LL - 7 Lane	Combination	-0.103114162	-0.328982807	-0.003592809	0.001895959	-0.000124962	0.000143803
37	LL Envelope	Combination Max	-0.027350335	-0.086895635	0.001829949	0.001895959	-1.2179E-05	0.000143803
37	LL Envelope	Combination Min	-0.103114162	-0.328982807	-0.003592809	0.000500788	-0.000124962	3.79833E-05
37	WS3 & WA envelope	Combination Max	-0.009536138	-0.01516169	0.003260139	0.000236157	1.62148E-05	1.79119E-05
37	WS3 & WA envelope	Combination Min	-0.026060408	-0.04097754	0.001153257	8.73783E-05	5.99947E-06	6.62739E-06
37	WS3 + WA	Combination	-0.0251915	-0.04097754	0.003162637	0.000236157	1.46185E-05	1.79119E-05
37	WS5 & WA envelope	Combination Max	-0.018650017	-0.032620447	0.001734815	0.000187995	4.45204E-06	1.42589E-05
37	WS5 & WA envelope	Combination Min	-0.019070569	-0.032620447	0.001598594	0.000187995	3.23759E-06	1.42589E-05
37	Strength 1 - Max	Combination Max	-0.050136134	-0.152067362	-0.025073807	0.003317929	-0.000377511	0.000251655
37	Strength 1 - Max	Combination Min	-0.182722832	-0.575719912	-0.034563634	0.000876379	-0.000574881	6.64708E-05
37	Strength 1 - Min	Combination Max	-0.049396886	-0.152067362	-0.016016043	0.003317929	-0.0002643	0.000251655
37	Strength 1 - Min	Combination Min	-0.181983584	-0.575719912	-0.02550587	0.000876379	-0.00046167	6.64708E-05
37	Strength 3 - Max	Combination Max	-0.011809185	-0.01516169	-0.025215514	0.000236157	-0.000339983	1.79119E-05
37	Strength 3 - Max	Combination Min	-0.028333456	-0.04097754	-0.027322396	8.73783E-05	-0.000350198	6.62739E-06
37	Strength 3 - Min	Combination Max	-0.011069937	-0.01516169	-0.016157751	0.000236157	-0.000226772	1.79119E-05
37	Strength 3 - Min	Combination Min	-0.027594208	-0.04097754	-0.018264632	8.73783E-05	-0.000236987	6.62739E-06

37	Strength 5 - Max	Combination	Max	-0.057846017	-0.149929555	-0.024270407	0.00274754	-0.000368187	0.000208393
37	Strength 5 - Max	Combination	Min	-0.160547735	-0.476747237	-0.031727352	0.000864058	-0.000521659	6.55363E-05
37	Strength 5 - Min	Combination	Max	-0.057106769	-0.149929555	-0.015212643	0.00274754	-0.000254976	0.000208393
37	Strength 5 - Min	Combination	Min	-0.159808487	-0.476747237	-0.022669588	0.000864058	-0.000408448	6.55363E-05
37	Service 1	Combination	Max	-0.038441817	-0.102057325	-0.019150297	0.001983338	-0.00028487	0.00015043
37	Service 1	Combination	Min	-0.11452714	-0.344144497	-0.024716431	0.000588166	-0.000398398	4.46107E-05
37	WServ1: 45deg	Combination		-0.009605691	-0.01516169	0.001206251	8.73783E-05	5.67089E-06	6.62739E-06
37	WServ1: 30deg	Combination		-0.009636069	-0.01516169	0.001180704	8.73783E-05	5.43737E-06	6.62739E-06
37	WServ1: 15deg	Combination		-0.009642351	-0.01516169	0.001152444	8.73783E-05	5.25407E-06	6.62739E-06
37	WServ1: 0deg	Combination		-0.009626945	-0.01516169	0.001155693	8.73783E-05	5.51462E-06	6.62739E-06
37	WServ1: -15deg	Combination		-0.009590557	-0.01516169	0.00115528	8.73783E-05	5.7517E-06	6.62739E-06
37	WServ1: -30deg	Combination		-0.009536138	-0.01516169	0.001153257	8.73783E-05	5.99947E-06	6.62739E-06
37	WServ1 + WA	Combination		-0.009320855	-0.01516169	0.00129582	8.73783E-05	5.40886E-06	6.62739E-06
37	WServ1 & WA envelope	Combination	Max	-0.009320855	-0.01516169	0.00129582	8.73783E-05	5.99947E-06	6.62739E-06
37	WServ1 & WA envelope	Combination	Min	-0.009642351	-0.01516169	0.001152444	8.73783E-05	5.25407E-06	6.62739E-06
37	Strength Envelope	Combination	Max	-0.011069937	-0.01516169	-0.015212643	0.003317929	-0.000226772	0.000251655
37	Strength Envelope	Combination	Min	-0.182722832	-0.575719912	-0.034563634	8.73783E-05	-0.000574881	6.62739E-06
38	DEAD	LinStatic		-0.000747955	0	-0.003157956	0	-2.62321E-05	0
38	R01_Z	LinStatic		1.50021E-05	0	-9.22262E-08	0	8.6342E-09	0
38	R02_Z	LinStatic		-8.02021E-06	0	4.21124E-08	0	-4.59043E-09	0
38	R03_Z	LinStatic		-1.50864E-06	0	1.69675E-08	0	-4.22352E-10	0
38	R04_Z	LinStatic		-3.91345E-06	0	8.51345E-08	0	-7.87583E-10	0
38	R05_Z	LinStatic		3.6633E-06	0	7.52144E-08	0	2.64558E-09	0
38	R06_Z	LinStatic		-3.53835E-06	0	2.4581E-08	0	-9.44412E-09	0
38	R07_Z	LinStatic		2.33881E-06	0	-5.91637E-07	0	-1.92852E-08	0
38	R08_Z	LinStatic		-3.97972E-06	0	-2.4277E-06	0	-3.34863E-08	0
38	R09_Z	LinStatic		3.27563E-06	0	-3.10162E-06	0	3.12738E-08	0
38	R10_Z	LinStatic		1.26783E-05	0	8.14647E-06	0	3.8015E-07	0
38	R11_Z	LinStatic		3.33239E-05	0	3.78776E-05	0	9.43176E-07	0
38	R12_Z	LinStatic		-6.44447E-06	0	5.96006E-05	0	-5.96395E-08	0
38	R_X	LinStatic		0.009519135	0	-7.20144E-05	0	6.02833E-06	0
38	R_Y	LinStatic		0	0.03358425	0	-0.000167488	0	-1.27034E-05
38	Cap_R_X	LinStatic		0.000825209	0	-4.83431E-06	0	4.81778E-07	0
38	Cap_w_Y	LinStatic		-0.00027702	0	-0.000788209	0	-9.71561E-06	0
38	Cap_w_Z	LinStatic		-0.00027702	0	-0.000788209	0	-9.71561E-06	0
38	Col_w_X	LinStatic		9.92664E-19	0	-0.000573645	0	2.58345E-20	0
38	Col_w_Y	LinStatic		9.92664E-19	0	-0.000573645	0	2.58345E-20	0
38	Cais_w_X	LinStatic		2.87246E-19	0	-0.000167626	0	7.41154E-21	0
38	Cais_w_Y	LinStatic		2.87246E-19	0	-0.000167626	0	7.41154E-21	0
38	DC	LinStatic		-0.007462089	0	-0.016595829	0	-0.000221119	0
38	DW	LinStatic		-0.001085223	0	-0.002522281	0	-3.13395E-05	0
38	WS3	LinStatic		-0.0247968	-0.047353793	0.002963202	0.000236157	1.46185E-05	1.79119E-05

38	WL5	LinStatic	-0.006555484	-0.01477707	0.000101189	7.36945E-05	-3.6353E-06	5.58951E-06
38	PL	LinStatic	-0.000358882	0	-0.000834117	0	-1.03639E-05	0
38	LL-1 Lane	LinStatic	0.00014496	0	0.00167394	0	1.37531E-05	0
38	LL-2 Lane	LinStatic	4.95362E-05	0	0.002014327	0	1.50174E-05	0
38	LL-3 Lane	LinStatic	-0.000180979	0	0.001579545	0	9.08337E-06	0
38	LL-7 Lane	LinStatic	-0.002065377	0	-0.004236745	0	-5.56135E-05	0
38	CE-1 Lane	LinStatic	-0.020516276	-0.02283729	0.000337352	0.000113892	-1.11675E-05	8.63834E-06
38	CE-2 Lane	LinStatic	-0.034194041	-0.038286045	0.000562602	0.000190936	-1.86152E-05	1.44819E-05
38	CE-3 Lane	LinStatic	-0.043548529	-0.048697163	0.000225115	0.000242857	-2.324E-05	1.842E-05
38	CE-7 Lane	LinStatic	-0.077791065	-0.086647365	0.001279293	0.000432118	-4.23464E-05	3.27749E-05
38	BR-1 Lane	LinStatic	-0.006948969	-0.077579618	5.25705E-05	0.000386896	-4.40068E-06	2.9345E-05
38	BR-2 Lane	LinStatic	-0.011518154	-0.128963521	8.71374E-05	0.000643152	-7.29428E-06	4.87812E-05
38	BR-3 Lane	LinStatic	-0.01475466	-0.164562826	0.000111622	0.000820689	-9.34392E-06	6.22469E-05
38	BR-7 Lane	LinStatic	-0.026272814	-0.293526347	0.00019876	0.001463841	-1.66382E-05	0.000111028
38	WSub3: 45deg	LinStatic	-0.000750706	0	0.000296937	0	7.08184E-07	0
38	WSub3: 30deg	LinStatic	-0.000849848	0	0.00022789	0	7.70697E-08	0
38	WSub3: 15deg	LinStatic	-0.000880203	0	0.000151512	0	-4.18346E-07	0
38	WSub3: 0deg	LinStatic	-0.000819551	0	0.000160293	0	2.85835E-07	0
38	WSub3: -15deg	LinStatic	-0.000703905	0	0.000159176	0	9.26585E-07	0
38	WSub3: -30deg	LinStatic	-0.000538746	0	0.00015371	0	1.59624E-06	0
38	WSub3: -45deg	LinStatic	-0.00034612	0	0.000130609	0	2.09086E-06	0
38	WA	LinStatic	-3.5665E-19	0	0.000199436	0	-9.1056E-21	0
38	WS3: 45deg	Combination	-0.025547506	-0.047353793	0.003260139	0.000236157	1.53267E-05	1.79119E-05
38	WS3: 30deg	Combination	-0.025646648	-0.047353793	0.003191092	0.000236157	1.46956E-05	1.79119E-05
38	WS3: 15deg	Combination	-0.025677003	-0.047353793	0.003114714	0.000236157	1.42002E-05	1.79119E-05
38	WS3: 0deg	Combination	-0.025616351	-0.047353793	0.003123495	0.000236157	1.49044E-05	1.79119E-05
38	WS3: -15deg	Combination	-0.025500705	-0.047353793	0.003122378	0.000236157	1.55451E-05	1.79119E-05
38	WS3: -30deg	Combination	-0.025335546	-0.047353793	0.003116912	0.000236157	1.62148E-05	1.79119E-05
38	WServ1: -45deg	Combination	-0.009374152	-0.017520903	0.001153257	8.73783E-05	5.99947E-06	6.62739E-06
38	WS5: 45deg	Combination	-0.018920477	-0.037696306	0.001679097	0.000187995	3.78283E-06	1.42589E-05
38	WS5: 30deg	Combination	-0.018968462	-0.037696306	0.001645678	0.000187995	3.47737E-06	1.42589E-05
38	WS5: 15deg	Combination	-0.018983154	-0.037696306	0.001608711	0.000187995	3.23759E-06	1.42589E-05
38	WS5: 0deg	Combination	-0.018953798	-0.037696306	0.001612961	0.000187995	3.57841E-06	1.42589E-05
38	WS5: -15deg	Combination	-0.018897825	-0.037696306	0.00161242	0.000187995	3.88854E-06	1.42589E-05
38	WS5: -30deg	Combination	-0.018817888	-0.037696306	0.001609775	0.000187995	4.21265E-06	1.42589E-05
38	WS5: -45deg	Combination	-0.018724657	-0.037696306	0.001598594	0.000187995	4.45204E-06	1.42589E-05
38	LL - 1 Lane	Combination	-0.027679168	-0.100416908	0.001229747	0.000500788	-1.2179E-05	3.79833E-05
38	WS5 + WA	Combination	-0.018557135	-0.037696306	0.001734815	0.000187995	3.44007E-06	1.42589E-05
38	LL - 2 Lane	Combination	-0.046021541	-0.167249566	0.001829949	0.000834088	-2.1256E-05	6.32631E-05
38	LL - 3 Lane	Combination	-0.05884305	-0.213259989	0.001082165	0.001063546	-3.38645E-05	8.06669E-05
38	LL - 7 Lane	Combination	-0.106488139	-0.380173712	-0.003592809	0.001895959	-0.000124962	0.000143803
38	LL Envelope	Combination Max	-0.027679168	-0.100416908	0.001829949	0.001895959	-1.2179E-05	0.000143803

38	LL Envelope	Combination Min	-0.106488139	-0.380173712	-0.003592809	0.000500788	-0.000124962	3.79833E-05
38	WS3 & WA envelope	Combination Max	-0.009374152	-0.017520903	0.003260139	0.000236157	1.62148E-05	1.79119E-05
38	WS3 & WA envelope	Combination Min	-0.025677003	-0.047353793	0.001153257	8.73783E-05	5.99947E-06	6.62739E-06
38	WS3 + WA	Combination	-0.0247968	-0.047353793	0.003162637	0.000236157	1.46185E-05	1.79119E-05
38	WS5 & WA envelope	Combination Max	-0.018557135	-0.037696306	0.001734815	0.000187995	4.45204E-06	1.42589E-05
38	WS5 & WA envelope	Combination Min	-0.018983154	-0.037696306	0.001598594	0.000187995	3.23759E-06	1.42589E-05
38	Strength 1 - Max	Combination Max	-0.060328933	-0.175729589	-0.025073807	0.003317929	-0.000377511	0.000251655
38	Strength 1 - Max	Combination Min	-0.198244632	-0.665303996	-0.034563634	0.000876379	-0.000574881	6.64708E-05
38	Strength 1 - Min	Combination Max	-0.056532978	-0.175729589	-0.016016043	0.003317929	-0.0002643	0.000251655
38	Strength 1 - Min	Combination Min	-0.194448677	-0.665303996	-0.02550587	0.000876379	-0.00046167	6.64708E-05
38	Strength 3 - Max	Combination Max	-0.021264541	-0.017520903	-0.025215514	0.000236157	-0.000339983	1.79119E-05
38	Strength 3 - Max	Combination Min	-0.037567392	-0.047353793	-0.027322396	8.73783E-05	-0.000350198	6.62739E-06
38	Strength 3 - Min	Combination Max	-0.017468586	-0.017520903	-0.016157751	0.000236157	-0.000226772	1.79119E-05
38	Strength 3 - Min	Combination Min	-0.033771438	-0.047353793	-0.018264632	8.73783E-05	-0.000236987	6.62739E-06
38	Strength 5 - Max	Combination Max	-0.067814401	-0.173259132	-0.024270407	0.00274754	-0.000368187	0.000208393
38	Strength 5 - Max	Combination Min	-0.17463253	-0.550930817	-0.031727352	0.000864058	-0.000521659	6.55363E-05
38	Strength 5 - Min	Combination Max	-0.064018446	-0.173259132	-0.015212643	0.00274754	-0.000254976	0.000208393
38	Strength 5 - Min	Combination Min	-0.170836575	-0.550930817	-0.022669588	0.000864058	-0.000408448	6.55363E-05
38	Service 1	Combination Max	-0.046149251	-0.117937811	-0.019150297	0.001983338	-0.00028487	0.00015043
38	Service 1	Combination Min	-0.125283897	-0.397694616	-0.024716431	0.000588166	-0.000398398	4.46107E-05
38	WServ1: 45deg	Combination	-0.009452577	-0.017520903	0.001206251	8.73783E-05	5.67089E-06	6.62739E-06
38	WServ1: 30deg	Combination	-0.00948926	-0.017520903	0.001180704	8.73783E-05	5.43737E-06	6.62739E-06
38	WServ1: 15deg	Combination	-0.009500491	-0.017520903	0.001152444	8.73783E-05	5.25407E-06	6.62739E-06
38	WServ1: 0deg	Combination	-0.00947805	-0.017520903	0.001155693	8.73783E-05	5.51462E-06	6.62739E-06
38	WServ1: -15deg	Combination	-0.009435261	-0.017520903	0.00115528	8.73783E-05	5.7517E-06	6.62739E-06
38	WServ1: -30deg	Combination	-0.009374152	-0.017520903	0.001153257	8.73783E-05	5.99947E-06	6.62739E-06
38	WServ1 + WA	Combination	-0.009174816	-0.017520903	0.00129582	8.73783E-05	5.40886E-06	6.62739E-06
38	WServ1 & WA envelope	Combination Max	-0.009174816	-0.017520903	0.00129582	8.73783E-05	5.99947E-06	6.62739E-06
38	WServ1 & WA envelope	Combination Min	-0.009500491	-0.017520903	0.001152444	8.73783E-05	5.25407E-06	6.62739E-06
38	Strength Envelope	Combination Max	-0.017468586	-0.017520903	-0.015212643	0.003317929	-0.000226772	0.000251655
38	Strength Envelope	Combination Min	-0.198244632	-0.665303996	-0.034563634	8.73783E-05	-0.000574881	6.62739E-06
39	DEAD	LinStatic	0	0	0	0	0	0
39	R01_Z	LinStatic	0	0	0	0	0	0
39	R02_Z	LinStatic	0	0	0	0	0	0
39	R03_Z	LinStatic	0	0	0	0	0	0
39	R04_Z	LinStatic	0	0	0	0	0	0
39	R05_Z	LinStatic	0	0	0	0	0	0
39	R06_Z	LinStatic	0	0	0	0	0	0
39	R07_Z	LinStatic	0	0	0	0	0	0
39	R08_Z	LinStatic	0	0	0	0	0	0
39	R09_Z	LinStatic	0	0	0	0	0	0
39	R10_Z	LinStatic	0	0	0	0	0	0

39	R11_Z	LinStatic	0	0	0	0	0	0
39	R12_Z	LinStatic	0	0	0	0	0	0
39	R_X	LinStatic	0	0	0	0	0	0
39	R_Y	LinStatic	0	0	0	0	0	0
39	Cap_R_X	LinStatic	0	0	0	0	0	0
39	Cap_w_Y	LinStatic	0	0	0	0	0	0
39	Cap_w_Z	LinStatic	0	0	0	0	0	0
39	Col_w_X	LinStatic	0	0	0	0	0	0
39	Col_w_Y	LinStatic	0	0	0	0	0	0
39	Cais_w_X	LinStatic	0	0	0	0	0	0
39	Cais_w_Y	LinStatic	0	0	0	0	0	0
39	DC	LinStatic	0	0	0	0	0	0
39	DW	LinStatic	0	0	0	0	0	0
39	WS3	LinStatic	0	0	0	0	0	0
39	WL5	LinStatic	0	0	0	0	0	0
39	PL	LinStatic	0	0	0	0	0	0
39	LL-1 Lane	LinStatic	0	0	0	0	0	0
39	LL-2 Lane	LinStatic	0	0	0	0	0	0
39	LL-3 Lane	LinStatic	0	0	0	0	0	0
39	LL-7 Lane	LinStatic	0	0	0	0	0	0
39	CE-1 Lane	LinStatic	0	0	0	0	0	0
39	CE-2 Lane	LinStatic	0	0	0	0	0	0
39	CE-3 Lane	LinStatic	0	0	0	0	0	0
39	CE-7 Lane	LinStatic	0	0	0	0	0	0
39	BR-1 Lane	LinStatic	0	0	0	0	0	0
39	BR-2 Lane	LinStatic	0	0	0	0	0	0
39	BR-3 Lane	LinStatic	0	0	0	0	0	0
39	BR-7 Lane	LinStatic	0	0	0	0	0	0
39	WSub3: 45deg	LinStatic	0	0	0	0	0	0
39	WSub3: 30deg	LinStatic	0	0	0	0	0	0
39	WSub3: 15deg	LinStatic	0	0	0	0	0	0
39	WSub3: 0deg	LinStatic	0	0	0	0	0	0
39	WSub3: -15deg	LinStatic	0	0	0	0	0	0
39	WSub3: -30deg	LinStatic	0	0	0	0	0	0
39	WSub3: -45deg	LinStatic	0	0	0	0	0	0
39	WA	LinStatic	0	0	0	0	0	0
39	WS3: 45deg	Combination	0	0	0	0	0	0
39	WS3: 30deg	Combination	0	0	0	0	0	0
39	WS3: 15deg	Combination	0	0	0	0	0	0
39	WS3: 0deg	Combination	0	0	0	0	0	0
39	WS3: -15deg	Combination	0	0	0	0	0	0
39	WS3: -30deg	Combination	0	0	0	0	0	0

39	WServ1: -45deg	Combination	0	0	0	0	0	0
39	WS5: 45deg	Combination	0	0	0	0	0	0
39	WS5: 30deg	Combination	0	0	0	0	0	0
39	WS5: 15deg	Combination	0	0	0	0	0	0
39	WS5: 0deg	Combination	0	0	0	0	0	0
39	WS5: -15deg	Combination	0	0	0	0	0	0
39	WS5: -30deg	Combination	0	0	0	0	0	0
39	WS5: -45deg	Combination	0	0	0	0	0	0
39	LL - 1 Lane	Combination	0	0	0	0	0	0
39	WS5 + WA	Combination	0	0	0	0	0	0
39	LL - 2 Lane	Combination	0	0	0	0	0	0
39	LL - 3 Lane	Combination	0	0	0	0	0	0
39	LL - 7 Lane	Combination	0	0	0	0	0	0
39	LL Envelope	Combination Max	0	0	0	0	0	0
39	LL Envelope	Combination Min	0	0	0	0	0	0
39	WS3 & WA envelope	Combination Max	0	0	0	0	0	0
39	WS3 & WA envelope	Combination Min	0	0	0	0	0	0
39	WS3 + WA	Combination	0	0	0	0	0	0
39	WS5 & WA envelope	Combination Max	0	0	0	0	0	0
39	WS5 & WA envelope	Combination Min	0	0	0	0	0	0
39	Strength 1 - Max	Combination Max	0	0	0	0	0	0
39	Strength 1 - Max	Combination Min	0	0	0	0	0	0
39	Strength 1 - Min	Combination Max	0	0	0	0	0	0
39	Strength 1 - Min	Combination Min	0	0	0	0	0	0
39	Strength 3 - Max	Combination Max	0	0	0	0	0	0
39	Strength 3 - Max	Combination Min	0	0	0	0	0	0
39	Strength 3 - Min	Combination Max	0	0	0	0	0	0
39	Strength 3 - Min	Combination Min	0	0	0	0	0	0
39	Strength 5 - Max	Combination Max	0	0	0	0	0	0
39	Strength 5 - Max	Combination Min	0	0	0	0	0	0
39	Strength 5 - Min	Combination Max	0	0	0	0	0	0
39	Strength 5 - Min	Combination Min	0	0	0	0	0	0
39	Service 1	Combination Max	0	0	0	0	0	0
39	Service 1	Combination Min	0	0	0	0	0	0
39	WServ1: 45deg	Combination	0	0	0	0	0	0
39	WServ1: 30deg	Combination	0	0	0	0	0	0
39	WServ1: 15deg	Combination	0	0	0	0	0	0
39	WServ1: 0deg	Combination	0	0	0	0	0	0
39	WServ1: -15deg	Combination	0	0	0	0	0	0
39	WServ1: -30deg	Combination	0	0	0	0	0	0
39	WServ1 + WA	Combination	0	0	0	0	0	0
39	WServ1 & WA envelope	Combination Max	0	0	0	0	0	0

39	WServ1 & WA envelope	Combination	Min	0	0	0	0	0	0
39	Strength Envelope	Combination	Max	0	0	0	0	0	0
39	Strength Envelope	Combination	Min	0	0	0	0	0	0
40	DEAD	LinStatic		0	0	0	0	0	0
40	R01_Z	LinStatic		0	0	0	0	0	0
40	R02_Z	LinStatic		0	0	0	0	0	0
40	R03_Z	LinStatic		0	0	0	0	0	0
40	R04_Z	LinStatic		0	0	0	0	0	0
40	R05_Z	LinStatic		0	0	0	0	0	0
40	R06_Z	LinStatic		0	0	0	0	0	0
40	R07_Z	LinStatic		0	0	0	0	0	0
40	R08_Z	LinStatic		0	0	0	0	0	0
40	R09_Z	LinStatic		0	0	0	0	0	0
40	R10_Z	LinStatic		0	0	0	0	0	0
40	R11_Z	LinStatic		0	0	0	0	0	0
40	R12_Z	LinStatic		0	0	0	0	0	0
40	R_X	LinStatic		0	0	0	0	0	0
40	R_Y	LinStatic		0	0	0	0	0	0
40	Cap_R_X	LinStatic		0	0	0	0	0	0
40	Cap_w_Y	LinStatic		0	0	0	0	0	0
40	Cap_w_Z	LinStatic		0	0	0	0	0	0
40	Col_w_X	LinStatic		0	0	0	0	0	0
40	Col_w_Y	LinStatic		0	0	0	0	0	0
40	Cais_w_X	LinStatic		0	0	0	0	0	0
40	Cais_w_Y	LinStatic		0	0	0	0	0	0
40	DC	LinStatic		0	0	0	0	0	0
40	DW	LinStatic		0	0	0	0	0	0
40	WS3	LinStatic		0	0	0	0	0	0
40	WL5	LinStatic		0	0	0	0	0	0
40	PL	LinStatic		0	0	0	0	0	0
40	LL-1 Lane	LinStatic		0	0	0	0	0	0
40	LL-2 Lane	LinStatic		0	0	0	0	0	0
40	LL-3 Lane	LinStatic		0	0	0	0	0	0
40	LL-7 Lane	LinStatic		0	0	0	0	0	0
40	CE-1 Lane	LinStatic		0	0	0	0	0	0
40	CE-2 Lane	LinStatic		0	0	0	0	0	0
40	CE-3 Lane	LinStatic		0	0	0	0	0	0
40	CE-7 Lane	LinStatic		0	0	0	0	0	0
40	BR-1 Lane	LinStatic		0	0	0	0	0	0
40	BR-2 Lane	LinStatic		0	0	0	0	0	0
40	BR-3 Lane	LinStatic		0	0	0	0	0	0
40	BR-7 Lane	LinStatic		0	0	0	0	0	0

40	WSub3: 45deg	LinStatic	0	0	0	0	0	0
40	WSub3: 30deg	LinStatic	0	0	0	0	0	0
40	WSub3: 15deg	LinStatic	0	0	0	0	0	0
40	WSub3: 0deg	LinStatic	0	0	0	0	0	0
40	WSub3: -15deg	LinStatic	0	0	0	0	0	0
40	WSub3: -30deg	LinStatic	0	0	0	0	0	0
40	WSub3: -45deg	LinStatic	0	0	0	0	0	0
40	WA	LinStatic	0	0	0	0	0	0
40	WS3: 45deg	Combination	0	0	0	0	0	0
40	WS3: 30deg	Combination	0	0	0	0	0	0
40	WS3: 15deg	Combination	0	0	0	0	0	0
40	WS3: 0deg	Combination	0	0	0	0	0	0
40	WS3: -15deg	Combination	0	0	0	0	0	0
40	WS3: -30deg	Combination	0	0	0	0	0	0
40	WServ1: -45deg	Combination	0	0	0	0	0	0
40	WS5: 45deg	Combination	0	0	0	0	0	0
40	WS5: 30deg	Combination	0	0	0	0	0	0
40	WS5: 15deg	Combination	0	0	0	0	0	0
40	WS5: 0deg	Combination	0	0	0	0	0	0
40	WS5: -15deg	Combination	0	0	0	0	0	0
40	WS5: -30deg	Combination	0	0	0	0	0	0
40	WS5: -45deg	Combination	0	0	0	0	0	0
40	LL - 1 Lane	Combination	0	0	0	0	0	0
40	WS5 + WA	Combination	0	0	0	0	0	0
40	LL - 2 Lane	Combination	0	0	0	0	0	0
40	LL - 3 Lane	Combination	0	0	0	0	0	0
40	LL - 7 Lane	Combination	0	0	0	0	0	0
40	LL Envelope	Combination Max	0	0	0	0	0	0
40	LL Envelope	Combination Min	0	0	0	0	0	0
40	WS3 & WA envelope	Combination Max	0	0	0	0	0	0
40	WS3 & WA envelope	Combination Min	0	0	0	0	0	0
40	WS3 + WA	Combination	0	0	0	0	0	0
40	WS5 & WA envelope	Combination Max	0	0	0	0	0	0
40	WS5 & WA envelope	Combination Min	0	0	0	0	0	0
40	Strength 1 - Max	Combination Max	0	0	0	0	0	0
40	Strength 1 - Max	Combination Min	0	0	0	0	0	0
40	Strength 1 - Min	Combination Max	0	0	0	0	0	0
40	Strength 1 - Min	Combination Min	0	0	0	0	0	0
40	Strength 3 - Max	Combination Max	0	0	0	0	0	0
40	Strength 3 - Max	Combination Min	0	0	0	0	0	0
40	Strength 3 - Min	Combination Max	0	0	0	0	0	0
40	Strength 3 - Min	Combination Min	0	0	0	0	0	0

40	Strength 5 - Max	Combination	Max	0	0	0	0	0	0
40	Strength 5 - Max	Combination	Min	0	0	0	0	0	0
40	Strength 5 - Min	Combination	Max	0	0	0	0	0	0
40	Strength 5 - Min	Combination	Min	0	0	0	0	0	0
40	Service 1	Combination	Max	0	0	0	0	0	0
40	Service 1	Combination	Min	0	0	0	0	0	0
40	WServ1: 45deg	Combination		0	0	0	0	0	0
40	WServ1: 30deg	Combination		0	0	0	0	0	0
40	WServ1: 15deg	Combination		0	0	0	0	0	0
40	WServ1: 0deg	Combination		0	0	0	0	0	0
40	WServ1: -15deg	Combination		0	0	0	0	0	0
40	WServ1: -30deg	Combination		0	0	0	0	0	0
40	WServ1 + WA	Combination		0	0	0	0	0	0
40	WServ1 & WA envelope	Combination	Max	0	0	0	0	0	0
40	WServ1 & WA envelope	Combination	Min	0	0	0	0	0	0
40	Strength Envelope	Combination	Max	0	0	0	0	0	0
40	Strength Envelope	Combination	Min	0	0	0	0	0	0
41	DEAD	LinStatic		0	0	0	0	0	0
41	R01_Z	LinStatic		0	0	0	0	0	0
41	R02_Z	LinStatic		0	0	0	0	0	0
41	R03_Z	LinStatic		0	0	0	0	0	0
41	R04_Z	LinStatic		0	0	0	0	0	0
41	R05_Z	LinStatic		0	0	0	0	0	0
41	R06_Z	LinStatic		0	0	0	0	0	0
41	R07_Z	LinStatic		0	0	0	0	0	0
41	R08_Z	LinStatic		0	0	0	0	0	0
41	R09_Z	LinStatic		0	0	0	0	0	0
41	R10_Z	LinStatic		0	0	0	0	0	0
41	R11_Z	LinStatic		0	0	0	0	0	0
41	R12_Z	LinStatic		0	0	0	0	0	0
41	R_X	LinStatic		0	0	0	0	0	0
41	R_Y	LinStatic		0	0	0	0	0	0
41	Cap_R_X	LinStatic		0	0	0	0	0	0
41	Cap_w_Y	LinStatic		0	0	0	0	0	0
41	Cap_w_Z	LinStatic		0	0	0	0	0	0
41	Col_w_X	LinStatic		0	0	0	0	0	0
41	Col_w_Y	LinStatic		0	0	0	0	0	0
41	Cais_w_X	LinStatic		0	0	0	0	0	0
41	Cais_w_Y	LinStatic		0	0	0	0	0	0
41	DC	LinStatic		0	0	0	0	0	0
41	DW	LinStatic		0	0	0	0	0	0
41	WS3	LinStatic		0	0	0	0	0	0

41	WL5	LinStatic	0	0	0	0	0	0
41	PL	LinStatic	0	0	0	0	0	0
41	LL-1 Lane	LinStatic	0	0	0	0	0	0
41	LL-2 Lane	LinStatic	0	0	0	0	0	0
41	LL-3 Lane	LinStatic	0	0	0	0	0	0
41	LL-7 Lane	LinStatic	0	0	0	0	0	0
41	CE-1 Lane	LinStatic	0	0	0	0	0	0
41	CE-2 Lane	LinStatic	0	0	0	0	0	0
41	CE-3 Lane	LinStatic	0	0	0	0	0	0
41	CE-7 Lane	LinStatic	0	0	0	0	0	0
41	BR-1 Lane	LinStatic	0	0	0	0	0	0
41	BR-2 Lane	LinStatic	0	0	0	0	0	0
41	BR-3 Lane	LinStatic	0	0	0	0	0	0
41	BR-7 Lane	LinStatic	0	0	0	0	0	0
41	WSub3: 45deg	LinStatic	0	0	0	0	0	0
41	WSub3: 30deg	LinStatic	0	0	0	0	0	0
41	WSub3: 15deg	LinStatic	0	0	0	0	0	0
41	WSub3: 0deg	LinStatic	0	0	0	0	0	0
41	WSub3: -15deg	LinStatic	0	0	0	0	0	0
41	WSub3: -30deg	LinStatic	0	0	0	0	0	0
41	WSub3: -45deg	LinStatic	0	0	0	0	0	0
41	WA	LinStatic	0	0	0	0	0	0
41	WS3: 45deg	Combination	0	0	0	0	0	0
41	WS3: 30deg	Combination	0	0	0	0	0	0
41	WS3: 15deg	Combination	0	0	0	0	0	0
41	WS3: 0deg	Combination	0	0	0	0	0	0
41	WS3: -15deg	Combination	0	0	0	0	0	0
41	WS3: -30deg	Combination	0	0	0	0	0	0
41	WServ1: -45deg	Combination	0	0	0	0	0	0
41	WS5: 45deg	Combination	0	0	0	0	0	0
41	WS5: 30deg	Combination	0	0	0	0	0	0
41	WS5: 15deg	Combination	0	0	0	0	0	0
41	WS5: 0deg	Combination	0	0	0	0	0	0
41	WS5: -15deg	Combination	0	0	0	0	0	0
41	WS5: -30deg	Combination	0	0	0	0	0	0
41	WS5: -45deg	Combination	0	0	0	0	0	0
41	LL - 1 Lane	Combination	0	0	0	0	0	0
41	WS5 + WA	Combination	0	0	0	0	0	0
41	LL - 2 Lane	Combination	0	0	0	0	0	0
41	LL - 3 Lane	Combination	0	0	0	0	0	0
41	LL - 7 Lane	Combination	0	0	0	0	0	0
41	LL Envelope	Combination Max	0	0	0	0	0	0

41	LL Envelope	Combination	Min	0	0	0	0	0	0
41	WS3 & WA envelope	Combination	Max	0	0	0	0	0	0
41	WS3 & WA envelope	Combination	Min	0	0	0	0	0	0
41	WS3 + WA	Combination		0	0	0	0	0	0
41	WS5 & WA envelope	Combination	Max	0	0	0	0	0	0
41	WS5 & WA envelope	Combination	Min	0	0	0	0	0	0
41	Strength 1 - Max	Combination	Max	0	0	0	0	0	0
41	Strength 1 - Max	Combination	Min	0	0	0	0	0	0
41	Strength 1 - Min	Combination	Max	0	0	0	0	0	0
41	Strength 1 - Min	Combination	Min	0	0	0	0	0	0
41	Strength 3 - Max	Combination	Max	0	0	0	0	0	0
41	Strength 3 - Max	Combination	Min	0	0	0	0	0	0
41	Strength 3 - Min	Combination	Max	0	0	0	0	0	0
41	Strength 3 - Min	Combination	Min	0	0	0	0	0	0
41	Strength 5 - Max	Combination	Max	0	0	0	0	0	0
41	Strength 5 - Max	Combination	Min	0	0	0	0	0	0
41	Strength 5 - Min	Combination	Max	0	0	0	0	0	0
41	Strength 5 - Min	Combination	Min	0	0	0	0	0	0
41	Service 1	Combination	Max	0	0	0	0	0	0
41	Service 1	Combination	Min	0	0	0	0	0	0
41	WServ1: 45deg	Combination		0	0	0	0	0	0
41	WServ1: 30deg	Combination		0	0	0	0	0	0
41	WServ1: 15deg	Combination		0	0	0	0	0	0
41	WServ1: 0deg	Combination		0	0	0	0	0	0
41	WServ1: -15deg	Combination		0	0	0	0	0	0
41	WServ1: -30deg	Combination		0	0	0	0	0	0
41	WServ1 + WA	Combination		0	0	0	0	0	0
41	WServ1 & WA envelope	Combination	Max	0	0	0	0	0	0
41	WServ1 & WA envelope	Combination	Min	0	0	0	0	0	0
41	Strength Envelope	Combination	Max	0	0	0	0	0	0
41	Strength Envelope	Combination	Min	0	0	0	0	0	0
42	DEAD	LinStatic		0	0	0	0	0	0
42	R01_Z	LinStatic		0	0	0	0	0	0
42	R02_Z	LinStatic		0	0	0	0	0	0
42	R03_Z	LinStatic		0	0	0	0	0	0
42	R04_Z	LinStatic		0	0	0	0	0	0
42	R05_Z	LinStatic		0	0	0	0	0	0
42	R06_Z	LinStatic		0	0	0	0	0	0
42	R07_Z	LinStatic		0	0	0	0	0	0
42	R08_Z	LinStatic		0	0	0	0	0	0
42	R09_Z	LinStatic		0	0	0	0	0	0
42	R10_Z	LinStatic		0	0	0	0	0	0

42	R11_Z	LinStatic	0	0	0	0	0	0
42	R12_Z	LinStatic	0	0	0	0	0	0
42	R_X	LinStatic	0	0	0	0	0	0
42	R_Y	LinStatic	0	0	0	0	0	0
42	Cap_R_X	LinStatic	0	0	0	0	0	0
42	Cap_w_Y	LinStatic	0	0	0	0	0	0
42	Cap_w_Z	LinStatic	0	0	0	0	0	0
42	Col_w_X	LinStatic	0	0	0	0	0	0
42	Col_w_Y	LinStatic	0	0	0	0	0	0
42	Cais_w_X	LinStatic	0	0	0	0	0	0
42	Cais_w_Y	LinStatic	0	0	0	0	0	0
42	DC	LinStatic	0	0	0	0	0	0
42	DW	LinStatic	0	0	0	0	0	0
42	WS3	LinStatic	0	0	0	0	0	0
42	WL5	LinStatic	0	0	0	0	0	0
42	PL	LinStatic	0	0	0	0	0	0
42	LL-1 Lane	LinStatic	0	0	0	0	0	0
42	LL-2 Lane	LinStatic	0	0	0	0	0	0
42	LL-3 Lane	LinStatic	0	0	0	0	0	0
42	LL-7 Lane	LinStatic	0	0	0	0	0	0
42	CE-1 Lane	LinStatic	0	0	0	0	0	0
42	CE-2 Lane	LinStatic	0	0	0	0	0	0
42	CE-3 Lane	LinStatic	0	0	0	0	0	0
42	CE-7 Lane	LinStatic	0	0	0	0	0	0
42	BR-1 Lane	LinStatic	0	0	0	0	0	0
42	BR-2 Lane	LinStatic	0	0	0	0	0	0
42	BR-3 Lane	LinStatic	0	0	0	0	0	0
42	BR-7 Lane	LinStatic	0	0	0	0	0	0
42	WSub3: 45deg	LinStatic	0	0	0	0	0	0
42	WSub3: 30deg	LinStatic	0	0	0	0	0	0
42	WSub3: 15deg	LinStatic	0	0	0	0	0	0
42	WSub3: 0deg	LinStatic	0	0	0	0	0	0
42	WSub3: -15deg	LinStatic	0	0	0	0	0	0
42	WSub3: -30deg	LinStatic	0	0	0	0	0	0
42	WSub3: -45deg	LinStatic	0	0	0	0	0	0
42	WA	LinStatic	0	0	0	0	0	0
42	WS3: 45deg	Combination	0	0	0	0	0	0
42	WS3: 30deg	Combination	0	0	0	0	0	0
42	WS3: 15deg	Combination	0	0	0	0	0	0
42	WS3: 0deg	Combination	0	0	0	0	0	0
42	WS3: -15deg	Combination	0	0	0	0	0	0
42	WS3: -30deg	Combination	0	0	0	0	0	0

42	WServ1: -45deg	Combination	0	0	0	0	0	0
42	WS5: 45deg	Combination	0	0	0	0	0	0
42	WS5: 30deg	Combination	0	0	0	0	0	0
42	WS5: 15deg	Combination	0	0	0	0	0	0
42	WS5: 0deg	Combination	0	0	0	0	0	0
42	WS5: -15deg	Combination	0	0	0	0	0	0
42	WS5: -30deg	Combination	0	0	0	0	0	0
42	WS5: -45deg	Combination	0	0	0	0	0	0
42	LL - 1 Lane	Combination	0	0	0	0	0	0
42	WS5 + WA	Combination	0	0	0	0	0	0
42	LL - 2 Lane	Combination	0	0	0	0	0	0
42	LL - 3 Lane	Combination	0	0	0	0	0	0
42	LL - 7 Lane	Combination	0	0	0	0	0	0
42	LL Envelope	Combination Max	0	0	0	0	0	0
42	LL Envelope	Combination Min	0	0	0	0	0	0
42	WS3 & WA envelope	Combination Max	0	0	0	0	0	0
42	WS3 & WA envelope	Combination Min	0	0	0	0	0	0
42	WS3 + WA	Combination	0	0	0	0	0	0
42	WS5 & WA envelope	Combination Max	0	0	0	0	0	0
42	WS5 & WA envelope	Combination Min	0	0	0	0	0	0
42	Strength 1 - Max	Combination Max	0	0	0	0	0	0
42	Strength 1 - Max	Combination Min	0	0	0	0	0	0
42	Strength 1 - Min	Combination Max	0	0	0	0	0	0
42	Strength 1 - Min	Combination Min	0	0	0	0	0	0
42	Strength 3 - Max	Combination Max	0	0	0	0	0	0
42	Strength 3 - Max	Combination Min	0	0	0	0	0	0
42	Strength 3 - Min	Combination Max	0	0	0	0	0	0
42	Strength 3 - Min	Combination Min	0	0	0	0	0	0
42	Strength 5 - Max	Combination Max	0	0	0	0	0	0
42	Strength 5 - Max	Combination Min	0	0	0	0	0	0
42	Strength 5 - Min	Combination Max	0	0	0	0	0	0
42	Strength 5 - Min	Combination Min	0	0	0	0	0	0
42	Service 1	Combination Max	0	0	0	0	0	0
42	Service 1	Combination Min	0	0	0	0	0	0
42	WServ1: 45deg	Combination	0	0	0	0	0	0
42	WServ1: 30deg	Combination	0	0	0	0	0	0
42	WServ1: 15deg	Combination	0	0	0	0	0	0
42	WServ1: 0deg	Combination	0	0	0	0	0	0
42	WServ1: -15deg	Combination	0	0	0	0	0	0
42	WServ1: -30deg	Combination	0	0	0	0	0	0
42	WServ1 + WA	Combination	0	0	0	0	0	0
42	WServ1 & WA envelope	Combination Max	0	0	0	0	0	0

42	WServ1 & WA envelope	Combination	Min	0	0	0	0	0	0
42	Strength Envelope	Combination	Max	0	0	0	0	0	0
42	Strength Envelope	Combination	Min	0	0	0	0	0	0
43	DEAD	LinStatic		0	0	0	0	0	0
43	R01_Z	LinStatic		0	0	0	0	0	0
43	R02_Z	LinStatic		0	0	0	0	0	0
43	R03_Z	LinStatic		0	0	0	0	0	0
43	R04_Z	LinStatic		0	0	0	0	0	0
43	R05_Z	LinStatic		0	0	0	0	0	0
43	R06_Z	LinStatic		0	0	0	0	0	0
43	R07_Z	LinStatic		0	0	0	0	0	0
43	R08_Z	LinStatic		0	0	0	0	0	0
43	R09_Z	LinStatic		0	0	0	0	0	0
43	R10_Z	LinStatic		0	0	0	0	0	0
43	R11_Z	LinStatic		0	0	0	0	0	0
43	R12_Z	LinStatic		0	0	0	0	0	0
43	R_X	LinStatic		0	0	0	0	0	0
43	R_Y	LinStatic		0	0	0	0	0	0
43	Cap_R_X	LinStatic		0	0	0	0	0	0
43	Cap_w_Y	LinStatic		0	0	0	0	0	0
43	Cap_w_Z	LinStatic		0	0	0	0	0	0
43	Col_w_X	LinStatic		0	0	0	0	0	0
43	Col_w_Y	LinStatic		0	0	0	0	0	0
43	Cais_w_X	LinStatic		0	0	0	0	0	0
43	Cais_w_Y	LinStatic		0	0	0	0	0	0
43	DC	LinStatic		0	0	0	0	0	0
43	DW	LinStatic		0	0	0	0	0	0
43	WS3	LinStatic		0	0	0	0	0	0
43	WL5	LinStatic		0	0	0	0	0	0
43	PL	LinStatic		0	0	0	0	0	0
43	LL-1 Lane	LinStatic		0	0	0	0	0	0
43	LL-2 Lane	LinStatic		0	0	0	0	0	0
43	LL-3 Lane	LinStatic		0	0	0	0	0	0
43	LL-7 Lane	LinStatic		0	0	0	0	0	0
43	CE-1 Lane	LinStatic		0	0	0	0	0	0
43	CE-2 Lane	LinStatic		0	0	0	0	0	0
43	CE-3 Lane	LinStatic		0	0	0	0	0	0
43	CE-7 Lane	LinStatic		0	0	0	0	0	0
43	BR-1 Lane	LinStatic		0	0	0	0	0	0
43	BR-2 Lane	LinStatic		0	0	0	0	0	0
43	BR-3 Lane	LinStatic		0	0	0	0	0	0
43	BR-7 Lane	LinStatic		0	0	0	0	0	0

43	WSub3: 45deg	LinStatic	0	0	0	0	0	0
43	WSub3: 30deg	LinStatic	0	0	0	0	0	0
43	WSub3: 15deg	LinStatic	0	0	0	0	0	0
43	WSub3: 0deg	LinStatic	0	0	0	0	0	0
43	WSub3: -15deg	LinStatic	0	0	0	0	0	0
43	WSub3: -30deg	LinStatic	0	0	0	0	0	0
43	WSub3: -45deg	LinStatic	0	0	0	0	0	0
43	WA	LinStatic	0	0	0	0	0	0
43	WS3: 45deg	Combination	0	0	0	0	0	0
43	WS3: 30deg	Combination	0	0	0	0	0	0
43	WS3: 15deg	Combination	0	0	0	0	0	0
43	WS3: 0deg	Combination	0	0	0	0	0	0
43	WS3: -15deg	Combination	0	0	0	0	0	0
43	WS3: -30deg	Combination	0	0	0	0	0	0
43	WServ1: -45deg	Combination	0	0	0	0	0	0
43	WS5: 45deg	Combination	0	0	0	0	0	0
43	WS5: 30deg	Combination	0	0	0	0	0	0
43	WS5: 15deg	Combination	0	0	0	0	0	0
43	WS5: 0deg	Combination	0	0	0	0	0	0
43	WS5: -15deg	Combination	0	0	0	0	0	0
43	WS5: -30deg	Combination	0	0	0	0	0	0
43	WS5: -45deg	Combination	0	0	0	0	0	0
43	LL - 1 Lane	Combination	0	0	0	0	0	0
43	WS5 + WA	Combination	0	0	0	0	0	0
43	LL - 2 Lane	Combination	0	0	0	0	0	0
43	LL - 3 Lane	Combination	0	0	0	0	0	0
43	LL - 7 Lane	Combination	0	0	0	0	0	0
43	LL Envelope	Combination Max	0	0	0	0	0	0
43	LL Envelope	Combination Min	0	0	0	0	0	0
43	WS3 & WA envelope	Combination Max	0	0	0	0	0	0
43	WS3 & WA envelope	Combination Min	0	0	0	0	0	0
43	WS3 + WA	Combination	0	0	0	0	0	0
43	WS5 & WA envelope	Combination Max	0	0	0	0	0	0
43	WS5 & WA envelope	Combination Min	0	0	0	0	0	0
43	Strength 1 - Max	Combination Max	0	0	0	0	0	0
43	Strength 1 - Max	Combination Min	0	0	0	0	0	0
43	Strength 1 - Min	Combination Max	0	0	0	0	0	0
43	Strength 1 - Min	Combination Min	0	0	0	0	0	0
43	Strength 3 - Max	Combination Max	0	0	0	0	0	0
43	Strength 3 - Max	Combination Min	0	0	0	0	0	0
43	Strength 3 - Min	Combination Max	0	0	0	0	0	0
43	Strength 3 - Min	Combination Min	0	0	0	0	0	0

43	Strength 5 - Max	Combination	Max	0	0	0	0	0	0
43	Strength 5 - Max	Combination	Min	0	0	0	0	0	0
43	Strength 5 - Min	Combination	Max	0	0	0	0	0	0
43	Strength 5 - Min	Combination	Min	0	0	0	0	0	0
43	Service 1	Combination	Max	0	0	0	0	0	0
43	Service 1	Combination	Min	0	0	0	0	0	0
43	WServ1: 45deg	Combination		0	0	0	0	0	0
43	WServ1: 30deg	Combination		0	0	0	0	0	0
43	WServ1: 15deg	Combination		0	0	0	0	0	0
43	WServ1: 0deg	Combination		0	0	0	0	0	0
43	WServ1: -15deg	Combination		0	0	0	0	0	0
43	WServ1: -30deg	Combination		0	0	0	0	0	0
43	WServ1 + WA	Combination		0	0	0	0	0	0
43	WServ1 & WA envelope	Combination	Max	0	0	0	0	0	0
43	WServ1 & WA envelope	Combination	Min	0	0	0	0	0	0
43	Strength Envelope	Combination	Max	0	0	0	0	0	0
43	Strength Envelope	Combination	Min	0	0	0	0	0	0
44	DEAD	LinStatic		0	0	0	0	0	0
44	R01_Z	LinStatic		0	0	0	0	0	0
44	R02_Z	LinStatic		0	0	0	0	0	0
44	R03_Z	LinStatic		0	0	0	0	0	0
44	R04_Z	LinStatic		0	0	0	0	0	0
44	R05_Z	LinStatic		0	0	0	0	0	0
44	R06_Z	LinStatic		0	0	0	0	0	0
44	R07_Z	LinStatic		0	0	0	0	0	0
44	R08_Z	LinStatic		0	0	0	0	0	0
44	R09_Z	LinStatic		0	0	0	0	0	0
44	R10_Z	LinStatic		0	0	0	0	0	0
44	R11_Z	LinStatic		0	0	0	0	0	0
44	R12_Z	LinStatic		0	0	0	0	0	0
44	R_X	LinStatic		0	0	0	0	0	0
44	R_Y	LinStatic		0	0	0	0	0	0
44	Cap_R_X	LinStatic		0	0	0	0	0	0
44	Cap_w_Y	LinStatic		0	0	0	0	0	0
44	Cap_w_Z	LinStatic		0	0	0	0	0	0
44	Col_w_X	LinStatic		0	0	0	0	0	0
44	Col_w_Y	LinStatic		0	0	0	0	0	0
44	Cais_w_X	LinStatic		0	0	0	0	0	0
44	Cais_w_Y	LinStatic		0	0	0	0	0	0
44	DC	LinStatic		0	0	0	0	0	0
44	DW	LinStatic		0	0	0	0	0	0
44	WS3	LinStatic		0	0	0	0	0	0

44	WL5	LinStatic	0	0	0	0	0	0
44	PL	LinStatic	0	0	0	0	0	0
44	LL-1 Lane	LinStatic	0	0	0	0	0	0
44	LL-2 Lane	LinStatic	0	0	0	0	0	0
44	LL-3 Lane	LinStatic	0	0	0	0	0	0
44	LL-7 Lane	LinStatic	0	0	0	0	0	0
44	CE-1 Lane	LinStatic	0	0	0	0	0	0
44	CE-2 Lane	LinStatic	0	0	0	0	0	0
44	CE-3 Lane	LinStatic	0	0	0	0	0	0
44	CE-7 Lane	LinStatic	0	0	0	0	0	0
44	BR-1 Lane	LinStatic	0	0	0	0	0	0
44	BR-2 Lane	LinStatic	0	0	0	0	0	0
44	BR-3 Lane	LinStatic	0	0	0	0	0	0
44	BR-7 Lane	LinStatic	0	0	0	0	0	0
44	WSub3: 45deg	LinStatic	0	0	0	0	0	0
44	WSub3: 30deg	LinStatic	0	0	0	0	0	0
44	WSub3: 15deg	LinStatic	0	0	0	0	0	0
44	WSub3: 0deg	LinStatic	0	0	0	0	0	0
44	WSub3: -15deg	LinStatic	0	0	0	0	0	0
44	WSub3: -30deg	LinStatic	0	0	0	0	0	0
44	WSub3: -45deg	LinStatic	0	0	0	0	0	0
44	WA	LinStatic	0	0	0	0	0	0
44	WS3: 45deg	Combination	0	0	0	0	0	0
44	WS3: 30deg	Combination	0	0	0	0	0	0
44	WS3: 15deg	Combination	0	0	0	0	0	0
44	WS3: 0deg	Combination	0	0	0	0	0	0
44	WS3: -15deg	Combination	0	0	0	0	0	0
44	WS3: -30deg	Combination	0	0	0	0	0	0
44	WServ1: -45deg	Combination	0	0	0	0	0	0
44	WS5: 45deg	Combination	0	0	0	0	0	0
44	WS5: 30deg	Combination	0	0	0	0	0	0
44	WS5: 15deg	Combination	0	0	0	0	0	0
44	WS5: 0deg	Combination	0	0	0	0	0	0
44	WS5: -15deg	Combination	0	0	0	0	0	0
44	WS5: -30deg	Combination	0	0	0	0	0	0
44	WS5: -45deg	Combination	0	0	0	0	0	0
44	LL - 1 Lane	Combination	0	0	0	0	0	0
44	WS5 + WA	Combination	0	0	0	0	0	0
44	LL - 2 Lane	Combination	0	0	0	0	0	0
44	LL - 3 Lane	Combination	0	0	0	0	0	0
44	LL - 7 Lane	Combination	0	0	0	0	0	0
44	LL Envelope	Combination Max	0	0	0	0	0	0

44	LL Envelope	Combination	Min	0	0	0	0	0	0
44	WS3 & WA envelope	Combination	Max	0	0	0	0	0	0
44	WS3 & WA envelope	Combination	Min	0	0	0	0	0	0
44	WS3 + WA	Combination		0	0	0	0	0	0
44	WS5 & WA envelope	Combination	Max	0	0	0	0	0	0
44	WS5 & WA envelope	Combination	Min	0	0	0	0	0	0
44	Strength 1 - Max	Combination	Max	0	0	0	0	0	0
44	Strength 1 - Max	Combination	Min	0	0	0	0	0	0
44	Strength 1 - Min	Combination	Max	0	0	0	0	0	0
44	Strength 1 - Min	Combination	Min	0	0	0	0	0	0
44	Strength 3 - Max	Combination	Max	0	0	0	0	0	0
44	Strength 3 - Max	Combination	Min	0	0	0	0	0	0
44	Strength 3 - Min	Combination	Max	0	0	0	0	0	0
44	Strength 3 - Min	Combination	Min	0	0	0	0	0	0
44	Strength 5 - Max	Combination	Max	0	0	0	0	0	0
44	Strength 5 - Max	Combination	Min	0	0	0	0	0	0
44	Strength 5 - Min	Combination	Max	0	0	0	0	0	0
44	Strength 5 - Min	Combination	Min	0	0	0	0	0	0
44	Service 1	Combination	Max	0	0	0	0	0	0
44	Service 1	Combination	Min	0	0	0	0	0	0
44	WServ1: 45deg	Combination		0	0	0	0	0	0
44	WServ1: 30deg	Combination		0	0	0	0	0	0
44	WServ1: 15deg	Combination		0	0	0	0	0	0
44	WServ1: 0deg	Combination		0	0	0	0	0	0
44	WServ1: -15deg	Combination		0	0	0	0	0	0
44	WServ1: -30deg	Combination		0	0	0	0	0	0
44	WServ1 + WA	Combination		0	0	0	0	0	0
44	WServ1 & WA envelope	Combination	Max	0	0	0	0	0	0
44	WServ1 & WA envelope	Combination	Min	0	0	0	0	0	0
44	Strength Envelope	Combination	Max	0	0	0	0	0	0
44	Strength Envelope	Combination	Min	0	0	0	0	0	0