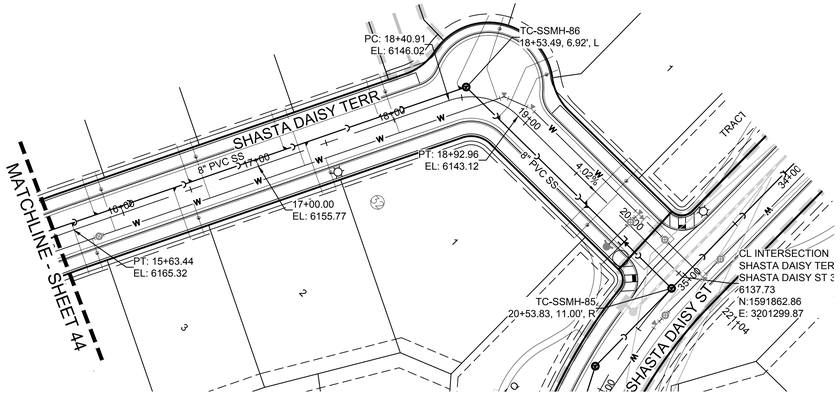
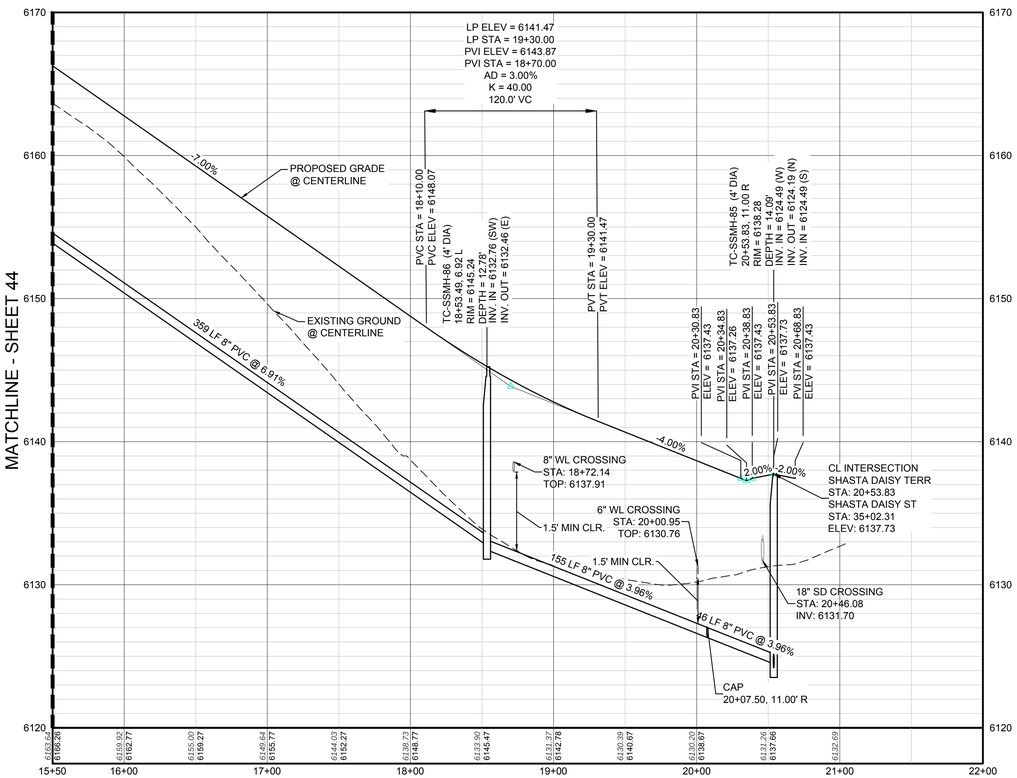


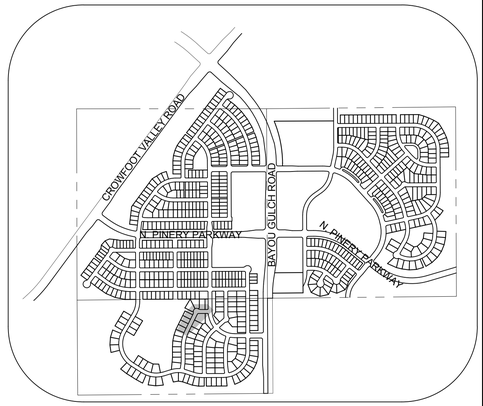
PLAN: SHASTA DAISY TERRACE STA: 15+50.00 TO 22+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SHASTA DAISY TERR STA: 15+50.00 TO 22+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

50 25 0 50 100

SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
BO EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4) (5) (6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET N.DWG, BOBBYG, 6/23/2017 11:14 AM

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

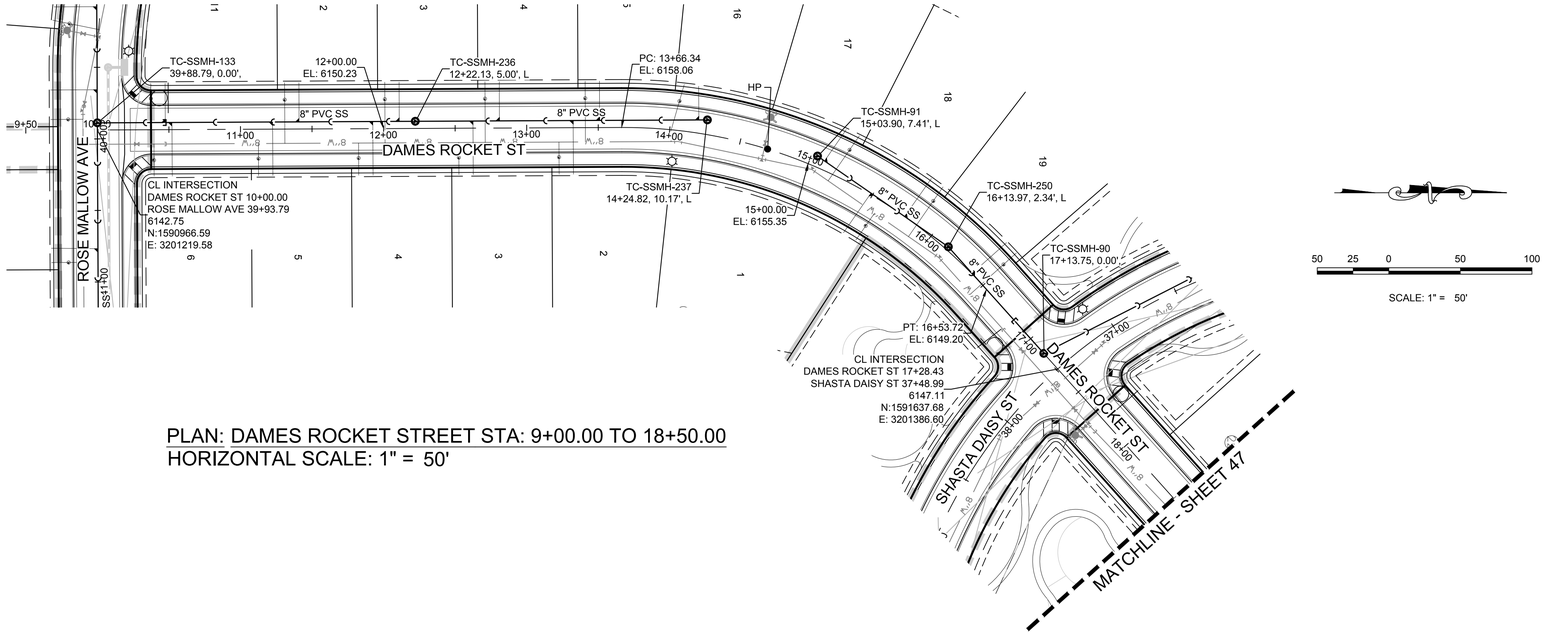
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SHASTA DAISY TERRACE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: KJD
CHECKED BY: JJJ
DATE: APRIL 2017

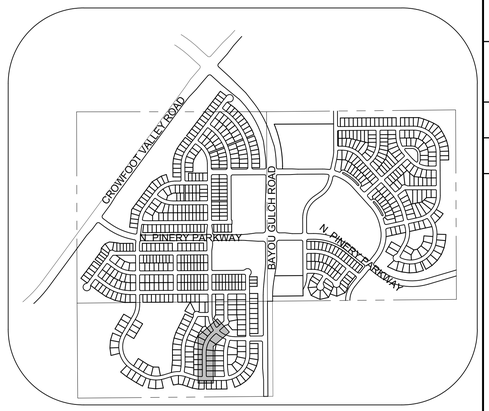
SHEET NUMBER 45



PLAN: DAMES ROCKET STREET STA: 9+00.00 TO 18+50.00
HORIZONTAL SCALE: 1" = 50'

50 25 0 50 100

SCALE: 1" = 50'



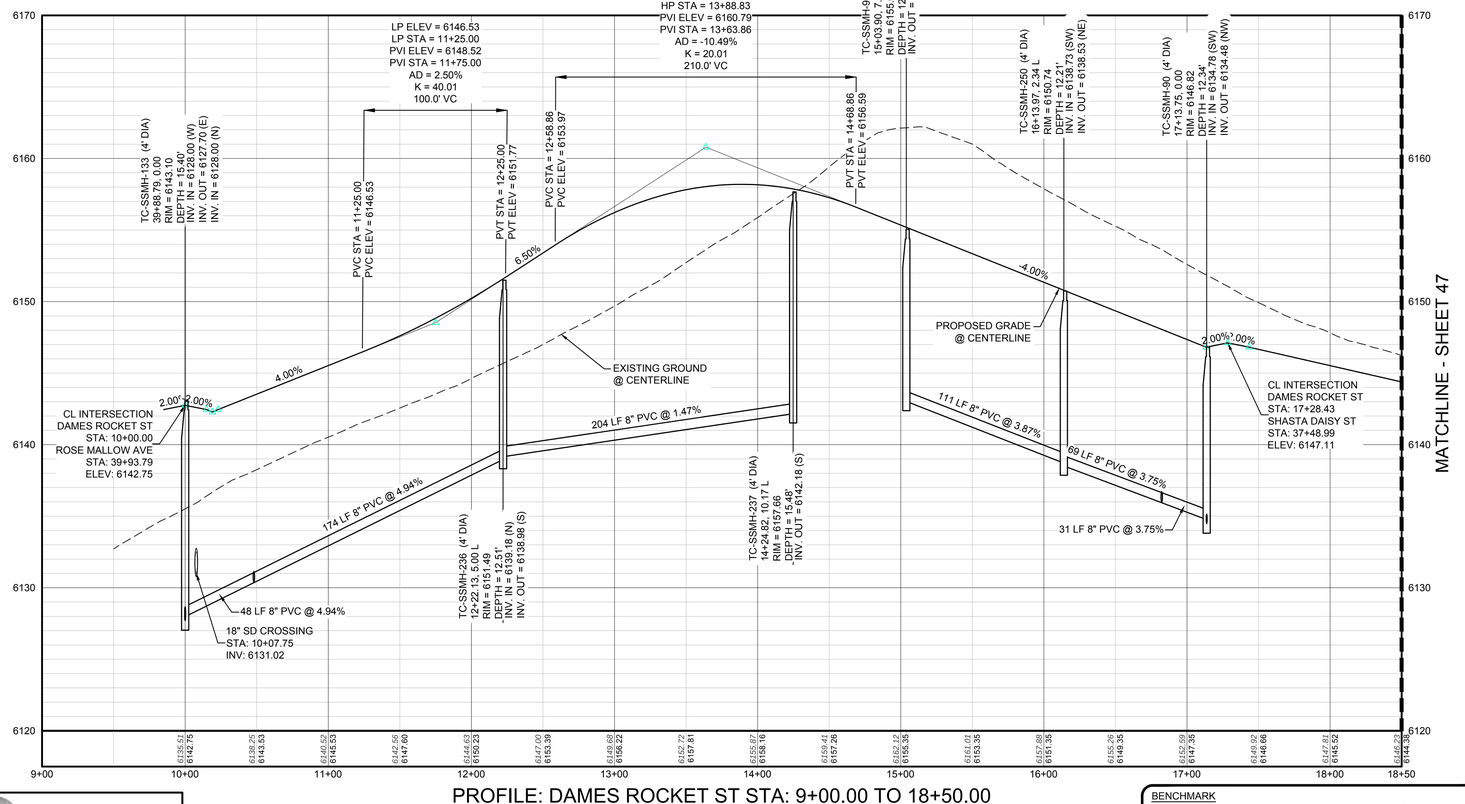
KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		



PROFILE: DAMES ROCKET ST STA: 9+00.00 TO 18+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Date	Appr.	Date

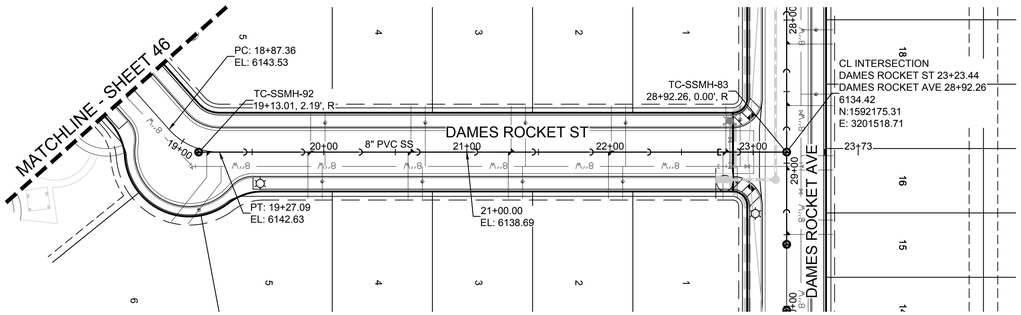
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

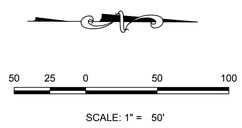
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
DAMES ROCKET STREET

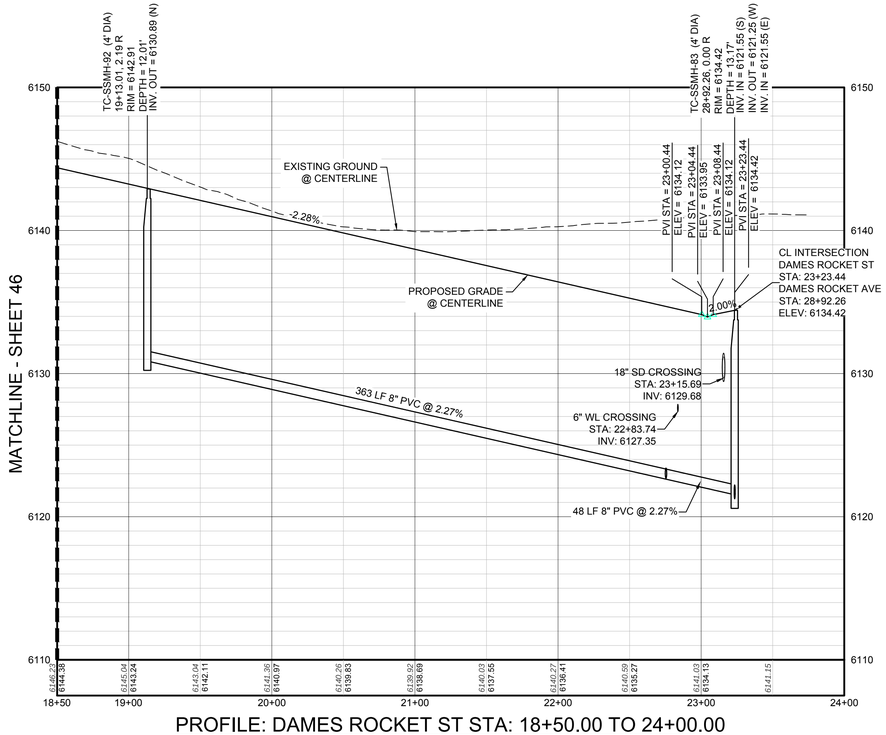
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: KJD
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 46

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET O.DWG, BOBBYG, 6/23/2017 11:19 AM

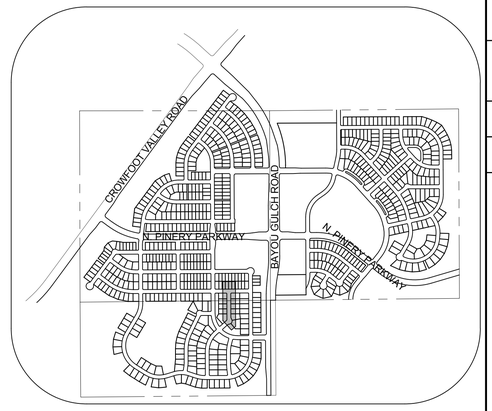




PLAN: DAMES ROCKET STREET STA: 18+50.00 TO 24+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: DAMES ROCKET ST STA: 18+50.00 TO 24+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET O.DWG, BOBBYG, 6/23/2017 11:19 AM

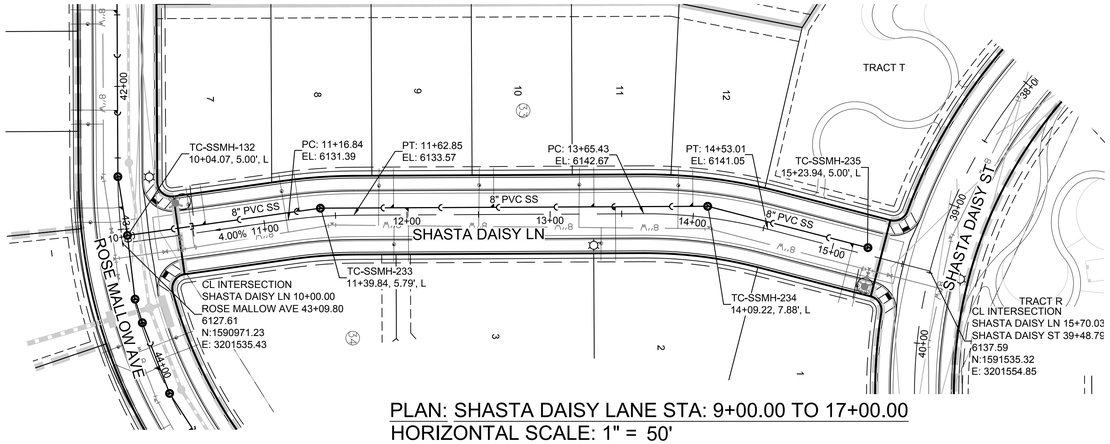
No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
DAMES ROCKET STREET

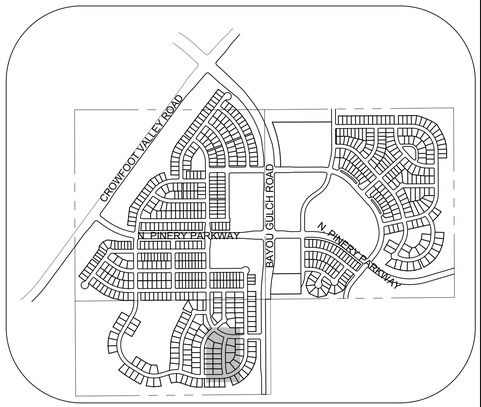
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: KJD
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 47



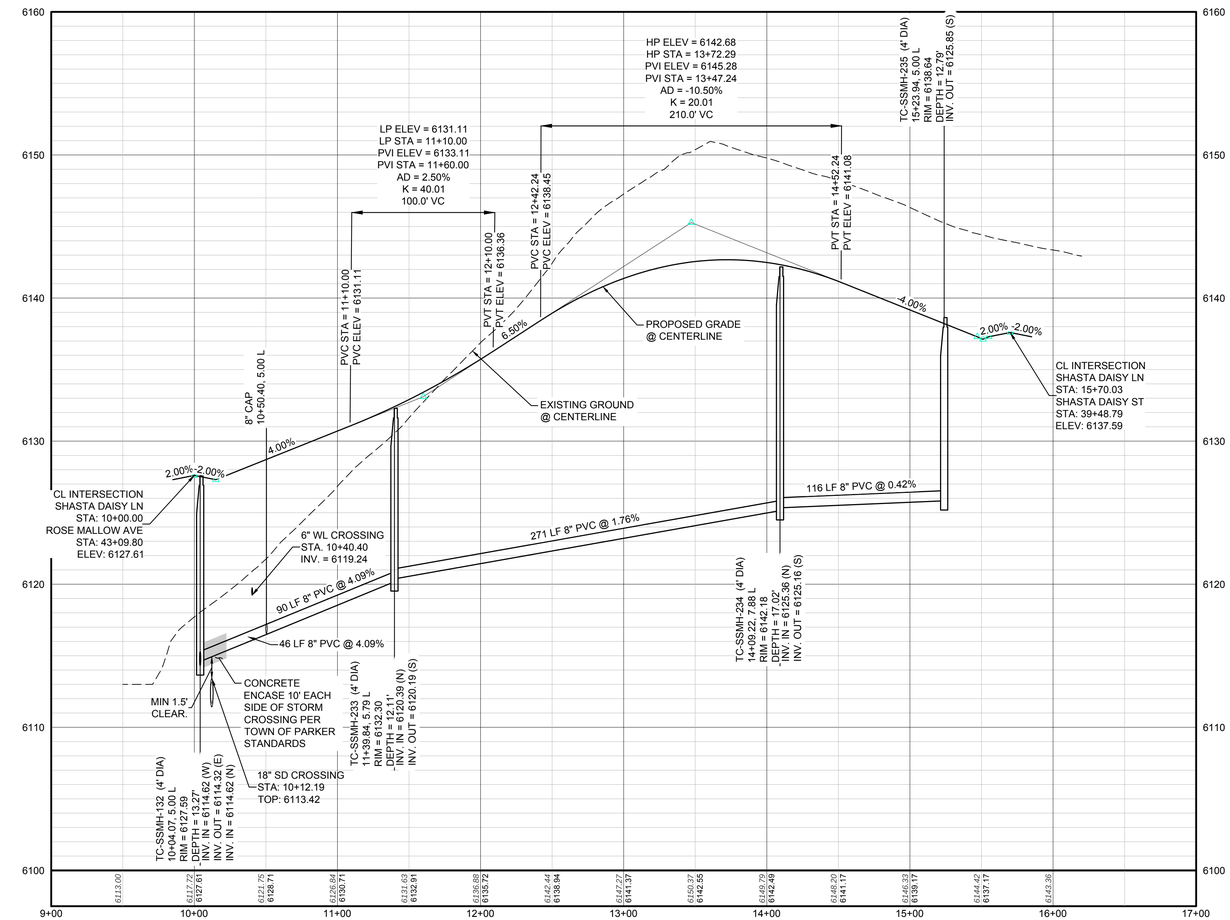
50 25 0 50 100

SCALE: 1" = 50'

PLAN: SHASTA DAISY LANE STA: 9+00.00 TO 17+00.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: SHASTA DAISY LN STA: 9+00.00 TO 17+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

2	BLOCK NUMBER		PROPOSED RANGE POINT
A	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT	5615	EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
BO	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
AV	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
BO	EXISTING BLOW OFF VALVE		PROPOSED SEWER LINE WITH MANHOLE
	EXISTING VALVE		PROPOSED SEWER LATERAL
	EXISTING FIRE HYDRANT	8"W	PROPOSED WATER LINE
	PROPOSED LIGHT POLE		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK	RW	EXISTING 60" RAW WATER LINE
	PROPOSED SIDEWALK RAMP		SECTION LINE
10.00	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	HV	EXISTING OVERHEAD HIGH VOLTAGE LINE
4 5 6	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX
EVC	END VERTICAL CURVE		CULVERT
EVP	END VERTICAL PROFILE	RCP	REINFORCED CONCRETE PIPE
FG	FINISHED GROUND	ROW	RIGHT OF WAY
FL	FLOW LINE	SD	STORM DRAIN
GV	GATE VALVE	SL	SECTION LINE
HA	HYDRANT ASSEMBLY	SS	SANITARY SEWER
HCR	HANDICAP CURB RAMP	STA	STATION
HP	HIGH POINT	T.O.P.	TOP OF PIPE
INV	INVERT	UE	UTILITY EASEMENT
K	CURVATURE COEFFICIENT	VC	VERTICAL CURVE
LF	LINEAR FEET	WL	WATER LINE
MH	MANHOLE	WSE	WATER SURFACE ELEVATION

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

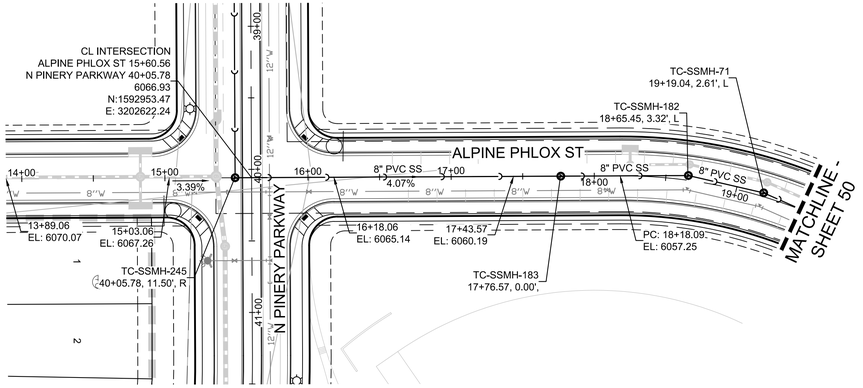
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

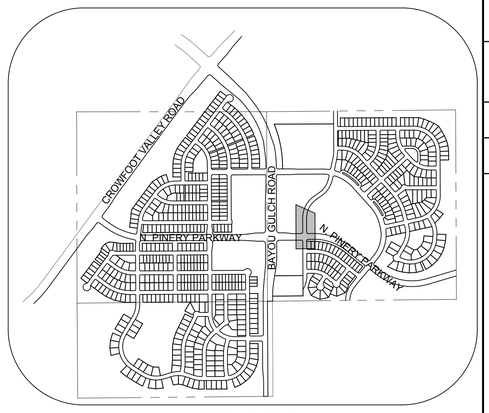
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SHASTA DAISY LANE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 48

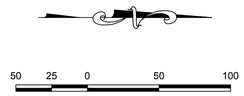
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET P.DWG, BOBBYG, 6/23/2017 11:23 AM

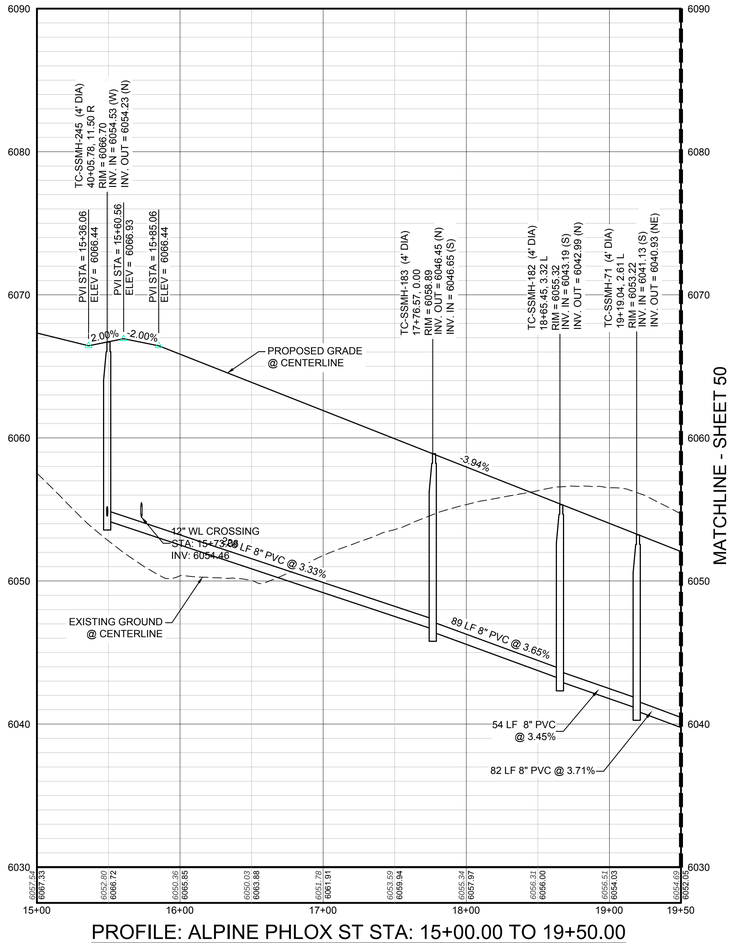


PLAN: ALPINE PHLOX STREET STA: 15+00.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.





PROFILE: ALPINE PHLOX ST STA: 15+00.00 TO 19+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

(2)	BLOCK NUMBER		PROPOSED RANGE POINT
(A)	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT	5615	EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
	EXISTING BLOW OFF VALVE		PROPOSED SEWER LINE WITH MANHOLE
	EXISTING VALVE		PROPOSED SEWER LATERAL
	EXISTING FIRE HYDRANT	8"W	PROPOSED WATER LINE
	PROPOSED LIGHT POLE		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK	RW	EXISTING 60" RAW WATER LINE
	PROPOSED SIDEWALK RAMP		SECTION LINE
10.00	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	HV	EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6)	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

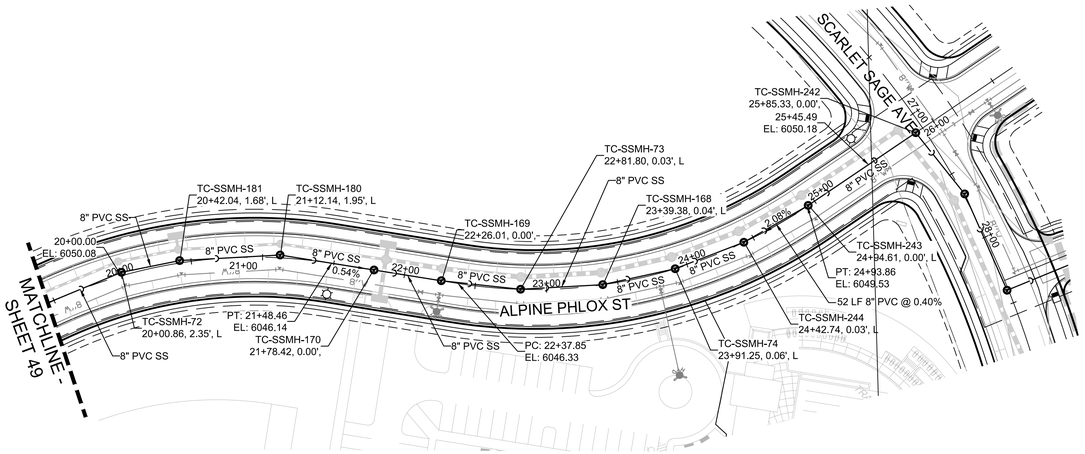
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

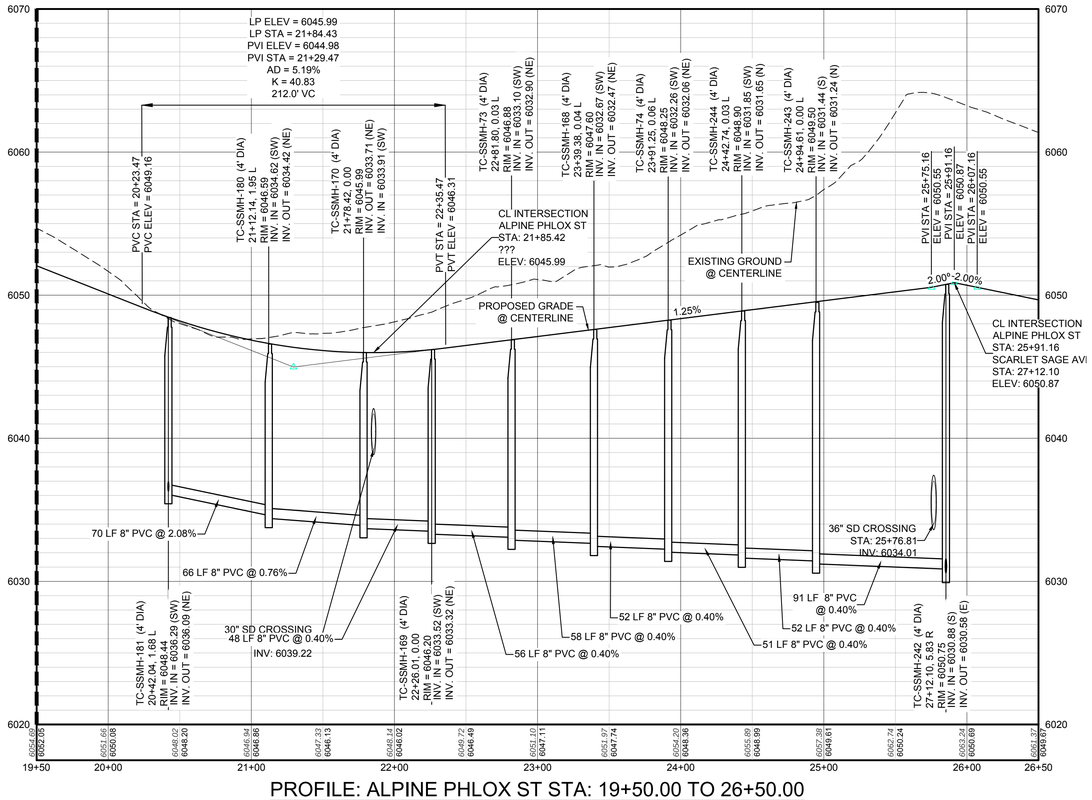
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
ALPINE PHLOX STREET

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: KJD
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 49

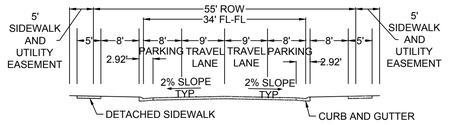
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET 1.DWG, BOBBYG, 6/23/2017 11:28 AM



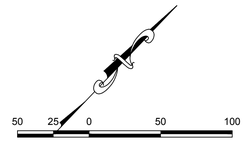
PLAN: ALPINE PHLOX STREET STA: 19+50.00 TO 26+50.00
HORIZONTAL SCALE: 1" = 50'



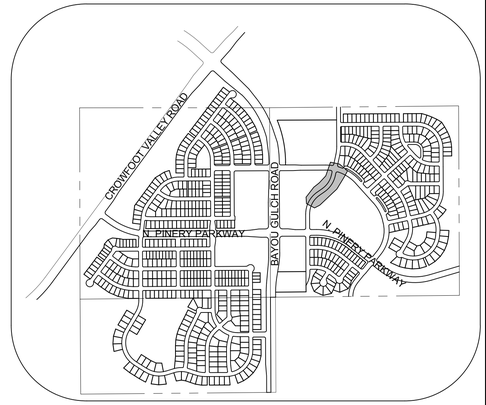
PROFILE: ALPINE PHLOX ST STA: 19+50.00 TO 26+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



RESIDENTIAL LOCAL



SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD ANGLE DIFFERENCE	N.T.S. NOT TO SCALE
BVC BEGIN VERTICAL CURVE	PL PROPERTY LINE
BVP BEGIN VERTICAL PROFILE	PVC POLYVINYL CHLORIDE
CRR CURB RETURN RADIUS	PVI PT. OF VERTICAL INTERSECTION
EL ELEVATION	PVT POINT OF VERTICAL TANGENT
EP EDGE OF PAVEMENT	RCBC REINFORCED CONCRETE BOX CULVERT
EVC END VERTICAL CURVE	RCP REINFORCED CONCRETE PIPE
EVP END VERTICAL PROFILE	ROW RIGHT OF WAY
FG FINISHED GROUND	SD STORM DRAIN
FL FLOW LINE	SL SECTION LINE
GV GATE VALVE	SS SANITARY SEWER
HA HYDRANT ASSEMBLY	STA STATION
HCR HANDICAP CURB RAMP	T.O.P. TOP OF PIPE
HP HIGH POINT	UE UTILITY EASEMENT
INV INVERT	VC VERTICAL CURVE
K CURVATURE COEFFICIENT	WL WATER LINE
LF LINEAR FEET	WSE WATER SURFACE ELEVATION
MH MANHOLE	

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET 1.DWG, BOBBYG, 6/23/2017 11:29 AM

No.	Revisions	Date	Init.	Appr.	Date

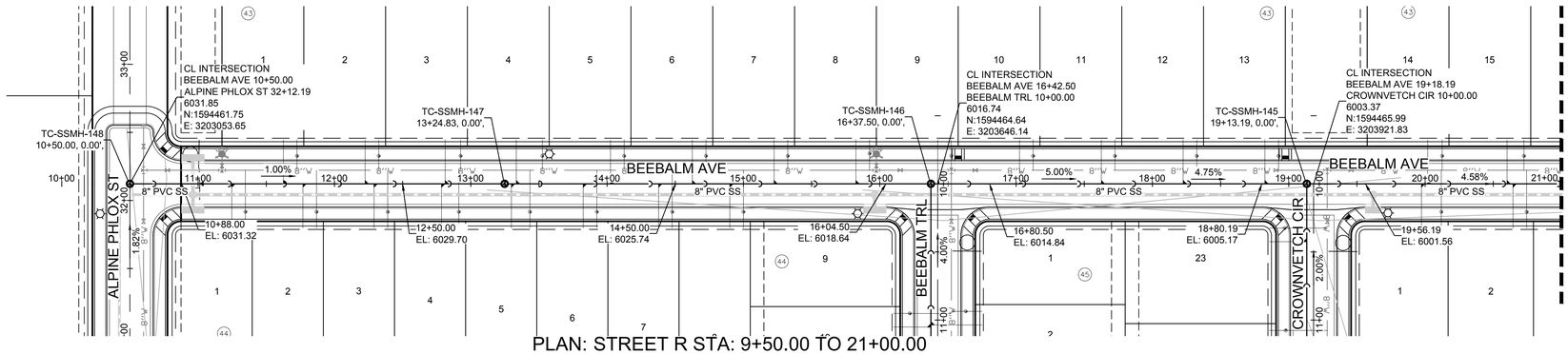
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

ESX MANAGEMENT
7353 South Alton Way
Suite 100
CENTENNIAL, CO 80112

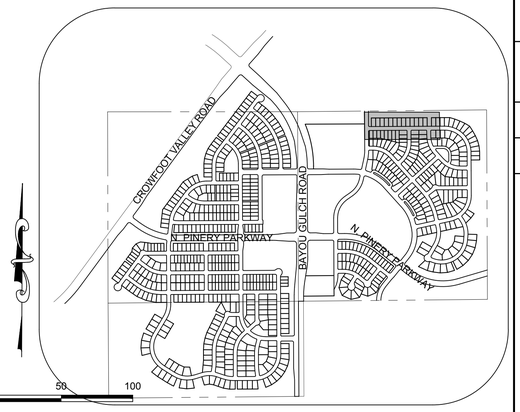
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
ALPINE PHLOX STREET

DRAWN BY:	JF	SCALE:	AS SHOWN
CHECKED BY:	JJ	FILE NO:	8130283701
DATE:	APRIL 2017		

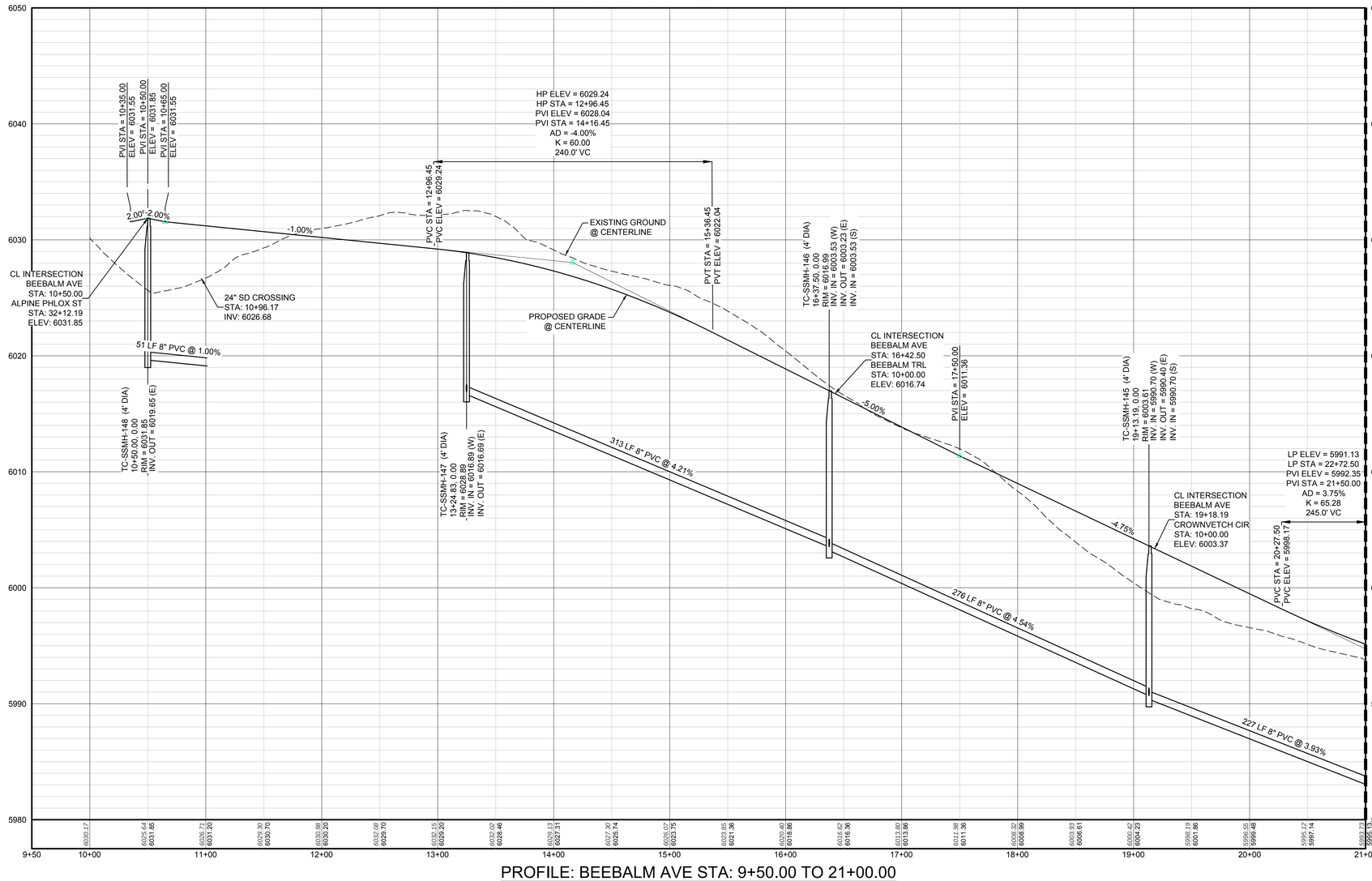
SHEET NUMBER 50



PLAN: STREET R STA: 9+50.00 TO 21+00.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: BEEBALM AVE STA: 9+50.00 TO 21+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

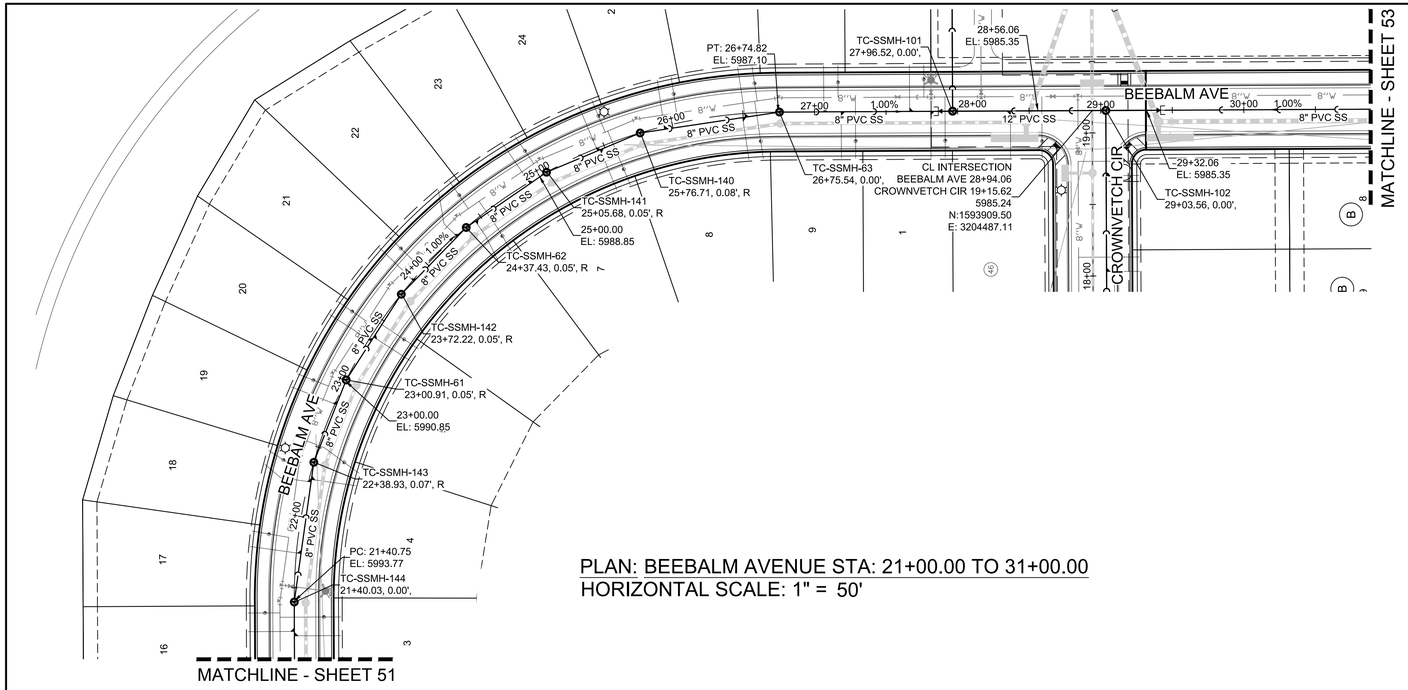
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
STREET SEWER PLAN AND PROFILE
BEEBALM AVENUE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 51

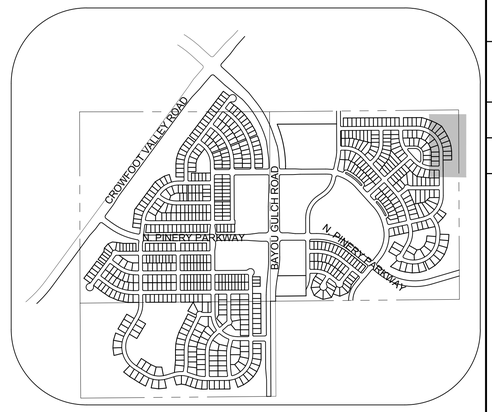
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET R.DWG, BOBBYG, 6/23/2017 11:34 AM



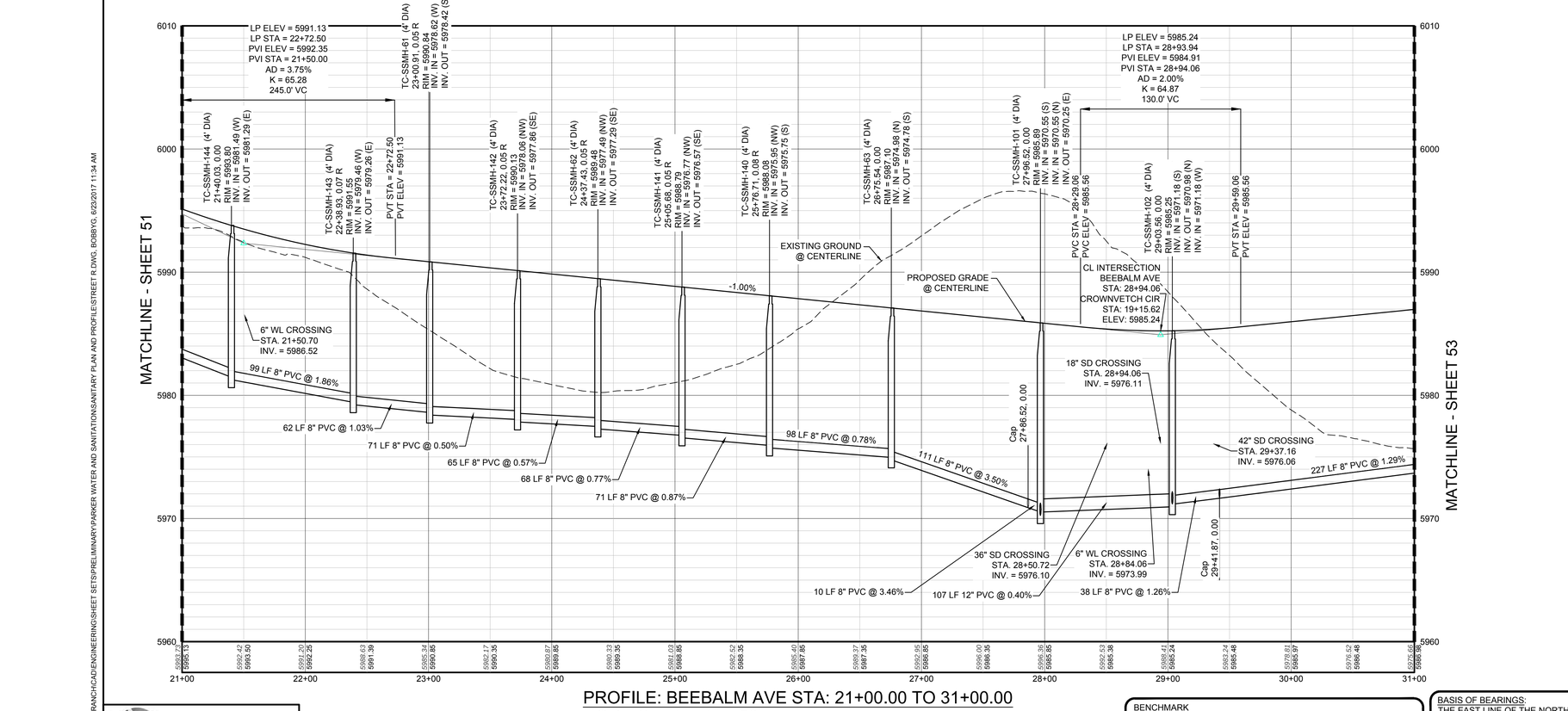
PLAN: BEEBALM AVENUE STA: 21+00.00 TO 31+00.00
HORIZONTAL SCALE: 1" = 50'

50 25 0 50 100

SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: BEEBALM AVE STA: 21+00.00 TO 31+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

- BLOCK NUMBER (2)
- LOT TYPE (A)
- LOT NUMBER 6
- PROPOSED BUTTERFLY VALVE
- PROPOSED CAP WITH END OF LINE BLOWOFF
- PROPOSED REDUCER
- PROPOSED VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WL FITTING WITH THRUST BLOCK
- PROPOSED FLARED END SECTION
- PROPOSED LOW POINT BLOW-OFF (BO)
- PROPOSED AIR VALVE (AV)
- EXISTING BLOW OFF VALVE
- EXISTING VALVE
- EXISTING FIRE HYDRANT
- PROPOSED LIGHT POLE
- PROPOSED SIDEWALK
- PROPOSED SIDEWALK RAMP
- 10.00 EXISTING ELEVATION
- 10.00 PROPOSED DESIGN ELEVATION
- PROPOSED STORM DRAIN INLET
- (4)(5)(6) PROPOSED STORM DRAIN MANHOLE
- PROPOSED RANGE POINT
- CENTERLINE
- RIGHT-OF-WAY
- PROPERTY LINE
- EDGE OF PAVEMENT
- PROPOSED DIRECTION OF FLOW
- 1.0% PROPOSED SLOPE & DIRECTION
- 5615 EXISTING 5' CONTOUR
- 5616 EXISTING 1' CONTOUR
- 5620 PROPOSED 5' CONTOUR
- 5607 PROPOSED 1' CONTOUR
- PROPOSED STORM DRAIN
- PROPOSED SEWER LINE WITH MANHOLE
- PROPOSED SEWER LATERAL
- 8"W PROPOSED WATER LINE
- PROPOSED WATER LATERAL W/ METER
- RW EXISTING 60" RAW WATER LINE
- SECTION LINE
- FILING BOUNDARY
- FO EXISTING FIBER OPTIC LINE
- HV EXISTING OVERHEAD HIGH VOLTAGE LINE
- TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

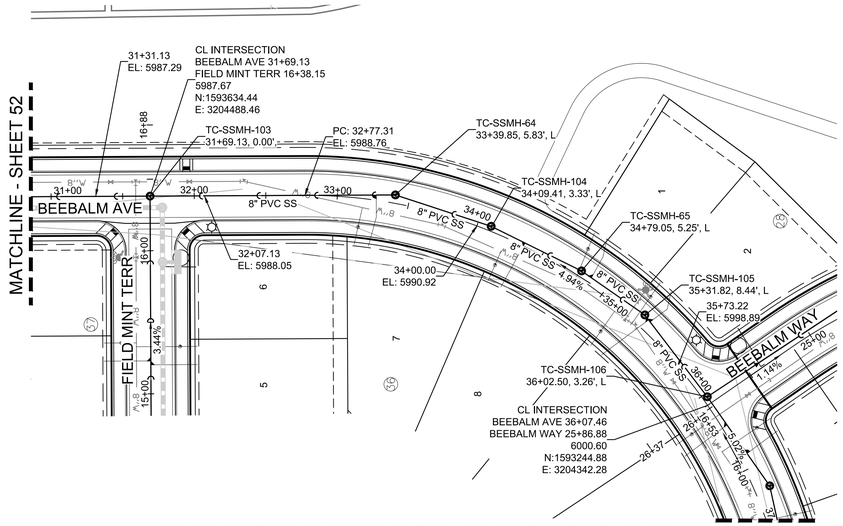
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
BEEBALM AVENUE

DRAWN BY:	JLR	SCALE:	AS SHOWN
CHECKED BY:	JJJ	FILE NO:	8130283701
DATE:	APRIL 2017		

SHEET NUMBER 52

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET R.DWG, BOBBYG, 6/23/2017 11:34 AM

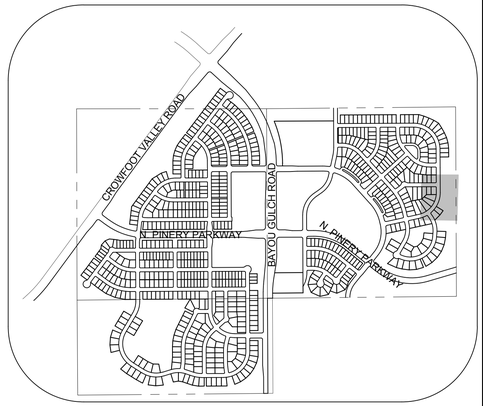


MATCHLINE - SHEET 61

PLAN: BEEBALM AVENUE STA: 31+00.00 TO 36+50.00
HORIZONTAL SCALE: 1" = 50'



SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

PROFILE: BEEBALM AVE STA: 31+00.00 TO 36+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET R.DWG, BOBBYG, 6/23/2017 11:34 AM

No.	Revisions	Date	Init.	Appr.	Date

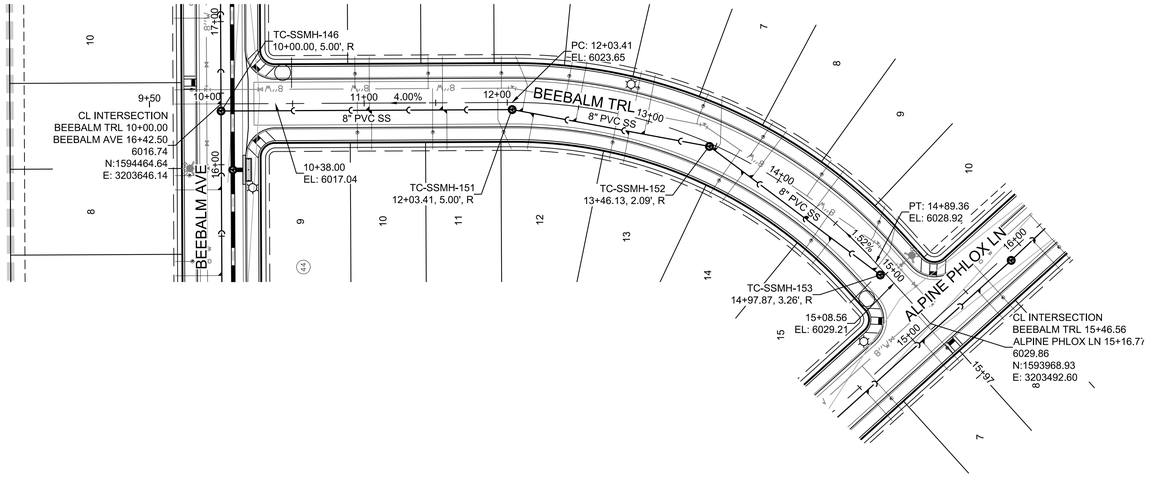
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

CVL CONSULTANTS

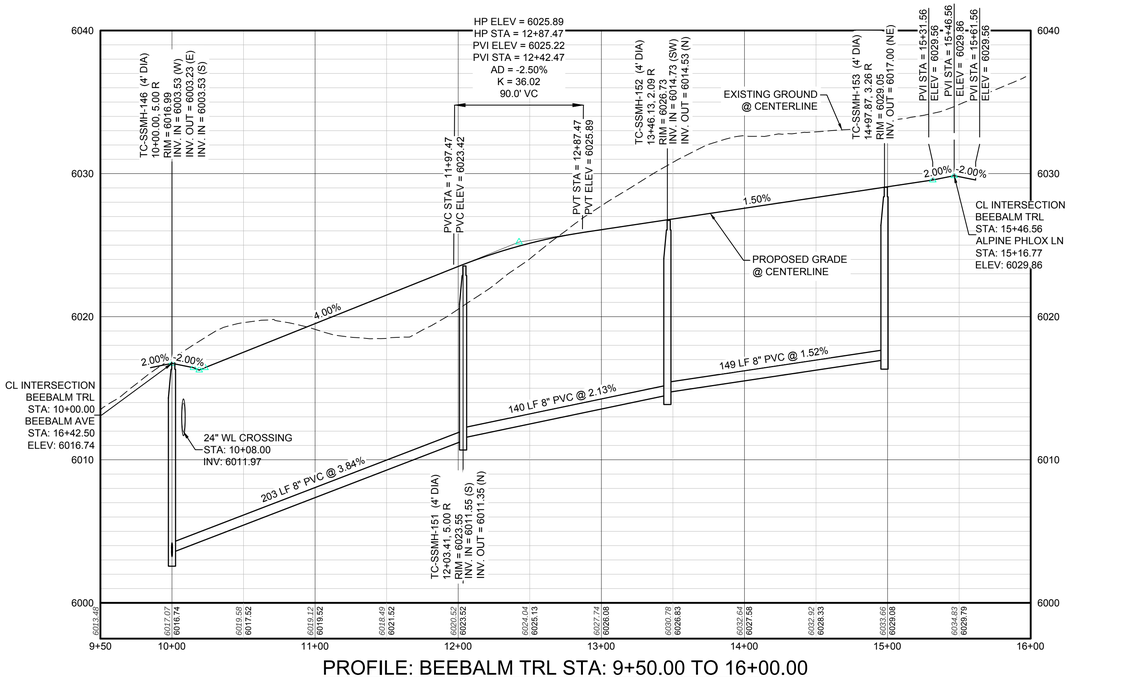
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
BEEBALM AVENUE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 53

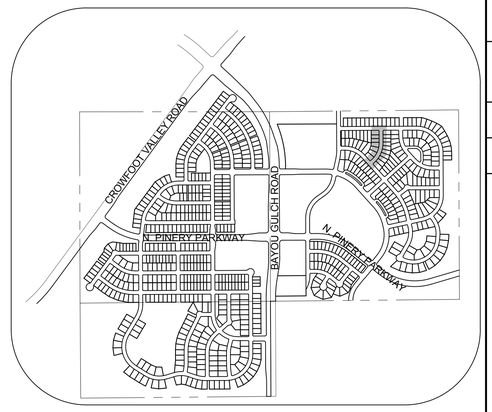


PLAN: BEEBALM TRAIL STA: 9+50.00 TO 16+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: BEEBALM TRL STA: 9+50.00 TO 16+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

50 25 0 50 100
SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
4 5 6 PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET S.DWG, BOBBYG, 6/23/2017 11:37 AM

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

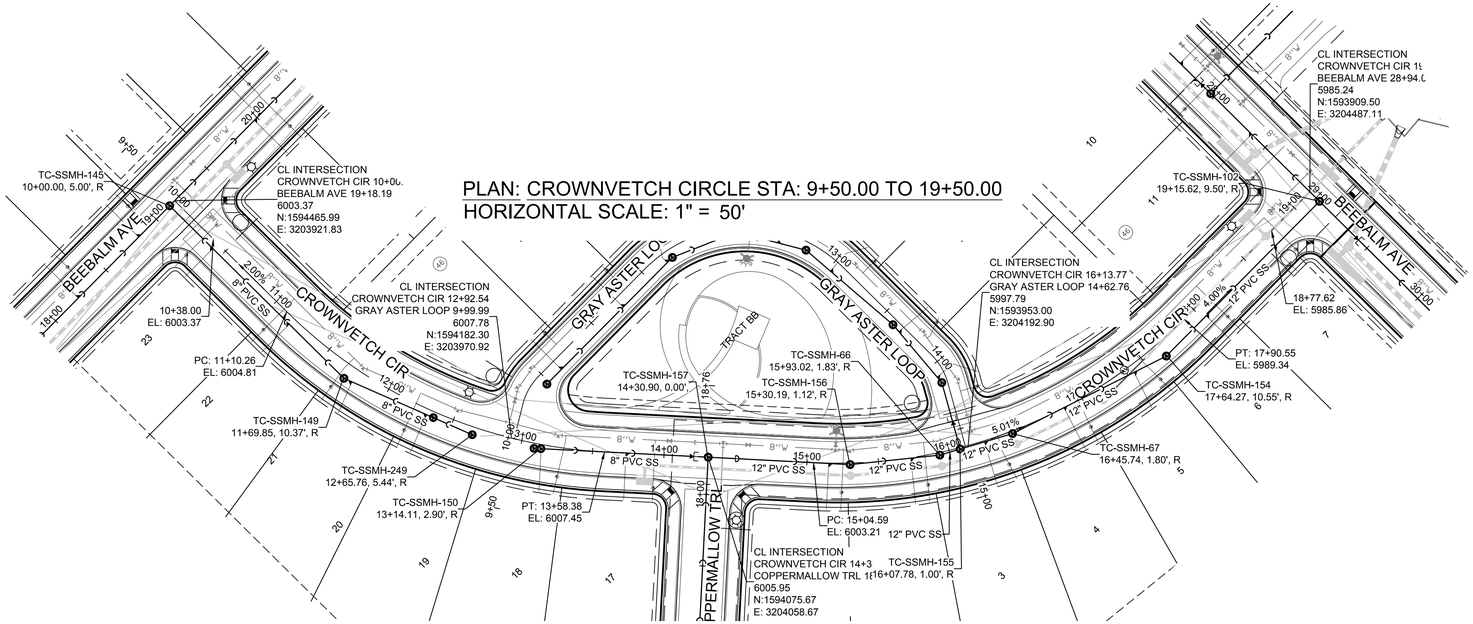
CVL CONSULTANTS

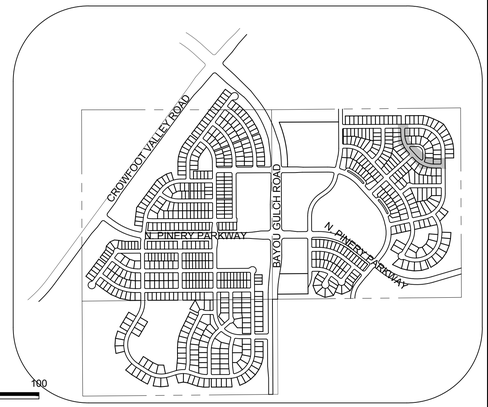
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
BEEBALM TRAIL

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 54





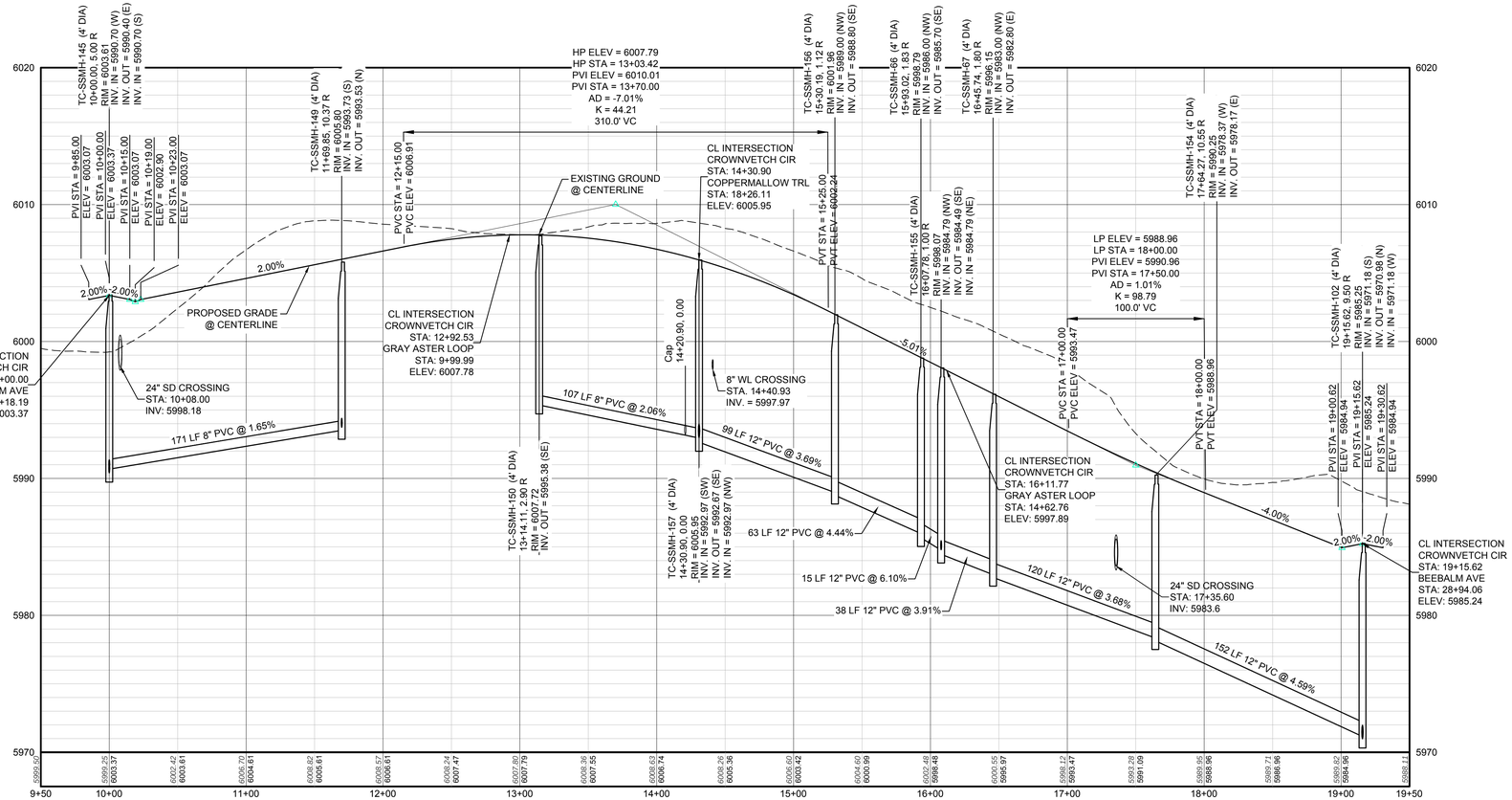
KEYMAP
NTS

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYLCHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		



PROFILE: CROWNVETCH CIR STA: 9+50.00 TO 19+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

10339 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

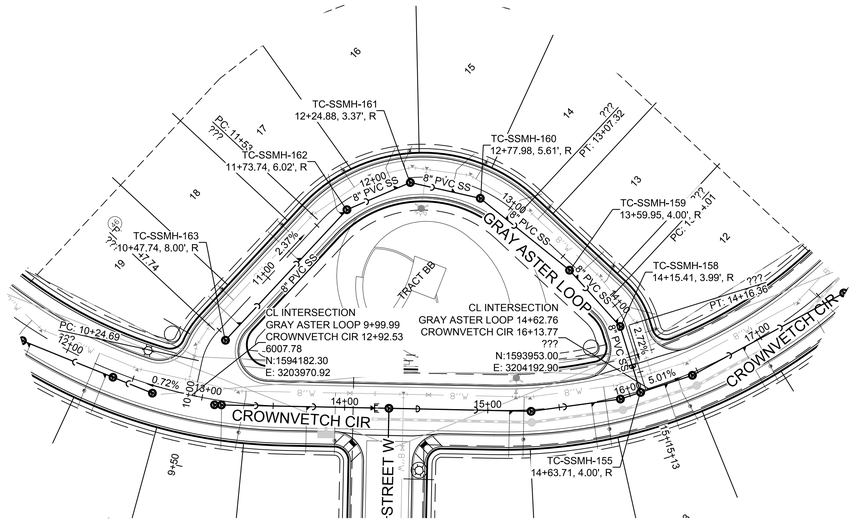
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
CROWNVETCH CIRCLE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 55

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET T.DWG, CLAYG, 6/23/2017 11:42 AM

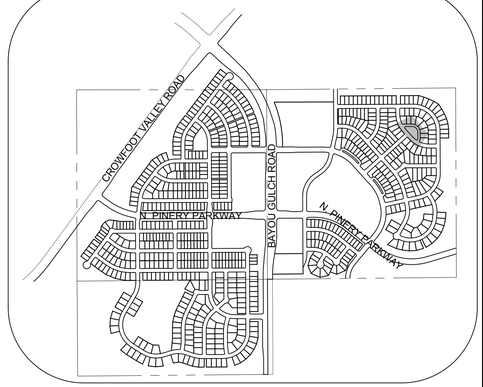


PLAN: GRAY ASTER LOOP STA: 9+50.00 TO 15+50.00
HORIZONTAL SCALE: 1" = 50'



50 25 0 50 100

SCALE: 1" = 50'



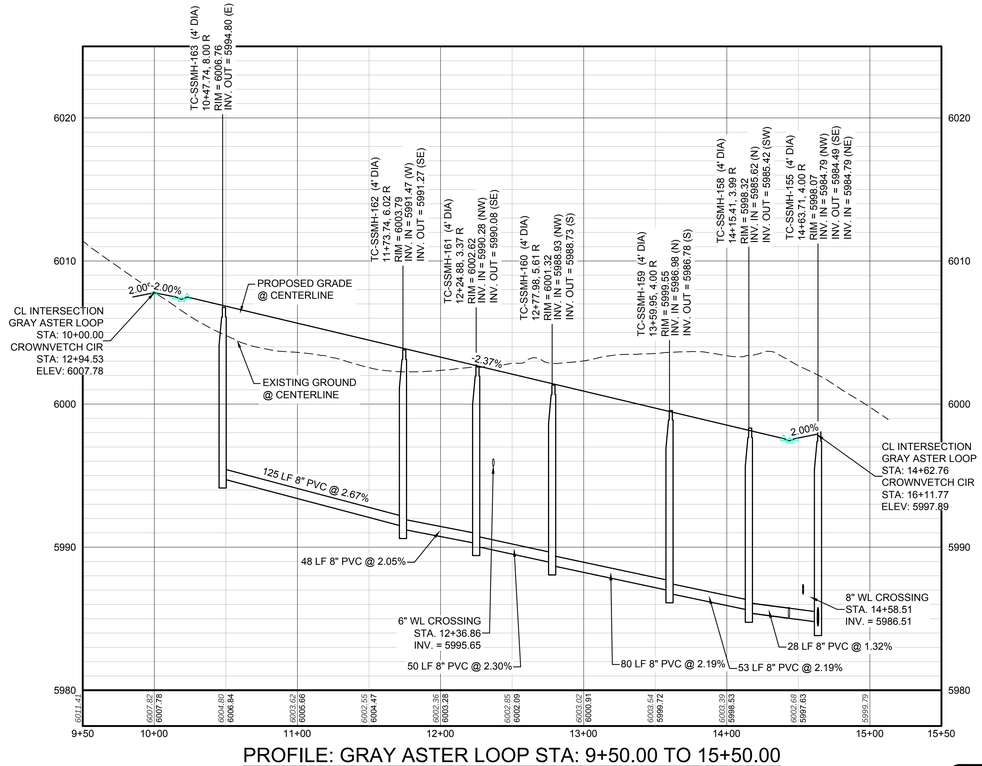
KEYMAP
N.T.S.

LEGEND

(2)	BLOCK NUMBER	△	PROPOSED RANGE POINT
(A)	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT	5615	EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
PLP	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
AV	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
BO	EXISTING BLOW OFF VALVE		PROPOSED SEWER LINE WITH MANHOLE
	EXISTING VALVE		PROPOSED SEWER LATERAL
	EXISTING FIRE HYDRANT	8"W	PROPOSED WATER LINE
	PROPOSED LIGHT POLE		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK	RW	EXISTING 60" RAW WATER LINE
	PROPOSED SIDEWALK RAMP		SECTION LINE
10.00	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	HV	EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6)	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		



PROFILE: GRAY ASTER LOOP STA: 9+50.00 TO 15+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET U.DWG, CLAYG, 6/23/2017 11:46 AM

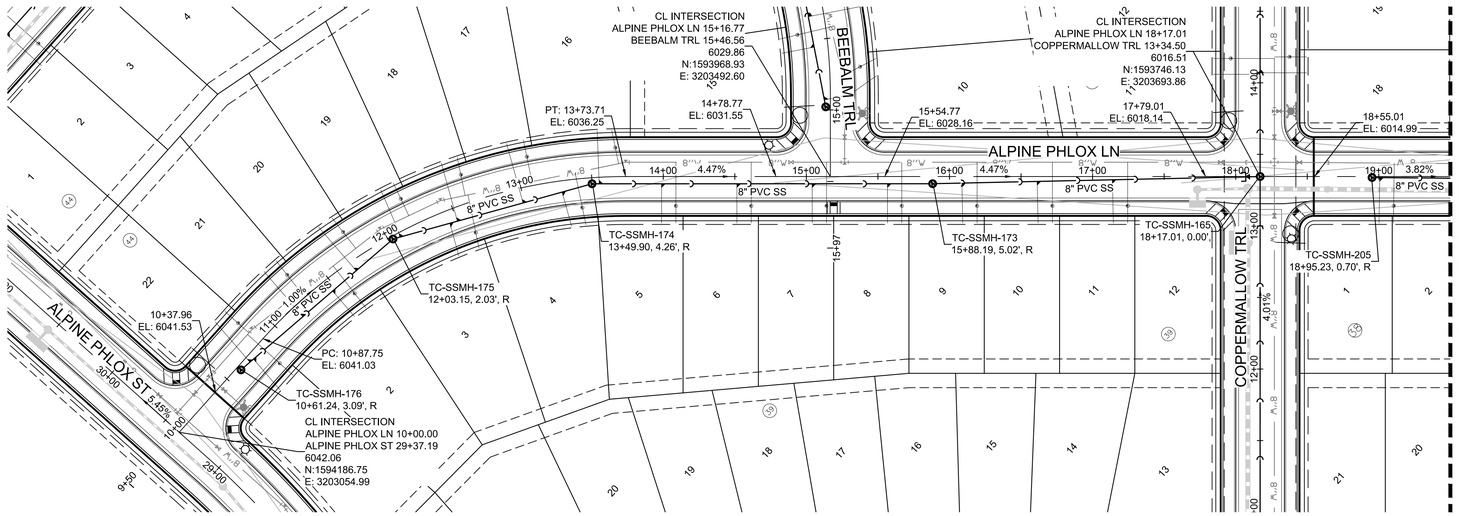
No.	Revisions	Date	Init.	Date	Appr.	Date

CVL CONSULTANTS
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

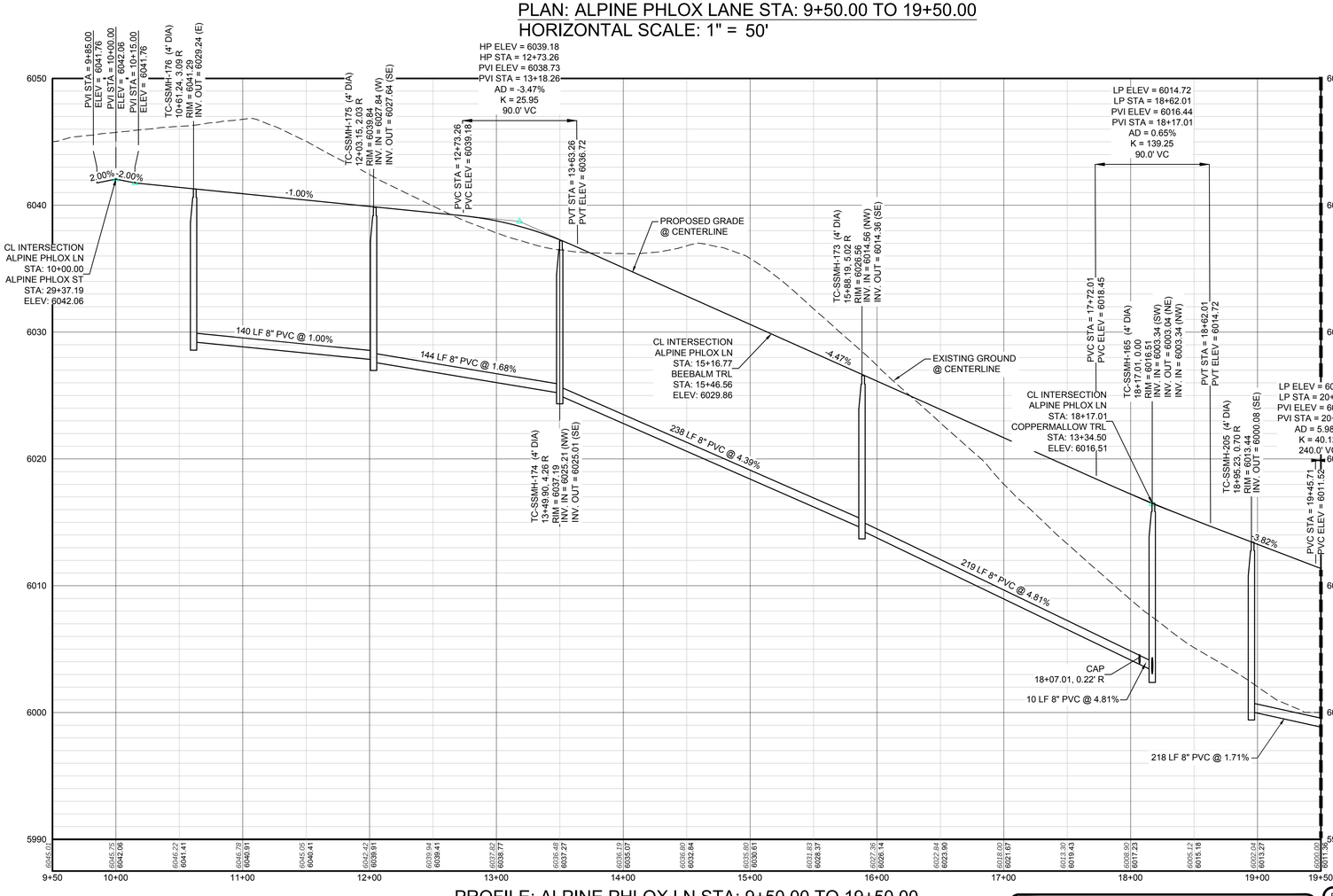
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
GRAY ASTER LOOP

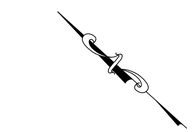
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 56



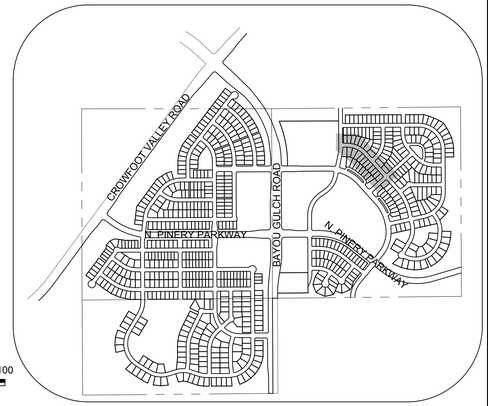
PLAN: ALPINE PHLOX LANE STA: 9+50.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: ALPINE PHLOX LN STA: 9+50.00 TO 19+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

- BLOCK NUMBER
- LOT TYPE
- LOT NUMBER
- PROPOSED BUTTERFLY VALVE
- PROPOSED CAP WITH END OF LINE BLOWOFF
- PROPOSED REDUCER
- PROPOSED VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WL FITTING WITH THRUST BLOCK
- PROPOSED FLARED END SECTION
- PROPOSED LOW POINT BLOW-OFF
- PROPOSED AIR VALVE
- EXISTING BLOW OFF VALVE
- EXISTING VALVE
- EXISTING FIRE HYDRANT
- PROPOSED LIGHT POLE
- PROPOSED SIDEWALK
- PROPOSED SIDEWALK RAMP
- EXISTING ELEVATION
- PROPOSED DESIGN ELEVATION
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED RANGE POINT
- CENTERLINE
- RIGHT-OF-WAY
- PROPERTY LINE
- EDGE OF PAVEMENT
- PROPOSED DIRECTION OF FLOW
- PROPOSED SLOPE & DIRECTION
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED STORM DRAIN
- PROPOSED SEWER LINE WITH MANHOLE
- PROPOSED SEWER LATERAL
- PROPOSED WATER LINE
- PROPOSED WATER LATERAL W/ METER
- EXISTING 60" RAW WATER LINE
- SECTION LINE
- FILING BOUNDARY
- EXISTING FIBER OPTIC LINE
- EXISTING OVERHEAD HIGH VOLTAGE LINE
- EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

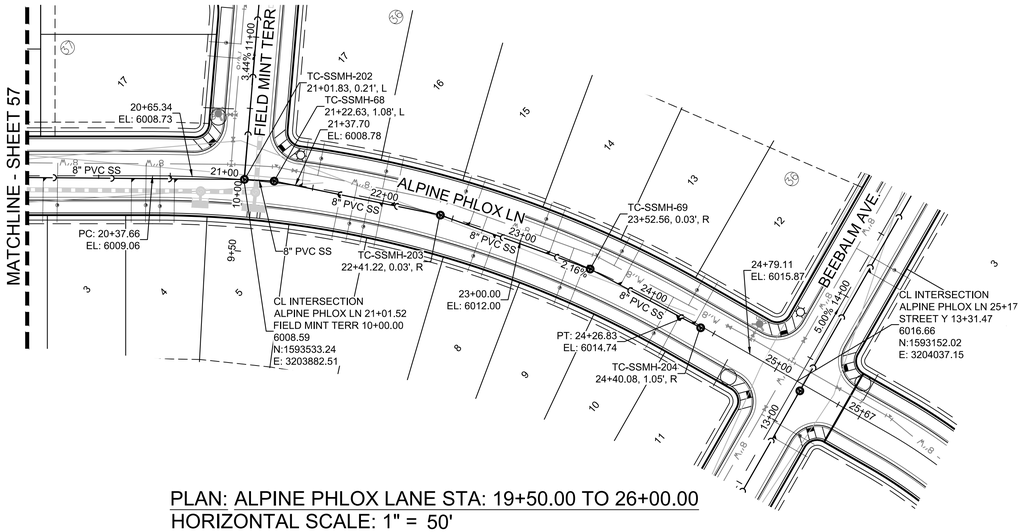
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

ESX MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

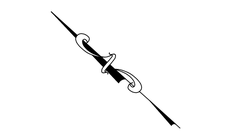
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
ALPINE PHLOX LANE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 57

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET V.DWG, CLAYG, 6/23/2017 11:49 AM

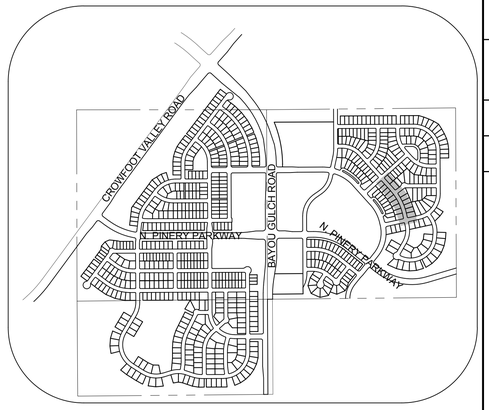


PLAN: ALPINE PHLOX LANE STA: 19+50.00 TO 26+00.00
HORIZONTAL SCALE: 1" = 50'

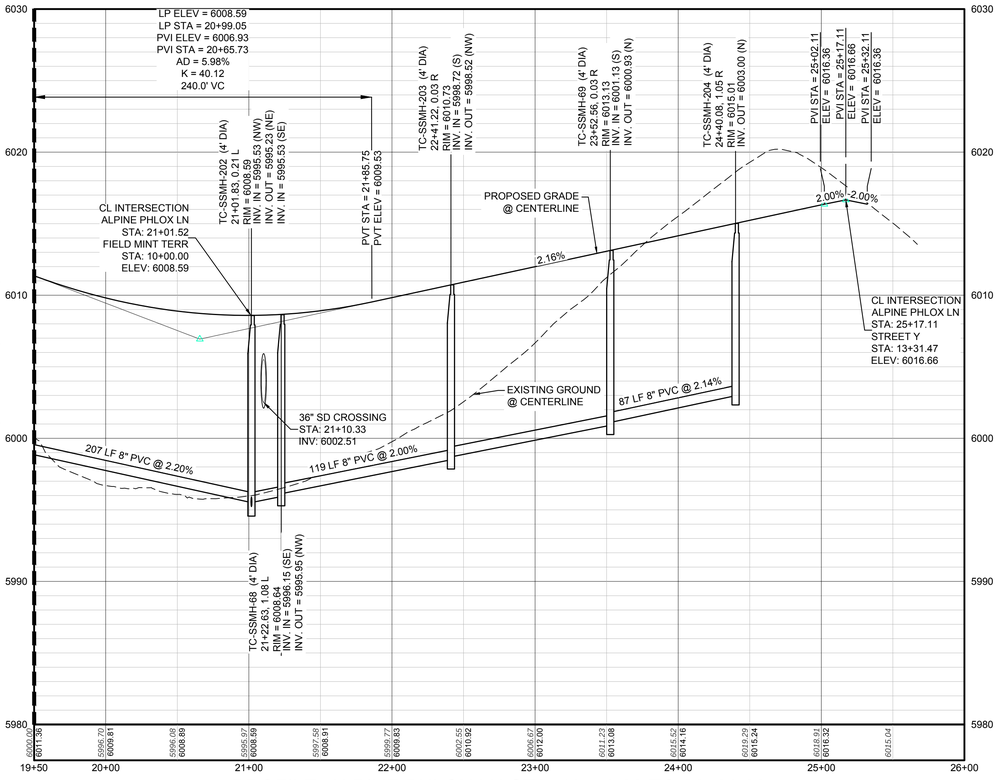


50 25 0 50 100

SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: ALPINE PHLOX LN STA: 19+50.00 TO 26+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET V.DWG, CLAYG, 6/23/2017 11:49 AM

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

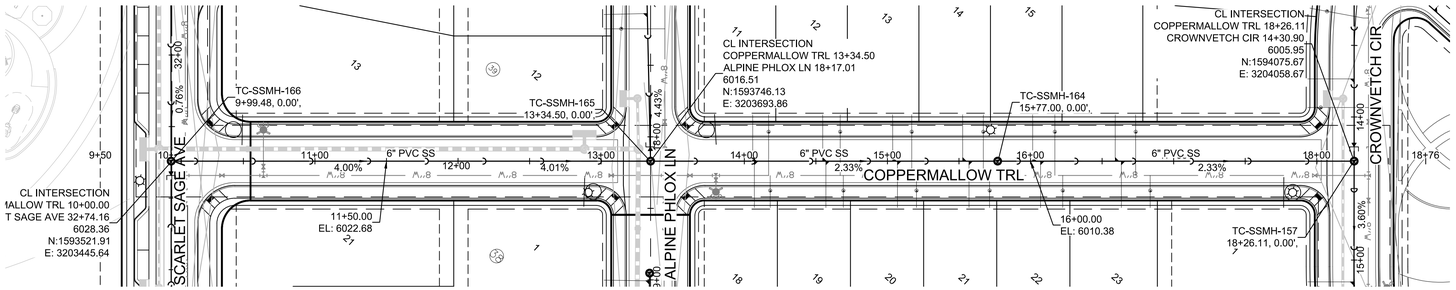
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

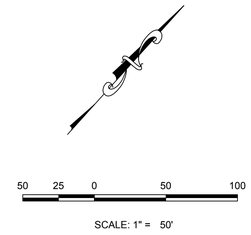
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
ALPINE PHLOX LANE

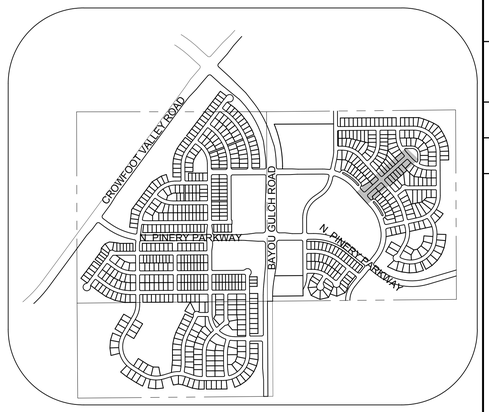
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 58

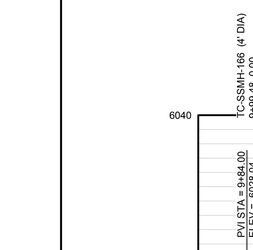


PLAN: COPPERMALLOW TRAIL STA: 9+50.00 TO 18+50.00
HORIZONTAL SCALE: 1" = 50'





KEYMAP
N.T.S.



PROFILE: COPPERMALLOW TRL STA: 9+50.00 TO 18+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

2	BLOCK NUMBER		PROPOSED RANGE POINT
A	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT	5615	EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
BO	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
AV	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
BO	EXISTING BLOW OFF VALVE		PROPOSED SEWER LINE WITH MANHOLE
	EXISTING VALVE		PROPOSED SEWER LATERAL
	EXISTING FIRE HYDRANT	8"W	PROPOSED WATER LINE
	PROPOSED LIGHT POLE		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK	RW	EXISTING 60" RAW WATER LINE
	PROPOSED SIDEWALK RAMP		SECTION LINE
10.00	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	HV	EXISTING OVERHEAD HIGH VOLTAGE LINE
4 5 6	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

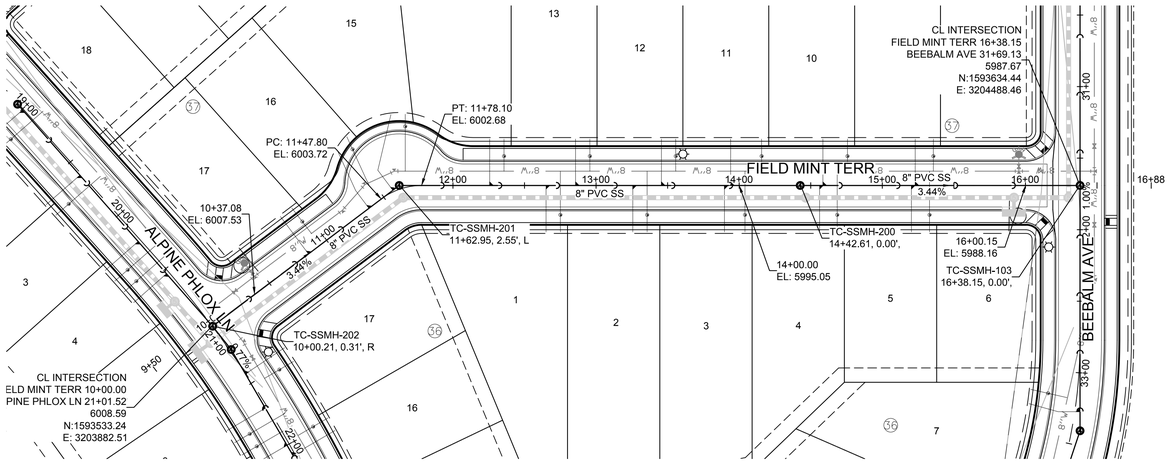
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
COPPERMALLOW TRAIL

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 59

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET W.DWG, CLAYG, 6/23/2017 11:54 AM

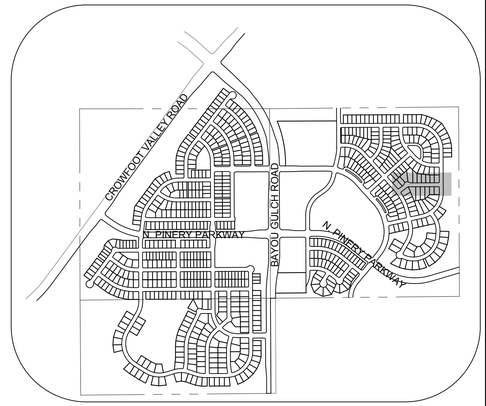


PLAN: FIELD MINT TERRACE STA: 9+50.00 TO 17+00.00
HORIZONTAL SCALE: 1" = 50'

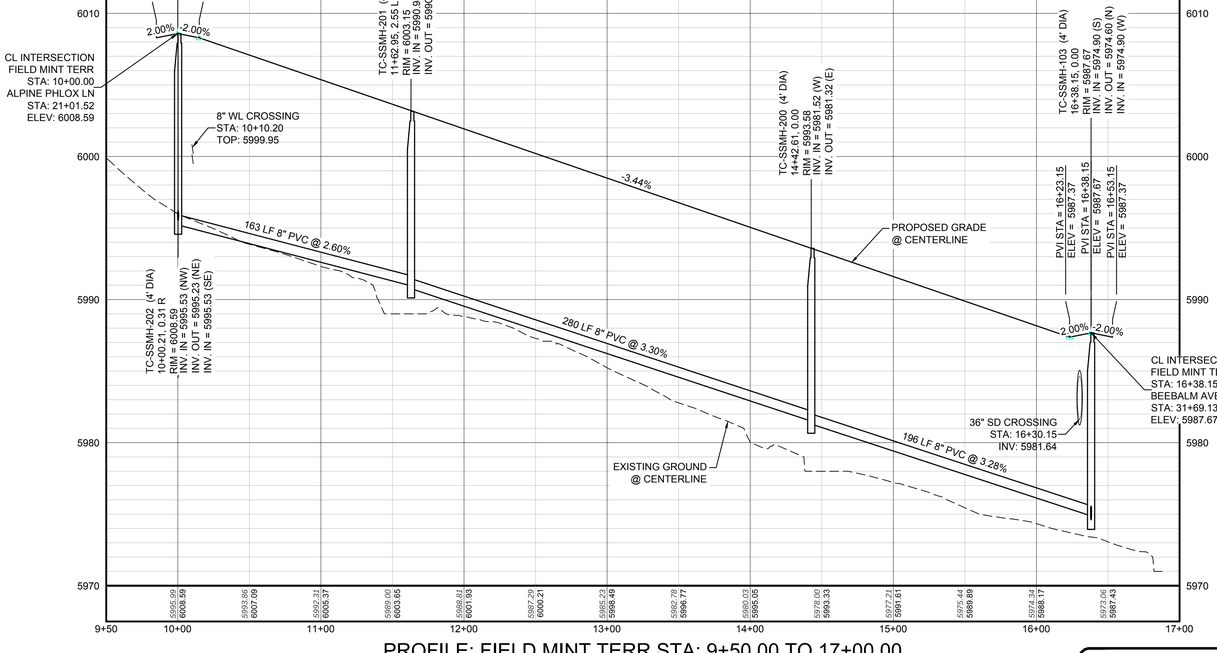


50 25 0 50 100

SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: FIELD MINT TERR STA: 9+50.00 TO 17+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

- BLOCK NUMBER
- LOT TYPE
- 6 LOT NUMBER
- PROPOSED BUTTERFLY VALVE
- PROPOSED CAP WITH END OF LINE BLOWOFF
- PROPOSED REDUCER
- PROPOSED VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WL FITTING WITH THRUST BLOCK
- PROPOSED FLARED END SECTION
- PROPOSED LOW POINT BLOW-OFF
- PROPOSED AIR VALVE
- EXISTING BLOW OFF VALVE
- EXISTING VALVE
- EXISTING FIRE HYDRANT
- PROPOSED LIGHT POLE
- PROPOSED SIDEWALK
- PROPOSED SIDEWALK RAMP
- 10.00 EXISTING ELEVATION
- 10.00 PROPOSED DESIGN ELEVATION
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED RANGE POINT
- CENTERLINE
- RIGHT-OF-WAY
- PROPERTY LINE
- EDGE OF PAVEMENT
- PROPOSED DIRECTION OF FLOW
- 1.0% PROPOSED SLOPE & DIRECTION
- 5615 EXISTING 5' CONTOUR
- 5616 EXISTING 1' CONTOUR
- 5620 PROPOSED 5' CONTOUR
- 5607 PROPOSED 1' CONTOUR
- PROPOSED STORM DRAIN
- PROPOSED SEWER LINE WITH MANHOLE
- PROPOSED SEWER LATERAL
- 8"W PROPOSED WATER LINE
- PROPOSED WATER LATERAL W/ METER
- RW EXISTING 60" RAW WATER LINE
- SECTION LINE
- FILING BOUNDARY
- FO EXISTING FIBER OPTIC LINE
- HV EXISTING OVERHEAD HIGH VOLTAGE LINE
- TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

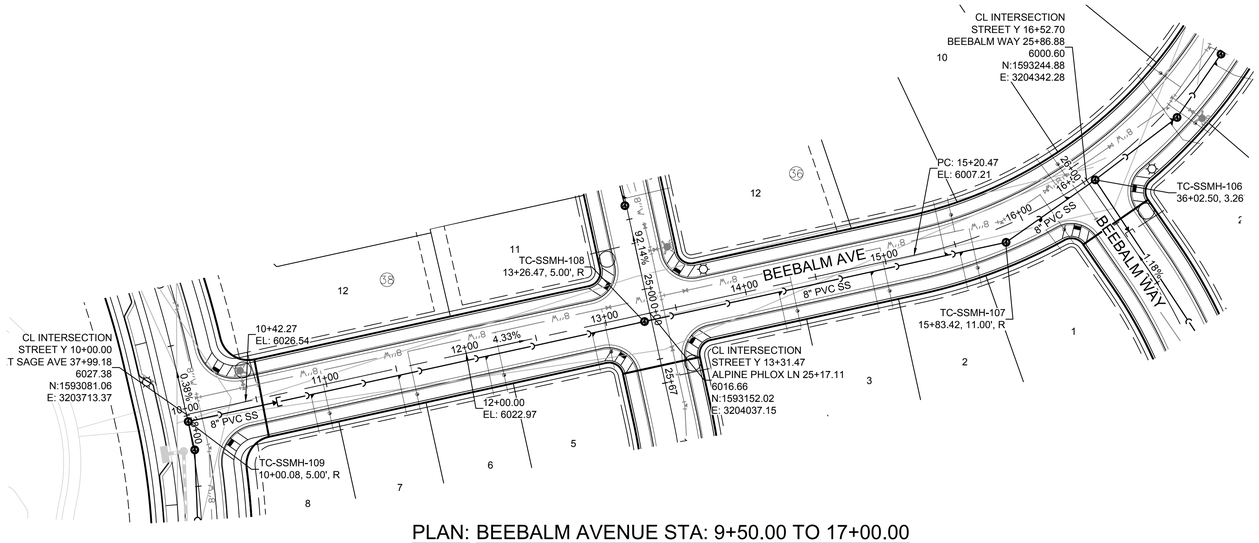
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
FIELD MINT TERRACE

SCALE: AS SHOWN
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
FILE NO: 8130283701
SHEET NUMBER 60

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET X.DWG, CLAYG, 6/23/2017 11:58 AM

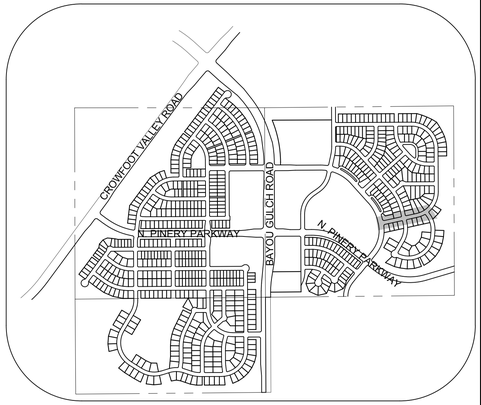


PLAN: BEEBALM AVENUE STA: 9+50.00 TO 17+00.00
HORIZONTAL SCALE: 1" = 50'



50 25 0 50 100

SCALE: 1" = 50'



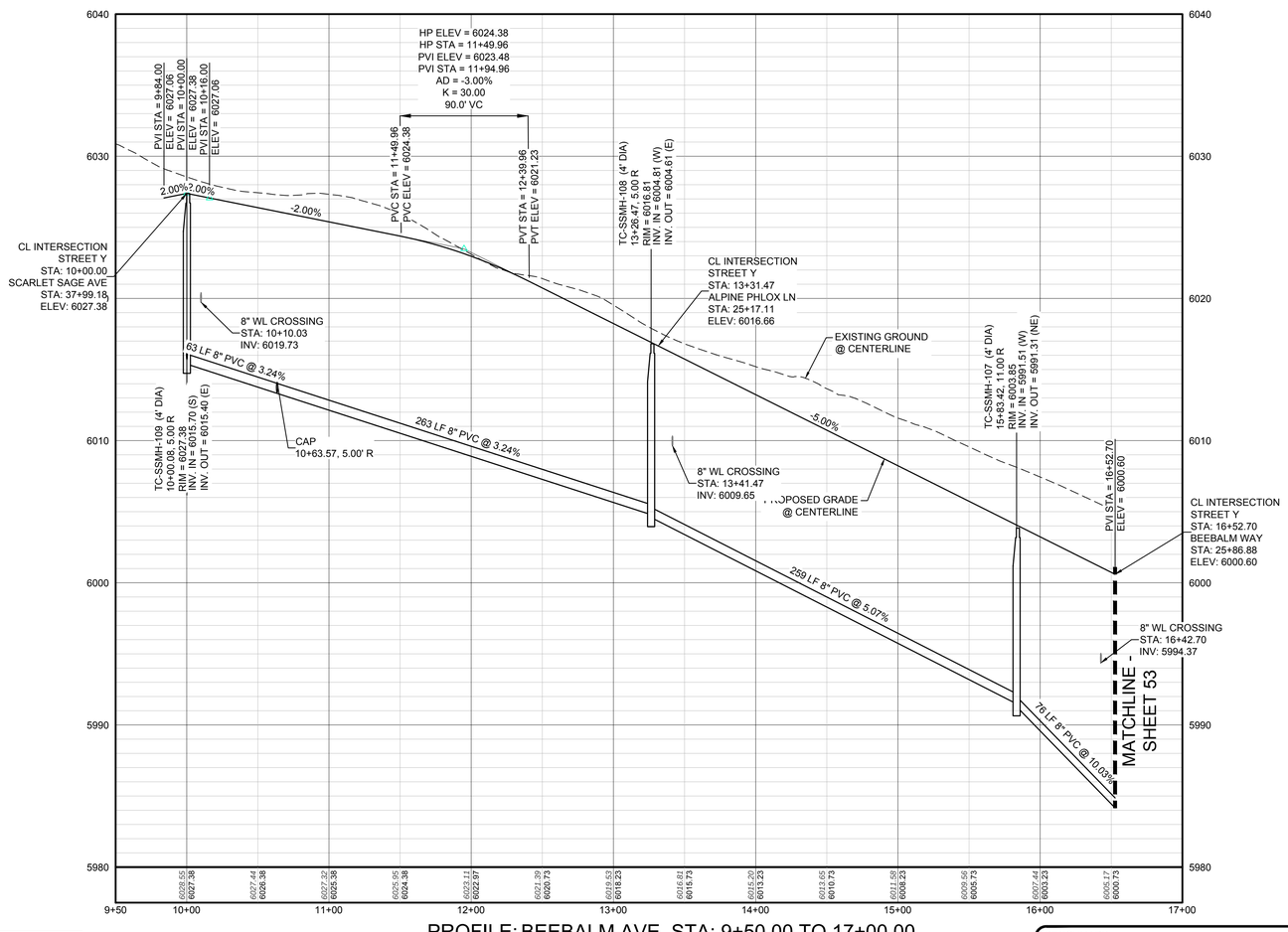
KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION (1.0%)
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR (5615)
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR (5616)
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR (5620)
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR (5607)
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE (8"W)
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE (RW)
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION (10.00)	FILING BOUNDARY
PROPOSED DESIGN ELEVATION (10.00)	EXISTING FIBER OPTIC LINE (FO)
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE (HV)
PROPOSED STORM DRAIN MANHOLE (4)(5)(6)	EXISTING TELEPHONE LINE (TEL)

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		



PROFILE: BEEBALM AVE. STA: 9+50.00 TO 17+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

No.	Revisions	Date	Init.	Appr.	Date

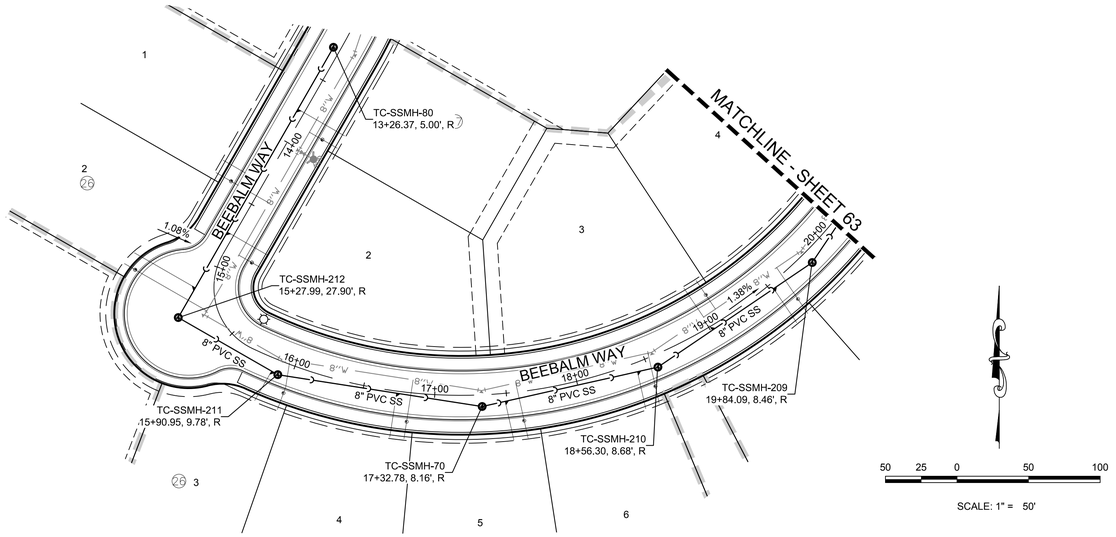
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

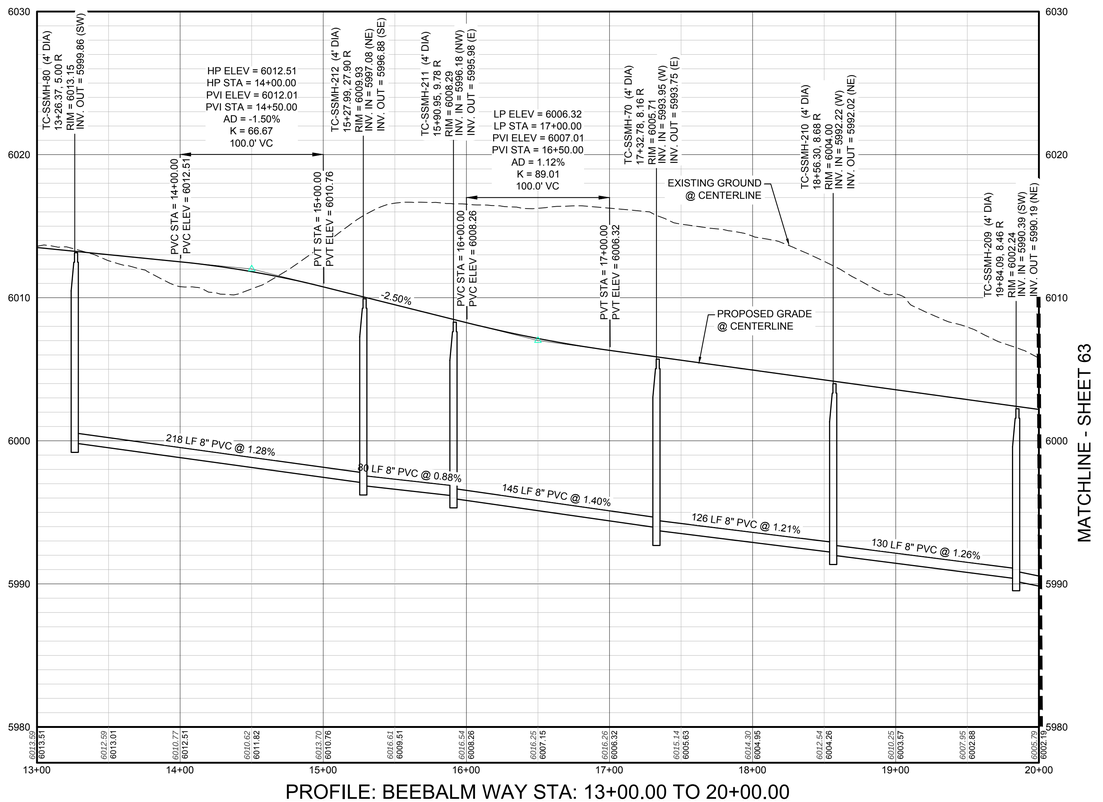
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
BEEBALM AVENUE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 61

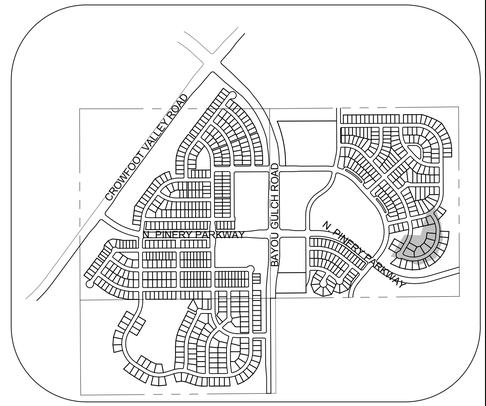
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET Y.DWG, CLAYG, 6/23/2017 12:02 PM



PLAN: BEEBALM WAY STA: 13+00.00 TO 20+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: BEEBALM WAY STA: 13+00.00 TO 20+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HSS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET Z.DWG, CLAYG, 6/23/2017 12:07 PM

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

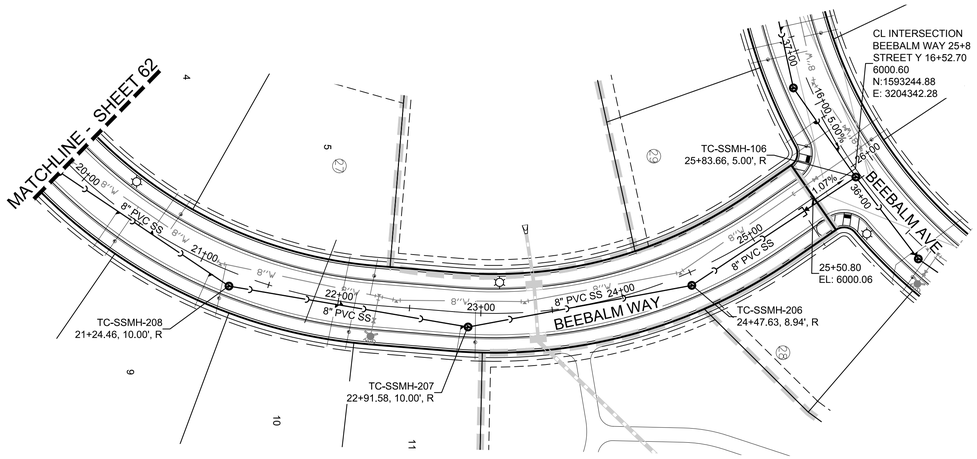
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

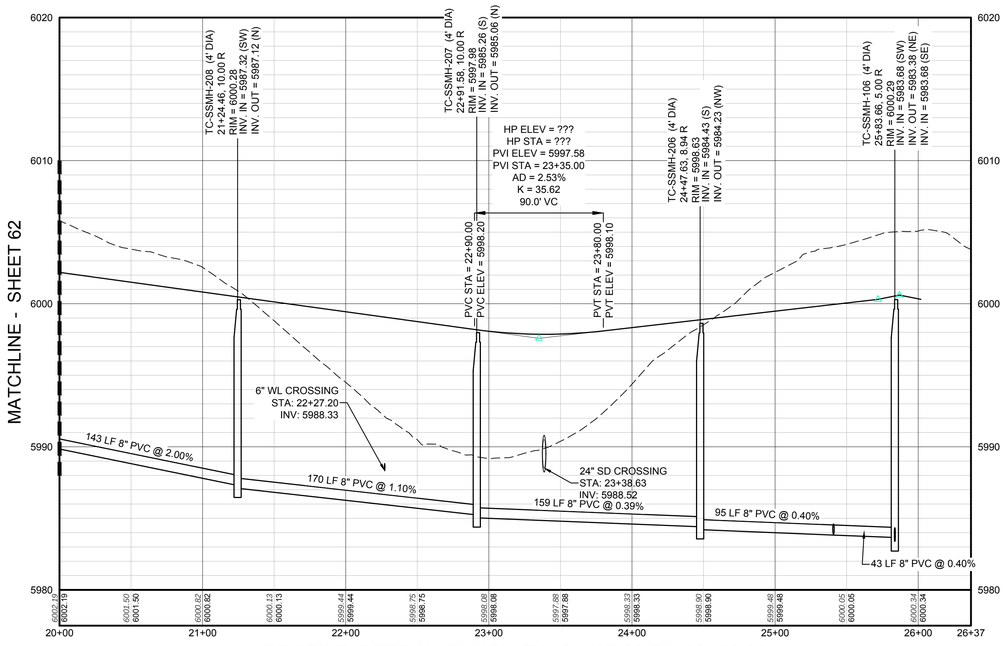
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
BEEBALM WAY

DRAWN BY:	JLR	SCALE:	AS SHOWN
CHECKED BY:	JJJ	FILE NO:	8130283701
DATE:	APRIL 2017		

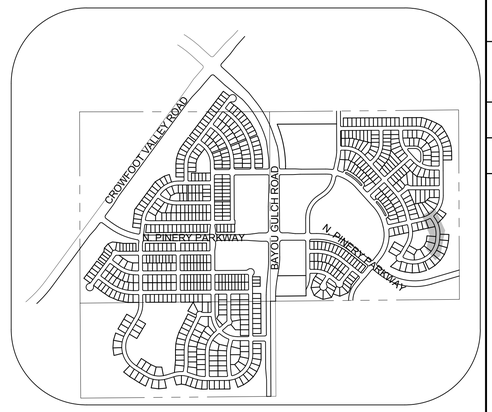
SHEET NUMBER 62



PLAN: BEEBALM WAY STA: 20+00.00 TO 26+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: BEEBALM WAY STA: 20+00.00 TO 26+36.88
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



KEYMAP
N.T.S.

50 25 0 50 100
SCALE: 1" = 50'

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION (1.0%)
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR (5615)
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR (5616)
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR (5620)
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR (5607)
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE (8"W)
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE (RW)
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION (10.00)	FILING BOUNDARY
PROPOSED DESIGN ELEVATION (10.00)	EXISTING FIBER OPTIC LINE (FO)
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE (HV)
PROPOSED STORM DRAIN MANHOLE (4)(5)(6)	EXISTING TELEPHONE LINE (TEL)

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

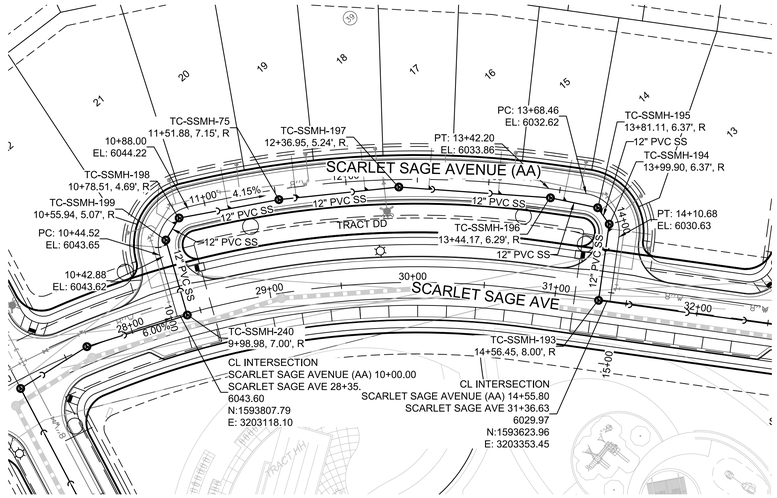
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

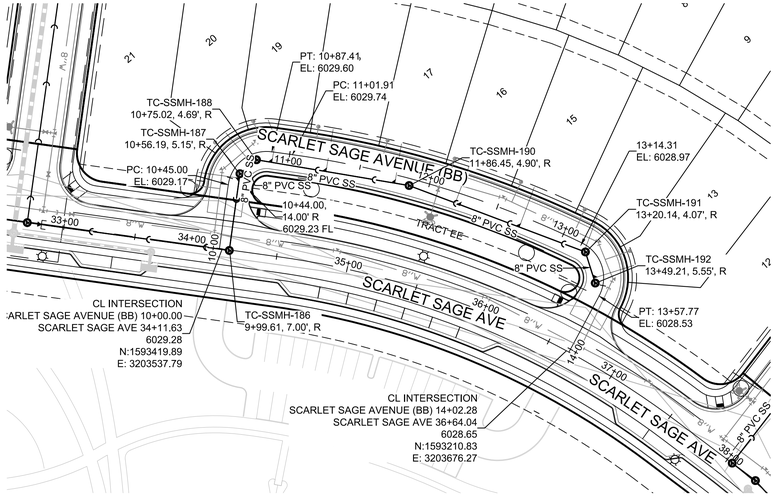
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
BEEBALM WAY

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 63

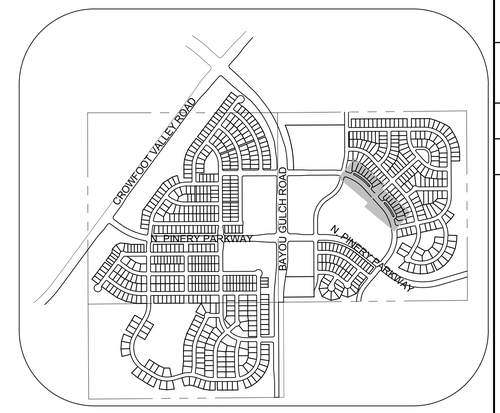
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET Z.DWG, CLAY.G, 6/23/2017 12:07 PM



PLAN: SCARLET SAGE AVENUE (AA) STA: 9+50.00 TO 15+00.00
HORIZONTAL SCALE: 1" = 50'



PLAN: SCARLET SAGE AVENUE (BB) STA: 9+50.00 TO 14+50.00
HORIZONTAL SCALE: 1" = 50'



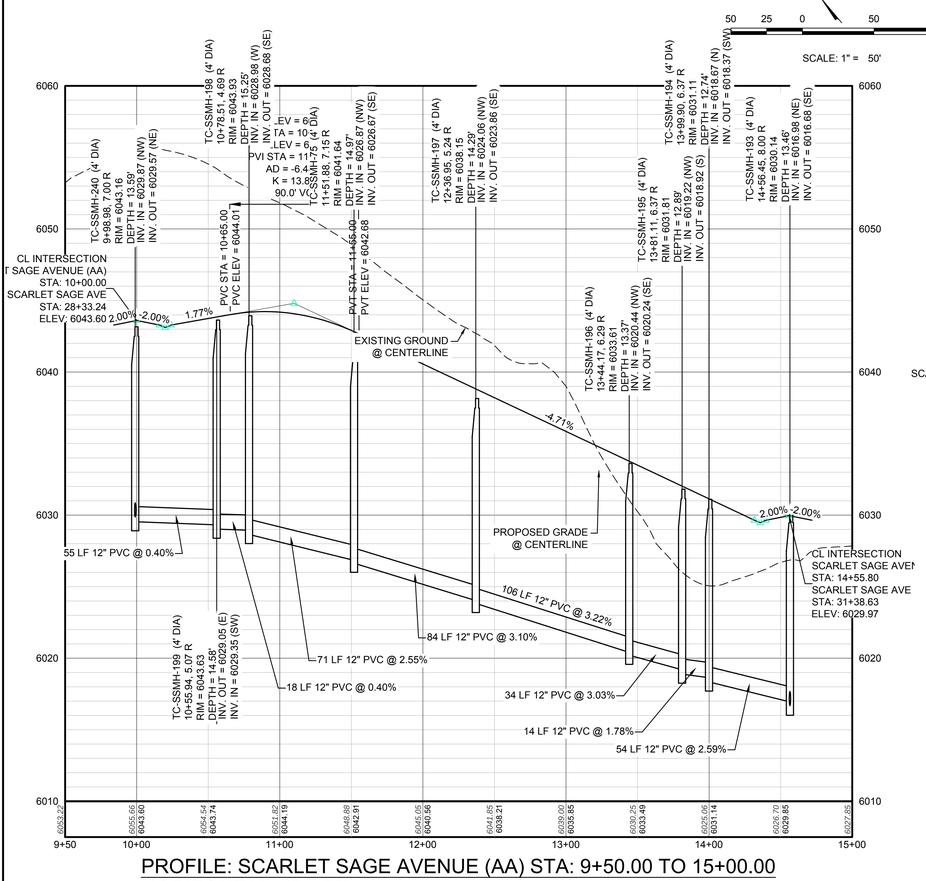
KEYMAP
N.T.S.

LEGEND

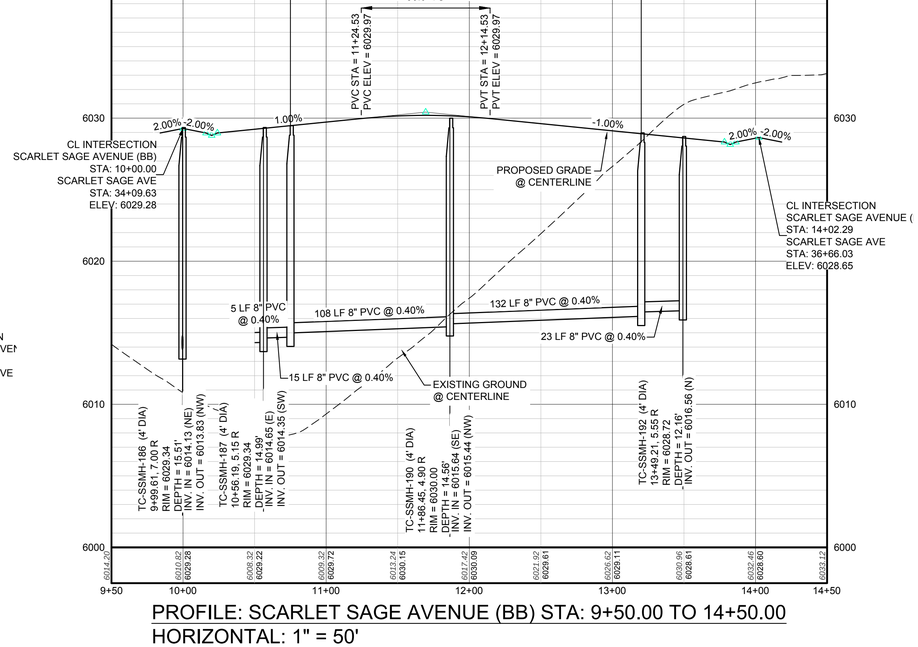
- BLOCK NUMBER
- LOT TYPE
- LOT NUMBER
- PROPOSED BUTTERFLY VALVE
- PROPOSED CAP WITH END OF LINE BLOWOFF
- PROPOSED REDUCER
- PROPOSED VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WL FITTING WITH THRUST BLOCK
- PROPOSED FLARED END SECTION
- PROPOSED LOW POINT BLOW-OFF
- PROPOSED AIR VALVE
- EXISTING BLOW OFF VALVE
- EXISTING VALVE
- EXISTING FIRE HYDRANT
- PROPOSED LIGHT POLE
- PROPOSED SIDEWALK
- PROPOSED SIDEWALK RAMP
- EXISTING ELEVATION
- PROPOSED DESIGN ELEVATION
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED RANGE POINT
- CENTERLINE
- RIGHT-OF-WAY
- PROPERTY LINE
- EDGE OF PAVEMENT
- PROPOSED DIRECTION OF FLOW
- PROPOSED SLOPE & DIRECTION (1.0%)
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED STORM DRAIN
- PROPOSED SEWER LINE WITH MANHOLE
- PROPOSED SEWER LATERAL
- PROPOSED WATER LINE
- PROPOSED WATER LATERAL W/ METER
- EXISTING 60" RAW WATER LINE
- SECTION LINE
- FILING BOUNDARY
- EXISTING FIBER OPTIC LINE
- EXISTING OVERHEAD HIGH VOLTAGE LINE
- EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		



PROFILE: SCARLET SAGE AVENUE (AA) STA: 9+50.00 TO 15+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



PROFILE: SCARLET SAGE AVENUE (BB) STA: 9+50.00 TO 14+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

No.	Revisions	Date	Init.	Appr.	Date

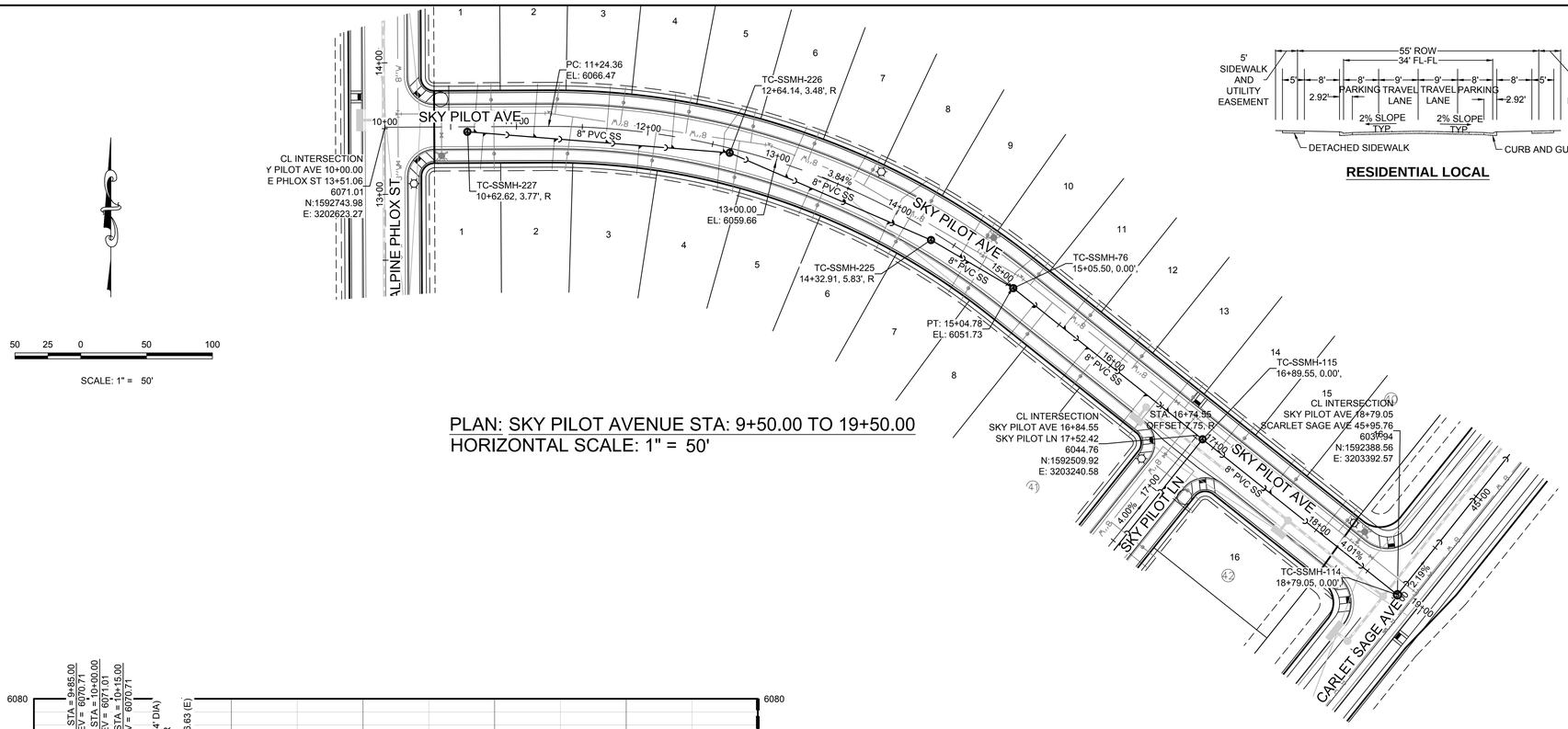
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

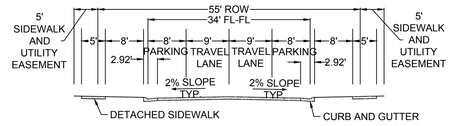
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SCARLET SAGE AVENUE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: KJD
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 64

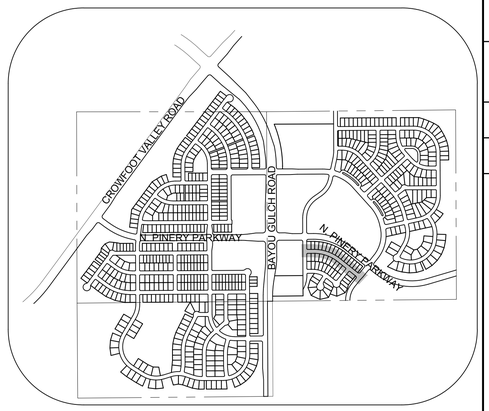
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET 2 & 3.DWG, CLAYG, 6/23/2017 12:12 PM



PLAN: SKY PILOT AVENUE STA: 9+50.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'



RESIDENTIAL LOCAL



KEYMAP
N.T.S.

PROFILE: SKY PILOT AVE STA: 9+50.00 TO 15+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

PROFILE: SKY PILOT AVE STA: 15+00.00 TO 19+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HSS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET 8.DWG, CLAYG, 6/23/2017 12:16 PM

No.	Revisions	Date	Init.	Appr.	Date

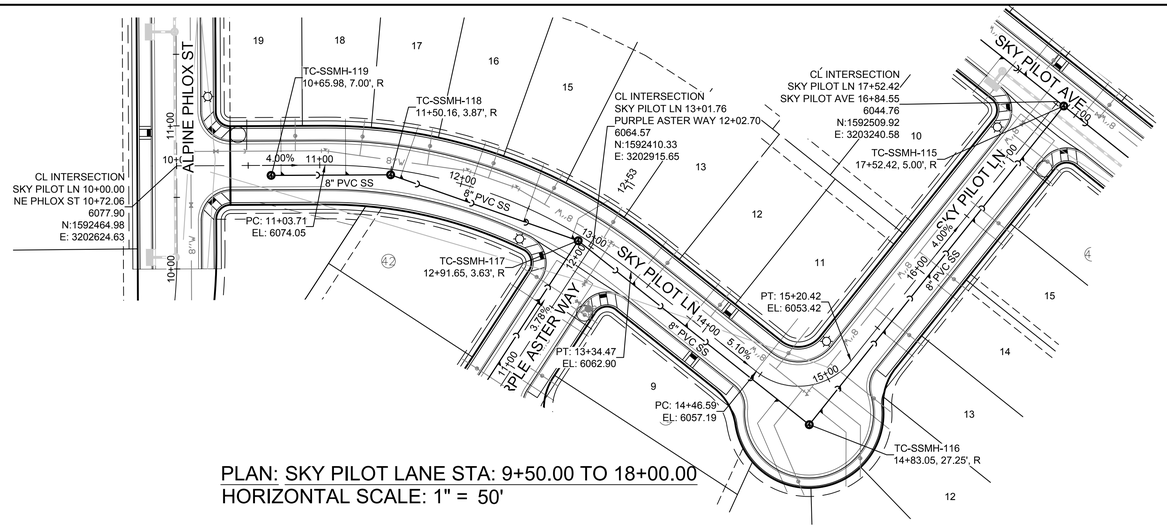
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SKY PILOT AVENUE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017

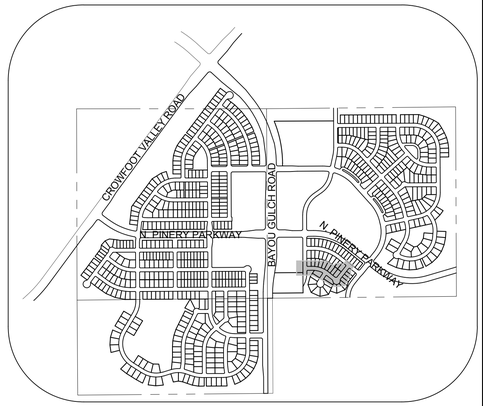
SHEET NUMBER 65



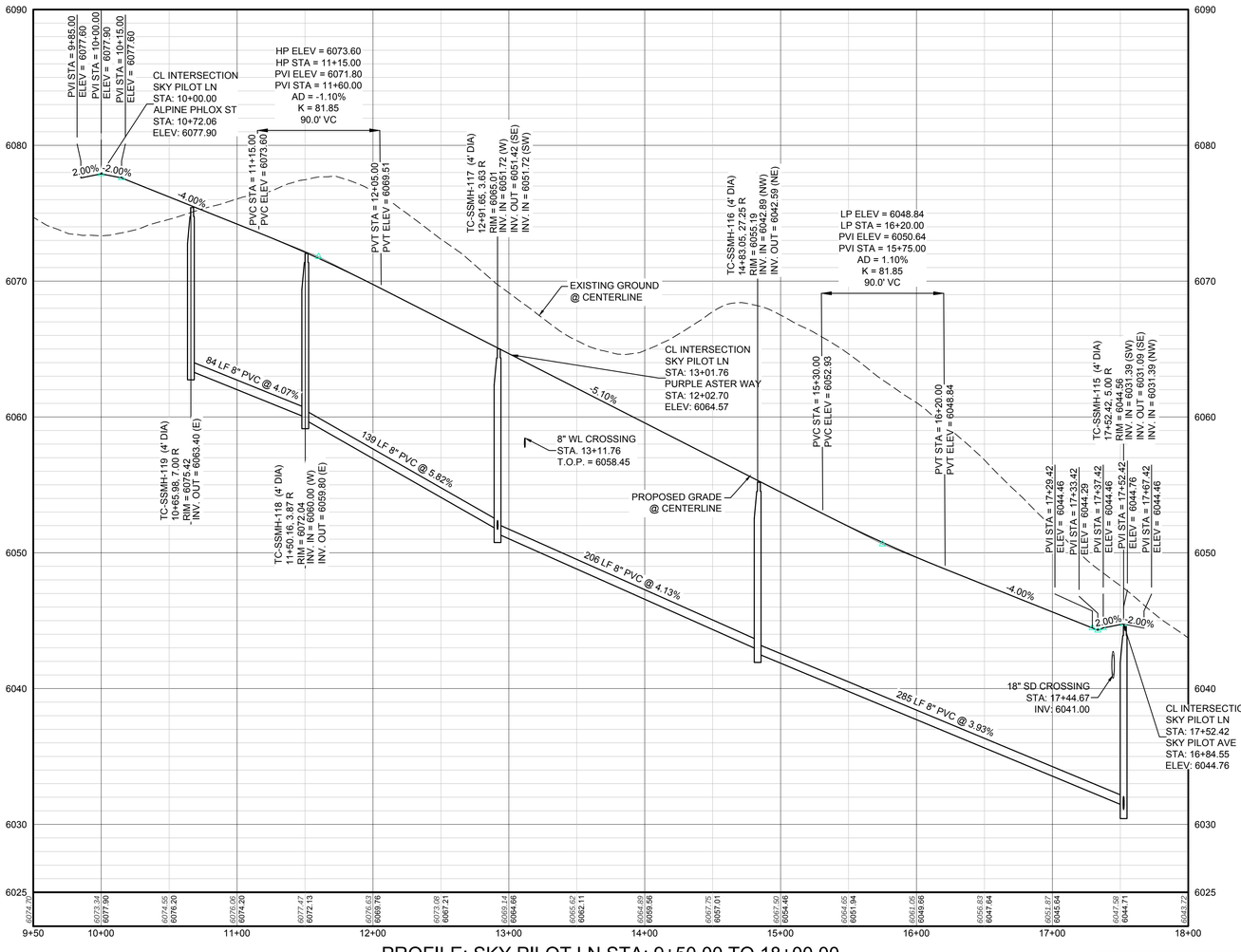
PLAN: SKY PILOT LANE STA: 9+50.00 TO 18+00.00
HORIZONTAL SCALE: 1" = 50'

50 25 0 50 100

SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: SKY PILOT LN STA: 9+50.00 TO 18+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

RESIDENTIAL LOCAL

LEGEND

(2)	BLOCK NUMBER		PROPOSED RANGE POINT
(A)	LOT TYPE		CENTERLINE
6	LOT NUMBER		RIGHT-OF-WAY
	PROPOSED BUTTERFLY VALVE		PROPERTY LINE
	PROPOSED CAP WITH END OF LINE BLOWOFF		EDGE OF PAVEMENT
	PROPOSED REDUCER		PROPOSED DIRECTION OF FLOW
	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
	PROPOSED FIRE HYDRANT	5615	EXISTING 5' CONTOUR
	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
BO	PROPOSED LOW POINT BLOW-OFF	5607	PROPOSED 1' CONTOUR
AV	PROPOSED AIR VALVE		PROPOSED STORM DRAIN
BO	EXISTING BLOW OFF VALVE		PROPOSED SEWER LINE WITH MANHOLE
	EXISTING VALVE		PROPOSED SEWER LATERAL
	EXISTING FIRE HYDRANT	8"W	PROPOSED WATER LINE
	PROPOSED LIGHT POLE		PROPOSED WATER LATERAL W/ METER
	PROPOSED SIDEWALK	RW	EXISTING 60" RAW WATER LINE
	PROPOSED SIDEWALK RAMP		SECTION LINE
10.00	EXISTING ELEVATION		FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
	PROPOSED STORM DRAIN INLET	HV	EXISTING OVERHEAD HIGH VOLTAGE LINE
4 5 6	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

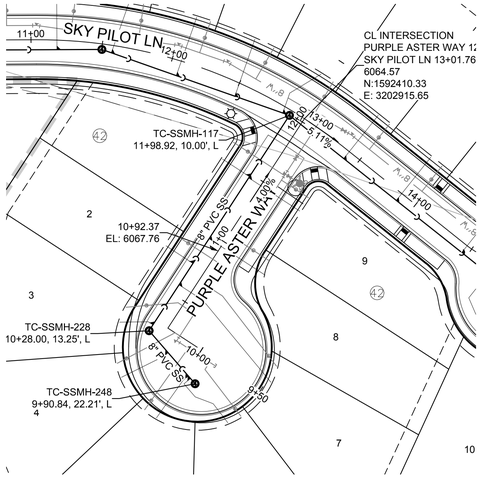
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

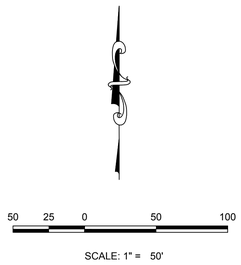
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
SKY PILOT LANE

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017

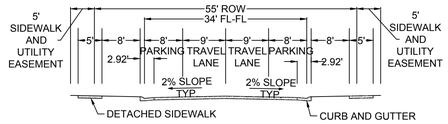
SHEET NUMBER 66

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET 9.DWG, CLAYG, 6/23/2017 12:21 PM

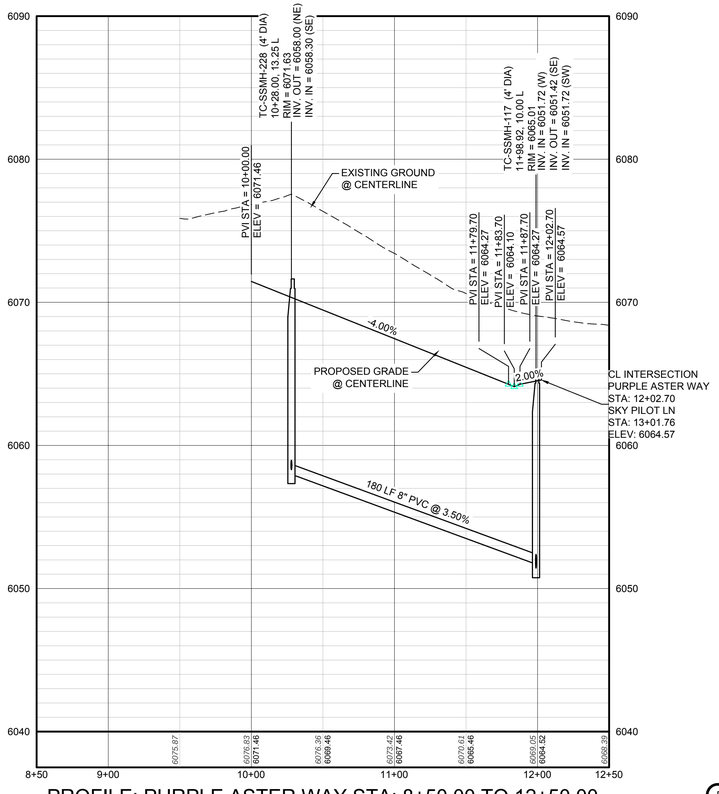




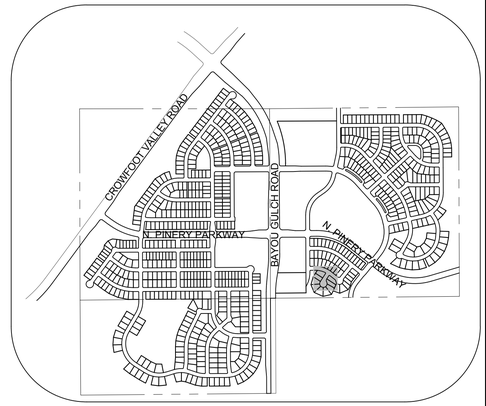
PLAN: PURPLE ASTER WAY STA: 8+50.00 TO 12+50.00
HORIZONTAL SCALE: 1" = 50'



RESIDENTIAL LOCAL



PROFILE: PURPLE ASTER WAY STA: 8+50.00 TO 12+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

No.	Revisions	Date	Init.	Appr.	Date

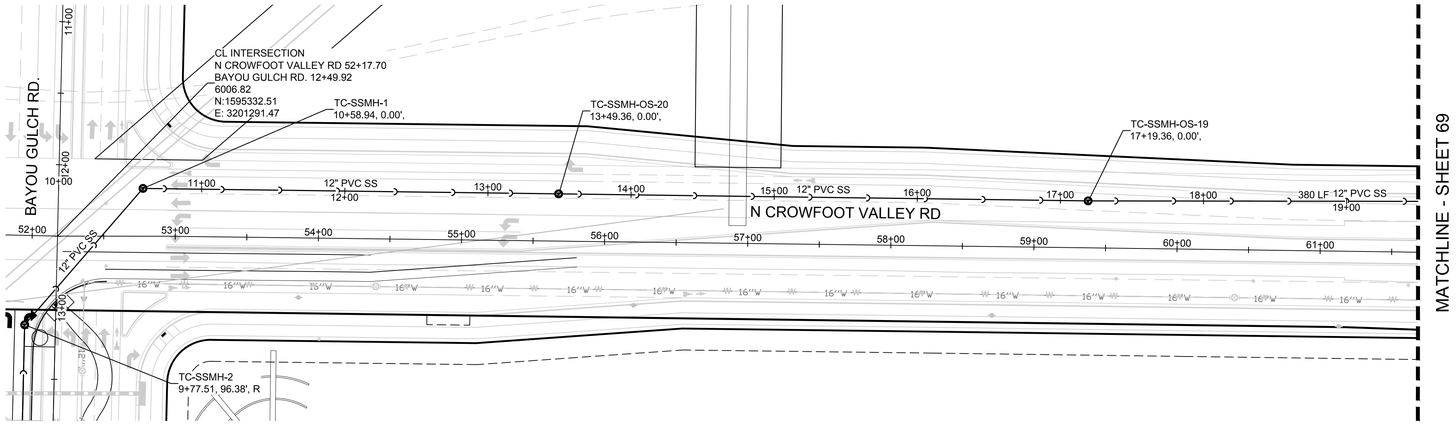
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

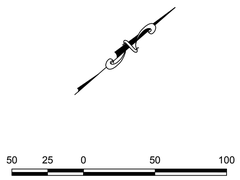
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
PURPLE ASTER WAY

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 67

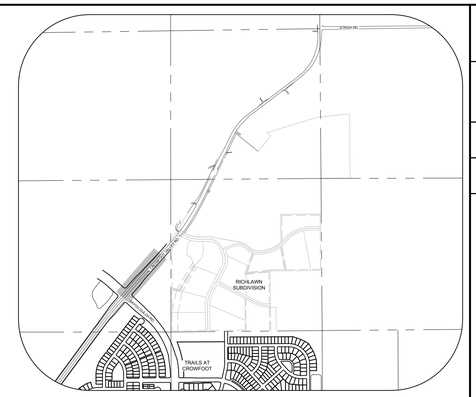
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\STREET 10.DWG, CLAYG, 6/23/2017 12:23 PM



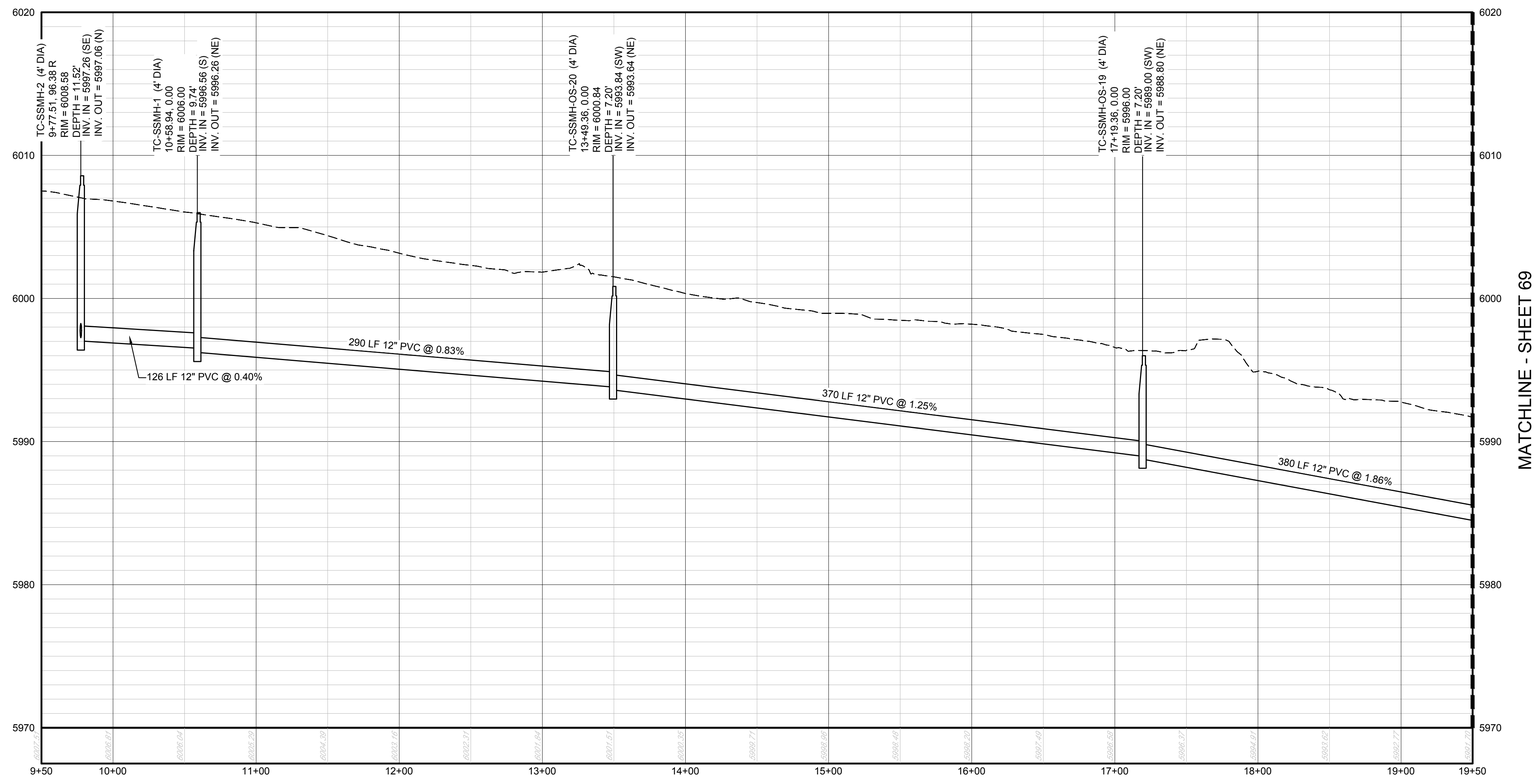
PLAN: SANITARY OFFSITE CROWFOOT - OFFSITE STA: 9+50.00 TO 19+50.00
HORIZONTAL SCALE: 1" = 50'



SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: SS N BAYOU GULCH OUTFALL STA: 9+50.00 TO 19+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

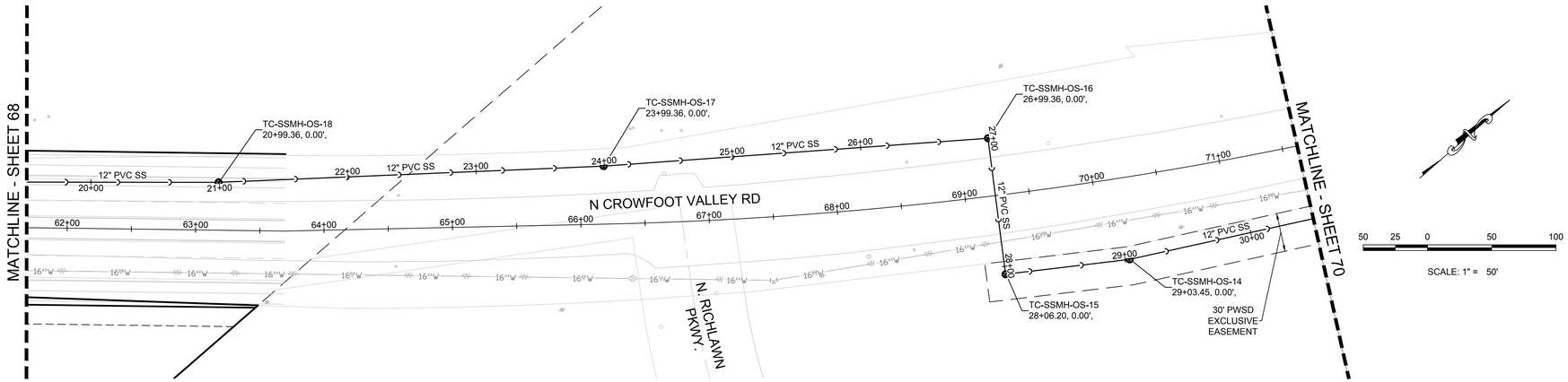
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

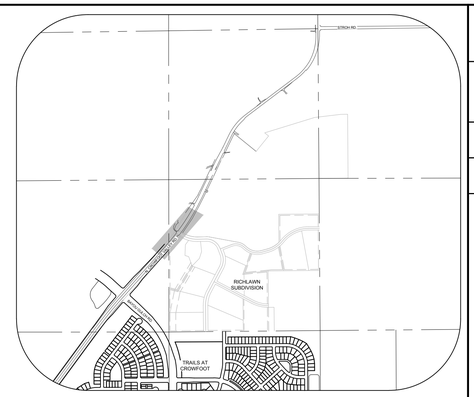
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE CROWFOOT

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 68

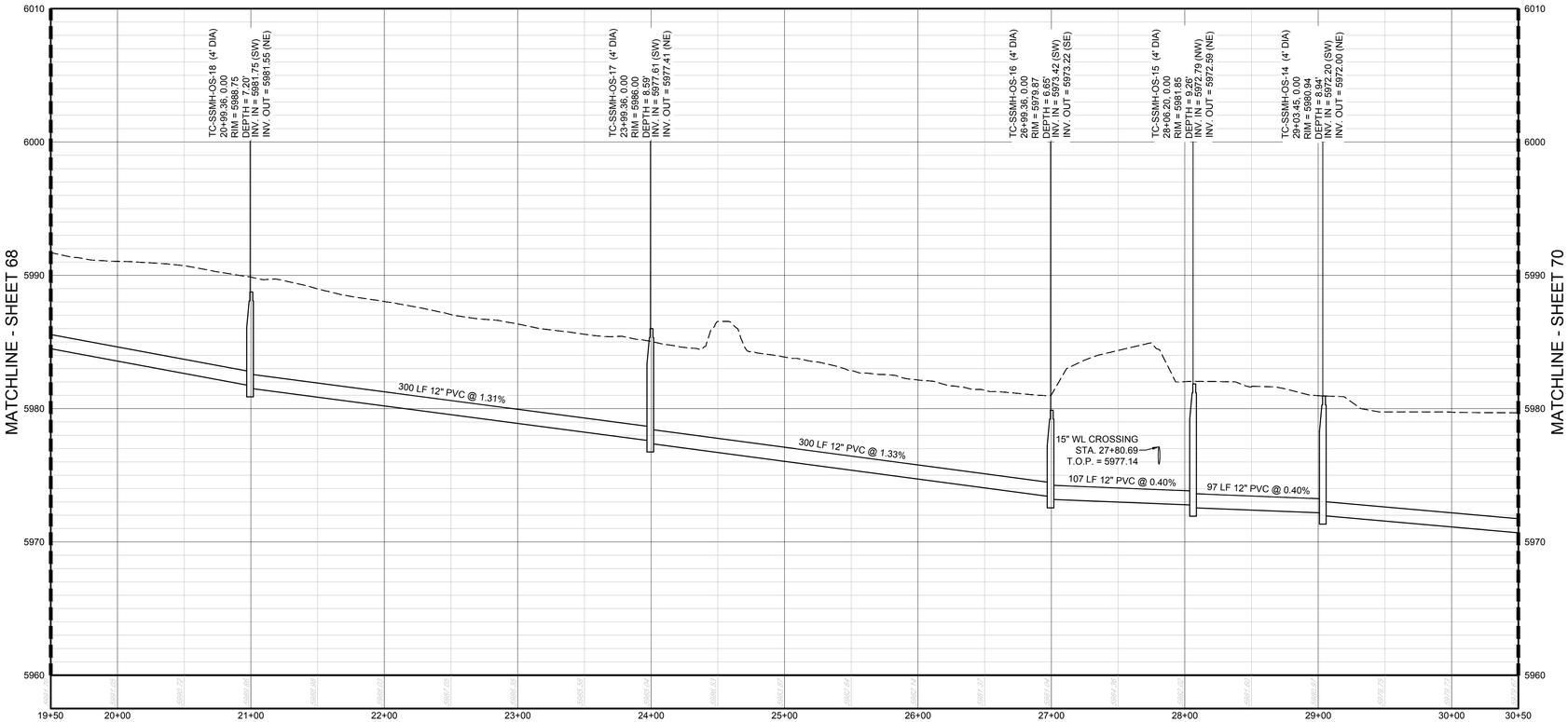
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE CROWFOOT.DWG, BOBBYG, 6/23/2017 12:28 PM





KEYMAP
N.T.S.

PLAN: SANITARY OFFSITE CROWFOOT - OFFSITE STA: 19+50.00 TO 30+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS N BAYOU GULCH OUTFALL STA: 19+50.00 TO 30+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

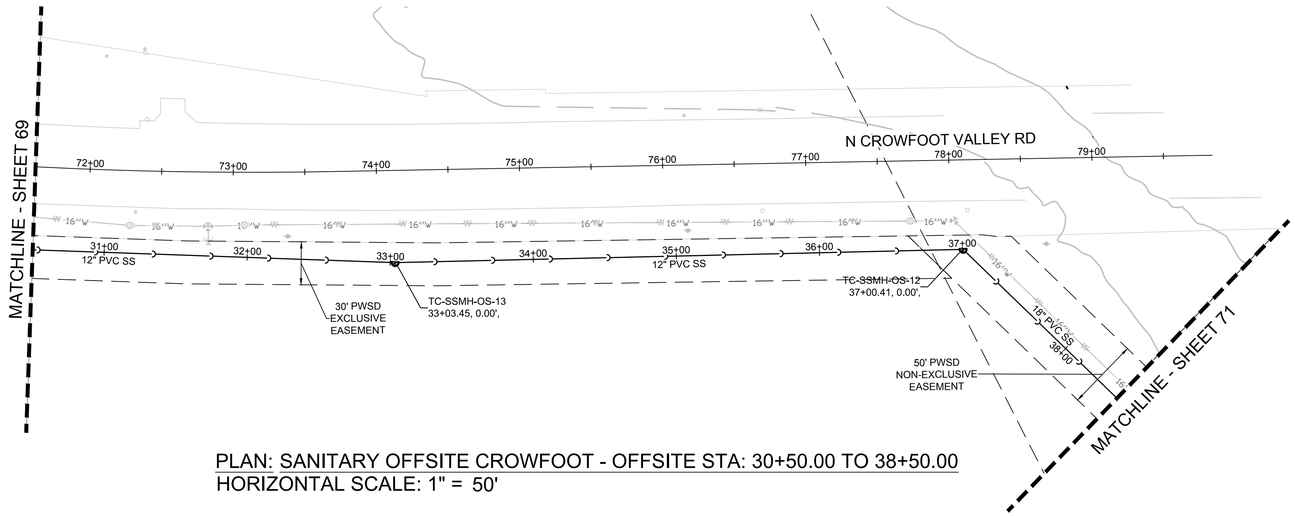
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

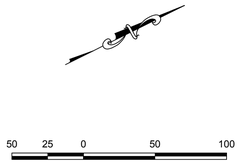
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE CROWFOOT

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 69

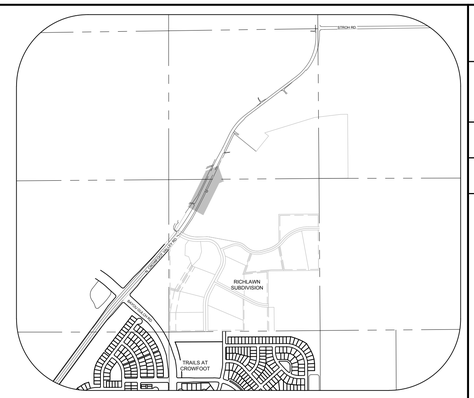
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE CROWFOOT.DWG, BOBBYG, 6/23/2017 12:28 PM



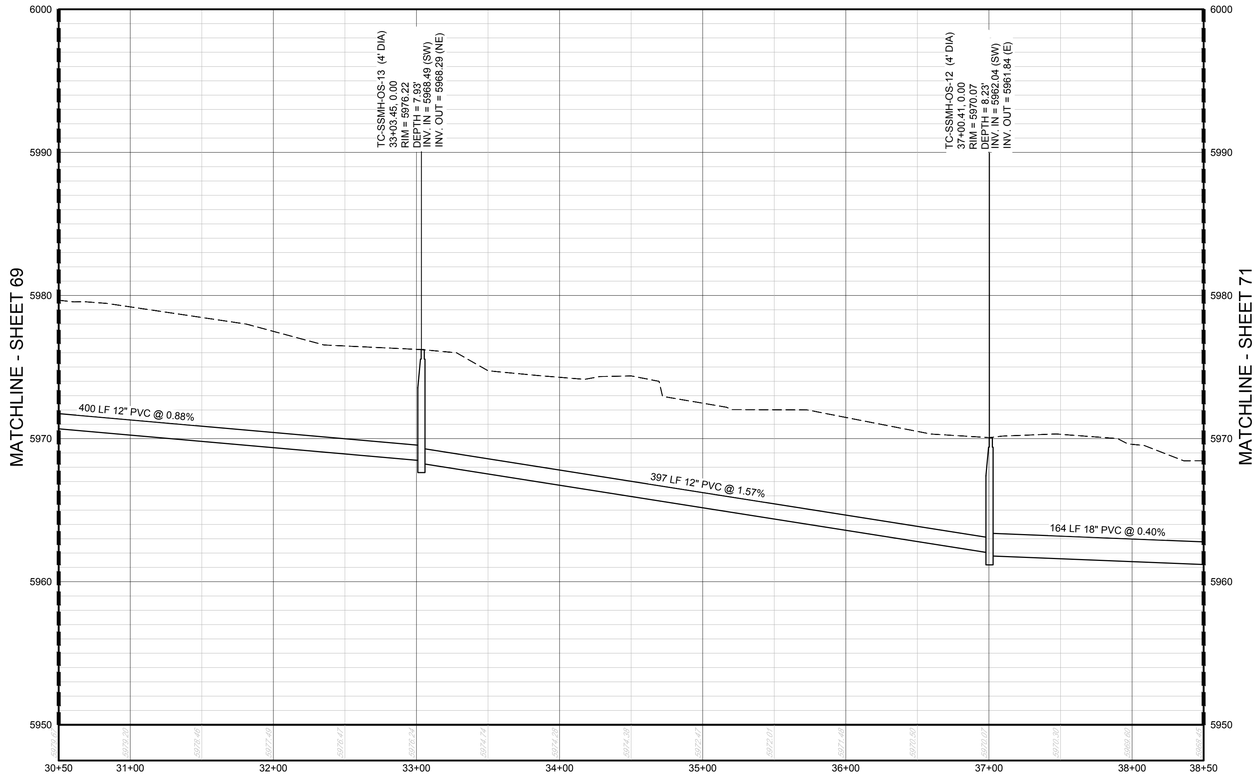
PLAN: SANITARY OFFSITE CROWFOOT - OFFSITE STA: 30+50.00 TO 38+50.00
HORIZONTAL SCALE: 1" = 50'



SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: SS N BAYOU GULCH OUTFALL STA: 30+50.00 TO 38+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	1.0% PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

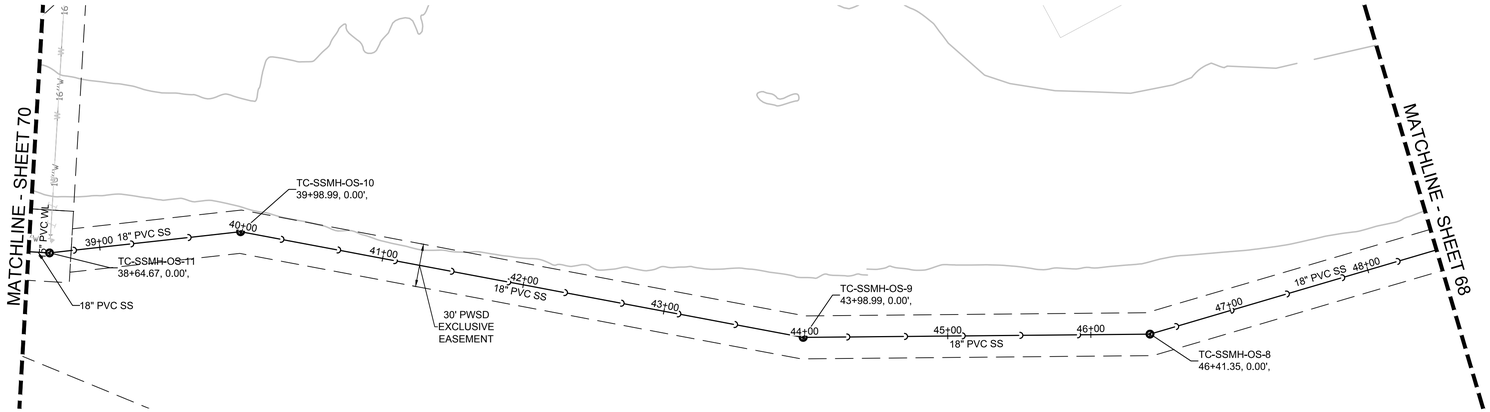
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

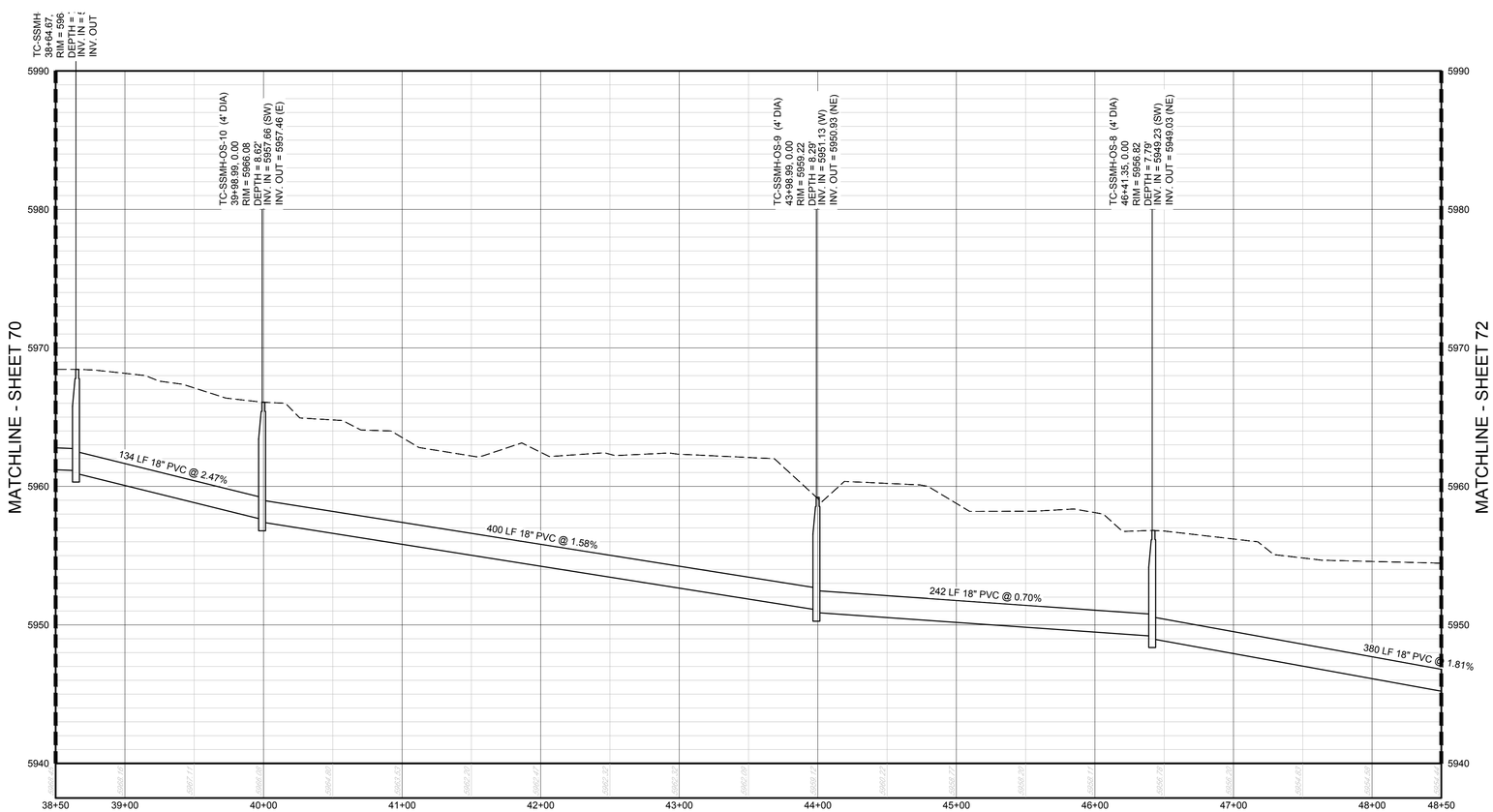
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE CROWFOOT

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 70

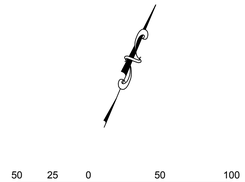
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE CROWFOOT.DWG, BOBBYG, 6/23/2017 12:28 PM

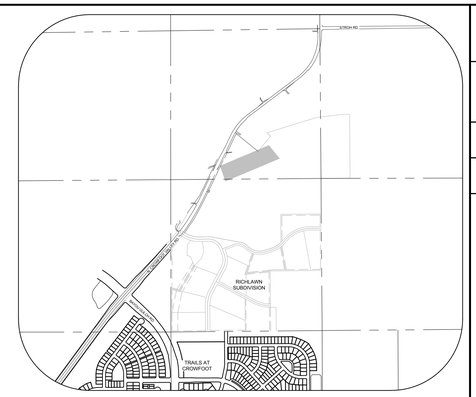


PLAN: SANITARY OFFSITE CROWFOOT - OFFSITE STA: 38+50.00 TO 48+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS N BAYOU GULCH OUTFALL STA: 38+50.00 TO 48+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'





KEYMAP
N.T.S.

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION (1.0%)
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR (5615)
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR (5616)
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR (5620)
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR (5607)
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE (8"W)
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE (RW)
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE (FO)
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE (HV)
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE (TEL)

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

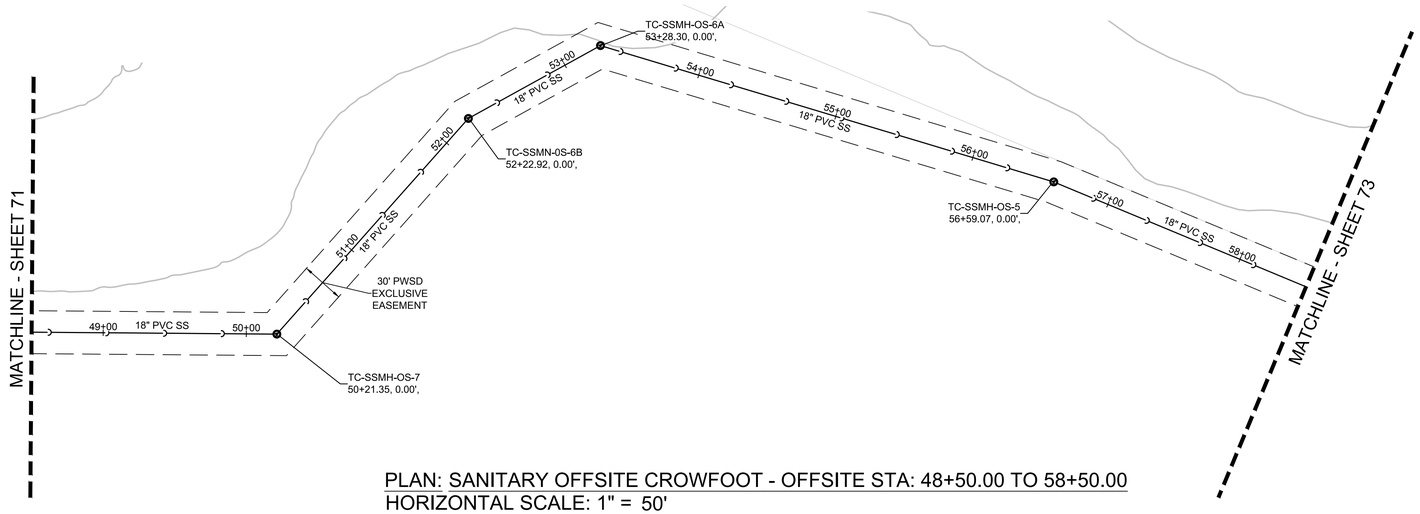
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

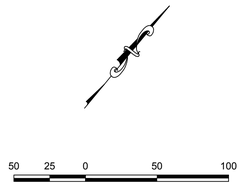
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE CROWFOOT

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 71

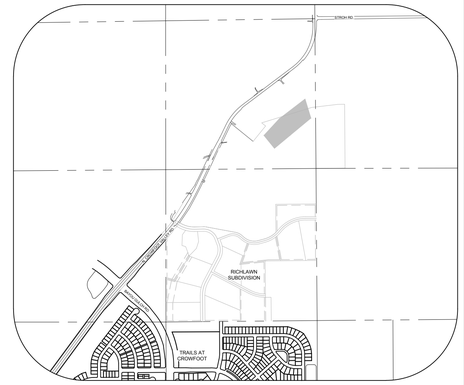
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE CROWFOOT.DWG, BOBBYG, 6/23/2017 12:28 PM



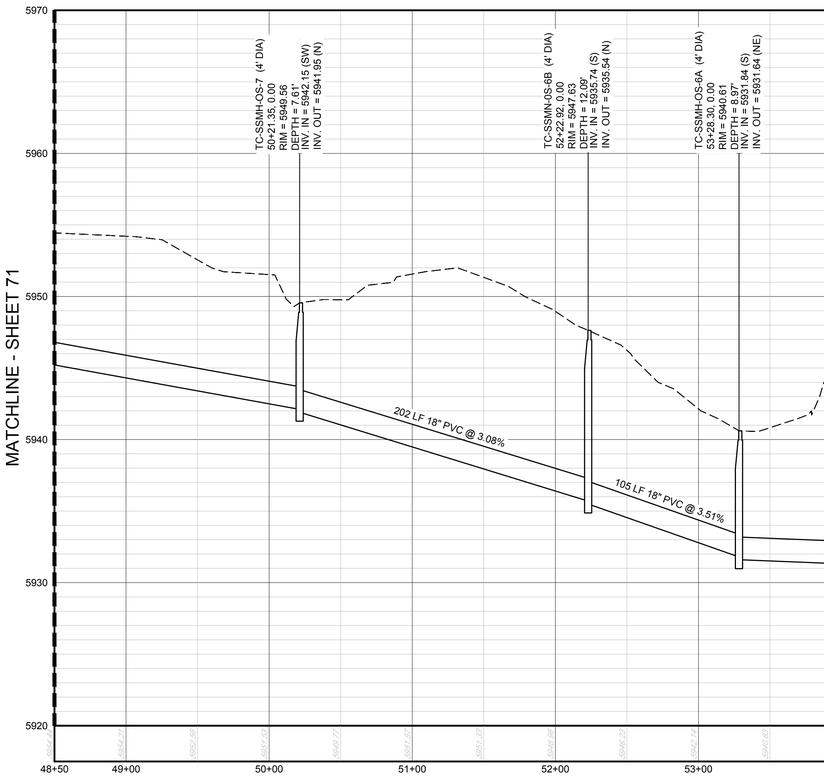
PLAN: SANITARY OFFSITE CROWFOOT - OFFSITE STA: 48+50.00 TO 58+50.00
HORIZONTAL SCALE: 1" = 50'



SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: SS N BAYOU GULCH OUTFALL STA: 48+50.00 TO 58+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

(2) BLOCK NUMBER	PROPOSED RANGE POINT
(A) LOT TYPE	CENTERLINE
6 LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION (1.0%)
PROPOSED FIRE HYDRANT	5615 EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	5616 EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	5620 PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	5607 PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	8"W PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	RW EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
10.00 EXISTING ELEVATION	FILING BOUNDARY
10.00 PROPOSED DESIGN ELEVATION	FO EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	HV EXISTING OVERHEAD HIGH VOLTAGE LINE
(4)(5)(6) PROPOSED STORM DRAIN MANHOLE	TEL EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

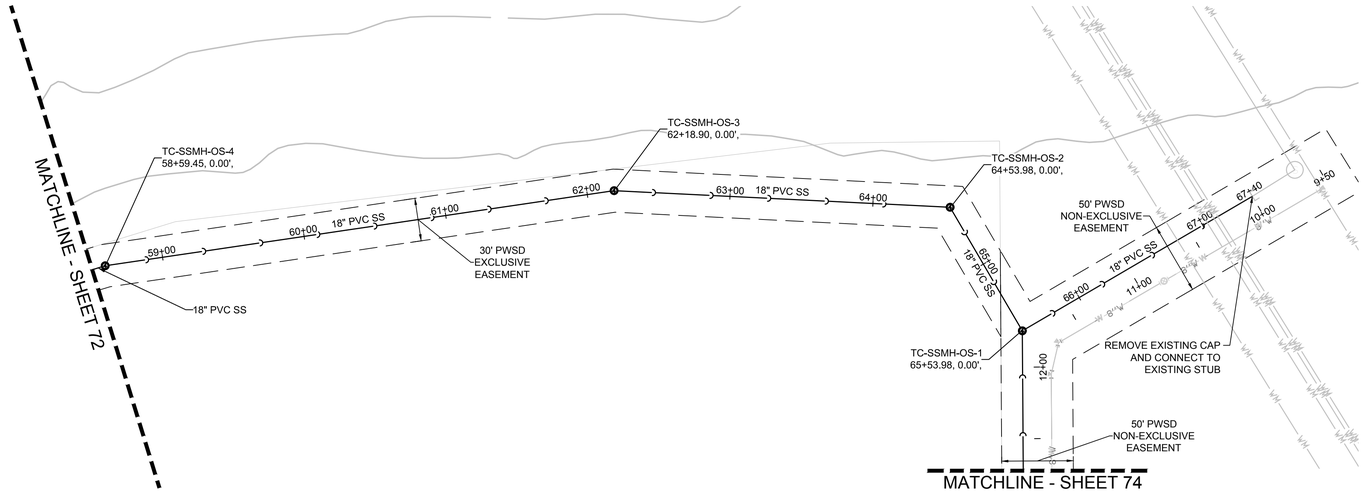
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

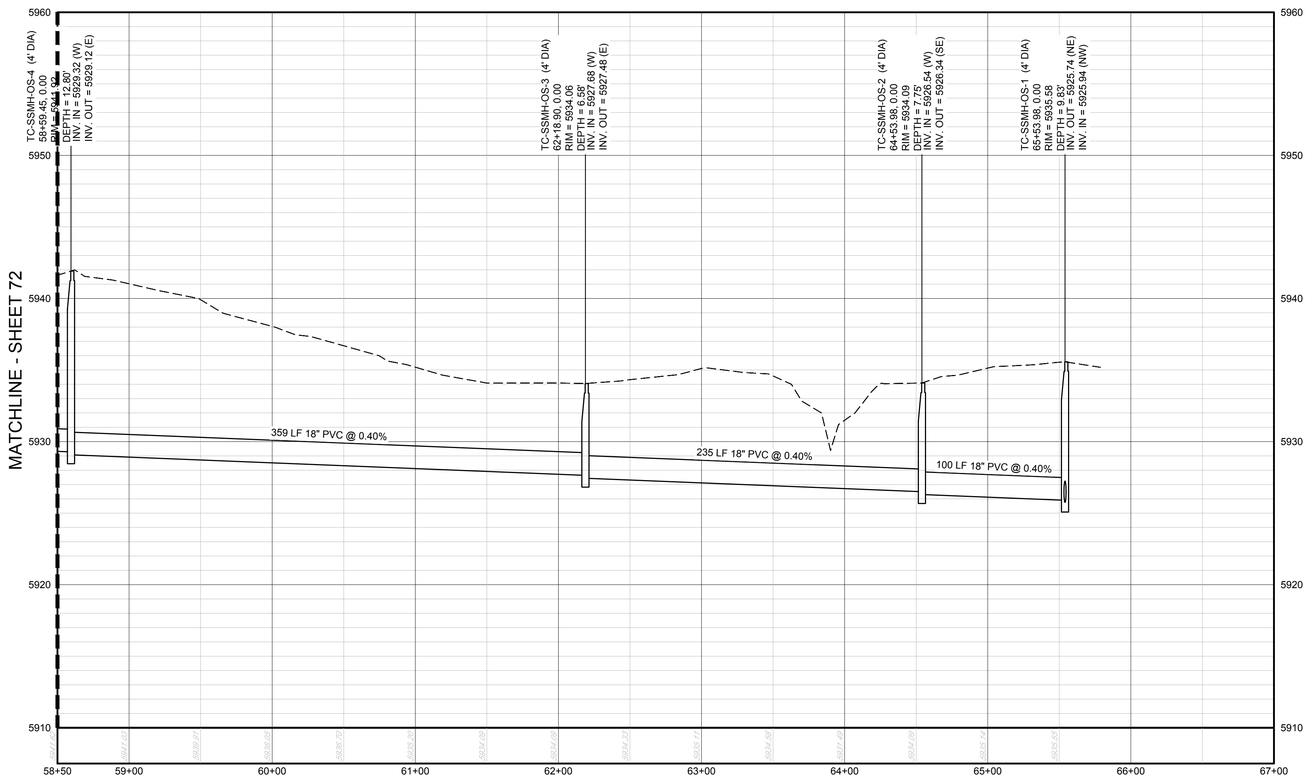
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE CROWFOOT

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 72

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE CROWFOOT.DWG, BOBBYG, 6/23/2017 12:29 PM



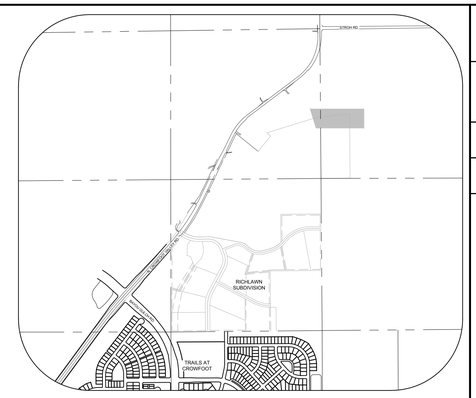
PLAN: SANITARY OFFSITE CROWFOOT - OFFSITE STA: 58+50.00 TO 67+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS N BAYOU GULCH OUTFALL STA: 58+50.00 TO 67+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

50 25 0 50 100

SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

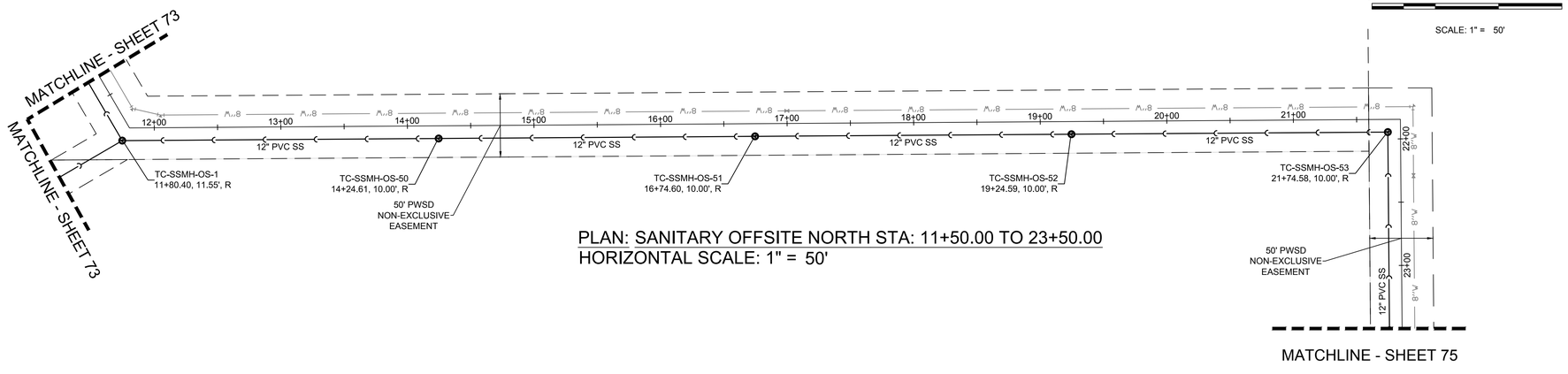
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE CROWFOOT

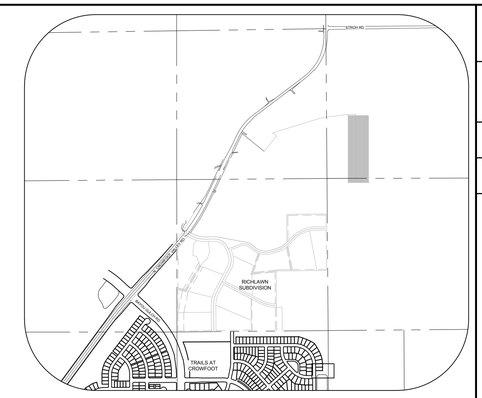
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 73

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE CROWFOOT.DWG, BOBBYG, 6/23/2017 12:29 PM

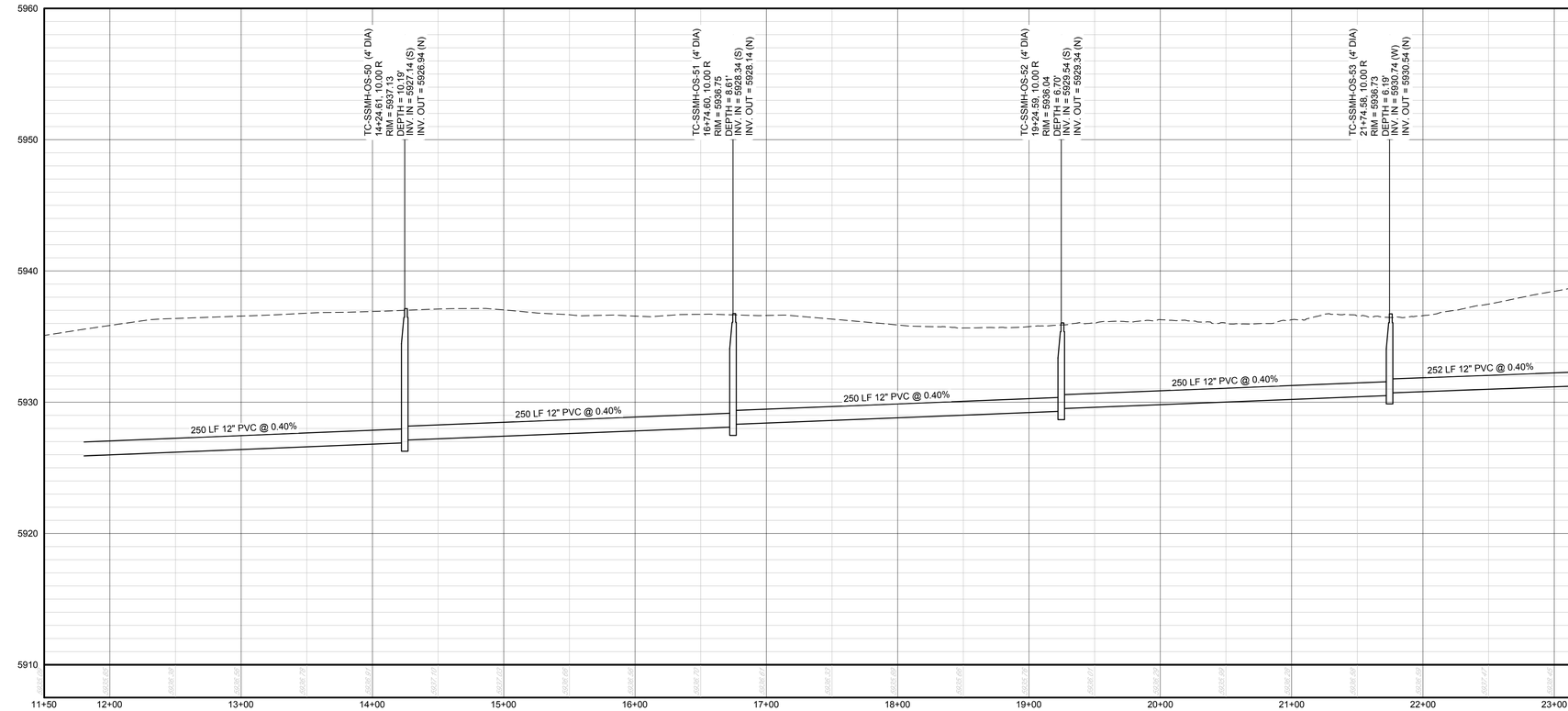


PLAN: SANITARY OFFSITE NORTH STA: 11+50.00 TO 23+50.00
HORIZONTAL SCALE: 1" = 50'

50 25 0 50 100
SCALE: 1" = 50'



KEYMAP
N.T.S.



PROFILE: SS NORTH OUTFALL STA: 11+50.00 TO 23+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

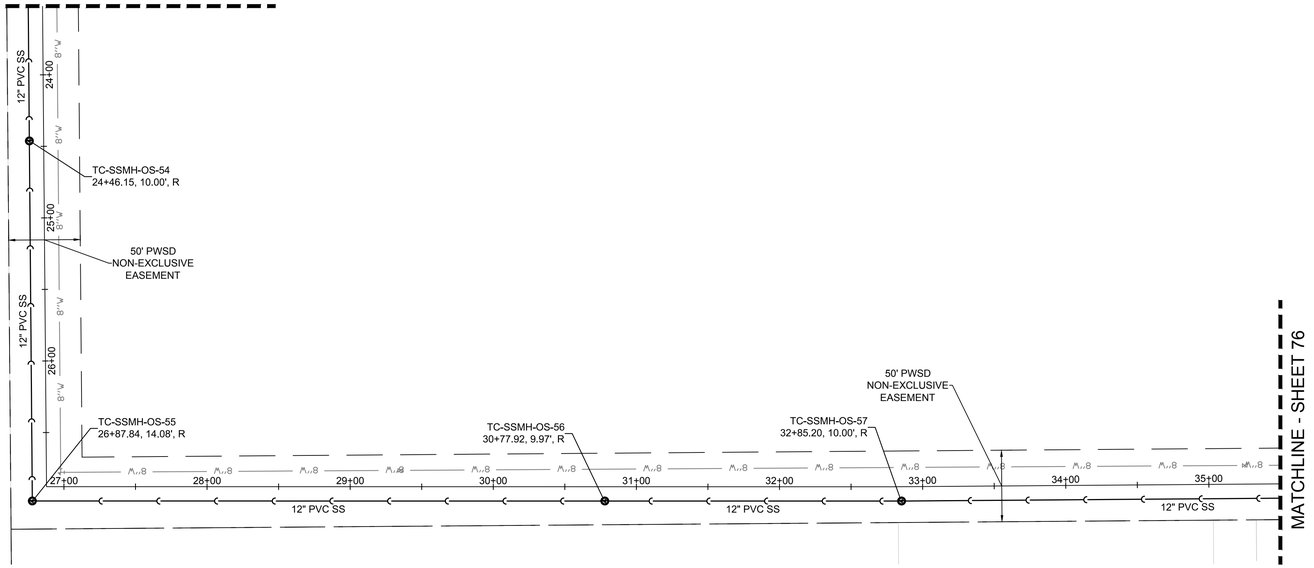
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE NORTH

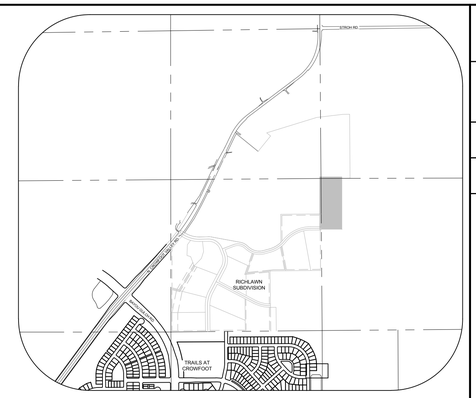
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 74

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE NORTH.DWG, BOBBYG, 6/23/2017 12:33 PM

MATCHLINE - SHEET 74

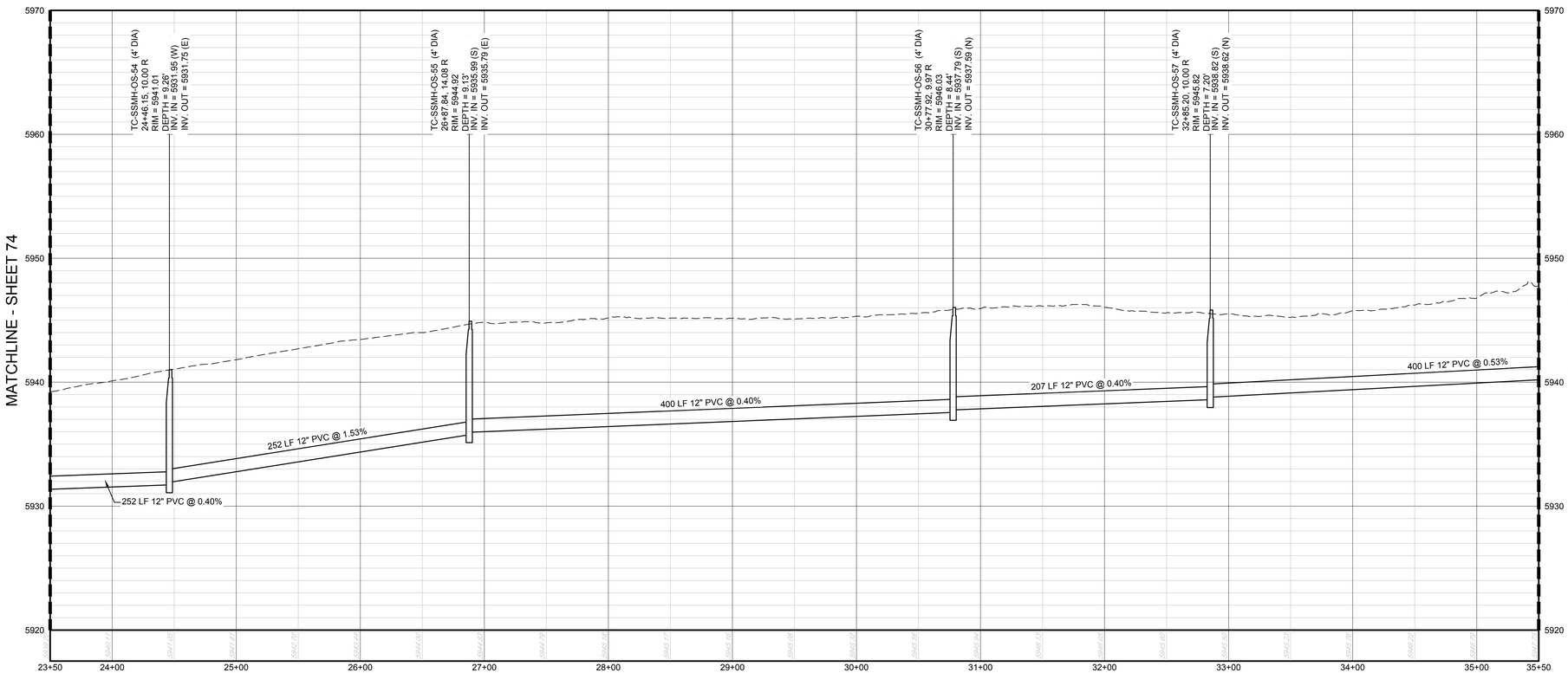






KEYMAP
N.T.S.

PLAN: SANITARY OFFSITE NORTH STA: 23+50.00 TO 35+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS NORTH OUTFALL STA: 23+50.00 TO 35+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

- BLOCK NUMBER
- LOT TYPE
- LOT NUMBER
- PROPOSED BUTTERFLY VALVE
- PROPOSED CAP WITH END OF LINE BLOWOFF
- PROPOSED REDUCER
- PROPOSED VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WL FITTING WITH THRUST BLOCK
- PROPOSED FLARED END SECTION
- PROPOSED LOW POINT BLOW-OFF
- PROPOSED AIR VALVE
- EXISTING BLOW OFF VALVE
- EXISTING VALVE
- EXISTING FIRE HYDRANT
- PROPOSED LIGHT POLE
- PROPOSED SIDEWALK
- PROPOSED SIDEWALK RAMP
- EXISTING ELEVATION
- PROPOSED DESIGN ELEVATION
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED RANGE POINT
- CENTERLINE
- RIGHT-OF-WAY
- PROPERTY LINE
- EDGE OF PAVEMENT
- PROPOSED DIRECTION OF FLOW
- PROPOSED SLOPE & DIRECTION
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED STORM DRAIN
- PROPOSED SEWER LINE WITH MANHOLE
- PROPOSED SEWER LATERAL
- PROPOSED WATER LINE
- PROPOSED WATER LATERAL W/ METER
- EXISTING 60" RAW WATER LINE
- SECTION LINE
- FILING BOUNDARY
- EXISTING FIBER OPTIC LINE
- EXISTING OVERHEAD HIGH VOLTAGE LINE
- EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

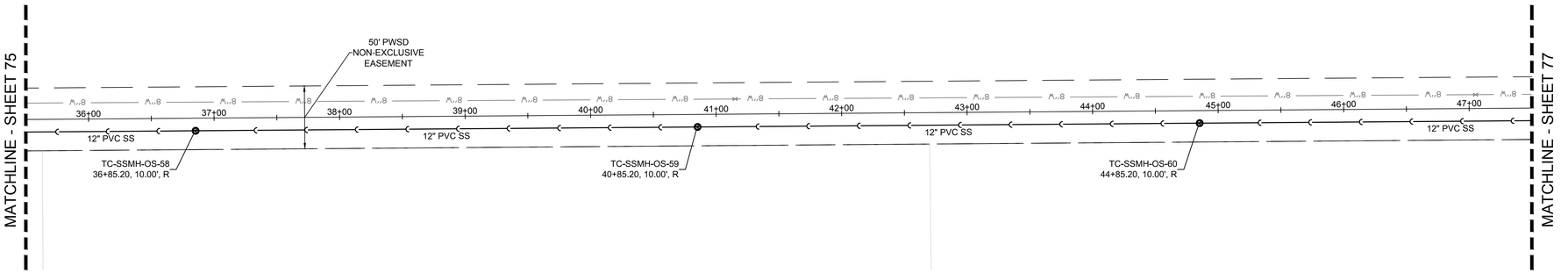
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE NORTH

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 75

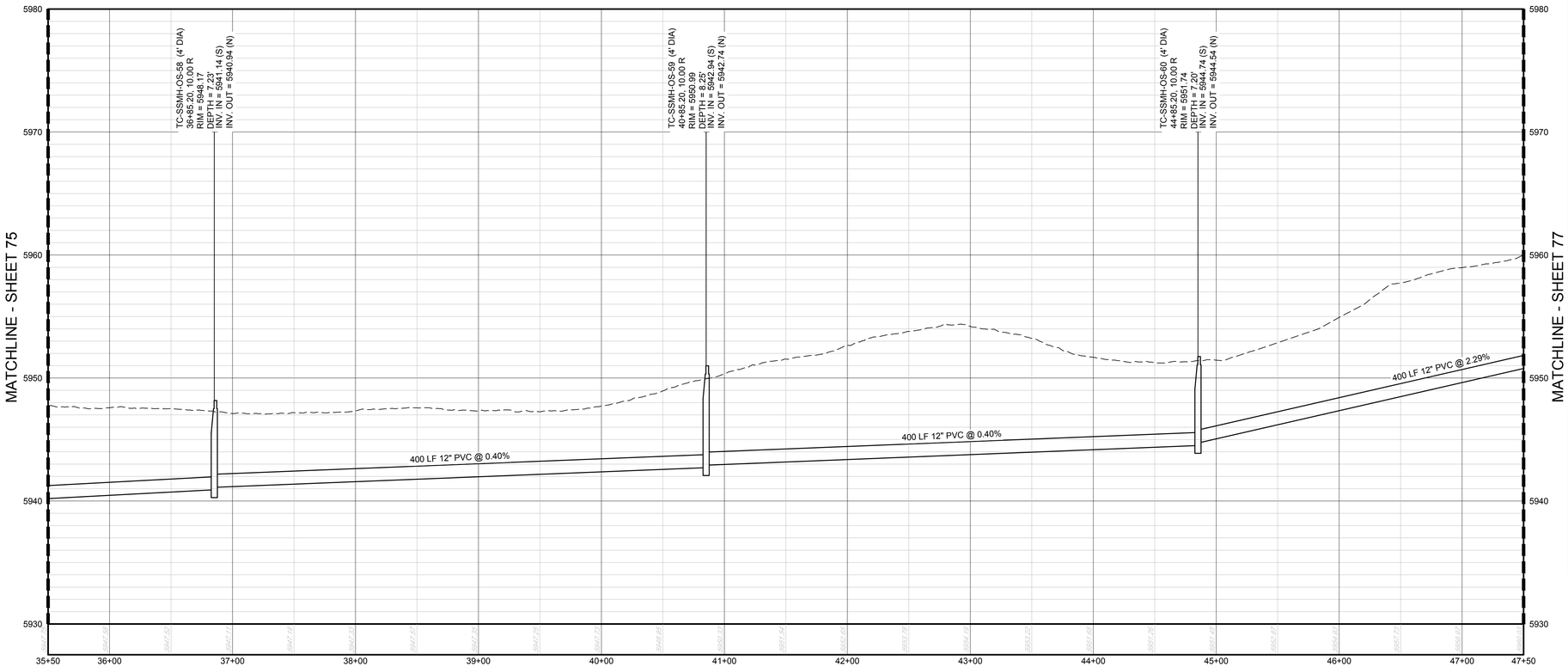
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE NORTH.DWG, BOBBYG, 6/23/2017 12:34 PM



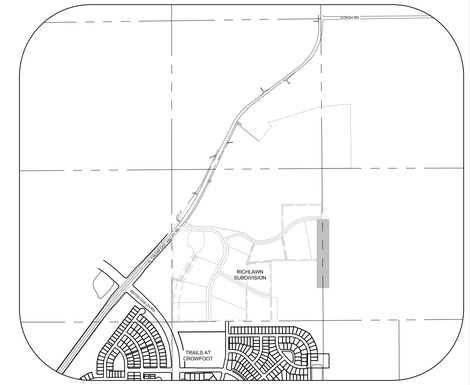
50 25 0 50 100

SCALE: 1" = 50'

PLAN: SANITARY OFFSITE NORTH STA: 35+50.00 TO 47+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS NORTH OUTFALL STA: 35+50.00 TO 47+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

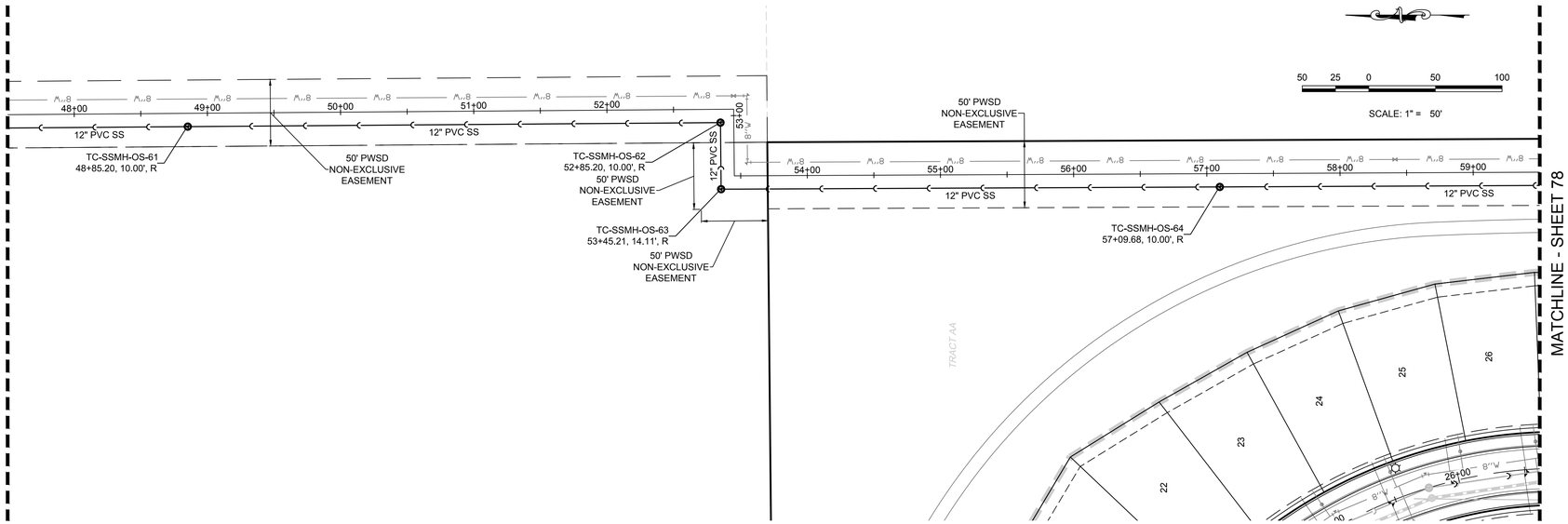
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

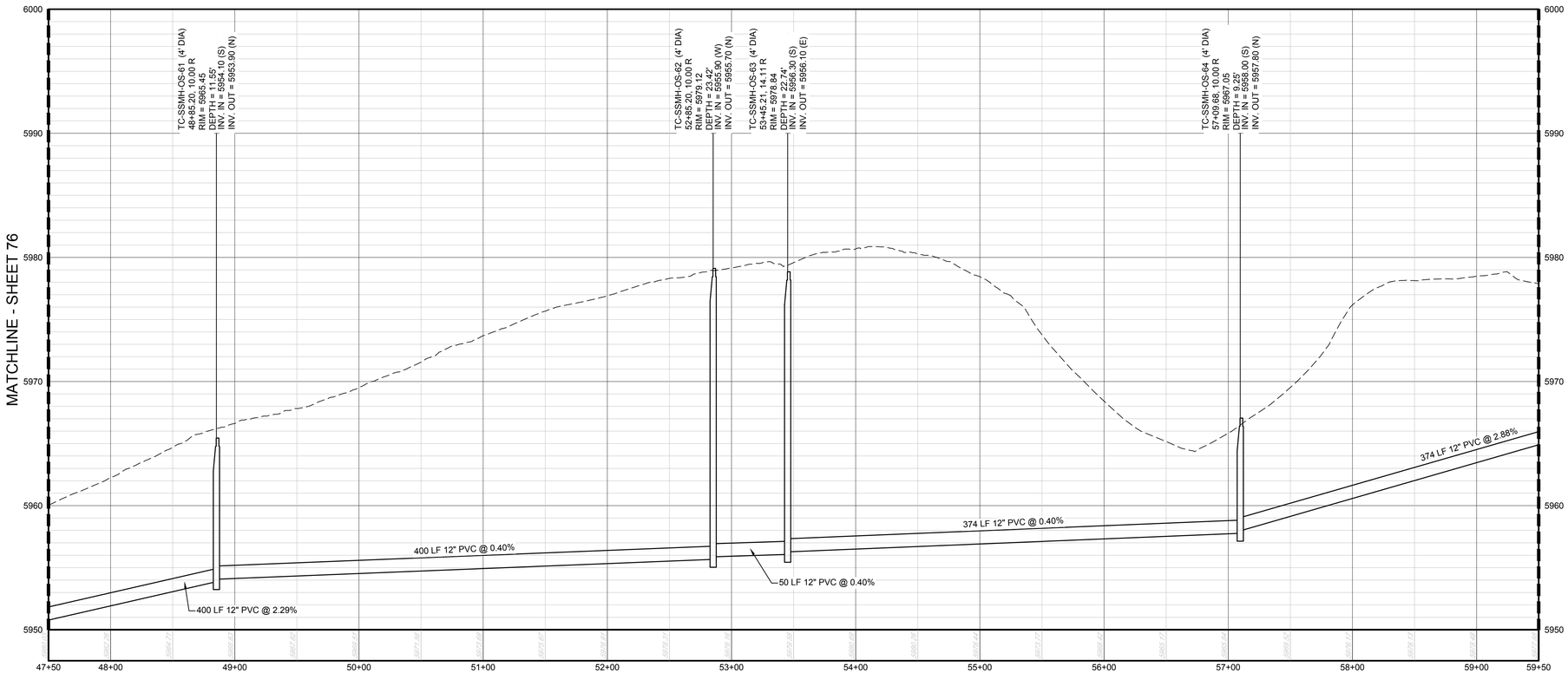
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE NORTH

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 76

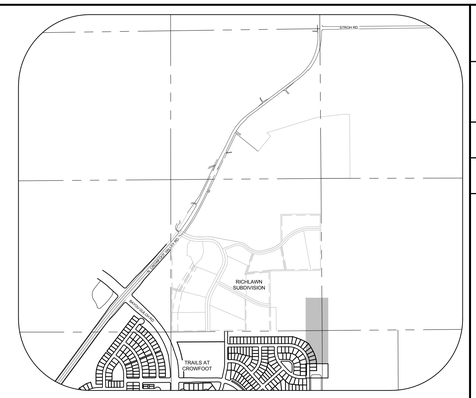
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE NORTH.DWG, BOBBYG, 6/23/2017 12:34 PM



PLAN: SANITARY OFFSITE NORTH STA: 47+50.00 TO 59+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS NORTH OUTFALL STA: 47+50.00 TO 59+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PL	PROPERTY LINE
BVP	BEGIN VERTICAL PROFILE	PVC	POLYVINYL CHLORIDE
CRR	CURB RETURN RADIUS	PVI	PT. OF VERTICAL INTERSECTION
EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EP	EDGE OF PAVEMENT	RCBC	REINFORCED CONCRETE BOX CULVERT
EVC	END VERTICAL CURVE	RCP	REINFORCED CONCRETE PIPE
EVP	END VERTICAL PROFILE	ROW	RIGHT OF WAY
FG	FINISHED GROUND	SD	STORM DRAIN
FL	FLOW LINE	SL	SECTION LINE
GV	GATE VALVE	SS	SANITARY SEWER
HA	HYDRANT ASSEMBLY	STA	STATION
HCR	HANDICAP CURB RAMP	T.O.P.	TOP OF PIPE
HP	HIGH POINT	UE	UTILITY EASEMENT
INV	INVERT	VC	VERTICAL CURVE
K	CURVATURE COEFFICIENT	WL	WATER LINE
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION
MH	MANHOLE		

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

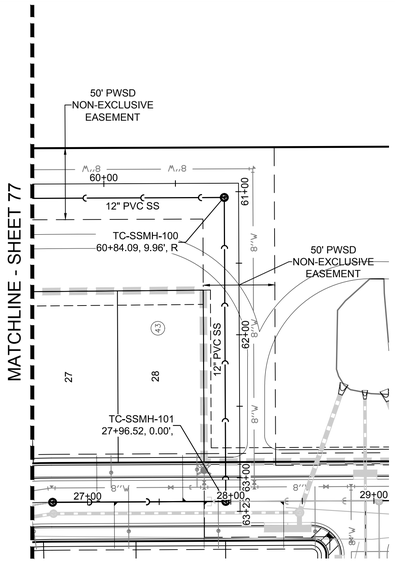
E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE NORTH

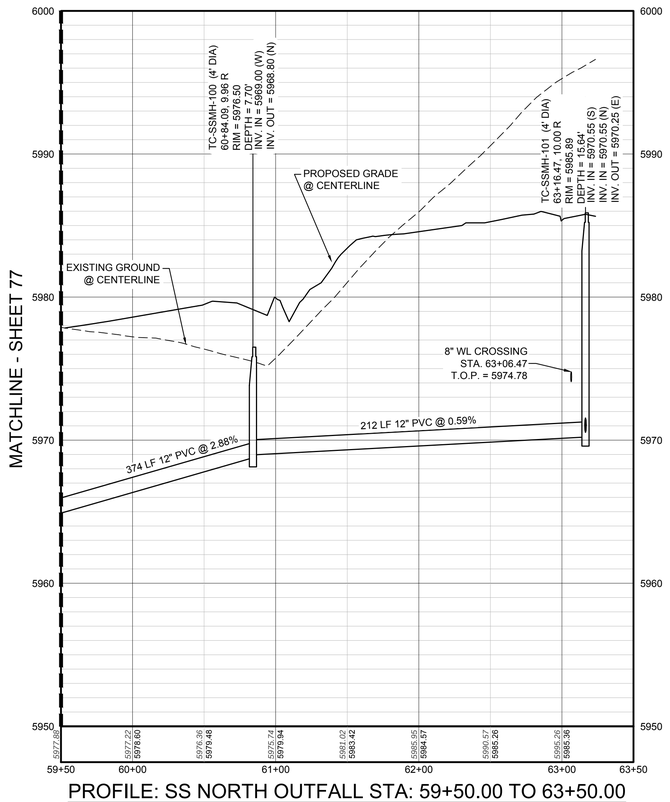
SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 77

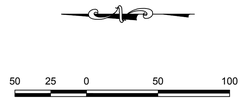
N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE NORTH.DWG, BOBBYG, 6/23/2017 12:34 PM



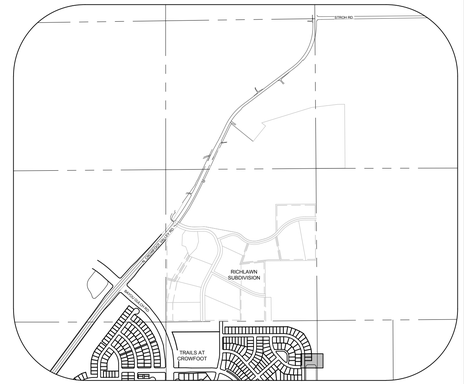
PLAN: SANITARY OFFSITE NORTH STA: 59+50.00 TO 63+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: SS NORTH OUTFALL STA: 59+50.00 TO 63+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



SCALE: 1" = 50'



KEYMAP
N.T.S.

LEGEND

BLOCK NUMBER	PROPOSED RANGE POINT
LOT TYPE	CENTERLINE
LOT NUMBER	RIGHT-OF-WAY
PROPOSED BUTTERFLY VALVE	PROPERTY LINE
PROPOSED CAP WITH END OF LINE BLOWOFF	EDGE OF PAVEMENT
PROPOSED REDUCER	PROPOSED DIRECTION OF FLOW
PROPOSED VALVE	PROPOSED SLOPE & DIRECTION
PROPOSED FIRE HYDRANT	EXISTING 5' CONTOUR
PROPOSED WL FITTING WITH THRUST BLOCK	EXISTING 1' CONTOUR
PROPOSED FLARED END SECTION	PROPOSED 5' CONTOUR
PROPOSED LOW POINT BLOW-OFF	PROPOSED 1' CONTOUR
PROPOSED AIR VALVE	PROPOSED STORM DRAIN
EXISTING BLOW OFF VALVE	PROPOSED SEWER LINE WITH MANHOLE
EXISTING VALVE	PROPOSED SEWER LATERAL
EXISTING FIRE HYDRANT	PROPOSED WATER LINE
PROPOSED LIGHT POLE	PROPOSED WATER LATERAL W/ METER
PROPOSED SIDEWALK	EXISTING 60" RAW WATER LINE
PROPOSED SIDEWALK RAMP	SECTION LINE
EXISTING ELEVATION	FILING BOUNDARY
PROPOSED DESIGN ELEVATION	EXISTING FIBER OPTIC LINE
PROPOSED STORM DRAIN INLET	EXISTING OVERHEAD HIGH VOLTAGE LINE
PROPOSED STORM DRAIN MANHOLE	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD ANGLE DIFFERENCE	N.T.S. NOT TO SCALE
BVC BEGIN VERTICAL CURVE	PL PROPERTY LINE
BVP BEGIN VERTICAL PROFILE	PVC POLYVINYL CHLORIDE
CRR CURB RETURN RADIUS	PVI PT. OF VERTICAL INTERSECTION
EL ELEVATION	PVT POINT OF VERTICAL TANGENT
EP EDGE OF PAVEMENT	RCBC REINFORCED CONCRETE BOX CULVERT
EVC END VERTICAL CURVE	
EVP END VERTICAL PROFILE	RCP REINFORCED CONCRETE PIPE
FG FINISHED GROUND	ROW RIGHT OF WAY
FL FLOW LINE	SD STORM DRAIN
GV GATE VALVE	SL SECTION LINE
HA HYDRANT ASSEMBLY	SS SANITARY SEWER
HCR HANDICAP CURB RAMP	STA STATION
HP HIGH POINT	T.O.P. TOP OF PIPE
INV INVERT	UE UTILITY EASEMENT
K CURVATURE COEFFICIENT	VC VERTICAL CURVE
LF LINEAR FEET	WL WATER LINE
MH MANHOLE	WSE WATER SURFACE ELEVATION

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

No.	Revisions	Date	Init.	Appr.	Date

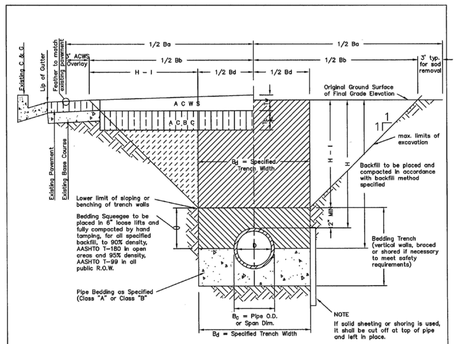
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY OFFSITE NORTH

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JLR
CHECKED BY: JJJ
DATE: APRIL 2017
SHEET NUMBER 78

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY PLAN AND PROFILE\SANITARY OFFSITE NORTH.DWG, BOBBYG, 6/23/2017 12:34 PM



TYPICAL TRENCH DETAIL

T_b = Thickness of Asphaltic Concrete Base Course (A C B C)

T_w = Thickness of Asphaltic Concrete Wearing Surface (A C W S)

T_p = Depth of Asphaltic Surface to Top of Pipe ($T_b + T_w$)

B_o = Outside Pipe or Conduit Span Dimension

B_d = Specified Bedding Trench Width and Max Bedding Trench Width at a point 12" above Top of Pipe (See Note 2)

B_b = Max. Pay Width of Asphaltic Concrete Base Course (or Asphaltic Concrete Cold Mix) (See Note 3)

B_w = Max. Pay Width of Asphaltic Concrete Wearing Surface or Sod Replacement (See Note 3)

H = Depth of Surface to Top of Pipe

H-I= Depth from Surface to 1 ft. above Top of Pipe

NOTES

1. *Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.*
2. *Trench shall be braced and shored as necessary to afford safe working conditions or to protect adjacent utilities, structures, etc.. Unless otherwise specified on the plans, no pavement will be made for removal, replacement or relocation of curb and gutter, sidewalk, adjacent structures, etc. Limits of the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.*
3. *If dimension "B_d" is ≤ 5', then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt pay widths, B_b & B_w shall then be based upon this actual width.*

TABLE B
ASPHALT AMD BASE COURSE REPLACEMENT SCHEDULE

STREET WIDTH	ASPHALTIC BASE COURSE (T_b)	ASPHALTIC WEARING SURFACE (T_w)	TOTAL THICKNESS (T_p)
UP TO 36'	4"	2"	6"
36' TO 44'	4"	3"	7"
44' TO 48'	5"	3"	8"
WIDER THAN 48'	6"	3"	9"

PARKER WATER & SANITATION DISTRICT

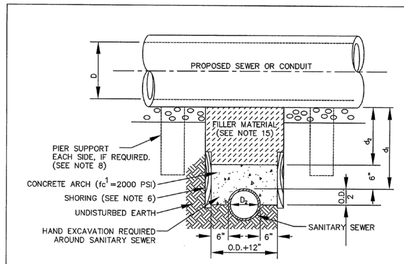
SEWER TRENCHING AND BEDDING DETAIL

SCALE: NONE DATE: 2/96

APPROVED: JFN 5/98

DISTRICT ENGINEER

2008 REVISION SHEET 1



TYPE I
CONCRETE ENCASEMENT FOR SANITARY SEWERS

(CONCRETE ARCH)

GENERAL NOTES FOR TYPE I,II& III ENCASEMENT

1. CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIONAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS POURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
2. LENGTH OF ENCASEMENT FOR:
   (a) TYPE I & TYPE III ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.
   (b) TYPE II ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
3. UNLESS OTHERWISE NOTED ON PLAN/PROFILE DRAWINGS, TYPE I, II & III ENCASEMENTS NEED NOT BE REINFORCED. REINFORCEMENT, IF REQUIRED, SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN & PROFILE DRAWINGS.
4. TYPE I, II OR III ENCASEMENTS ARE REQUIRED UNDER FOLLOWING CONDITIONS:
   (a) TYPE I OR TYPE III IF $d_s \leq 16"$ ($d_s \leq 12"$) EXCEPT FOR SANITARY SEWER CROSSING OVER OR UNDER WATER MAINS.
   WATER MAINS AND $d_s \leq 24"$ ($d_s \leq 18"$)
   (c) TYPE IIb IS REQUIRED FOR SANITARY SEWERS CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION "d_s".
   (d) EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENT WILL NORMALLY BE SATISFACTORY.
   (e) IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF DUCTILE IRON PIPE (AWWA C-150 OR C-151), CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
5. FILLER MATERIAL BETWEEN CONDUITS TO BE:
   (a) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC OR
   (b) COMPACTED CLASS "B" BEDDING IF d_s & $d_s > 6"$ (IF $d_s > 6"$ FOR TYPE IIb ENCASEMENT POUR CONCRETE ON UNDISTURBED SOIL)
6. SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
7. THESE ENCASEMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATIONS.
8. IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER "D" IS EXTREMELY LARGE, PIER SUPPORTS ON EACH SIDE OF SANITARY SEWER MAY ALSO BE REQUIRED. IF REQUIRED, SUPPORTS SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN AND PROFILE DRAWINGS.

PARKER WATER & SANITATION DISTRICT

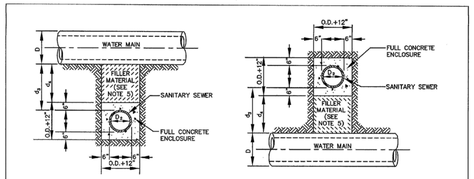
CONCRETE ENCASEMENT TYPE I

SCALE: NONE DATE: 2/96

APPROVED: JFN

DISTRICT ENGINEER

2008 REVISION SHEET 6



TYPE IIa
SANITARY SEWER CROSSING UNDER WATER MAIN
IF $d_s > 2$ ft., ENCASEMENT NOT REQUIRED

TYPE II b
SANITARY SEWER CROSSING OVER TOP OF WATER MAIN
FULL ENCASEMENT REQUIRED REGARDLESS OF DEMENSION d_s.

TYPE II
CONCRETE ENCASEMENT FOR SANITARY SEWERS CROSSING OVER OR UNDER WATER MAIN

GENERAL NOTES FOR TYPE I,II& III ENCASEMENT

1. CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIONAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS POURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
2. LENGTH OF ENCASEMENT FOR:
   (a) TYPE I & TYPE III ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.
   (b) TYPE II ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
3. UNLESS OTHERWISE NOTED ON PLAN/PROFILE DRAWINGS, TYPE I, II & III ENCASEMENTS NEED NOT BE REINFORCED. REINFORCEMENT, IF REQUIRED, SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN & PROFILE DRAWINGS.
4. TYPE I, II OR III ENCASEMENTS ARE REQUIRED UNDER FOLLOWING CONDITIONS:
   (a) TYPE I OR TYPE III IF $d_s \leq 16"$ ($d_s \leq 12"$) EXCEPT FOR SANITARY SEWER CROSSING OVER OR UNDER WATER MAINS.
   WATER MAINS AND $d_s \leq 24"$ ($d_s \leq 18"$)
   (c) TYPE IIb IS REQUIRED FOR SANITARY SEWERS CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION "d_s".
   (d) EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENT WILL NORMALLY BE SATISFACTORY.
   (e) IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF DUCTILE IRON PIPE (AWWA C-150 OR C-151), CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
5. FILLER MATERIAL BETWEEN CONDUITS TO BE:
   (a) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC OR
   (b) COMPACTED CLASS "B" BEDDING IF d_s & $d_s > 6"$ (IF $d_s > 6"$ FOR TYPE IIb ENCASEMENT POUR CONCRETE ON UNDISTURBED SOIL)
6. SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
7. THESE ENCASEMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATIONS.
8. IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER "D" IS EXTREMELY LARGE, PIER SUPPORTS ON EACH SIDE OF SANITARY SEWER MAY ALSO BE REQUIRED. IF REQUIRED, SUPPORTS SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN AND PROFILE DRAWINGS.

PARKER WATER & SANITATION DISTRICT

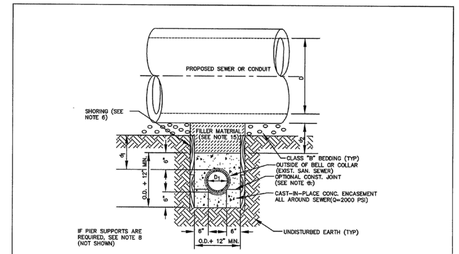
CONCRETE ENCASEMENT TYPE II

SCALE: NONE DATE: 2/96

APPROVED: JFN 5/98, 4/01, 1/08

DISTRICT ENGINEER

2008 REVISION SHEET 7



TYPE III
CONCRETE ENCASEMENT FOR SANITARY SEWERS

(FULL ENCASEMENT) NO SCALE

GENERAL NOTES FOR TYPE I,II& III ENCASEMENT

1. CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIONAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS POURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
2. LENGTH OF ENCASEMENT FOR:
   (a) TYPE I & TYPE III ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.
   (b) TYPE II ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
3. UNLESS OTHERWISE NOTED ON PLAN/PROFILE DRAWINGS, TYPE I,II & III ENCASEMENTS NEED NOT BE REINFORCED. REINFORCEMENT, IF REQUIRED, TO BE SPECIFIED AND DETAILED SEPARATELY ON PLAN & PROFILE DRAWINGS.
4. TYPE I, II OR III ENCASEMENTS REQUIRED UNDER FOLLOWING CONDITIONS:
   (a) TYPE I OR TYPE III IF $d_s \leq 16"$ ($d_s \leq 12"$) FOR SANITARY SEWERS CROSSING OVER OR UNDER WATER MAINS.
   (b) TYPE IIa REQUIRED FOR SANITARY SEWERS CROSSING UNDER WATER MAINS AND $d_s \leq 24"$ ($d_s \leq 18"$)
   (c) TYPE IIb REQUIRED FOR SANITARY SEWERS CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION "d_s".
   (d) EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENT WILL NORMALLY BE SATISFACTORY.
   (e) IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF DUCTILE IRON PIPE (AWWA C-150 OR C-151), CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
5. FILLER MATERIAL BETWEEN CONDUITS TO BE:
   (a) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC., IF d_s& $d_s \leq 6"$.
   (b) COMPACTED CLASS "B" BEDDING IF d_s& $d_s > 6"$. (IF $d_s > 6"$ FOR TYPE IIb ENCASEMENT POUR CONCRETE ON UNDISTURBED SOIL)
6. SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
7. THESE ENCASEMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATIONS.
8. IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER "D" IS EXTREMELY LARGE, PIER SUPPORTS EACH SIDE OF SANITARY SEWER MAY ALSO BE REQUIRED. IF REQUIRED, SUPPORTS TO BE SPECIFIED AND DETAILED SEPARATELY ON PLAN AND PROFILE DRAWINGS.

PARKER WATER & SANITATION DISTRICT

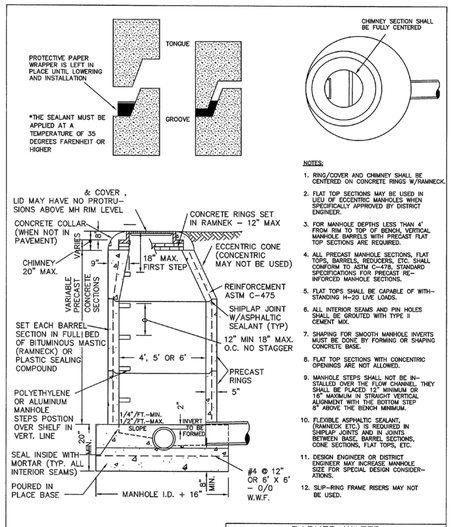
CONCRETE ENCASEMENT TYPE III

SCALE: NONE DATE: 2/96

APPROVED: JFN 5/98

DISTRICT ENGINEER

2008 REVISION SHEET 8



PIPE I.D.	MANHOLE I.D.
18" & SMALLER	4'-0"
21" TO 48"	5'-0"
54"	6'-0"
60" & LARGER	SPECIAL DESIGN

PARKER WATER & SANITATION DISTRICT

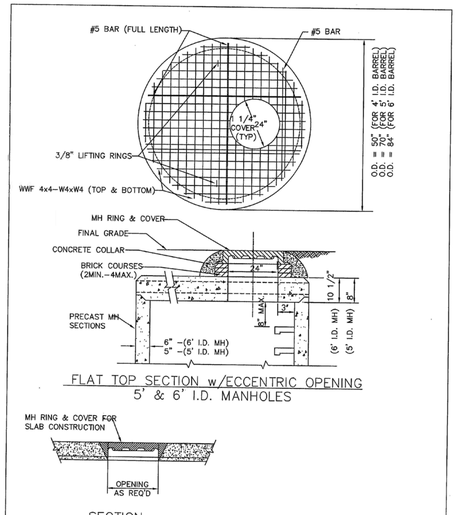
PARKER MANHOLE ECCENTRIC CONE

SCALE: NONE DATE: 2/96

APPROVED: JFN 4/01, 01/02, 1/08

DISTRICT ENGINEER

2008 REVISION SHEET 9



FLAT TOP SECTION w/ECCENTRIC OPENING 5' & 6' I.D. MANHOLES

SECTION
(NON-ADJUSTABLE RING & COVER TO BE CAST IN FLAT TOP)

ALTERNATE RING & COVER
(TO BE USED ONLY WHEN SPECIFICALLY AUTHORIZED.)

PARKER WATER & SANITATION DISTRICT

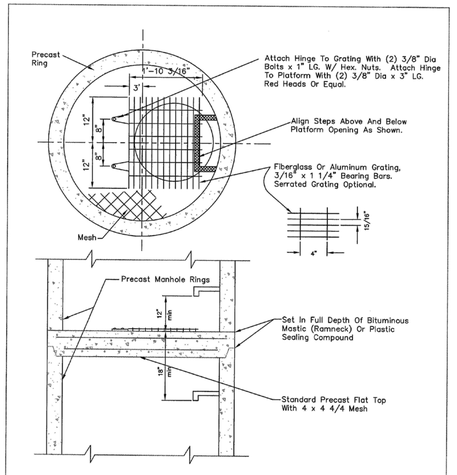
PRECAST MANHOLE - 5' & 6' I.D. WITH ECCENTRIC CONE

SCALE: NONE DATE: 2/98

APPROVED: JFN 01/02

DISTRICT ENGINEER

2008 REVISION SHEET 11



NOTES:

1.1 Maximum distance between platforms shall be 15' vertically.

1.2 Minimum distance between platforms shall be 10' vertically.

PARKER WATER & SANITATION DISTRICT

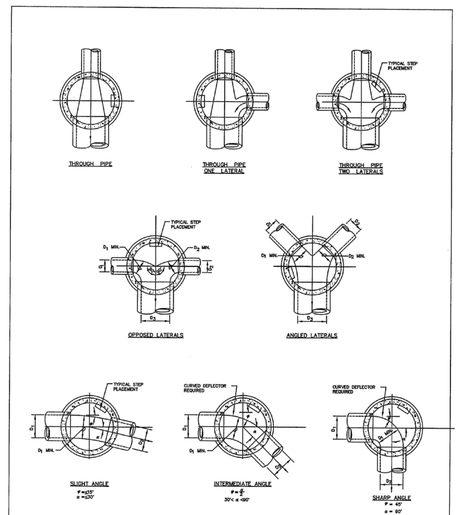
INTERMEDIATE PLATFORM FOR MANHOLES OVER 20' DEPTH

SCALE: NONE DATE: 2/98

APPROVED: RJG 2/00

DISTRICT ENGINEER

2008 REVISION SHEET 14



PARKER WATER & SANITATION DISTRICT

TYPICAL BASE CHANNELIZATION DETAILS

SCALE: NONE DATE: 2/96

APPROVED: JFN

DISTRICT ENGINEER

2008 REVISION SHEET 15

No.	Revisions	Date	Init.	Date	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

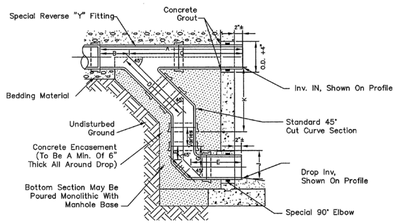
TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER DETAILS

SCALE: AS SHOWN
DRAWN BY: JF
CHECKED BY: JJJ
FILE NO: 8130283701
DATE: APRIL 2017

SHEET NUMBER 79

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY SEWER DETAILS.DWG, RYANR, 6/23/2017 12:35 PM



SECTION THRU DROP

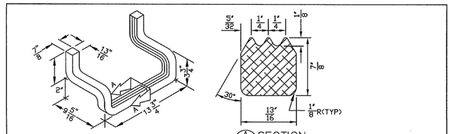
PIPE I.D.	A	B	C	D	E	F	G	H	J	K	J+K
8"	60°	30°	34"	18"	22½"	4 1/2"	6"	4 3/4"	12"	16 7/8"	27 7/8"
12"	60°	30°	40"	24"	22½"	6 1/2"	8"	5 7/8"	14"	18 7/8"	32 7/8"
15"	60°	30°	45"	30"	22½"	7 7/8"	10 3/4"	6 3/4"	16 3/4"	21"	37 7/8"
18"	60°	30°	50"	36"	22½"	9 1/2"	12 1/2"	7 3/4"	20"	25 7/8"	45 7/8"

NOTES:
1. VII Clay Pipe & fittings (A.S.T.M. C-700) shown, details similar for all other pipe.
2. For payment purposed: all fittings, pipe, concrete encasement except special "Y" fitting shall be included in the cost of outside drop. The cost of the special "Y" fitting shall be included in the unit price bid for line pipe.
3. Diameter of drop shall not be less than the line pipe diameter.
4. For 18" diameter and larger, outside drop detail shall be a special design.

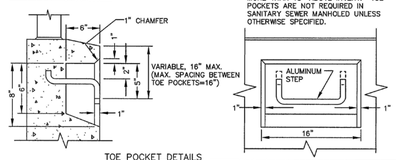
OUTSIDE DROP MANHOLE CONSTRUCTION

PARKER WATER & SANITATION DISTRICT	
OUTSIDE DROP MANHOLE CONSTRUCTION	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 16



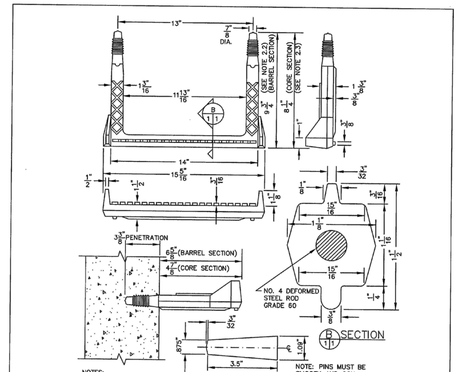
NOTES:
1.1 ALUMINUM ALLOY SPECIFICATIONS
a. FED. SPEC. QQ-A-200/8 (ALUMINUM-MAGNESIUM-SILICATE ALLOY)
b. MINIMUM TENSILE STRENGTH= 38,000 p.s.i.
c. MINIMUM YIELD STRENGTH= 35,000 p.s.i.
d. MINIMUM ELONGATION=10% IN 2
1.2 MINIMUM LOAD CAPACITY (APPLIED AT CENTER OF STEP
a. 1000 lb. WITH 6" PROJECTION FROM WALL.
b. 1500 lb. WITH 4" PROJECTION FROM WALL.
1.3 WEIGHT PER STEP=2.23 POUNDS.
1.4 STEPS TO BE CAST, UNALTERED, IN MAN-HOLE WALL IN STRAIGHT LINE, VERTICALLY, AT THE SAME TIME THE BARREL OR CONE SECTIONS ARE CAST.
1.5 VERTICAL SPACING BETWEEN STEPS SHALL BE CONSISTENT IN EACH INDIVIDUAL MANHOLE.
1.6 TOE POCKETS ARE REQUIRED IN STORM SEWER MANHOLES IF TOP OF BENCH IS MORE THAN 18" ABOVE INVERT. TOE POCKETS ARE NOT REQUIRED IN SANITARY SEWER MANHOLED UNLESS OTHERWISE SPECIFIED.



STANDARD EXTRUDED ALUMINUM MANHOLE STEP

PARKER WATER & SANITATION DISTRICT	
STANDARD EXTRUDED ALUMINUM MANHOLE STEP	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 18



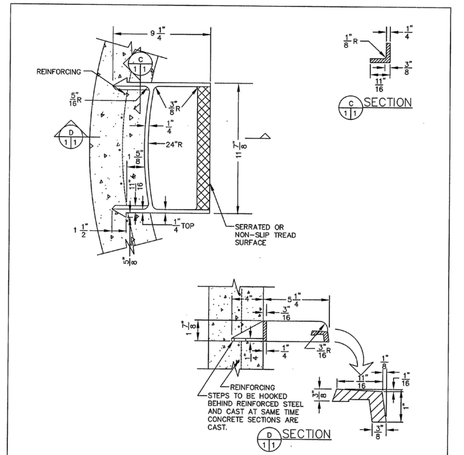
NOTES:
2.1 ASTM SPECIFICATIONS:
a) ASTM C-478
b) ASTM A-615 GRADE 60 (STEEL ROD)
c) ASTM 2148-69, TYPE II, GRADE 16906 (POLYPROPYLENE)
2.2 STEPS INSTALLED IN MANHOLE BARREL SECTIONS OR VERTICAL WALLS OF STRUCTURE SHALL HAVE A 9-3/4 INCH LEG AND SHALL PROJECT FROM THE WALL 6-5/8 INCHES.
2.3 STEPS INSTALLED IN MANHOLE CONE SECTIONS SHALL HAVE AN 8-1/4 INCH LEG AND SHALL PROJECT FROM THE WALL 4-7/8 INCHES.
2.4 ALL STEPS SHALL HAVE A PENETRATION DEPTH INTO THE WALL OF 3-3/8 INCHES.
2.5 STEPS SHALL BE INSTALLED BY THE "PRESS-FIT" METHOD UTILIZING A SPECIALLY TAPERED PIN TO FORM THE INSERT HOLE AS SHOWN.
2.6 INSTALLED STEPS SHALL BE CAPABLE OF WITHSTANDING A PULL OUT FORCE OF 2500 P.S.I. PER LEG FOR A MINIMUM PERIOD OF TWO MINUTES.
2.7 STEPS SHALL BE INSTALLED BY THE "PRESS-FIT" METHOD EXCLUSIVELY FOLLOWING MANUFACTURER'S RECOMMENDED PROCEDURE AND SHALL NOT BE GROUTED IN PLACE.

NOTE: PINS MUST BE SMOOTH AND CONTINUOUSLY TAPERED.

POLYPROPYLENE REINFORCED PLASTIC STEP

PARKER WATER & SANITATION DISTRICT	
POLYPROPYLENE REINFORCED PLASTIC MANHOLE STEP	
SCALE: NONE	DATE: 2/00
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 19A

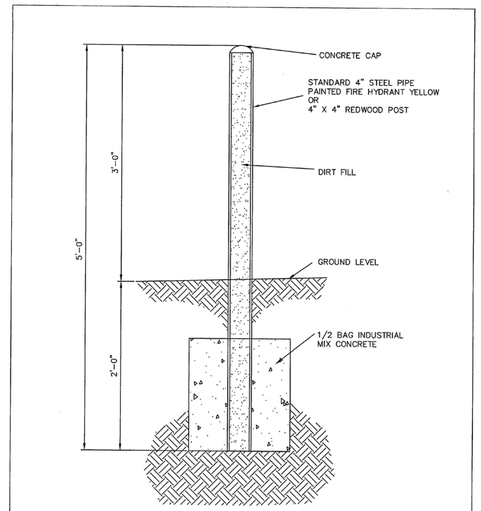


CAST ALUMINUM MANHOLE STEP

NOTES:
3.1 THE CAST ALUMINUM MANHOLE STEP SHALL ONLY BE USED WHEN SPECIFIED ON THE DRAWINGS.
3.2 ALUMINUM ALLOY SPECIFICATIONS:
a. ALLOY DESIGNATION ALMAG 35
b. MIN. TENSILE STRENGTH= 40 K.S.I.
c. MIN. YIELD STRENGTH= 20 K.S.I.
d. MIN. SHEAR STRENGTH= 27.45 K.S.I.
e. ELONGATION= 10% IN 2
f. BRINELL HARDNESS= 70
3.3 MINIMUM LOAD CAPACITY, STEP SPACING AND ALIGNMENT, TOE POCKET DETAILS AND OTHER APPLICABLE NOTES OR DETAILS SPECIFIED FOR EXTRUDED ALUMINUM MANHOLE STEP SHALL ALSO APPLY TO THIS STANDARD.
3.4 MIN. WT. = 2.0 lb.

PARKER WATER & SANITATION DISTRICT	
CAST ALUMINUM MANHOLE STEP	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 19



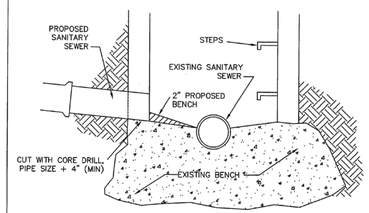
MARKER POST DETAIL

STEEL PIPE
STENCILED IDENTIFICATION MARKS ON POSTS SHALL FACE THE APPURTENANCE WITH 2" STENCILS INDICATING TYPE OF APPURTENANCE (MH, 12" VALVE, ETC.) AND THE DISTANCE IN FEET AND INCHES FROM POST.

REDWOOD POST
ROUTER LETTERS AND NUMBERS INTO POST. PAINT LETTERS AND NUMBERS BLACK.

PARKER WATER & SANITATION DISTRICT	
MARKER POST DETAIL	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	2/00 4/01 1/08
DISTRICT ENGINEER	

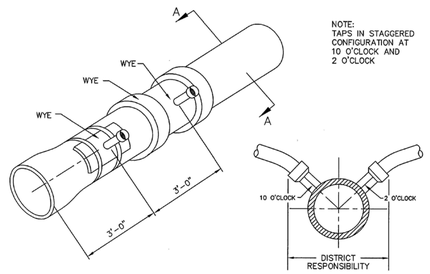
2008 REVISION — SHEET 20



MANHOLE INVERT TIE-IN

PARKER WATER & SANITATION DISTRICT	
MANHOLE INVERT TIE-IN DETAIL	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 21



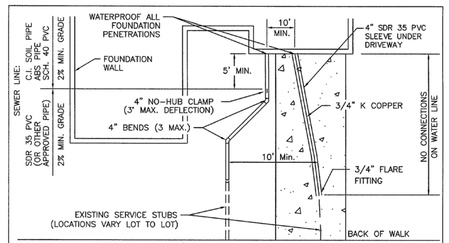
SEWER

Service connections – Sewer service connections shall be positioned at either the 2 o'clock or the 10 o'clock position on the circumference of the sewer main. On new installations, tee or wye fittings shall be used. When tapping into existing sewer main, a saddle connection and approved coring method shall be used. The minimum distance between service connections made along the pipe shall be 3 feet. The minimum distance from either the bell or spigot end of a pipe shall be 3 feet. The minimum distance from the center of a manhole to a service connection shall be either 7 feet or the transition point from the manhole trench to the normal pipe trench, whichever is greater. A maximum of 4 sewer service connections shall be allowed per 20 foot length of pipe. In al cases, a specific soils investigation should be conducted to assure that the external loading will be within allowable limits regardless of the number of taps involved.

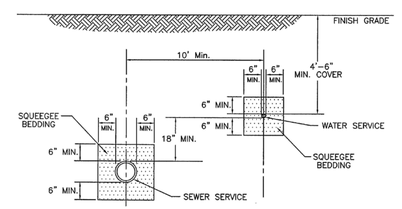
DOMESTIC SEWER TAPPING DETAIL

PARKER WATER & SANITATION DISTRICT	
DOMESTIC SEWER TAPPING DETAIL	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01 1/08
DISTRICT ENGINEER	

2008 REVISION — SHEET 28



TYPICAL SERVICES PLAN VIEW
NTS



TYPICAL SERVICES SECTION
NTS

NOTE
SEE SHEET 28 FOR DISTRICT POLICIES AND INSTALLATION NOTES.

PARKER WATER & SANITATION DISTRICT	
TYPICAL SEWER SERVICES	
SCALE: NONE	DATE: 2/96
APPROVED: JFN	2/00 01/02
DISTRICT ENGINEER	

2008 REVISION — SHEET 27

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY SEWER DETAILS.DWG, RYANR, 6/23/2017 12:35 PM

No.	Revisions	Date	Init.	Appr.	Date

CVL CONSULTANTS
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER DETAILS

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JF
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 80

INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE (303-841-4627) AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 4:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A RE-INSPECTION FEE CHARGED.
4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.

INSTALLATION NOTES:

SEWER

1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND CAST IRON CLASS 22 SOIL PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3°.
3. MINIMUM GRADE SHALL BE 2%.
4. INSTALLATION SHALL INCLUDE NO MORE THAN 3 BENDS. 90° BENDS ARE NOT ALLOWED. SOLVENT WELDED PIPE WILL NOT BE ALLOWED.
5. CLEAN-OUTS SHALL BE INSTALLED AT 100' INTERVALS. CLEAN-OUTS ARE NOT REQUIRED FOR SERVICES LESS THAN 100'.
6. STRESSING OF THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.

PARKER WATER & SANITATION DISTRICT

DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES

SCALE: NONE	DATE: 2/95
APPROVED: JFN DISTRICT ENGINEER	01/02 1/08

2008 REVISION

SHEET 28

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\SANITARY SEWER DETAILS.DWG, RYANR, 6/23/2017 12:35 PM

No.	Revisions	Date	Init.	Appr.	Date

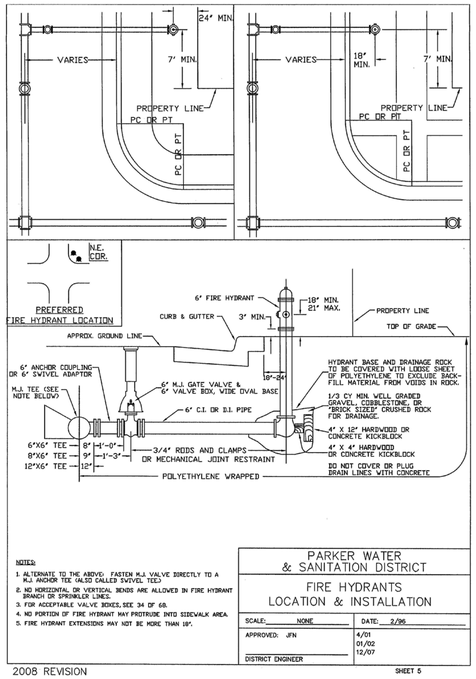
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
SANITARY SEWER DETAILS

DRAWN BY:	JF	SCALE:	AS SHOWN
CHECKED BY:	JJJ	FILE NO:	8130283701
DATE:	APRIL 2017		

SHEET NUMBER 81



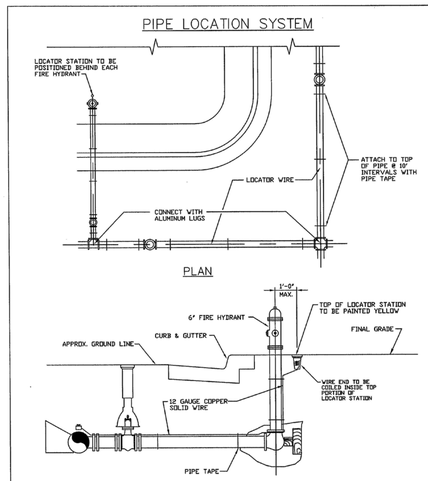
NOTES:
1. ALTERNATE TO THE ABOVE: FASTEN M.J. VALVE DIRECTLY TO A M.J. ANCHOR TEE (ALSO CALLED SWIVEL TEE)
2. NO HORIZONTAL OR VERTICAL BENDS ARE ALLOWED IN FIRE HYDRANT BRANCH OR SPRINKLER LINES.
3. FOR ACCEPTABLE VALVE BOXES, SEE 34 OF 68.
4. NO PORTION OF FIRE HYDRANT MAY PROTRUDE INTO SIDEWALK AREA.
5. FIRE HYDRANT EXTENSIONS MAY NOT BE MORE THAN 18".

PARKER WATER & SANITATION DISTRICT

FIRE HYDRANTS LOCATION & INSTALLATION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01 01/02 12/07
DISTRICT ENGINEER	

2008 REVISION — SHEET 5



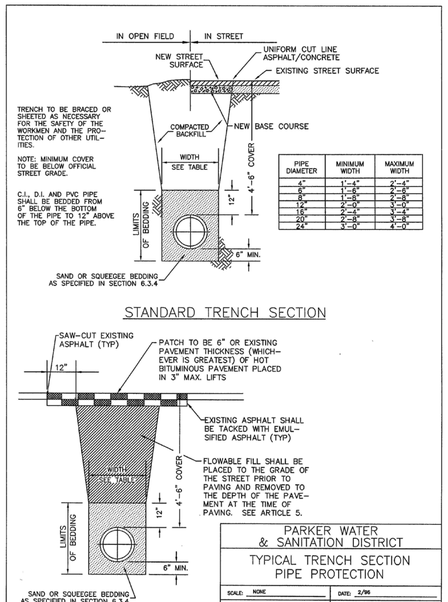
NOTES:
1. FOR USE ON ALL DUCTILE IRON AND PVC WATER MAINS.
2. LOCATOR STATION POSITION MAY BE MODIFIED AT THE DIRECTION OF THE DISTRICT ENGINEER.
3. A CONTINUITY TEST WILL BE REQUIRED PRIOR TO PRELIMINARY ACCEPTANCE.

PARKER WATER & SANITATION DISTRICT

LOCATOR WIRE DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01 01/02
DISTRICT ENGINEER	

2008 REVISION — SHEET 6



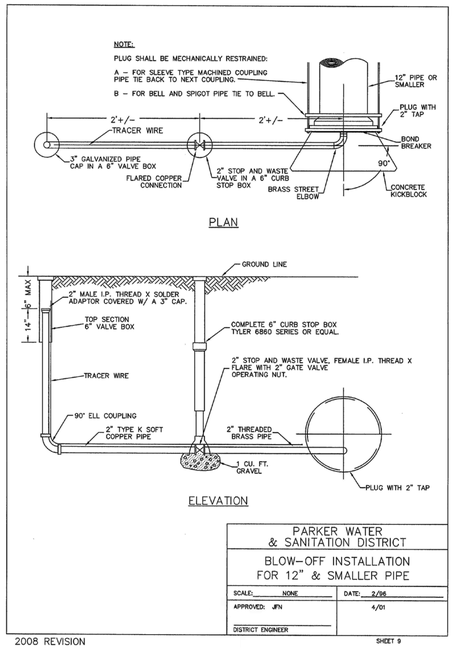
PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	2'-4"
6"	1'-6"	2'-6"
8"	1'-8"	3'-0"
12"	2'-0"	3'-0"
16"	2'-4"	3'-4"
20"	2'-8"	3'-8"
24"	3'-0"	4'-0"

PARKER WATER & SANITATION DISTRICT

TYPICAL TRENCH SECTION PIPE PROTECTION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 8

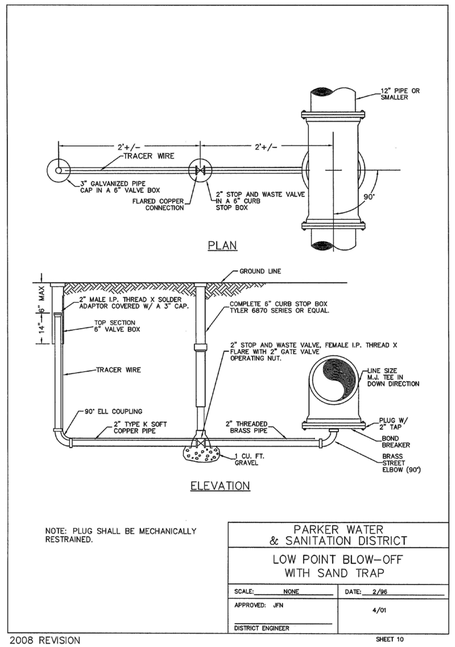


PARKER WATER & SANITATION DISTRICT

BLOW-OFF INSTALLATION FOR 12" & SMALLER PIPE

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01
DISTRICT ENGINEER	

2008 REVISION — SHEET 9



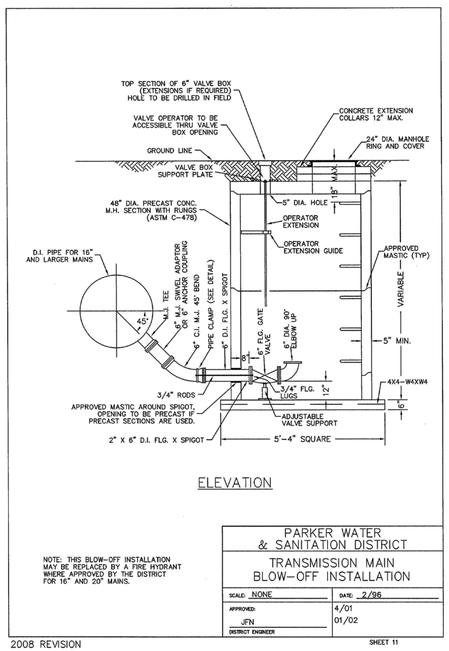
NOTE: PLUG SHALL BE MECHANICALLY RESTRAINED.

PARKER WATER & SANITATION DISTRICT

LOW POINT BLOW-OFF WITH SAND TRAP

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01
DISTRICT ENGINEER	

2008 REVISION — SHEET 10



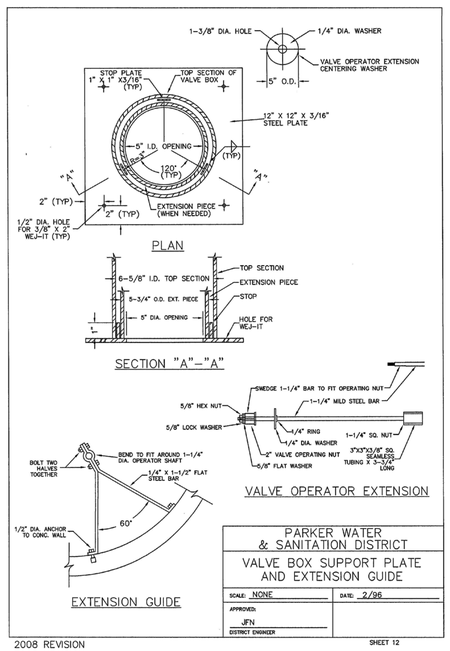
NOTE: THIS BLOW-OFF INSTALLATION MAY BE REPLACED BY A FIRE HYDRANT WHERE APPROVED BY THE DISTRICT FOR 16" AND 20" MAINS.

PARKER WATER & SANITATION DISTRICT

TRANSMISSION MAIN BLOW-OFF INSTALLATION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01 01/02
DISTRICT ENGINEER	

2008 REVISION — SHEET 11

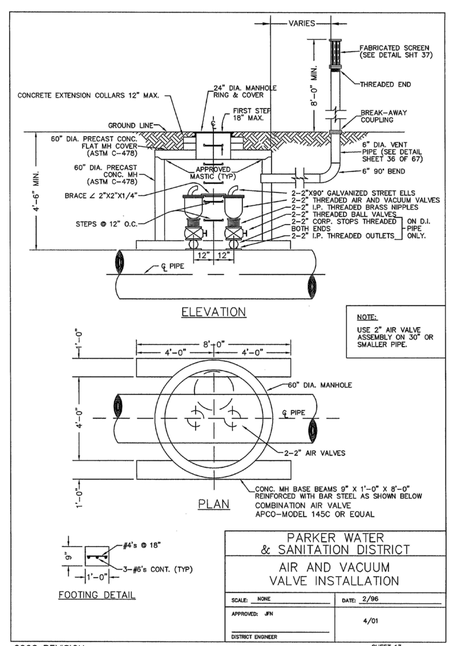


PARKER WATER & SANITATION DISTRICT

VALVE BOX SUPPORT PLATE AND EXTENSION GUIDE

SCALE: NONE	DATE: 2/96
APPROVED: JFN	
DISTRICT ENGINEER	

2008 REVISION — SHEET 12



PARKER WATER & SANITATION DISTRICT

AIR AND VACUUM VALVE INSTALLATION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01
DISTRICT ENGINEER	

2008 REVISION — SHEET 13

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\WATER DETAILS.DWG, RYANR, 6/23/2017 12:35 PM

No.	Revisions	Date	Init.	Appr.	Date

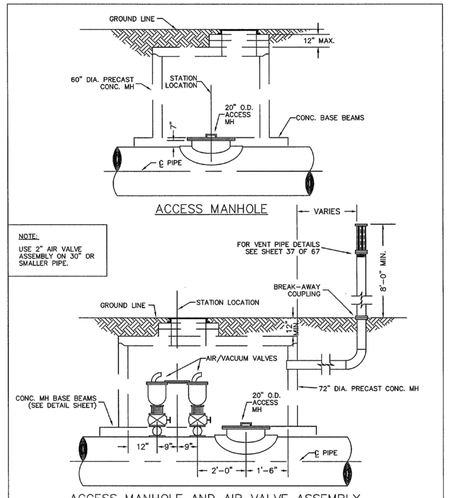
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
WATER DETAILS

DRAWN BY: JF	SCALE: AS SHOWN
CHECKED BY: JJJ	FILE NO: 8130283701
DATE: APRIL 2017	

SHEET NUMBER 82

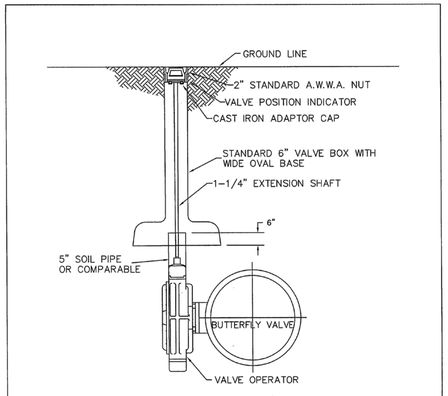


NOTE:
USE 2" AIR VALVE ASSEMBLY ON 30" OR SMALLER PIPE.

NOTE:
SEE SHEET 13 OF 67 FOR CONCRETE MANHOLE BASE BEAMS AND AIR/VACUUM VALVE DETAILS.

PARKER WATER & SANITATION DISTRICT	
ACCESS MANHOLE ASSEMBLY	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	4/01

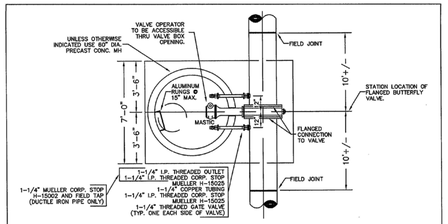
2008 REVISION — SHEET 14

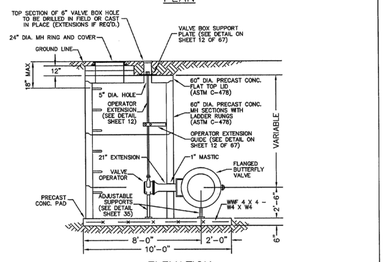


NOTE: THE VALVE BOX SHALL NOT BE PLACED DIRECTLY ON SOIL PIPE.

PARKER WATER & SANITATION DISTRICT	
TRANSMISSION MAIN BUTTERFLY VALVE INSTALLATION	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	

2008 REVISION — SHEET 15

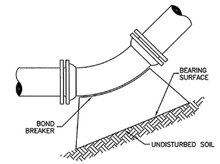


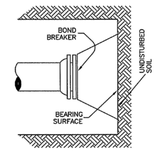


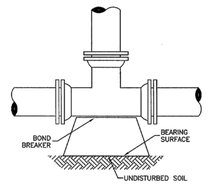
NOTE: THE VALVE BOX SHALL NOT BE PLACED DIRECTLY ON SOIL PIPE.

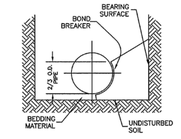
PARKER WATER & SANITATION DISTRICT	
20",24" AND 30" BUTTERFLY VALVE ASSEMBLY	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	4/01

2008 REVISION — SHEET 16









NOTES:

1. ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RODDED AND KICKBLOCKED.

2. BEARING SURFACES SHOWN IN CHART ARE MINIMUM.

3. BASED ON 150 PSI PIPE PRESSURE PLUS WATER HAMMER:
   4", 6" AND 8" WATER HAMMER = 120 PSI.
   12" WATER HAMMER = 110 PSI
   16", 20" AND 24" WATER HAMMER = 70 PSI.

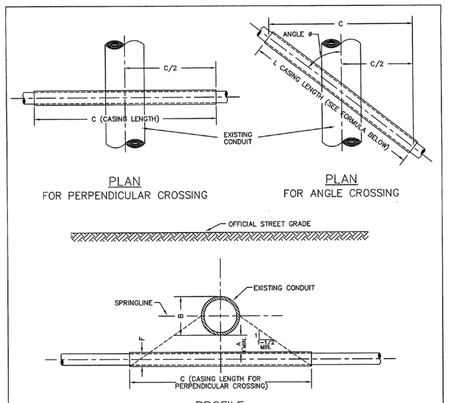
4. SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

MINIMUM BEARING SURFACE AREA
(IN SQUARE FEET)

SIZE OF PIPE	BENDS				TEE OR DEAD END
	11-1/4°	22-1/2°	45°	90°	
4"	1.00	1.00	1.00	1.80	1.50
6"	1.00	1.25	2.25	4.00	3.00
8"	1.00	2.00	4.00	7.00	5.25
12"	2.00	4.25	8.25	15.75	11.00
16"	3.50	6.50	12.50	23.00	16.50
20"	5.00	10.00	18.50	33.50	25.00
24"	6.50	13.00	26.00	47.00	33.00

PARKER WATER & SANITATION DISTRICT	
CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	4/01

2008 REVISION — SHEET 17



FORMULA FOR FINDING C:

$$C = B + (2)(1.5)\left[\frac{D}{2}\right] + A + F$$

- B: PERPENDICULAR CROSSING CASING LENGTH
- D: O.D. WATER DEPARTMENT CONDUIT
- (1.5): CONSTANT
- D/2: RATIO OF MIN. SLOPE
- A: VERTICAL DISTANCE BETWEEN CASING AND WATER DEPARTMENT CONDUIT
- F: 1/2 O.D. WATER DEPARTMENT CONDUIT
- CASING O.D.

FORMULA FOR FINDING L:

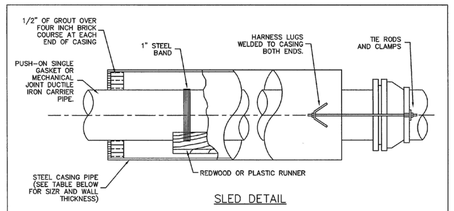
$$L = \frac{C}{\text{Sin } \phi}$$

NOTES:

1. FINAL APPROVAL OF BORING AND CASING METHOD AND MATERIALS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.

PARKER WATER & SANITATION DISTRICT	
BORED CROSSINGS BENEATH CONDUITS	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	2/00

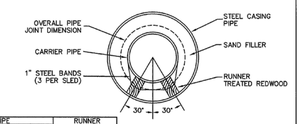
2008 REVISION — SHEET 25



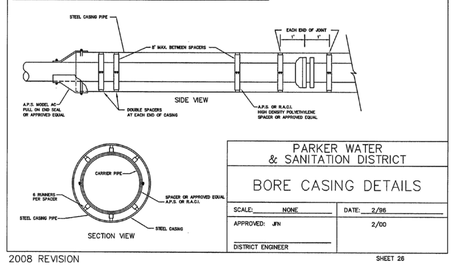
NOTES:

1. REDWOOD RUNNER LENGTH TO BE 75% OF LAYING LENGTH.

2. SEE SHEET 25 FOR CASING LENGTH.

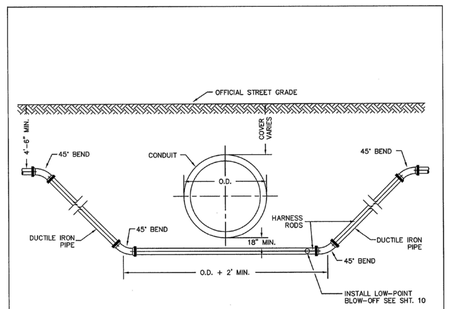


CARRIER PIPE NOMINAL DIA.	CASING PIPE MIN. O.D.	CASING PIPE MIN. WALL THICK.	RUNNER SIZE
4"	12"	0.188"	3" X 4"
6"	16"	0.250"	3" X 4"
8"	18"	0.282"	3" X 4"
12"	22"	0.344"	3" X 4"
16"	28"	0.406"	3" X 6"
20"	32"	0.469"	3" X 6"



PARKER WATER & SANITATION DISTRICT	
BORE CASING DETAILS	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	2/00

2008 REVISION — SHEET 26



NOTES:

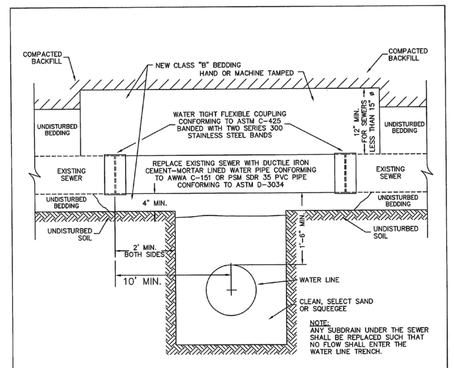
1. LENGTH OF EXTENSION OF PIPE AND HARNESS RODS SHALL BE IN ACCORDANCE WITH THESE ENGINEERING STANDARDS.

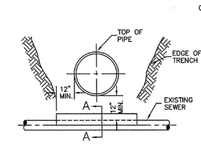
2. ALL WATER MAINS TWELVE (12") INCHES OR SMALLER, WHICH CROSS UNDER DISTRICT CONDUITS SHALL BE DUCTILE IRON.

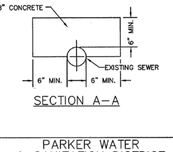
3. A BORED CROSSING MAY BE REQUIRED BY THE ENGINEER.

PARKER WATER & SANITATION DISTRICT	
CONDUIT OR STORM SEWER CROSSING	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	5/98 2/00 12/07

2008 REVISION — SHEET 27







PARKER WATER & SANITATION DISTRICT	
CROSSING STORM & SANITARY SEWERS	
SCALE: NONE	DATE: 2/96
APPROVED: JFN DISTRICT ENGINEER	

2008 REVISION — SHEET 28

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HEISS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\WATER DETAILS.DWG, RYANR, 6/23/2017 12:36 PM

No.	Revisions	Date	Init.	Appr.	Date

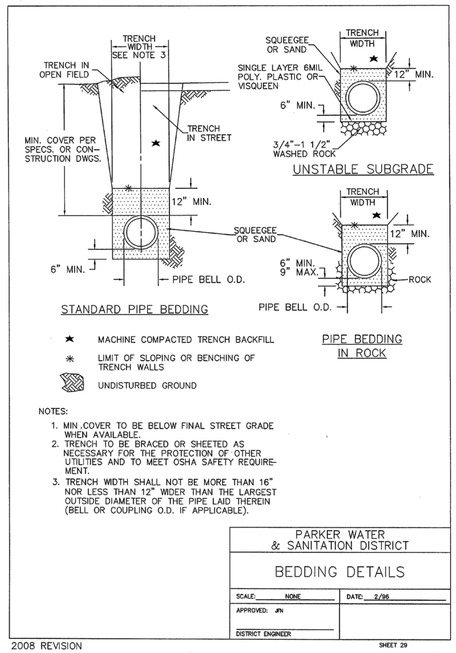
CVL CONSULTANTS
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
WATER DETAILS

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JF
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 83



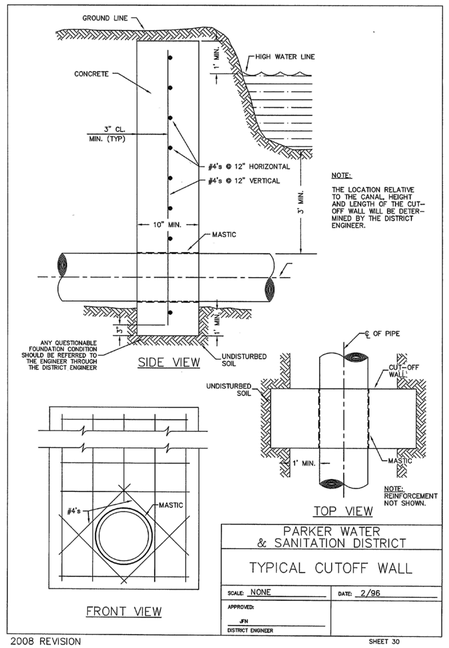
PARKER WATER & SANITATION DISTRICT

BEDDING DETAILS

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

2008 REVISION SHEET 29



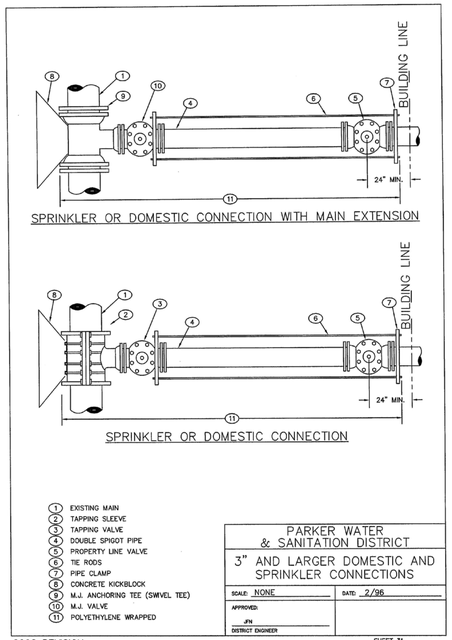
PARKER WATER & SANITATION DISTRICT

TYPICAL CUTOFF WALL

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

2008 REVISION SHEET 30



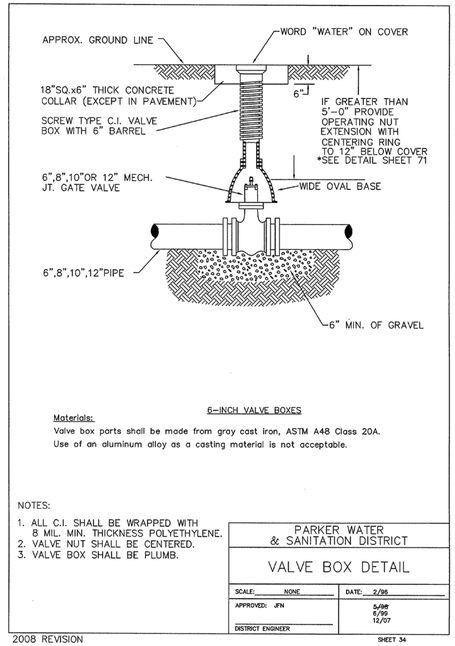
PARKER WATER & SANITATION DISTRICT

3" AND LARGER DOMESTIC AND SPRINKLER CONNECTIONS

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

2008 REVISION SHEET 31



6-INCH VALVE BOXES

Materials:

Valve box parts shall be made from gray cast iron, ASTM A48 Class 20A. Use of an aluminum alloy as a casting material is not acceptable.

NOTES:
1. ALL C.I. SHALL BE WRAPPED WITH 8 MIL. MIN. THICKNESS POLYETHYLENE.
2. VALVE NUT SHALL BE CENTERED.
3. VALVE BOX SHALL BE PLUMB.

PARKER WATER & SANITATION DISTRICT

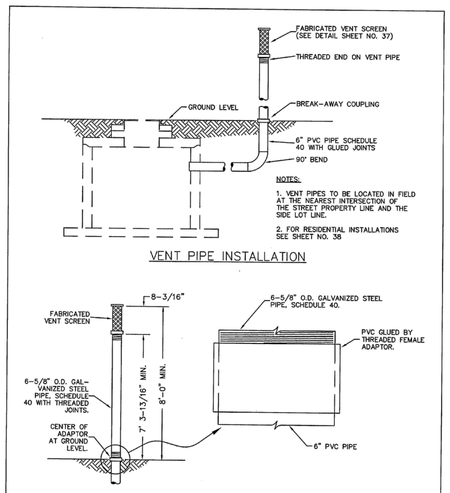
VALVE BOX DETAIL

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

5/98 6/99 12/07

2008 REVISION SHEET 34



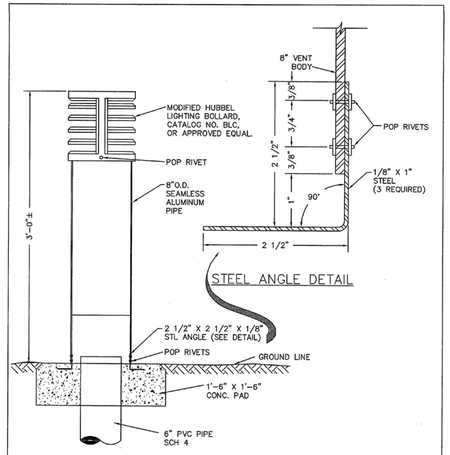
PARKER WATER & SANITATION DISTRICT

VENT PIPE INSTALLATION AND DETAILS

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

2008 REVISION SHEET 36



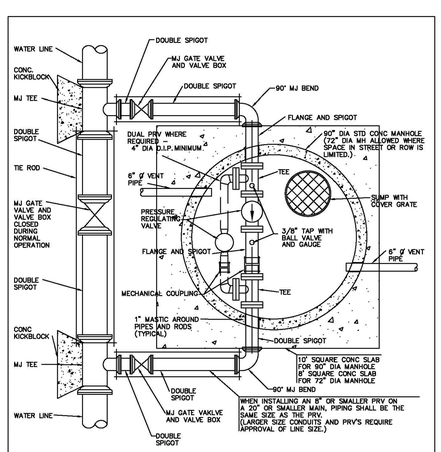
PARKER WATER & SANITATION DISTRICT

RESIDENTIAL VENT ASSEMBLY

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

2008 REVISION SHEET 38



NOTES:
1 – A RECTANGULAR VAULT IS REQUIRED WHERE TELEMETRY OR ELECTRICAL EQUIPMENT IS ANTICIPATED INSIDE THE VAULT.
2 – ACCESS STAIRS WITH DOOR OUTSIDE OF PAVEMENT MAY BE REQUIRED ON STREETS WITH HEAVY TRAFFIC.
3 – FOR ELEVATION VIEW SEE CROSS SECTION DWG SHEET NO. 40
4 – DO NOT PLACE SUMP DIRECTLY UNDER MANHOLE.
5 – POLYETHENE STEPS SHALL BE INSTALLED.

PARKER WATER & SANITATION DISTRICT

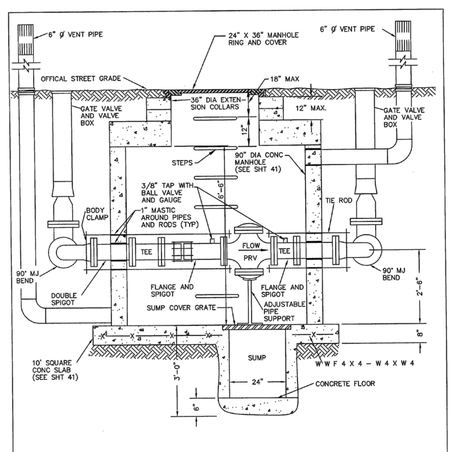
PRESSURE REGULATING VALVE MANHOLE INSTALLATION TYPICAL PLAN

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

2/00 3/03

2008 REVISION SHEET 39



NOTES:
1 – SEE SHT. 41 FOR PLAN VIEW AND ADDITIONAL NOTES.
2 – POLYETHENE STEPS SHALL BE INSTALLED. AND ANY STEPS IN CHIMNEY SECTION SHALL BE INSTALLED AS A HANDHOLD & SHALL NOT IMPEDE ACCESS THRU THE CHIMNEY.

PARKER WATER & SANITATION DISTRICT

PRESSURE REGULATING VALVE MANHOLE INSTALLATION CROSS SECTION

SCALE: NONE DATE: 2/96

APPROVED: JFN DISTRICT ENGINEER

4/01 3/03

2008 REVISION SHEET 40

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\WATER DETAILS.DWG, RYANR, 6/23/2017 12:36 PM

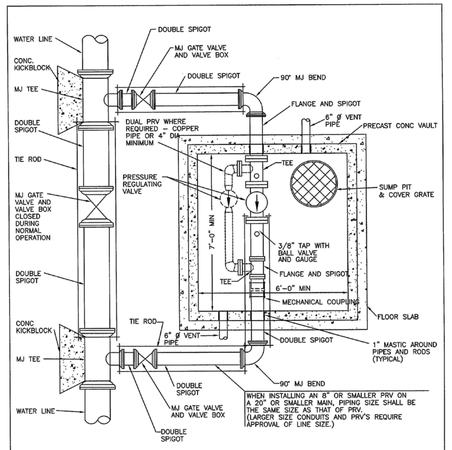
No.	Revisions	Date	Init.	Date	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
WATER DETAILS

SCALE: AS SHOWN
DRAWN BY: JF
CHECKED BY: JJJ
DATE: APRIL 2017
FILE NO: 8130283701
SHEET NUMBER 84



NOTES:

1 – A RECTANGULAR VAULT IS REQUIRED WHERE TELEMETRY OR ELECTRICAL EQUIPMENT INSIDE THE VAULT IS ANTICIPATED.

2 – ACCESS STAIRS WITH DOOR OUTSIDE OF PAVEMENT MAY BE REQUIRED ON STREETS WITH HEAVY TRAFFIC.

3 – FOR ELEVATION VIEW SEE CROSS SECTION DWG SHEET NO. 42.

4 – SUMP PUMP AND VENT FAN REQUIRED IN VAULTS WITH ELECTRICAL OR TELEMETRY EQUIPMENT.

5 – POLYETHENE STEPS SHALL BE INSTALLED.

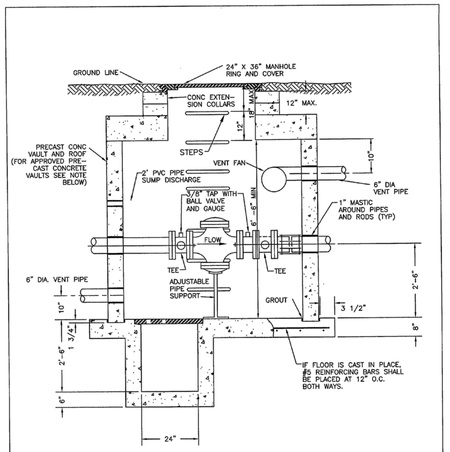
PARKER WATER & SANITATION DISTRICT

PRESSURE REGULATING VALVE
RECTANGULAR VAULT
TYPICAL PLAN

SCALE: NONE	DATE: 2/96
APPROVED: JFN	2/00 3/03
DISTRICT ENGINEER	

2008 REVISION

SHEET 41



NOTES:

1 – APPROVED PRECAST CONCRETE VAULTS ARCO CONC INC – 10' X 10' X 7'- 7080M, 7080 – 12 ADAMS CITY MFG – 11' X 12', 6' 7" X 8'-6", 7' X 12'-6"

2 – A PERMIT IS REQUIRED FOR SUMP PUMP DISCHARGE TO STORM SEWERS.

3 – SEE SHEET 41 FOR PLAN VIEW AND ADDITIONAL NOTES.

4 – POLYETHENE STEPS SHALL BE INSTALLED.

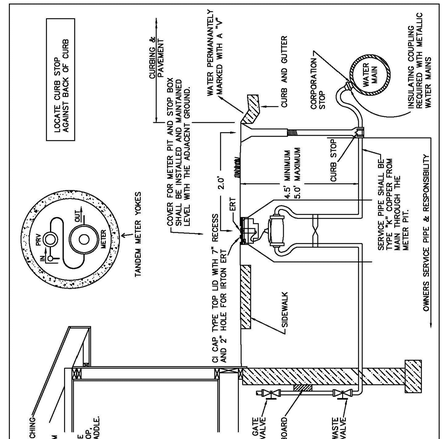
PARKER WATER & SANITATION DISTRICT

PRESSURE REGULATING VALVE
RECTANGULAR VAULT
CROSS SECTION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	4/01 3/03
DISTRICT ENGINEER	

2008 REVISION

SHEET 42



NOTES

1 – PLACEMENT OF STOP BOX MUST BE TOUCHING BACK OF CURB

2 – OWNER'S RESPONSIBILITY SHALL BE FROM THE BUILDING TO THE CURBSTOP

3 – THE DISTRICT'S RESPONSIBILITY SHALL BE FROM THE WATER MAIN, THE CORPORATION STOP, TO THE CURBSTOP AND THE TAPPING SADDLE.

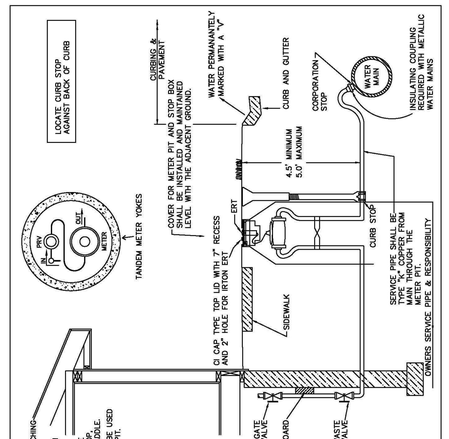
PARKER WATER & SANITATION DISTRICT

SERVICE LINE, STOP BOX AND OUTSIDE METER INSTALLATION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	2/00 5/05 4/01 1/12 01/02 12/03
DISTRICT ENGINEER	

2008 REVISION

SHEET 44



NOTES

1 – PLACEMENT OF STOP BOX MUST BE TOUCHING EDGE OF METER PIT.

2 – OWNER'S RESPONSIBILITY SHALL BE FROM THE BUILDING TO THE CURBSTOP

3 – THE DISTRICT'S RESPONSIBILITY SHALL BE FROM THE WATER MAIN, THE CORPORATION STOP, TO THE CURBSTOP AND THE TAPPING SADDLE.

4 – 1" TYPE "K" COPPER SHALL BE USED TO SECURED CURB STOP BOX TO METER PIT.

PARKER WATER & SANITATION DISTRICT

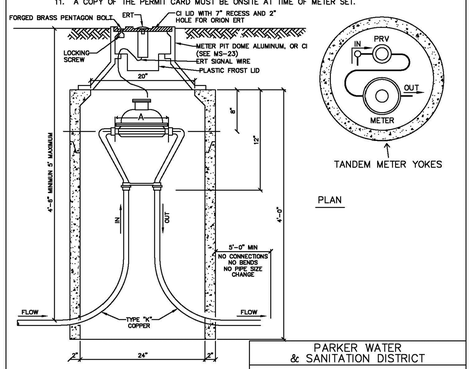
SERVICE LINE, STOP BOX AND OUTSIDE METER INSTALLATION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	2/00 5/05 4/01 1/12 01/02 12/03
DISTRICT ENGINEER	

2008 REVISION

SHEET 44A

1. NOT FOR INSTALLATION IN ROADWAYS, PARKING AREAS OR DRIVEWAYS.
2. IF SURFACE IS NOT TO FINAL GRADE AT TIME OF INSTALLATION OF METER, OWNER MUST RAISE OR LOWER PIT WHEN SURFACE IS GRADED.
3. METER SETTING MUST BE INSPECTED BY THE DISTRICT BEFORE BACKFILLING.
4. LOCATION OF METER TO BE ESTABLISHED BY A DISTRICT REPRESENTATIVE.
5. NO CONCRETE FLOOR TO BE LAID IN METER PIT.
6. METER PIT SHALL BE CONSTRUCTED OF FOUR 12", OR ONE 12" AND ONE 36" RINGS. WALLS SHALL BE 2" THICK.
7. 8" FROM BOTTOM OF BONNET TO YOKE SPREAD FOR METER
8. ADJUSTMENT RINGS SHALL BE 2", 3" 4" OR 6" IN HEIGHT AND SHALL BE INSERTED BETWEEN THE TOP TWO RINGS.
9. NO CONNECTIONS OR CHANGES IN PIPE DIAMETER SHALL BE MADE IN THE METER PIT OR IN THE DISTANCE OF FIVE FEET BEYOND THE METER PIT WALL ON THE OUTLET SIDE.
10. LAWN SPRINKLER CONNECTION SHALL BE A MINIMUM OF FIVE FEET FROM THE METER PIT WALL ON THE OUTLET SIDE.
11. A COPY OF THE PERMIT CARD MUST BE ONSITE AT TIME OF METER SET.



TANDEM METER YOKES

PLAN

METER SIZE	A
5/8" X 3/4"	7 1/2"
1"	11 1/16"

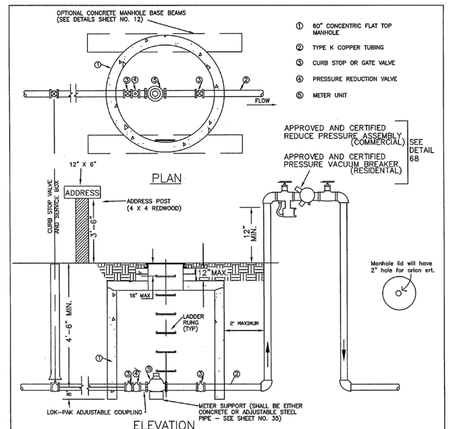
PARKER WATER & SANITATION DISTRICT

ALL OUTSIDE SETTINGS FOR 5/8" X 3/4 & 1" METERS

SCALE: NONE	DATE: 2/96
APPROVED: JFN	01/04 09/05 01/08 01/12
DISTRICT ENGINEER	

2008 REVISION

SHEET 45



① 60" CONCENTRIC FLAT TOP MANHOLE
② TYPE K COPPER TUBING
③ CURB STOP OR GATE VALVE
④ PRESSURE REDUCTION VALVE
⑤ METER UNIT

APPROVED AND CERTIFIED REDUCE PRESSURE ASSEMBLY (COMMERCIAL) SEE DETAIL 68

APPROVED AND CERTIFIED PRESSURE VACUUM BREAKER (RESIDENTIAL)

NOTES:

1 – MANHOLE BASE BEAMS SHALL BE REQUIRED FOR INSTALLATIONS IN DRIVEWAYS, OR PARKING AREAS.

2 – A 60" DIA. MANHOLE PIT WILL ACCOMODATE 1 1/2" AND 2" SPUT BASE METERS.

3 – JOINTS INSIDE METER VAULT SHALL BE EITHER THREADED OR SOLDERED WITH 95–5 TINANTIMONY SOLDER.

4 – SEE SECTION 10.9, WATER SYSTEM SPECIFICATIONS FOR GENERAL METER NOTES.

5 – NO CONCRETE TO BE LAID IN FLOOR OF METER M.H.

6 – METER SHALL BE FLANGED WITH BRASS COMPANION FLANGES.

7 – NO CONNECTIONS OR CHANGES IN PIPE DIAMETER SHALL BE MADE IN THE METER PIT OR IN THE DISTANCE OF FIVE FEET BEYOND THE METER PIT ON THE OUTLET SIDE.

8 – LADDER RUNGS SHALL BE ON OPPOSITE SIDE OF BYPASS.

9 – VALVE MUST BE CENTERED IN STOP BOX. NO DEBRIS OR STANDING WATER IN STOP BOX.

10 – PLACEMENT OF STOP BOX MUST BE TOUCHING BACK OF CURB

11 – SEE SHEET 75 FOR MANHOLE RING AND COVER DETAIL

12 – BACKFLOW MUST BE INSTALLED PRIOR TO SETTING METER

13 – BADGER METER USED BY DISTRICT

METER	YOKE DISTANCE
1.5"	13.25"
2"	17.25" WITH ADJUSTABLE FLANGE FOR GASKET

IRRIGATION ONLY

NOT TO BE USED IN COMMERCIAL WITHOUT EXPRESS PERMISSION OF THE DISTRICT MANAGER.

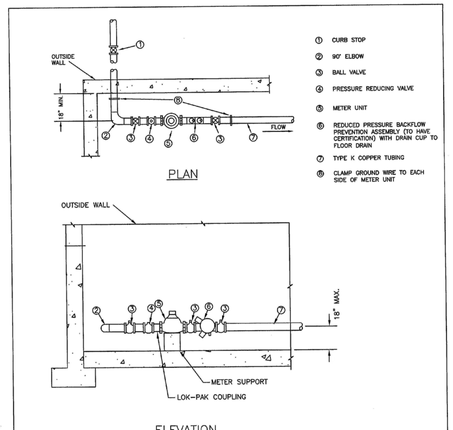
PARKER WATER & SANITATION DISTRICT

OUTSIDE SETTING FOR 1 1/2" & 2" METER FOR IRRIGATION

SCALE: NONE	DATE: 2/96
APPROVED: JFN	1/04 06/05
DISTRICT ENGINEER	

2008 REVISION

SHEET 49



① CURB STOP
② 90° ELBOW
③ BALL VALVE
④ PRESSURE REDUCING VALVE
⑤ METER UNIT
⑥ REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY (TO HAVE CERTIFICATION) WITH DRAIN CUP TO FLOOR DRAIN
⑦ TYPE K COPPER TUBING
⑧ CLAMP GROUND WIRE TO EACH SIDE OF METER UNIT

NOTES

1 – PIPE JOINT SHALL BE THREADED OR SOLDERED WITH SILVER SOLDER.

2 – INSTALLATION MUST ALLOW ACCESS FOR MAINTENANCE AND BE PROTECTED FROM FREEZING.

3 – SEE SECTION 10.9, WATER SYSTEM SPECIFICATIONS FOR GENERAL METER NOTES.

4 – COMPANION FLANGES SHALL BE BRASS.

5 – METER SUPPORT SHALL BE EITHER CONCRETE OR ADJ. STEEL PIPE (SEE SHEET NO. 34)

6 – 1.0' MINIMUM CLEARANCE AROUND BACKFLOW DEVICE

7 – FLOOR DRAIN TO BE 2X PIPE SIZE

*8 – INSIDE METER WITH CHECK VALVE ONLY INSTALLED WITH EXPRESSED WRITTEN PERMISSION OF THE DISTRICT

METER	YOKE DISTANCE
1.5"	13.25"
2"	17.25" WITH ADJUSTABLE FLANGE FOR GASKET

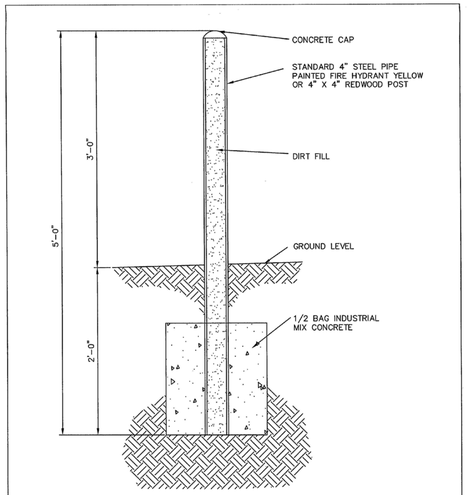
PARKER WATER & SANITATION DISTRICT

INSIDE SETTING FOR 1 1/2" & 2" METER WITH CHECK VALVE

SCALE: NONE	DATE: 2/96
APPROVED: JFN	8/99 01/02 2/00 05/05 4/01 07/06
DISTRICT ENGINEER	

2008 REVISION

SHEET 51



MARKER POST DETAIL

STEEL PIPE
STENCILED IDENTIFICATION MARKS ON POSTS SHALL FACE THE APPURTENANCE, WITH 2" STENCILS INDICATING TYPE OF APPURTENANCE (MH, 12" VALVE, ETC.) AND THE DISTANCE IN FEET AND INCHES FROM POST.

REDWOOD POST
ROUTER LETTERS AND NUMBERS INTO POST. PAINT LETTERS AND NUMBERS BLACK.

PARKER WATER AND SANITATION DISTRICT

MARKER POST

SCALE: NONE	DATE: 2/96
APPROVED: JFN	2/00 4/01 12/07
DISTRICT ENGINEER	

2008 REVISION

SHEET 58

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\WATER DETAILS.DWG, RYANR, 6/23/2017 12:36 PM

No.	Revisions	Date	Init.	Appr.	Date

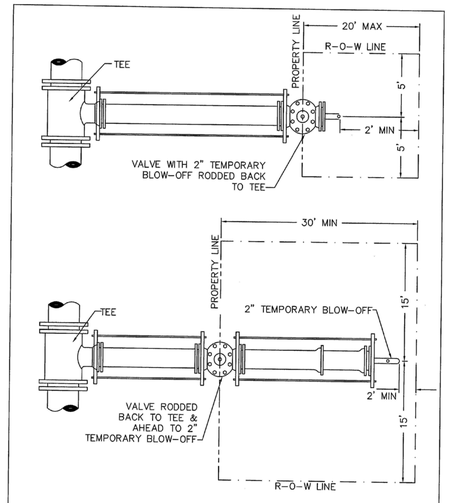
CVL CONSULTANTS
10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
WATER DETAILS

SCALE: AS SHOWN
FILE NO: 8130283701
DRAWN BY: JF
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER 85



PARKER WATER & SANITATION DISTRICT

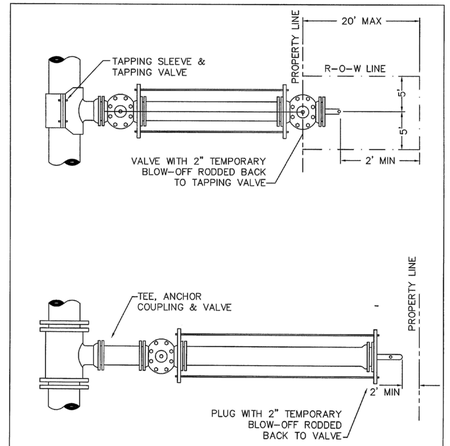
STUB-OUT CONFIGURATIONS

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER

2008 REVISION

SHEET 59



PARKER WATER & SANITATION DISTRICT

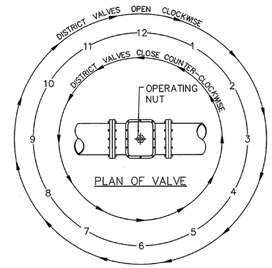
STUB-OUT CONFIGURATIONS

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER

2008 REVISION

SHEET 60



NOTE:
NORMALLY VALVES WITH A RED OPERATING NUT INDICATE A STANDARD DENVER VALVE.

VALVE OPENING & CLOSING PROCEDURE

PARKER WATER & SANITATION DISTRICT

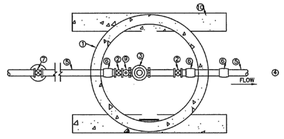
VALVE OPERATION

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER

2008 REVISION

SHEET 61



PLAN

1. 60" DIA. CONCRETE MANHOLE
2. CURB STOP VALVE
3. METER UNIT
4. APPROVED AND CERTIFIED REDUCED PRESSURE BACKFLOW PREVENTER INSTALLED DIRECTLY AFTER MANHOLE
5. TYPE K COPPER TUBING
6. SILVER-SOLDERED COPPER TO IRON COUPLING OR D.W.D. APPOVED EQUAL
7. CURB STOP VALVE AND SERVICE BOX MUST BE CENTERED AND FREE OF DEBRIS
8. FLANGE TO MATCH METER UNIT
9. APPROVED PRESSURE REDUCTION VALVE
10. OPTIONAL CONCRETE MANHOLE BASE BEAMS

NOTES:

1. DASHED LINES REPRESENT THE 2" METER PIPING PLAN
2. OUTSIDE METER SETTING ONLY ALLOWED WITH EXPRESSED WRITTEN PERMISSION OF THE DISTRICT.
3. SILVER SOLDER ALL JOINTS.

PARKER WATER & SANITATION DISTRICT

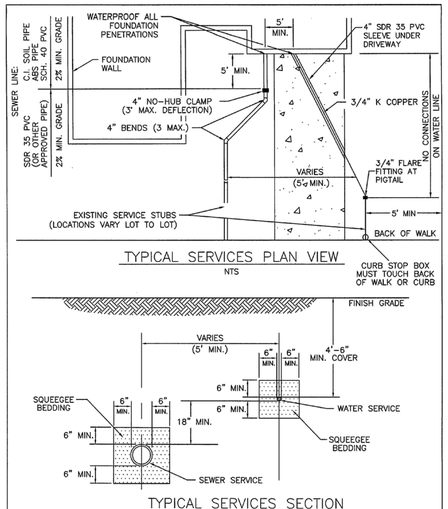
OUTSIDE SETTING FOR 1 1/2" & 2" METER

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER | 1/04, 06/05

2008 REVISION

SHEET 62



TYPICAL SERVICES PLAN VIEW

NTS

TYPICAL SERVICES SECTION

NTS

NOTE

SEE SHEET 67 OF 68 FOR DISTRICT POLICIES AND INSTALLATION NOTES.

PARKER WATER & SANITATION DISTRICT

TYPICAL WATER SERVICES

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER | 1/04, 06/05, 12/07

2008 REVISION

SHEET 66

INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE (303)841-2058 AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR SERVICE FAILS, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A $60 RE-INSPECTION FEE CHARGED.
4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
7. LOTS WITHOUT BULDING ADDRESSES OR LOT AND BLOCK NUMBERS BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
8. CONTRACTOR MUST BE PRESSENT AT TIME OF INSPECTION.

INSTALLATION NOTES:

WATER

1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
2. APPROVED BEDDING TO BE SQUEEGEE.
3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STUB-IN AND BUILDING. A COUPLING MAY BE EITHER FLARED OR SILVER-SOLDERED. COMPRESSION COUPLINGS WILL NOT BE ALLOWED. MOVED CURB BOXES MUST BE INSPECTED BY PWSD PRIOR TO BURIAL.
4. A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 90°± ANGLE MAXIMUM, 45° ANGLE MINIMUM. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18" ABOVE SEWER SERVICE.
5. WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD. CRAW SPACE REQUIRES CONTINOUS COPPER WITH A 1' BURY.
6. STOPBOX MUST BE PLUMB AND CENTERED OVER NUT AT THE BACK OF CURB, AND MUST BE SET AT OR SLIGHTLY ABOVE FINISHED GRADE.
7. STOPBOXES MUST BE SET AT BACK OF SIDEWALK OR CURB (MUST BE TOUCHING).
8. NO CRAWLSPACE MOUNTED METERS ALLOWED.
9. WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
10. NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
11. CURBSTOP BOXES CANNOT BE IN DRIVEWAYS.
12. WATERLINES PASSING UNDER DRIVEWAYS NEED TO BE SLEEVED IN 4" P.V.C. AND HAVE EXPRESS PERMISSION OF THE DISTRICT.
13. YOKES SHOULD BE MOUNTED NO GREATER THAN 6 INCHES ABOVE BOTTOM SHUTTOFF. EACH SERVICE MUST INCLUDE A STOP AND WASTE VALVE AND A PRESSURE REDUCING VALVE LOCATED WITHIN THE ABOVE REFERENCED 6 INCH SPACE.
14. NO SPLICES OR FLARED COUPLINGS ALLOWED ON SERVICES LARGER THAN 3/4". SILVER SOLDIERED JOINTS MUST BE USED IN MOVING STOPBOXES ON SERVICES LARGER THAN 3/4". SILVER SOLDIERED JOINTS MUST BE INSPECTED BY PWSD PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
15. ONLY 3/4" (JUMPER OR CHEATER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER OR CHEATER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
16. ALL SERVICES WILL BE PERMANANTELY MARKED ON CURB FACE AS FOLLOWS: "X" FOR SANITARY SEWER SERVICE "V" FOR WATER SERVICES
17. CONTRACTOR MUST BE PRESENT AT TIME OF THE INSPECTION

PARKER WATER & SANITATION DISTRICT

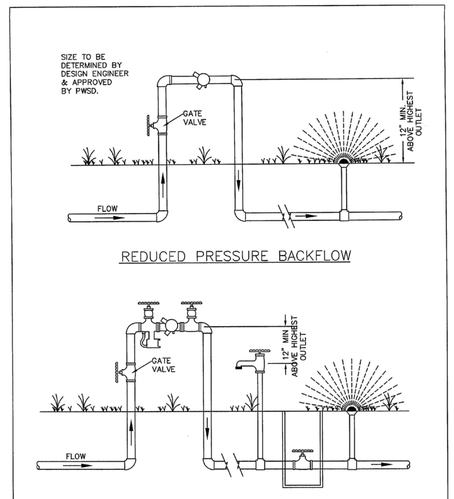
DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER | 1/04

2008 REVISION

SHEET 67



REDUCED PRESSURE BACKFLOW

REDUCED PRESSURE BACKFLOW ON IRRIGATION SYSTEM

* NOTE:
ALL IRRIGATION SYSTEMS MUST BE CONNECTED DOWN STREAM OF METER.

PARKER WATER & SANITATION DISTRICT

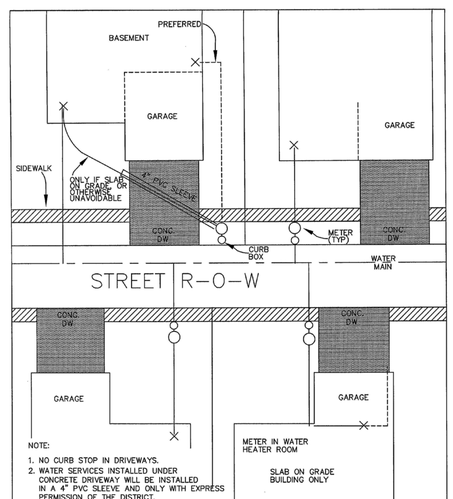
REDUCED PRESSURE BACKFLOW

SCALE: NONE | DATE: 2/96

APPROVED: JFN, DISTRICT ENGINEER | 2004, 06/05

2008 REVISION

SHEET 68



NOTE:

1. NO CURB STOP IN DRIVEWAYS.
2. WATER SERVICES INSTALLED UNDER CONCRETE DRIVEWAY WILL BE INSTALLED IN A 4" PVC SLEEVE AND ONLY WITH EXPRESS PERMISSION OF THE DISTRICT.
3. ALSO SEE SHEET 46&47 WATER DETAILS.
4. CURB STOP MUST BE IN CONTACT WITH BACK OF WALK.
5. WATERLINE MUST BE CAULKED AT ENTRY THROUGH CONCRETE.
6. WATER LINE THROUGH CRAWL SPACE MUST BE CONTINOUS COPPER AND AT A 1' MIN. BURY.

PARKER WATER & SANITATION DISTRICT

METER/REMOTE LOCATIONS

SCALE: NONE | DATE: 4/98

APPROVED: JFN, DISTRICT ENGINEER | 1/04, 06/05

2008 REVISION

SHEET 69

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HESS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\WATER DETAILS.DWG, RYANR, 6/23/2017 12:36 PM

No.	Revisions	Date	Init.	Date	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
WATER DETAILS

SCALE: AS SHOWN | FILE NO: 8130283701

DRAWN BY: JF | CHECKED BY: JJJ | DATE: APRIL 2017

SHEET NUMBER 86

TYPICAL SECTION

NTS

NOTES:
1. ALL CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3,000 PSI USING TYPE I PORTLAND CEMENT AND 3/4" AGGREGATE. ALL CONCRETE SHALL HAVE 5-7% ENTRAINED AIR CONTENT AND A MAXIMUM SLUMP OF 4".
2. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615,GRADE 60.
3. ALL REINFORCEMENT SHALL HAVE 2" MIN. CONCRETE COVER.
4. THE SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY PRIOR TO FORMING THE STRUCTURE.

PARKER WATER & SANITATION DISTRICT	
WATERLINE ENCASEMENT	
SCALE: NONE	DATE: 5/98
APPROVED: JFN DISTRICT ENGINEER	

2008 REVISION

SHEET 70

SECTION

PLAN

NOTES:
1. AN "I" WILL BE PERMANENTELY MARKED ON CURB FACE OVER FIRE LINE.
2. DOMESTIC WATER SERVICE SHALL BE INSTALLED A MINIMUM OF FIVE (5) FEET FROM THE FIRE LINE.
3. SANITARY SEWER SERVICE SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET FROM THE WATER SERVICE (EITHER DOMESTIC OR FIRE LINE).

PARKER WATER & SANITATION DISTRICT	
RESIDENTIAL FIRE LINES	
SCALE: NONE	DATE: 8/99
APPROVED: RJG DISTRICT ENGINEER	2/00 08/05 12/07

2008 REVISION

SHEET 73

NOTE:
1. Casting Specifications: ASTM A-48 With A Minimum Tensile Strength Of 25 KSI (Class 25)
2. All Casting To Be Dipped In Asphalt Base Paint (Or Approved Equal).

PARKER WATER & SANITATION DISTRICT	
24" DIAMETER RING AND COVER	
SCALE: NONE	DATE: 6/05
APPROVED: JFN DISTRICT ENGINEER	12/07

2008 REVISION

SHEET 75

No.	Revisions	Date	Init.	Appr.	Date

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546
CVL CONSULTANTS

E5X MANAGEMENT
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
PRELIMINARY CONSTRUCTION DRAWINGS
WATER DETAILS

SHEET NUMBER	DRAWN BY: JF	SCALE: AS SHOWN
87	CHECKED BY: JJJ	FILE NO: 8130283701
	DATE: APRIL 2017	

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987
UNCC UTILITY NOTIFICATION CENTER OF COLORADO

N:\PROJECTS\HEISS RANCH\CAD\ENGINEERING\SHEET SETS\PRELIMINARY\PARKER WATER AND SANITATION\WATER DETAILS.DWG, RYANR, 6/23/2017 12:36 PM