ALDRIDGE TRANSPORTATION CONSULTANTS, LLC

Advanced Transportation Planning and Traffic Engineering

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February 29, 2024

Mr. Brad Willet
Brad@wildercolorado.com.

RE: Traffic Impact Study
Parker Pointe – Parker, CO

Dear Mr. Willet:

Aldridge Transportation Consultants (ATC) is pleased to present this Master Traffic Impact Study for the proposed Parker Pointe in Parker, Colorado.

ATC is professional service firm specializing in traffic engineering and transportation planning. ATC's principal, John M.W. Aldridge is a Colorado licensed professional engineer. In the past 20 years, ATC has prepared over 1,500 traffic impact studies, designed over 100 traffic signals, and has provided expert witness testimony on engineering design and access issues on multi-million-dollar interchange and highway projects in Kansas and Colorado.

ATC appreciates the opportunity to be of service. Please call if you have any questions. We can be reached at 303-703-9112.

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Respectfully submitted,
Aldridge Transportation Consultants, LLC

John M.W. Aldridge, P.E.
Principal

1. Introduction/Project Description

This study analyzes the impact of the site generated traffic of a new commercial/retail development project known as Parker Pointe located on the SEC of Stroh Road and Parker Road in Douglas County. Figure 1 shows the location of the site, access locations and type, and surrounding streets and intersections.

Figure 1 Project Vicinity and Site Plan

The site is approximately 14 acres and zoned for commercial development. The site will contain lots for general commercial/retail uses that include a myriad of uses such as fast-food, coffee shops, gas stations and convenience stores, day care, bank, and a quick lubrication vehicle shop.

Three accesses are proposed. From Parker Road at approximately 550 feet south of Stroh Road a right in/right out only access. On Stroh Road at approximately 250 east of Parker Road a right in only access, and at approximately 700 feet and directly opposite Reata Ridge Dr., a full-movement access.

Since 2018 several improvements have been made to the Parker/Stroh intersection to accommodate the new Stroh Crossing commercial/retail development on the northeast corner. The improvements include channelized free right turn for the westbound to northbound movement, two through lanes, an exclusive left turn lane, a new northbound right turn lane (which was previously a shared through and right turn lane) and accompanying traffic signal modifications.

With this project a right turn channelizing traffic island will be constructed to contain the existing signal pole in place and a new pedestrian push button post. A new eastbound through lane will also be constructed that will become a right turn only lane at the site access opposite the road serving Stroh Crossing. In addition, a southbound to eastbound left turn lane will be added to the Stroh/Parker intersection to form a dual left turn configuration.

2. Existing Conditions

Parker Road is State Highway 83 and the State Highway Access Code governs access. In addition, the SH-83/SH-86 Access Control Plan defines the type and location of access under an agreement with CDOT, counties, and communities within the corridor. Parker Road is a six-lane principal arterial that currently carries 33,000 AADT per the latest CDOT OTIS website. The posted speed limit is 55 mph. The Code defines it as an NR-A highway. A 30-foot grassy median divides the highway.

On the east side of Parker Road, Stroh Road is a two-lane minor arterial that currently carries approximately 2,000 AADT if the PM peak hour is 10 percent of the daily volume. On the west side, Stroh Road is a four-lane roadway carrying approximately 11,000 AADT. The westbound approach contains two through lanes, and exclusive right and left turn lanes. The eastbound approach includes an exclusive left turn lane and a shared through/left turn lane that will be striped to form a dual left turn lane and a single through lane when the second through receiving lane is constructed on the west side. The eastbound to southbound right turn lane is channelized and operates freely with a southbound acceleration lane.

3. Proposed Conditions

The site plan includes approximately 70,000 square feet of commercial and retail land uses. The trip generation rates for the uses are from the ***ITE Trip Generation Manual, 11th Edition.*** The following table provides the ADT and AM/PM Peak Hour traffic volumes.

Trip Generation Worksheet

ITE Code	Land Use	Unit	Quantity	ADT	AM In	AM Out	PM In	PM Out
720	Medical Office	KSF	30	*36.00*	*2.45*	*0.65*	*1.18*	*2.75*
				1080	**74**	**20**	**35**	**83**
934	Fast-Food	KSF	4.8	*467.48*	*22.75*	*21.86*	*17.18*	*15.85*
	McDonald's			**2242**	**109**	**105**	**82**	**76**
945	Gas Statiion	Fueling	8	*265.12*	*8.03*	*8.03*	*9.21*	*9.21*
	w/Convenience Store	Positions		**2121**	**64**	**64**	**74**	**74**
912	Bank	KSF	5	*100.36*	*5.77*	*4.18*	*10.50*	*10.50*
				502	**29**	**21**	**53**	**53**
565	Day Care	KSF	5	*47.62*	*5.83*	*5.17*	*5.23*	*5.89*
				238	**29**	**26**	**26**	**29**
941	Quick Lube Vehicle Stop	Service	2	*40.00*	*2.01*	*0.99*	*2.72*	*2.13*
		Positions		**80**	**4**	**2**	**5**	**4**
945	Fast-Food	KSF	4	*467.48*	*22.75*	*21.86*	*17.18*	*15.85*
				1870	**91**	**87**	**69**	**63**
948	Car-Wash	Tunnels	1				*39.00*	*39.00*
							39	**39**
945	Coffee/Donut Shop	KSF	2	*533.67*	*43.80*	*42.08*	*19.50*	*19.50*
	w/Drive Thru			**1067**	**88**	**84**	**39**	**39**
Total Trips				**9200**	**487**	**409**	**422**	**460**

With this mix of uses, internal capture can be expected. In this case, based on the NCHRP 684 Internal Capture Estimation Tool a trip reduction of approximately 10 percent is anticipated.

The PM peak hour is the highest time of travel on the adjacent streets and at the intersections and therefore considered the design hour volume (DHV) for operations analysis and geometric design purposes.

About distribution, for the inbound movements, 40 percent of the commercial/retail traffic will turn left at the intersection and turn into the right in only access from Stroh Road. 20 percent will enter the right in only coming from the west on Stroh Road. Ten percent will turn left at the full movement access on Stroh Road. 30 percent will enter by turning right from northbound Parker at the right in/right out access. The outbound movements basically mirror the inbound. Figure 2 shows the distribution percentage and trip assignment. Note that while other movements may carry some of the site generated traffic these are considered nominal.

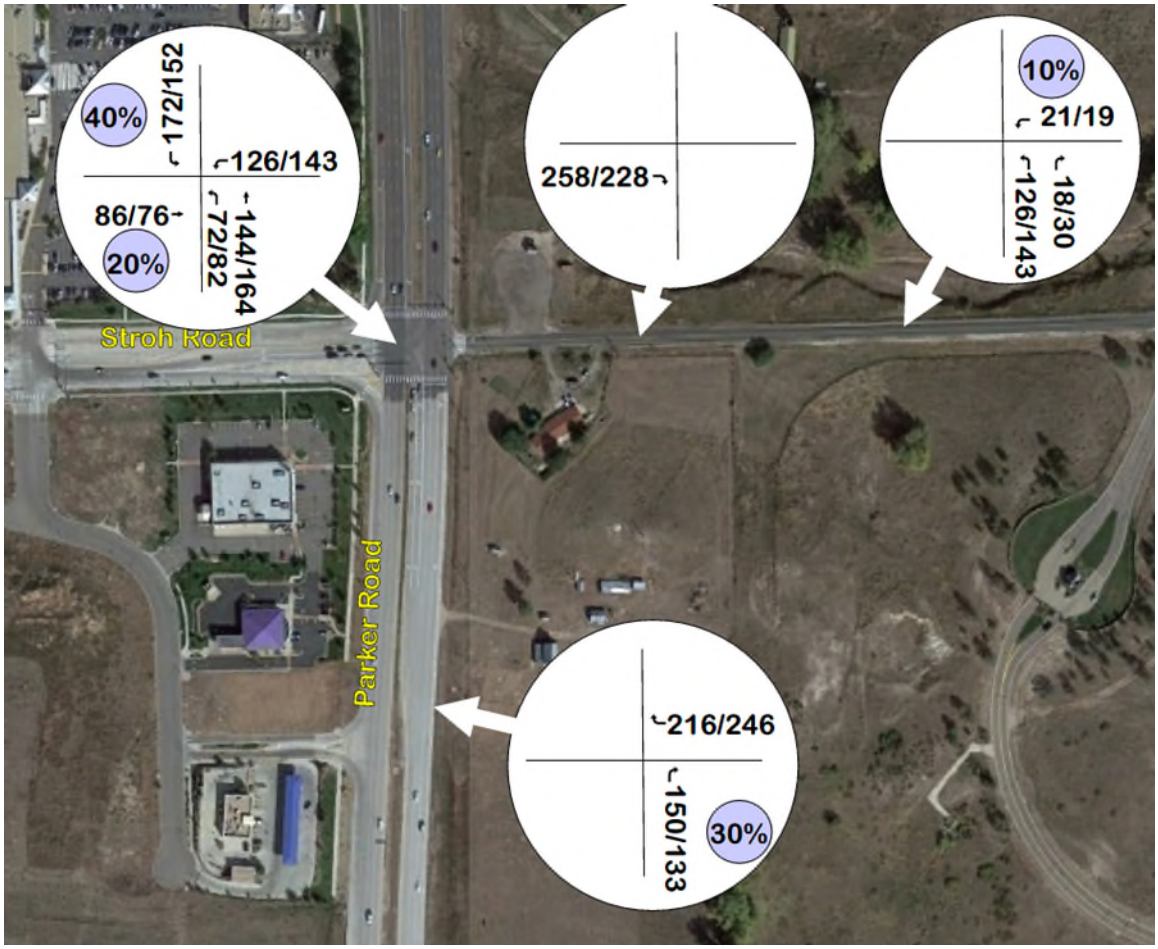


Figure 3 Trip Distribution & Assignment

4. Future Conditions

According to CDOT 20-year growth rate, traffic on Parker Road is expected to increase by a factor of 1.23. This factor was applied as well to Stroh Road for the 5-year and 20-year analysis of traffic conditions. The near-term (within 5 years) background traffic growth assumed a growth factor of 1.05 on Parker Road and the western section of Stroh Road.

Figures 5 through 13 show the near-term 5-year AM and PM with and without the project and the 20-year long-term AM and PM with and without the project.

5. Site Circulation and Design Evaluation

ATC uses Synchro v.11 for operations analyses. The Synchro v.11 methodology is based on the Highway Capacity Manual, 6th Edition (HCM). The Synchro HCM reports are attached for reference. The chart summarizes the forecast near-term and 2044 LOS (level of service). LOS is letter rating from A to F. LOS A indicates free-flow traffic conditions and no delay at intersections. LOS F is heavy traffic congestion with significant delay. LOS is provided for the overall operations at signalized intersections. LOS D is generally the benchmark for acceptable signalized intersection operations during the weekday peak hours. The critical movement, not the overall, provides the LOS rating for unsignalized intersections. The critical movement is generally a left turn from the minor approach. Caution is advised when evaluating the LOS at unsignalized intersections particularly when LOS F shows. In cases of an LOS F, the HCM[1] suggests that other evaluation measures should be considered such as the volume over capacity ratio and 95th percentile queue length to make the most effective traffic control decision. LOS F at unsignalized intersections is often normal for the average weekday peak hour.

The HCM does not analyze intersections without a stop condition. So, the right in only access on Stroh Road is not included in the table. Additionally, the HCM does not analyze a right in/right out movement if there are 3 through lanes or more on the mainline. Consequently, the right in/right out on Parker Road is not included in the table.

LOS Summary
(LOS/Seconds of Delay)

	Existing		2029 w/o Project		2029 with Project		2044 w/o Project		2044 with Project	
Intersection	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Parker/Stroh (Signalized)	C/26.6	C/32.6	C/26.6	C/32.6	D/40.9	D/36.1	D/38.3	C/33.0	E/60.9	D/51.2
Stroh/Full-Movement	B/10.2	B/10.1	B/10.2	B/10.1	B/14.0	B/13.6	B/10.7	B/10.6	C/16.3	C/15.8

The Parker/Stroh signalized intersection will continue to provide an acceptable level of service (LOS C and D) in the 2029 with and without the project conditions. In the long-term 2044 future the intersection will operate at LOS D/C without the project and LOS E and D with the project.

[1] Highway Capacity Manual 2010 page 19-40

The Reata Ridge Dr./Stroh Road full movement intersection will operate at LOS B in the 2029 future with and without the project. In 2044 the intersection will operate at LOS B without the project and LOS C with the project.

The Colorado Golf Club representatives had a special concern regarding the implementation of a southbound dual left turn lane at the Parker/Stroh intersection. Though it is not warranted by volume, a dual left turn will be constructed.

The Synchro graphics and reports are provided in the appendix for reference.

6. Proposed Mitigation Measures

Based on the analysis, traffic generated by project can be easily absorbed and will not cause a safety or operational problem on the adjacent streets and intersections. The proposed access locations are the best engineering fit for the parcel's configuration and for matching to the internal street layout. The following improvements are recommended.

1. Full movement access by forming the south leg of the Stroh Road at Reata Ridge Dr. intersection is critical for traffic exiting the site to head southbound on Parker Road. This access, located approximately 700 feet east of Parker Road, will be connected to the eastern edge of the shopping center property via a short roadway parallel to Stroh Road. No deceleration or acceleration turn lanes are necessary at this intersection. Stroh Road is posted at 40 mph and would be considered an NR-C by access code standards. The town defers to the access code standards for acceleration and deceleration lanes. In this case, a right turn deceleration lane would be warranted with a turning volume of greater than 50 vph. The turning volume is projected to be zero as all the right turn in traffic will make the movement at the western right in only access. The left turn deceleration lane would be warranted with 25 vph. The maximum projected left turn volume is 21 vph.

2. A right in/right access located approximately 550 feet south of Stroh Road. A right turn deceleration lane of 600 feet will be required. A right turn acceleration lane is warranted but will overlap with the new northbound to eastbound right turn lane forming a continuous turn lane.

3. A right in only access located approximately 250 feet will serve as the primary entry for traffic from southbound Parker Road and eastbound Stroh Road. The outside lane on the new roadway cross-section will serve as the deceleration lane.

7. Conclusions/Recommendations

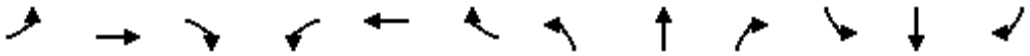
This analysis finds that the trip generation from the proposed project and the recommended roadway and intersection improvements will operate efficiently at an acceptable level of service.

APPENDIX

PARKER POINTE **EX AM**

JMWA **02/28/2024**

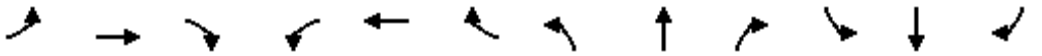
Aldridge Transportation Consultants, LLC **-**



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	445	38	182	22	27	43	332	1901	36	55	892	448
v/c Ratio	0.77	0.09	0.34	0.17	0.11	0.12	0.62	0.83	0.04	0.32	0.48	0.52
Control Delay	45.7	30.1	2.9	41.4	40.0	0.7	40.4	28.9	0.1	42.4	24.7	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	30.1	2.9	41.4	40.0	0.7	40.4	28.9	0.1	42.4	24.7	5.0
Queue Length 50th (ft)	124	15	0	12	7	0	91	378	0	30	149	0
Queue Length 95th (ft)	176	47	17	35	21	0	129	#535	0	65	205	71
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	610	425	558	314	629	491	541	2302	816	170	1858	862
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.09	0.33	0.07	0.04	0.09	0.61	0.83	0.04	0.32	0.48	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	409	35	167	20	25	40	305	1749	33	51	821	412
Future Volume (veh/h)	409	35	167	20	25	40	305	1749	33	51	821	412
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	445	38	0	22	27	0	332	1901	36	55	892	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	528	276		79	140		404	2562	795	70	2167	
Arrive On Green	0.15	0.15	0.00	0.04	0.04	0.00	0.12	0.50	0.50	0.04	0.42	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	445	38	0	22	27	0	332	1901	36	55	892	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	11.3	1.6	0.0	1.1	0.7	0.0	8.4	26.6	1.0	2.8	11.0	0.0
Cycle Q Clear(g_c), s	11.3	1.6	0.0	1.1	0.7	0.0	8.4	26.6	1.0	2.8	11.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	528	276		79	140		404	2562	795	70	2167	
V/C Ratio(X)	0.84	0.14		0.28	0.19		0.82	0.74	0.05	0.78	0.41	
Avail Cap(c_a), veh/h	614	333		317	632		422	2562	795	79	2167	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.1	33.4	0.0	41.6	41.8	0.0	38.8	17.8	11.4	42.8	18.1	0.0
Incr Delay (d2), s/veh	9.2	0.2	0.0	1.9	0.7	0.0	11.9	2.0	0.1	35.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.7	0.0	0.5	0.3	0.0	4.0	9.0	0.4	1.8	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	33.6	0.0	43.5	42.5	0.0	50.7	19.8	11.5	78.1	18.6	0.0
LnGrp LOS	D	C		D	D		D	B	B	E	B	
Approach Vol, veh/h		483			49			2269			947	
Approach Delay, s/veh		45.3			42.9			24.2			22.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	51.2	10.0	19.3	16.5	44.2	19.7	9.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	4.0	30.0	16.0	16.0	11.0	23.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	4.8	28.6	3.1	3.6	10.4	13.0	13.3	2.7
Green Ext Time (p_c), s	0.0	1.2	0.0	0.1	0.1	3.8	0.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

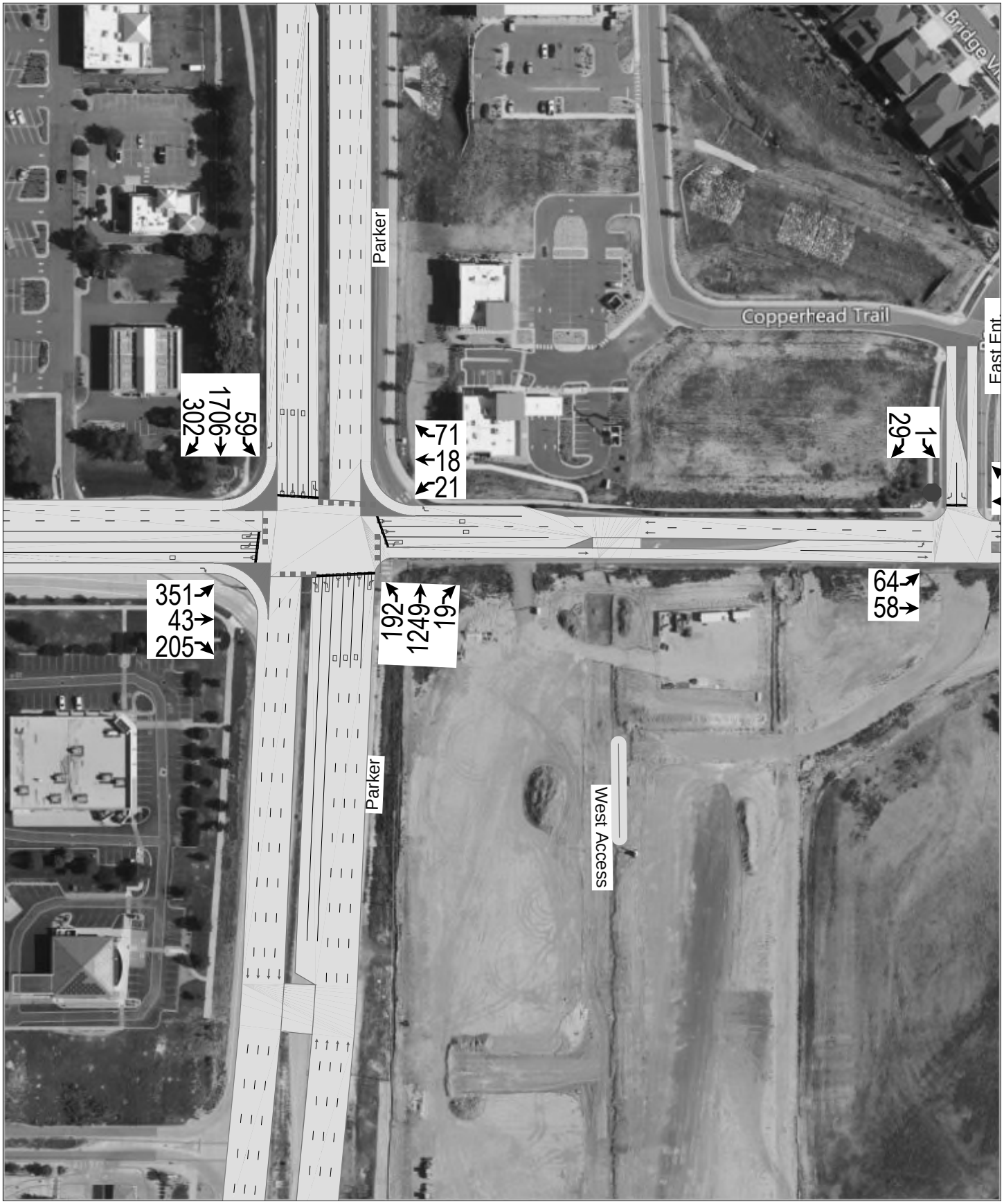
Intersection	
Int Delay, s/veh	3.5

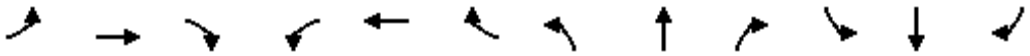
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	58	80	47	2	3	39
Future Vol, veh/h	58	80	47	2	3	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	87	51	2	3	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	264	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	213	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1553	-	-	-	725	1017
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	695	1017
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1553	-	-	-	695	1017
HCM Lane V/C Ratio	0.041	-	-	-	0.005	0.042
HCM Control Delay (s)	7.4	-	-	-	10.2	8.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1


Parker
Copperhead Trail
East Ent.
59
1706
302
71
18
21
1
29
351
43
205
192
1249
19
64
58
Parker
West Access



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	382	47	223	23	20	77	209	1358	21	64	1854	328
v/c Ratio	0.70	0.12	0.44	0.17	0.08	0.28	0.39	0.58	0.03	0.37	0.97	0.41
Control Delay	42.8	30.9	8.1	41.4	39.9	2.5	37.0	21.8	0.1	43.5	44.2	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	30.9	8.1	41.4	39.9	2.5	37.0	21.8	0.1	43.5	44.2	4.7
Queue Length 50th (ft)	105	19	0	13	5	0	56	225	0	35	~418	3
Queue Length 95th (ft)	151	54	61	36	17	0	90	303	0	72	#535	60
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	610	414	525	314	629	431	534	2344	827	173	1914	794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.11	0.42	0.07	0.03	0.18	0.39	0.58	0.03	0.37	0.97	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	43	205	21	18	71	192	1249	19	59	1706	302
Future Volume (veh/h)	351	43	205	21	18	71	192	1249	19	59	1706	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	382	47	0	23	20	0	209	1358	21	64	1854	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	470	245		79	141		154	2612	811	82	2621	
Arrive On Green	0.14	0.13	0.00	0.04	0.04	0.00	0.04	0.51	0.51	0.05	0.51	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	382	47	0	23	20	0	209	1358	21	64	1854	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	9.7	2.0	0.0	1.1	0.5	0.0	4.0	15.9	0.6	3.2	25.0	0.0
Cycle Q Clear(g_c), s	9.7	2.0	0.0	1.1	0.5	0.0	4.0	15.9	0.6	3.2	25.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	245		79	141		154	2612	811	82	2621	
V/C Ratio(X)	0.81	0.19		0.29	0.14		1.36	0.52	0.03	0.78	0.71	
Avail Cap(c_a), veh/h	614	333		317	632		154	2612	811	119	2621	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.8	34.8	0.0	41.6	41.7	0.0	43.0	14.6	10.9	42.5	16.7	0.0
Incr Delay (d2), s/veh	6.3	0.4	0.0	2.0	0.5	0.0	198.5	0.7	0.1	18.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.9	0.0	0.5	0.2	0.0	5.8	5.2	0.2	1.7	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	35.2	0.0	43.6	42.2	0.0	241.5	15.4	10.9	60.5	18.4	0.0
LnGrp LOS	D	D		D	D		F	B	B	E	B	
Approach Vol, veh/h		429			43			1588			1918	
Approach Delay, s/veh		43.1			43.0			45.1			19.8	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	52.0	10.0	17.8	10.0	52.2	18.2	9.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	6.0	28.0	16.0	16.0	4.0	30.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	5.2	17.9	3.1	4.0	6.0	27.0	11.7	2.5
Green Ext Time (p_c), s	0.0	5.7	0.0	0.1	0.0	2.5	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

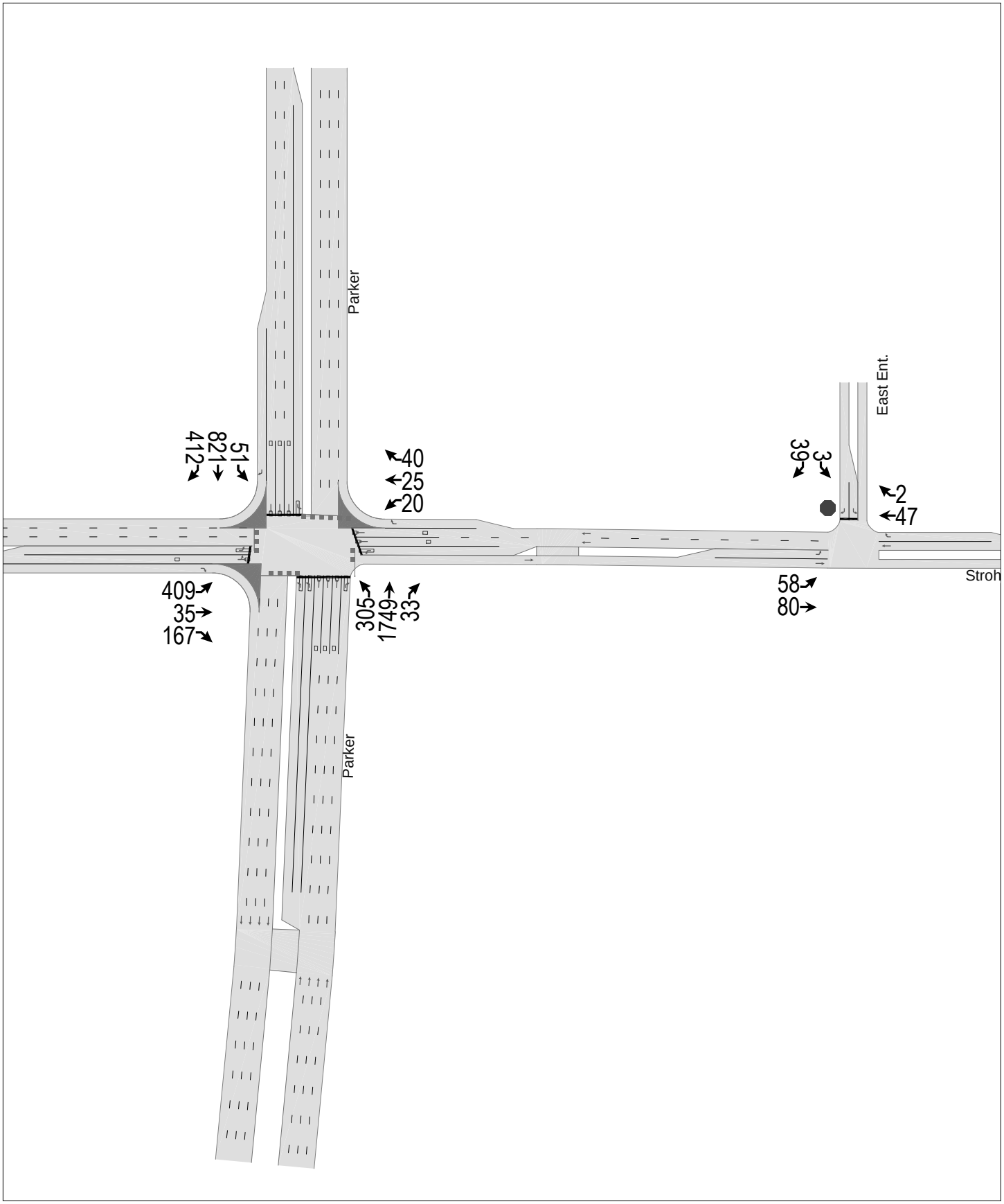
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	58	41	4	1	29
Future Vol, veh/h	64	58	41	4	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	63	45	4	1	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	248	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1558	-	-	-	740	1025
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1558	-	-	-	707	1025
Mov Cap-2 Maneuver	-	-	-	-	707	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	831	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1558	-	-	-	707	1025
HCM Lane V/C Ratio	0.045	-	-	-	0.002	0.031
HCM Control Delay (s)	7.4	-	-	-	10.1	8.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1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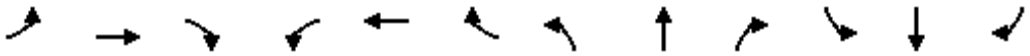


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	445	38	182	22	27	43	332	1901	36	55	892	448
v/c Ratio	0.77	0.09	0.34	0.17	0.11	0.12	0.62	0.83	0.04	0.32	0.48	0.52
Control Delay	45.7	30.1	2.9	41.4	40.0	0.7	40.4	28.9	0.1	42.4	24.7	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	30.1	2.9	41.4	40.0	0.7	40.4	28.9	0.1	42.4	24.7	5.0
Queue Length 50th (ft)	124	15	0	12	7	0	91	378	0	30	149	0
Queue Length 95th (ft)	176	47	17	35	21	0	129	#535	0	65	205	71
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	610	425	558	314	629	491	541	2302	816	170	1858	862
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.09	0.33	0.07	0.04	0.09	0.61	0.83	0.04	0.32	0.48	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	409	35	167	20	25	40	305	1749	33	51	821	412
Future Volume (veh/h)	409	35	167	20	25	40	305	1749	33	51	821	412
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	445	38	0	22	27	0	332	1901	36	55	892	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	528	276		79	140		404	2562	795	70	2167	
Arrive On Green	0.15	0.15	0.00	0.04	0.04	0.00	0.12	0.50	0.50	0.04	0.42	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	445	38	0	22	27	0	332	1901	36	55	892	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	11.3	1.6	0.0	1.1	0.7	0.0	8.4	26.6	1.0	2.8	11.0	0.0
Cycle Q Clear(g_c), s	11.3	1.6	0.0	1.1	0.7	0.0	8.4	26.6	1.0	2.8	11.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	528	276		79	140		404	2562	795	70	2167	
V/C Ratio(X)	0.84	0.14		0.28	0.19		0.82	0.74	0.05	0.78	0.41	
Avail Cap(c_a), veh/h	614	333		317	632		422	2562	795	79	2167	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.1	33.4	0.0	41.6	41.8	0.0	38.8	17.8	11.4	42.8	18.1	0.0
Incr Delay (d2), s/veh	9.2	0.2	0.0	1.9	0.7	0.0	11.9	2.0	0.1	35.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.7	0.0	0.5	0.3	0.0	4.0	9.0	0.4	1.8	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	33.6	0.0	43.5	42.5	0.0	50.7	19.8	11.5	78.1	18.6	0.0
LnGrp LOS	D	C		D	D		D	B	B	E	B	
Approach Vol, veh/h		483			49			2269			947	
Approach Delay, s/veh		45.3			42.9			24.2			22.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	51.2	10.0	19.3	16.5	44.2	19.7	9.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	4.0	30.0	16.0	16.0	11.0	23.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	4.8	28.6	3.1	3.6	10.4	13.0	13.3	2.7
Green Ext Time (p_c), s	0.0	1.2	0.0	0.1	0.1	3.8	0.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

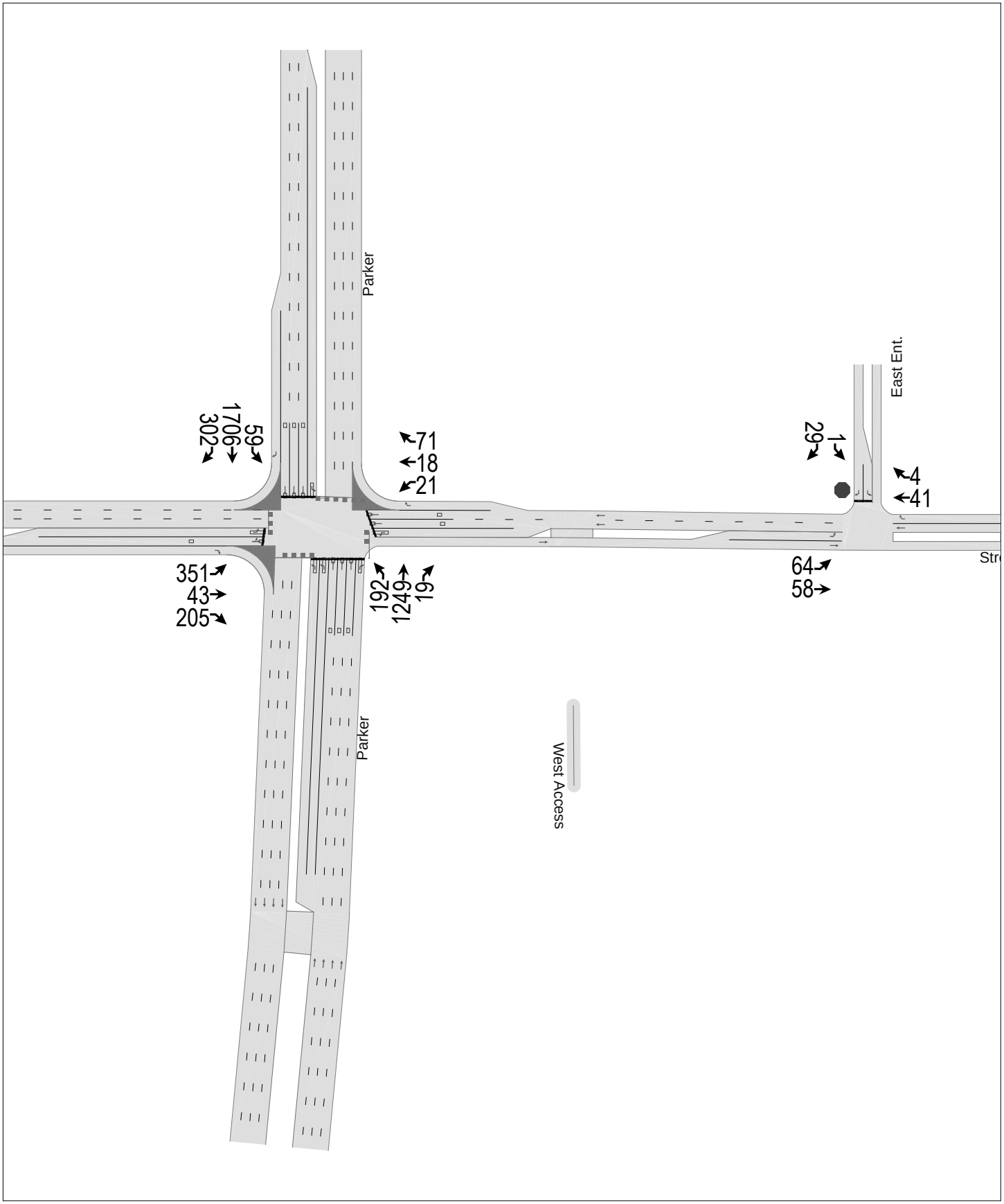
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	58	80	47	2	3	39
Future Vol, veh/h	58	80	47	2	3	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	87	51	2	3	42

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	264	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	213	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1553	-	-	-	725	1017
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	695	1017
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1553	-	-	-	695	1017
HCM Lane V/C Ratio	0.041	-	-	-	0.005	0.042
HCM Control Delay (s)	7.4	-	-	-	10.2	8.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1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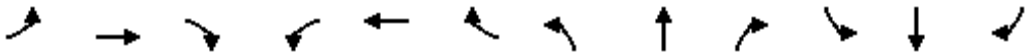
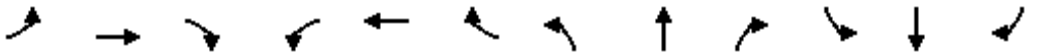


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	382	47	223	23	20	77	209	1358	21	64	1854	328
v/c Ratio	0.70	0.12	0.44	0.17	0.08	0.28	0.39	0.58	0.03	0.37	0.97	0.41
Control Delay	42.8	30.9	8.1	41.4	39.9	2.5	37.0	21.8	0.1	43.5	44.2	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	30.9	8.1	41.4	39.9	2.5	37.0	21.8	0.1	43.5	44.2	4.7
Queue Length 50th (ft)	105	19	0	13	5	0	56	225	0	35	~418	3
Queue Length 95th (ft)	151	54	61	36	17	0	90	303	0	72	#535	60
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	610	414	525	314	629	431	534	2344	827	173	1914	794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.11	0.42	0.07	0.03	0.18	0.39	0.58	0.03	0.37	0.97	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	43	205	21	18	71	192	1249	19	59	1706	302
Future Volume (veh/h)	351	43	205	21	18	71	192	1249	19	59	1706	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	382	47	0	23	20	0	209	1358	21	64	1854	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	470	245		79	141		154	2612	811	82	2621	
Arrive On Green	0.14	0.13	0.00	0.04	0.04	0.00	0.04	0.51	0.51	0.05	0.51	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	382	47	0	23	20	0	209	1358	21	64	1854	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	9.7	2.0	0.0	1.1	0.5	0.0	4.0	15.9	0.6	3.2	25.0	0.0
Cycle Q Clear(g_c), s	9.7	2.0	0.0	1.1	0.5	0.0	4.0	15.9	0.6	3.2	25.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	245		79	141		154	2612	811	82	2621	
V/C Ratio(X)	0.81	0.19		0.29	0.14		1.36	0.52	0.03	0.78	0.71	
Avail Cap(c_a), veh/h	614	333		317	632		154	2612	811	119	2621	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.8	34.8	0.0	41.6	41.7	0.0	43.0	14.6	10.9	42.5	16.7	0.0
Incr Delay (d2), s/veh	6.3	0.4	0.0	2.0	0.5	0.0	198.5	0.7	0.1	18.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.9	0.0	0.5	0.2	0.0	5.8	5.2	0.2	1.7	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	35.2	0.0	43.6	42.2	0.0	241.5	15.4	10.9	60.5	18.4	0.0
LnGrp LOS	D	D		D	D		F	B	B	E	B	
Approach Vol, veh/h		429			43			1588			1918	
Approach Delay, s/veh		43.1			43.0			45.1			19.8	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	52.0	10.0	17.8	10.0	52.2	18.2	9.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	6.0	28.0	16.0	16.0	4.0	30.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	5.2	17.9	3.1	4.0	6.0	27.0	11.7	2.5
Green Ext Time (p_c), s	0.0	5.7	0.0	0.1	0.0	2.5	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

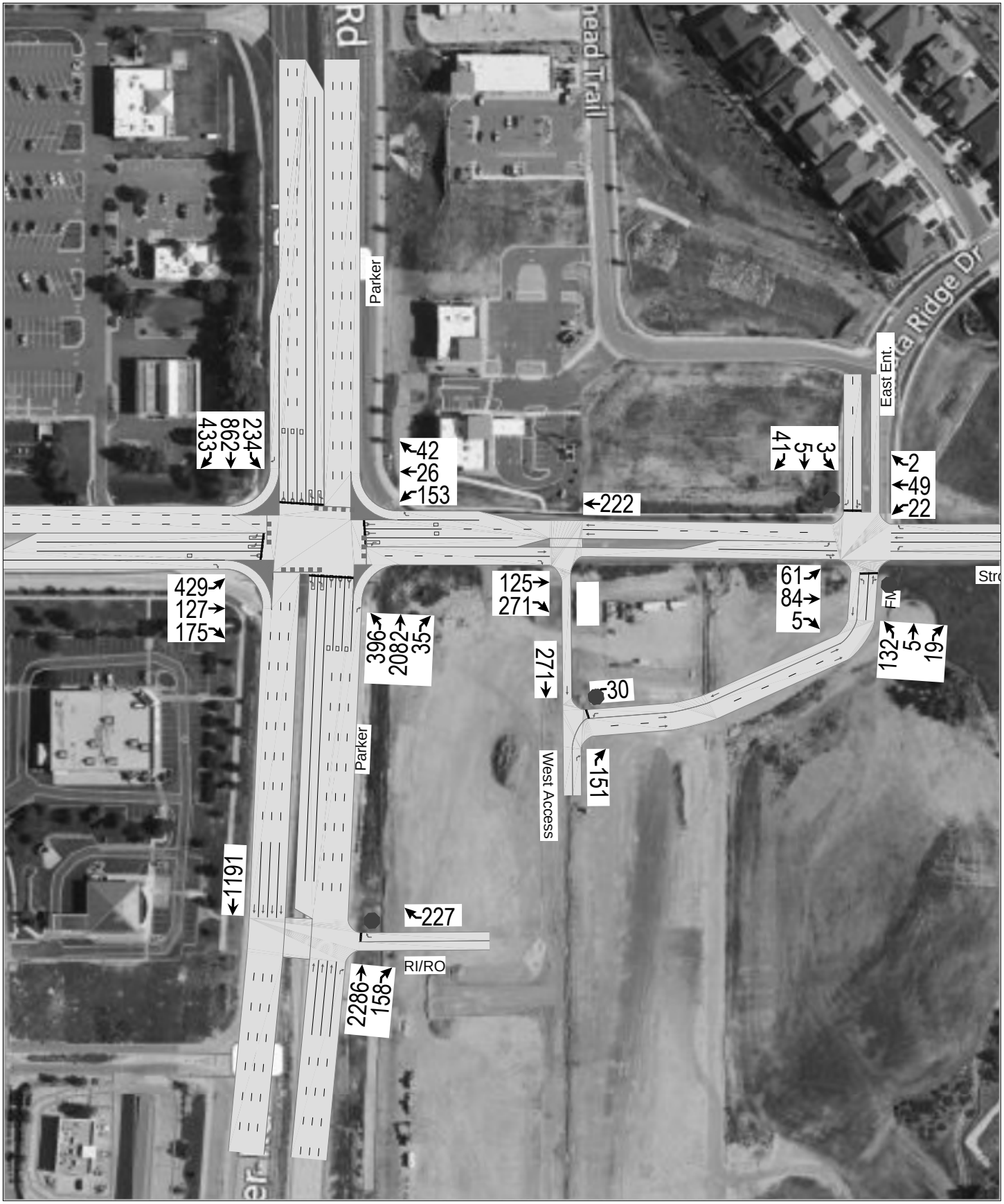
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	58	41	4	1	29
Future Vol, veh/h	64	58	41	4	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	63	45	4	1	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	49	0	-	0	248	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1558	-	-	-	740	1025
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1558	-	-	-	707	1025
Mov Cap-2 Maneuver	-	-	-	-	707	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	831	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1558	-	-	-	707	1025
HCM Lane V/C Ratio	0.045	-	-	-	0.002	0.031
HCM Control Delay (s)	7.4	-	-	-	10.1	8.6
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1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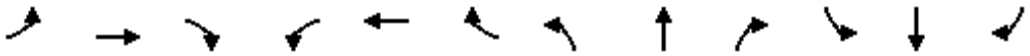
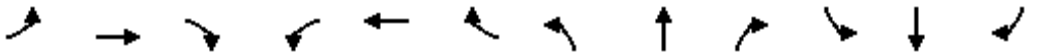


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	467	138	191	167	29	46	430	2263	38	255	937	470
v/c Ratio	0.85	0.63	0.52	0.73	0.08	0.13	0.76	1.03	0.05	0.72	0.50	0.53
Control Delay	61.1	59.0	9.9	64.9	42.3	0.8	53.0	58.8	0.1	61.5	29.2	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	59.0	9.9	64.9	42.3	0.8	53.0	58.8	0.1	61.5	29.2	5.1
Queue Length 50th (ft)	170	94	0	113	10	0	150	~647	0	91	192	0
Queue Length 95th (ft)	#268	156	52	#188	23	0	202	#742	0	#182	250	77
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	551	270	408	257	514	408	628	2199	769	353	1885	882
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.51	0.47	0.65	0.06	0.11	0.68	1.03	0.05	0.72	0.50	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	409	121	167	146	25	40	377	1983	33	223	821	412
Future Volume (veh/h)	409	121	167	146	25	40	377	1983	33	223	821	412
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	467	138	0	167	29	0	430	2263	0	255	937	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	174		198	209		503	2577		251	2205	
Arrive On Green	0.15	0.09	0.00	0.11	0.06	0.00	0.15	0.50	0.00	0.07	0.43	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	467	138	0	167	29	0	430	2263	0	255	937	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	14.7	7.9	0.0	10.1	0.9	0.0	13.4	43.4	0.0	8.0	14.0	0.0
Cycle Q Clear(g_c), s	14.7	7.9	0.0	10.1	0.9	0.0	13.4	43.4	0.0	8.0	14.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	174		198	209		503	2577		251	2205	
V/C Ratio(X)	0.93	0.79		0.84	0.14		0.85	0.88		1.01	0.42	
Avail Cap(c_a), veh/h	503	272		259	517		628	2577		251	2205	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.4	48.9	0.0	47.9	49.1	0.0	45.9	24.2	0.0	51.0	21.7	0.0
Incr Delay (d2), s/veh	23.9	8.3	0.0	17.2	0.3	0.0	9.3	4.6	0.0	60.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	4.0	0.0	5.3	0.4	0.0	6.1	16.2	0.0	5.4	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	57.2	0.0	65.1	49.4	0.0	55.1	28.9	0.0	111.6	22.3	0.0
LnGrp LOS	E	E		E	D		E	C		F	C	
Approach Vol, veh/h		605			196			2693			1192	
Approach Delay, s/veh		67.3			62.8			33.1			41.4	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.5	18.3	16.2	22.0	53.5	22.0	12.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	8.0	46.0	16.0	16.0	20.0	34.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	10.0	45.4	12.1	9.9	15.4	16.0	16.7	2.9
Green Ext Time (p_c), s	0.0	0.6	0.1	0.3	0.7	5.4	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

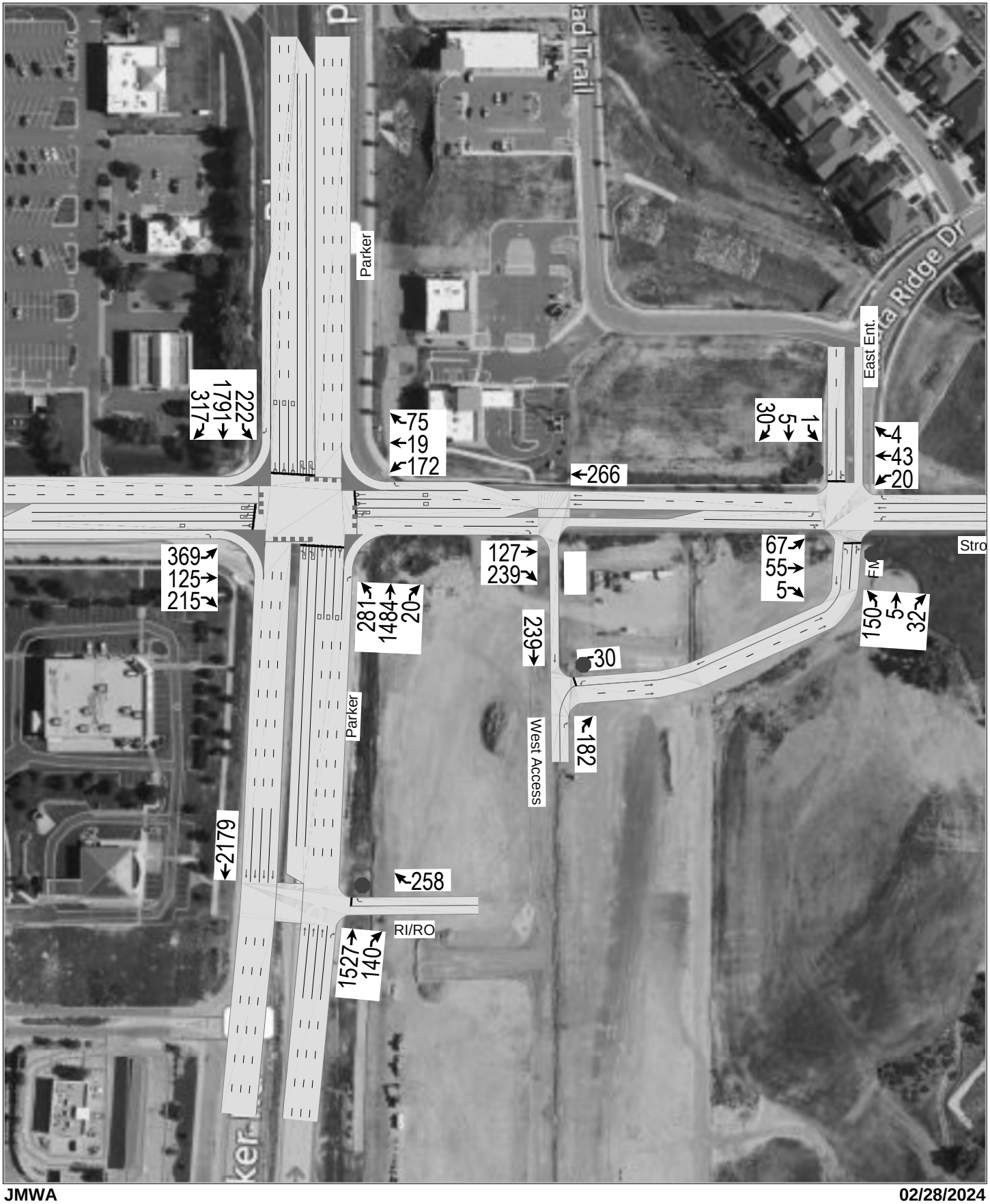
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	58	80	5	21	47	2	126	5	18	3	5	39
Future Vol, veh/h	58	80	5	21	47	2	126	5	18	3	5	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	150	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	91	6	24	54	2	144	6	21	3	6	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	97	0	0	355	330	94	342	331	54
Stage 1	-	-	-	-	-	-	226	226	-	102	102	-
Stage 2	-	-	-	-	-	-	129	104	-	240	229	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1496	-	-	600	589	963	612	588	1013
Stage 1	-	-	-	-	-	-	777	717	-	904	811	-
Stage 2	-	-	-	-	-	-	875	809	-	763	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1496	-	-	544	555	963	568	554	1013
Mov Cap-2 Maneuver	-	-	-	-	-	-	544	555	-	568	554	-
Stage 1	-	-	-	-	-	-	744	686	-	865	798	-
Stage 2	-	-	-	-	-	-	817	796	-	709	684	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	2.2	13.3	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	544	830	1549	-	-	1496	-	-	559	1013
HCM Lane V/C Ratio	0.264	0.032	0.043	-	-	0.016	-	-	0.016	0.044
HCM Control Delay (s)	14	9.5	7.4	-	-	7.4	-	-	11.5	8.7
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	1.1	0.1	0.1	-	-	0	-	-	0.1	0.1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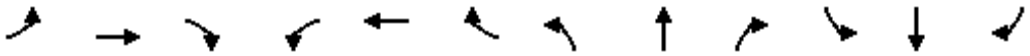
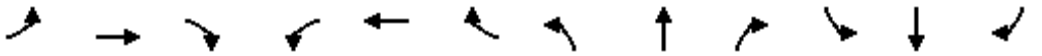


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	401	136	234	187	21	81	306	1613	22	241	1947	345
v/c Ratio	0.67	0.59	0.60	0.74	0.05	0.25	0.73	0.82	0.03	0.67	1.03	0.45
Control Delay	45.6	51.7	12.7	58.9	37.2	1.8	54.6	32.6	0.1	53.4	61.6	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	51.7	12.7	58.9	37.2	1.8	54.6	32.6	0.1	53.4	61.6	6.7
Queue Length 50th (ft)	126	83	4	114	6	0	97	354	0	75	~516	21
Queue Length 95th (ft)	178	139	71	#198	17	0	#190	#431	0	#138	#613	88
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	604	298	443	283	566	391	420	1976	715	361	1888	773
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.46	0.53	0.66	0.04	0.21	0.73	0.82	0.03	0.67	1.03	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	119	205	164	18	71	268	1413	19	211	1706	302
Future Volume (veh/h)	351	119	205	164	18	71	268	1413	19	211	1706	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	136	0	187	21	0	306	1613	0	241	1947	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	475	176		221	288		311	2315		305	2306	
Arrive On Green	0.14	0.09	0.00	0.12	0.08	0.00	0.09	0.45	0.00	0.09	0.45	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	401	136	0	187	21	0	306	1613	0	241	1947	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	11.3	7.1	0.0	10.3	0.5	0.0	8.8	25.2	0.0	6.8	33.8	0.0
Cycle Q Clear(g_c), s	11.3	7.1	0.0	10.3	0.5	0.0	8.8	25.2	0.0	6.8	33.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	475	176		221	288		311	2315		305	2306	
V/C Ratio(X)	0.84	0.77		0.84	0.07		0.98	0.70		0.79	0.84	
Avail Cap(c_a), veh/h	553	299		285	569		311	2315		311	2306	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.1	44.3	0.0	42.8	42.5	0.0	45.4	21.8	0.0	44.7	24.3	0.0
Incr Delay (d2), s/veh	10.3	7.1	0.0	16.4	0.1	0.0	46.5	1.8	0.0	12.6	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	3.5	0.0	5.4	0.2	0.0	5.6	9.2	0.0	3.3	12.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	51.3	0.0	59.3	42.6	0.0	91.9	23.6	0.0	57.3	28.3	0.0
LnGrp LOS	D	D		E	D		F	C		E	C	
Approach Vol, veh/h		537			208			1919			2188	
Approach Delay, s/veh		52.1			57.6			34.5			31.5	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	51.3	18.4	15.4	15.0	51.2	19.7	14.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	35.0	16.0	16.0	9.0	35.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	8.8	27.2	12.3	9.1	10.8	35.8	13.3	2.5
Green Ext Time (p_c), s	0.0	5.4	0.2	0.3	0.0	0.0	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

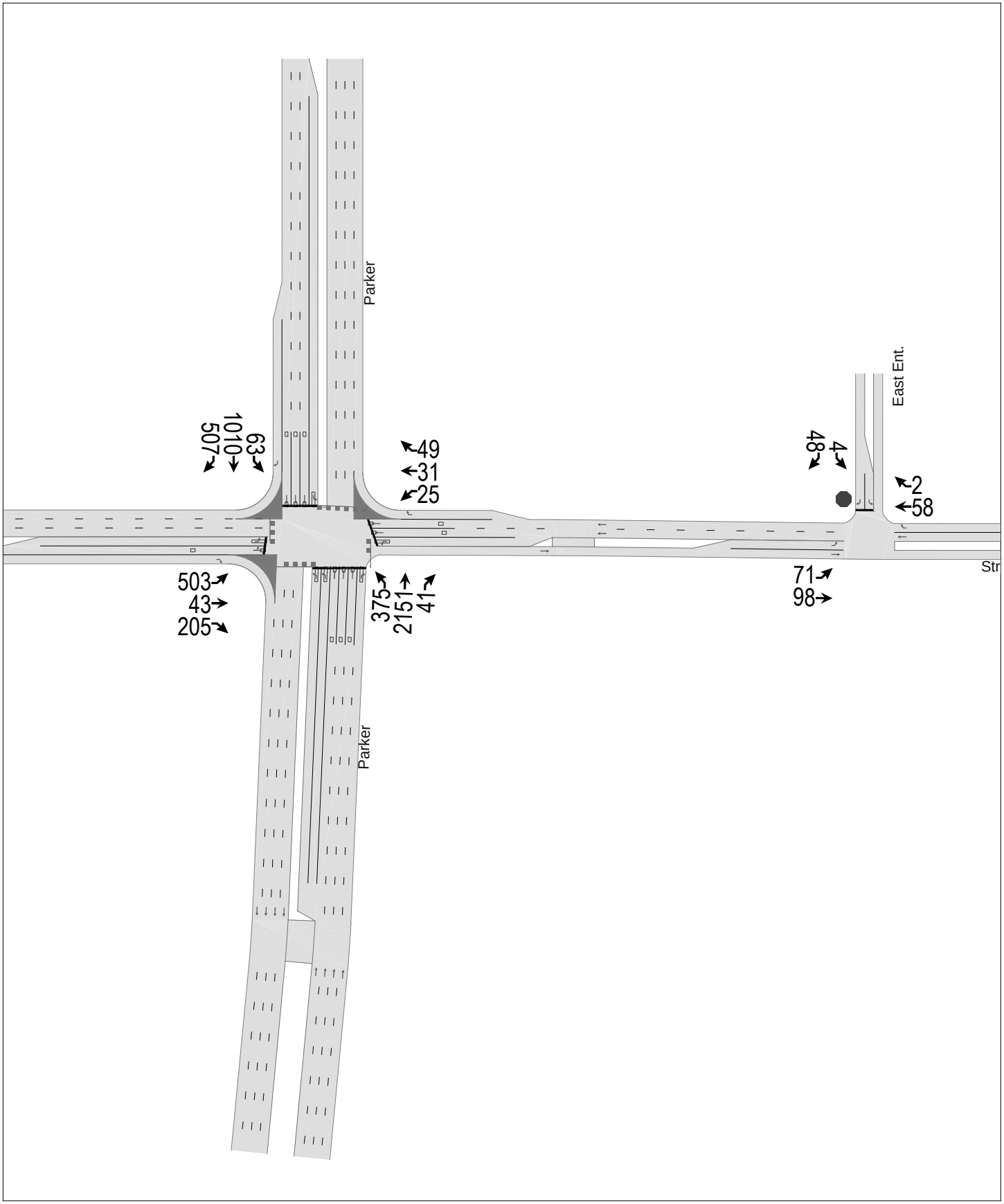
Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	52	5	19	41	4	143	5	30	1	5	29
Future Vol, veh/h	64	52	5	19	41	4	143	5	30	1	5	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	150	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	59	6	22	47	5	163	6	34	1	6	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	65	0	0	321	304	62	319	302	47
Stage 1	-	-	-	-	-	-	208	208	-	91	91	-
Stage 2	-	-	-	-	-	-	113	96	-	228	211	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1537	-	-	632	609	1003	634	611	1022
Stage 1	-	-	-	-	-	-	794	730	-	916	820	-
Stage 2	-	-	-	-	-	-	892	815	-	775	728	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1537	-	-	579	572	1003	579	574	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	579	572	-	579	574	-
Stage 1	-	-	-	-	-	-	757	696	-	873	809	-
Stage 2	-	-	-	-	-	-	845	804	-	708	694	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	2.2	12.7	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	579	906	1554	-	-	1537	-	-	575	1022
HCM Lane V/C Ratio	0.282	0.044	0.047	-	-	0.014	-	-	0.012	0.032
HCM Control Delay (s)	13.6	9.2	7.4	-	-	7.4	-	-	11.3	8.6
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	1.2	0.1	0.1	-	-	0	-	-	0	0.1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East Ent.
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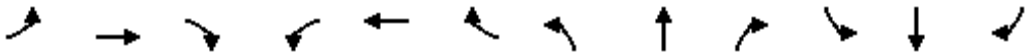
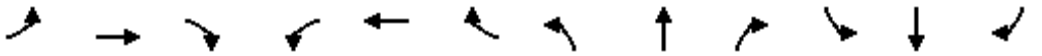


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	547	47	223	27	33	53	408	2338	44	68	1098	551
v/c Ratio	1.10	0.16	0.51	0.23	0.16	0.18	0.72	0.93	0.05	0.37	0.50	0.55
Control Delay	113.3	42.8	10.3	52.9	50.5	1.4	50.8	35.3	0.1	51.7	24.8	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.3	42.8	10.3	52.9	50.5	1.4	50.8	35.3	0.1	51.7	24.8	4.5
Queue Length 50th (ft)	~225	30	0	18	12	0	142	571	0	46	208	0
Queue Length 95th (ft)	#334	67	71	47	27	0	186	#732	0	90	276	73
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	499	310	449	257	514	408	622	2509	856	185	2202	997
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.15	0.50	0.11	0.06	0.13	0.66	0.93	0.05	0.37	0.50	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	409	35	167	20	25	40	305	1749	33	51	821	412
Future Volume (veh/h)	409	35	167	20	25	40	305	1749	33	51	821	412
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	547	47	0	27	33	0	408	2338	44	68	1098	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	269		65	124		480	2885	896	65	2362	
Arrive On Green	0.15	0.14	0.00	0.04	0.03	0.00	0.14	0.57	0.57	0.04	0.46	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	547	47	0	27	33	0	408	2338	44	68	1098	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	16.0	2.4	0.0	1.6	1.0	0.0	12.7	40.4	1.4	4.0	16.2	0.0
Cycle Q Clear(g_c), s	16.0	2.4	0.0	1.6	1.0	0.0	12.7	40.4	1.4	4.0	16.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	269		65	124		480	2885	896	65	2362	
V/C Ratio(X)	1.09	0.17		0.42	0.27		0.85	0.81	0.05	1.05	0.46	
Avail Cap(c_a), veh/h	503	272		259	517		597	2885	896	65	2362	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.0	41.3	0.0	51.9	51.7	0.0	46.2	19.2	10.7	53.0	20.2	0.0
Incr Delay (d2), s/veh	66.2	0.3	0.0	4.2	1.1	0.0	9.4	2.6	0.1	126.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	1.1	0.0	0.8	0.5	0.0	5.8	14.0	0.5	4.0	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.2	41.6	0.0	56.1	52.8	0.0	55.7	21.8	10.8	179.3	20.9	0.0
LnGrp LOS	F	D		E	D		E	C	B	F	C	
Approach Vol, veh/h		594			60			2790			1166	
Approach Delay, s/veh		107.5			54.3			26.6			30.1	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	68.2	10.0	21.8	21.3	56.9	22.0	9.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	4.0	50.0	16.0	16.0	19.0	35.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	6.0	42.4	3.6	4.4	14.7	18.2	18.0	3.0
Green Ext Time (p_c), s	0.0	6.7	0.0	0.1	0.6	6.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

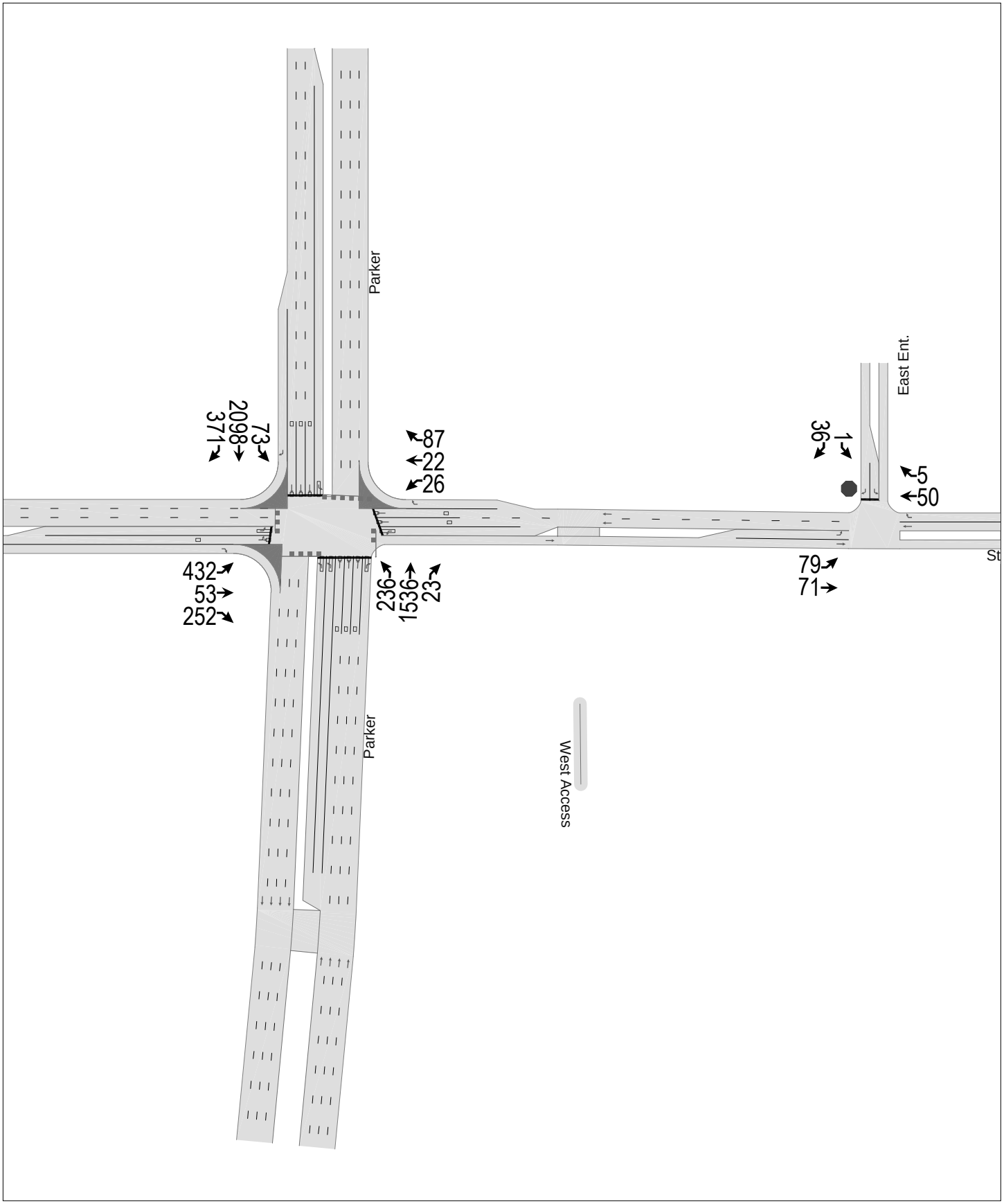
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	58	80	47	2	3	39
Future Vol, veh/h	58	80	47	2	3	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	107	63	3	4	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	66	0	-	0	326	63
Stage 1	-	-	-	-	63	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1536	-	-	-	668	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	781	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1536	-	-	-	634	1002
Mov Cap-2 Maneuver	-	-	-	-	634	-
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1536	-	-	-	634	1002
HCM Lane V/C Ratio	0.05	-	-	-	0.006	0.052
HCM Control Delay (s)	7.5	-	-	-	10.7	8.8
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0.2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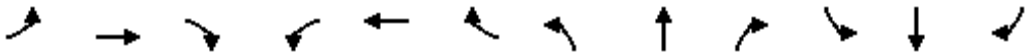
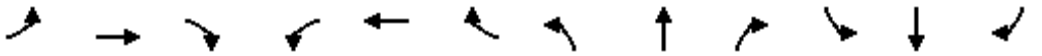


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	469	57	274	28	24	95	257	1670	25	79	2281	404
v/c Ratio	0.94	0.17	0.54	0.24	0.11	0.41	0.54	0.65	0.03	0.48	1.02	0.47
Control Delay	75.0	42.6	9.5	53.0	49.4	6.8	48.8	22.8	0.0	56.4	56.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.0	42.6	9.5	53.0	49.4	6.8	48.8	22.8	0.0	56.4	56.5	7.7
Queue Length 50th (ft)	171	36	0	19	8	0	88	318	0	54	~627	43
Queue Length 95th (ft)	#270	75	77	48	22	13	130	421	0	100	#752	124
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	499	349	519	257	514	357	474	2572	874	174	2229	861
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.16	0.53	0.11	0.05	0.27	0.54	0.65	0.03	0.45	1.02	0.47

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	43	205	21	18	71	192	1249	19	59	1706	302
Future Volume (veh/h)	351	43	205	21	18	71	192	1249	19	59	1706	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	469	57	0	28	24	0	257	1670	25	79	2281	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	270		65	125		251	2781	863	101	2699	
Arrive On Green	0.15	0.14	0.00	0.04	0.04	0.00	0.07	0.54	0.54	0.06	0.53	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	469	57	0	28	24	0	257	1670	25	79	2281	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1781	1702	1585
Q Serve(g_s), s	14.8	3.0	0.0	1.7	0.7	0.0	8.0	24.3	0.8	4.8	41.9	0.0
Cycle Q Clear(g_c), s	14.8	3.0	0.0	1.7	0.7	0.0	8.0	24.3	0.8	4.8	41.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	270		65	125		251	2781	863	101	2699	
V/C Ratio(X)	0.93	0.21		0.43	0.19		1.02	0.60	0.03	0.78	0.85	
Avail Cap(c_a), veh/h	503	272		259	517		251	2781	863	146	2699	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.5	41.6	0.0	51.9	51.6	0.0	51.0	16.9	11.6	51.2	22.1	0.0
Incr Delay (d2), s/veh	24.6	0.4	0.0	4.5	0.7	0.0	62.7	1.0	0.1	15.7	3.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	1.4	0.0	0.8	0.3	0.0	5.5	8.4	0.3	2.5	15.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	41.9	0.0	56.4	52.3	0.0	113.7	17.9	11.6	66.9	25.6	0.0
LnGrp LOS	E	D		E	D		F	B	B	E	C	
Approach Vol, veh/h		526			52			1952			2360	
Approach Delay, s/veh		67.9			54.5			30.4			26.9	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	65.9	10.0	21.9	14.0	64.1	22.0	9.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	45.0	16.0	16.0	8.0	46.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	6.8	26.3	3.7	5.0	10.0	43.9	16.8	2.7
Green Ext Time (p_c), s	0.0	10.5	0.0	0.1	0.0	2.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

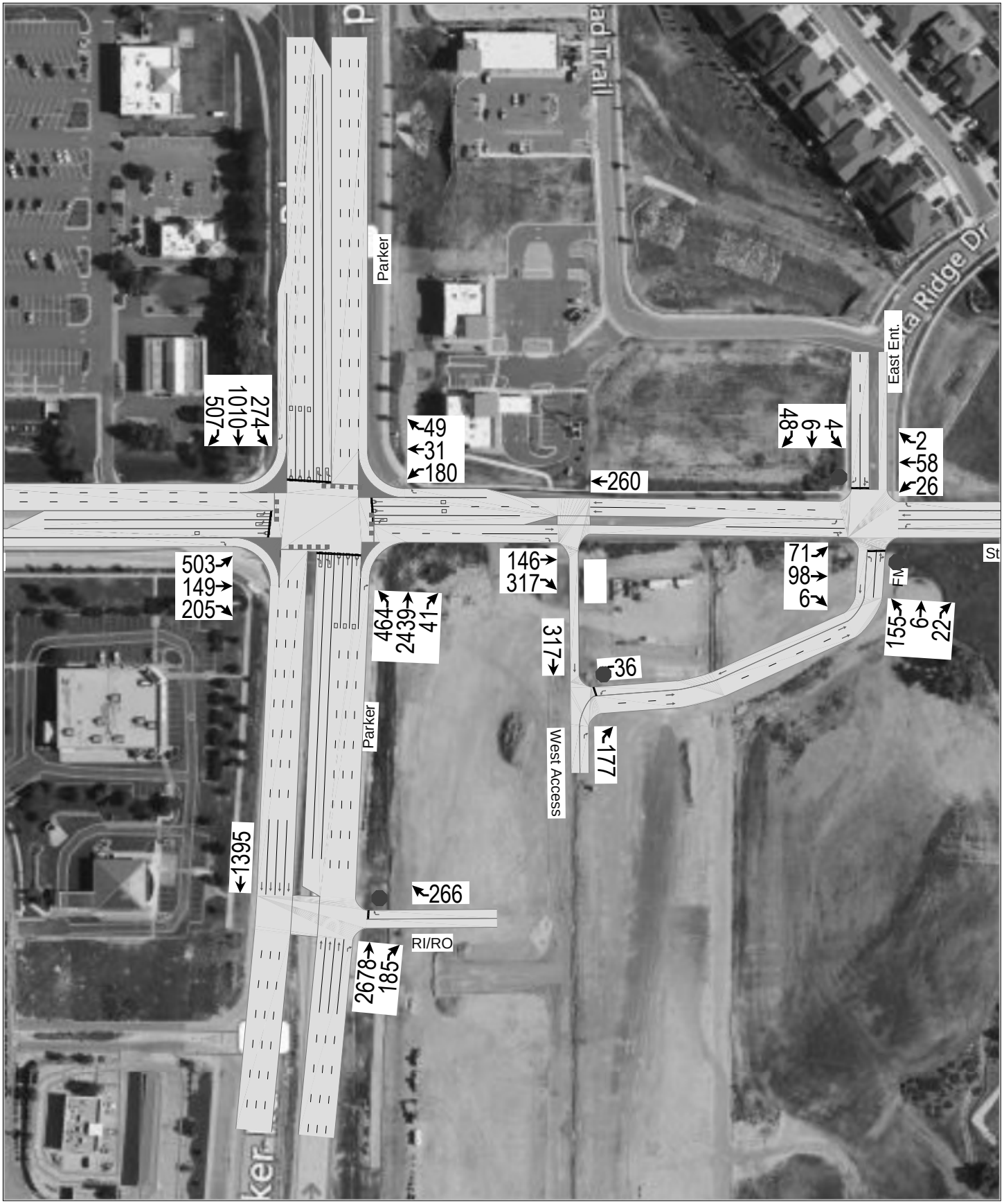
Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	58	41	4	1	29
Future Vol, veh/h	64	58	41	4	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	150	50	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	78	55	5	1	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	60	0	-	0	305	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	250	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1544	-	-	-	687	1012
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1544	-	-	-	649	1012
Mov Cap-2 Maneuver	-	-	-	-	649	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1544	-	-	-	649	1012
HCM Lane V/C Ratio	0.055	-	-	-	0.002	0.038
HCM Control Delay (s)	7.5	-	-	-	10.6	8.7
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0	0.1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East Ent.
West Access
RI/RO
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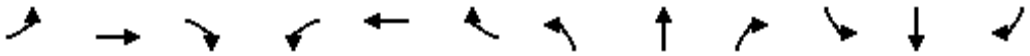
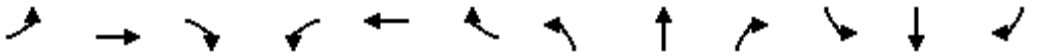


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	547	162	223	195	33	53	504	2651	44	298	1098	551
v/c Ratio	0.98	0.79	0.60	0.87	0.10	0.19	0.83	1.03	0.05	0.90	0.51	0.56
Control Delay	95.5	91.4	14.3	97.3	61.6	1.5	72.0	62.1	0.1	95.6	33.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.5	91.4	14.3	97.3	61.6	1.5	72.0	62.1	0.1	95.6	33.4	4.7
Queue Length 50th (ft)	~308	155	0	189	15	0	247	~1012	0	~168	296	0
Queue Length 95th (ft)	#428	#258	82	#323	33	0	306	#1093	0	#267	354	79
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	557	223	386	236	377	305	686	2576	855	330	2169	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.73	0.58	0.83	0.09	0.17	0.73	1.03	0.05	0.90	0.51	0.56

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	409	121	167	146	25	40	377	1983	33	223	821	412
Future Volume (veh/h)	409	121	167	146	25	40	377	1983	33	223	821	412
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	547	162	0	195	33	0	504	2651	0	298	1098	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	507	187		217	267		564	2748		276	2323	
Arrive On Green	0.15	0.10	0.00	0.12	0.08	0.00	0.16	0.54	0.00	0.08	0.46	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	547	162	0	195	33	0	504	2651	0	298	1098	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	22.0	12.8	0.0	16.2	1.3	0.0	21.4	74.8	0.0	12.0	22.4	0.0
Cycle Q Clear(g_c), s	22.0	12.8	0.0	16.2	1.3	0.0	21.4	74.8	0.0	12.0	22.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	507	187		217	267		564	2748		276	2323	
V/C Ratio(X)	1.08	0.87		0.90	0.12		0.89	0.96		1.08	0.47	
Avail Cap(c_a), veh/h	507	224		238	379		691	2748		276	2323	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.0	66.5	0.0	64.9	64.7	0.0	61.5	33.3	0.0	69.0	28.4	0.0
Incr Delay (d2), s/veh	63.0	24.9	0.0	31.3	0.2	0.0	12.4	10.7	0.0	76.4	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.0	7.3	0.0	9.2	0.6	0.0	10.1	30.7	0.0	8.1	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	127.0	91.4	0.0	96.2	64.9	0.0	73.9	44.0	0.0	145.4	29.1	0.0
LnGrp LOS	F	F		F	E		E	D		F	C	
Approach Vol, veh/h		709			228			3155			1396	
Approach Delay, s/veh		118.9			91.7			48.8			53.9	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	86.7	24.3	21.0	30.5	74.3	28.0	17.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	76.0	20.0	18.0	30.0	58.0	22.0	16.0
Max Q Clear Time (g_c+I1), s	14.0	76.8	18.2	14.8	23.4	24.4	24.0	3.3
Green Ext Time (p_c), s	0.0	0.0	0.1	0.2	1.0	7.9	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	60.9
HCM 6th LOS	E

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

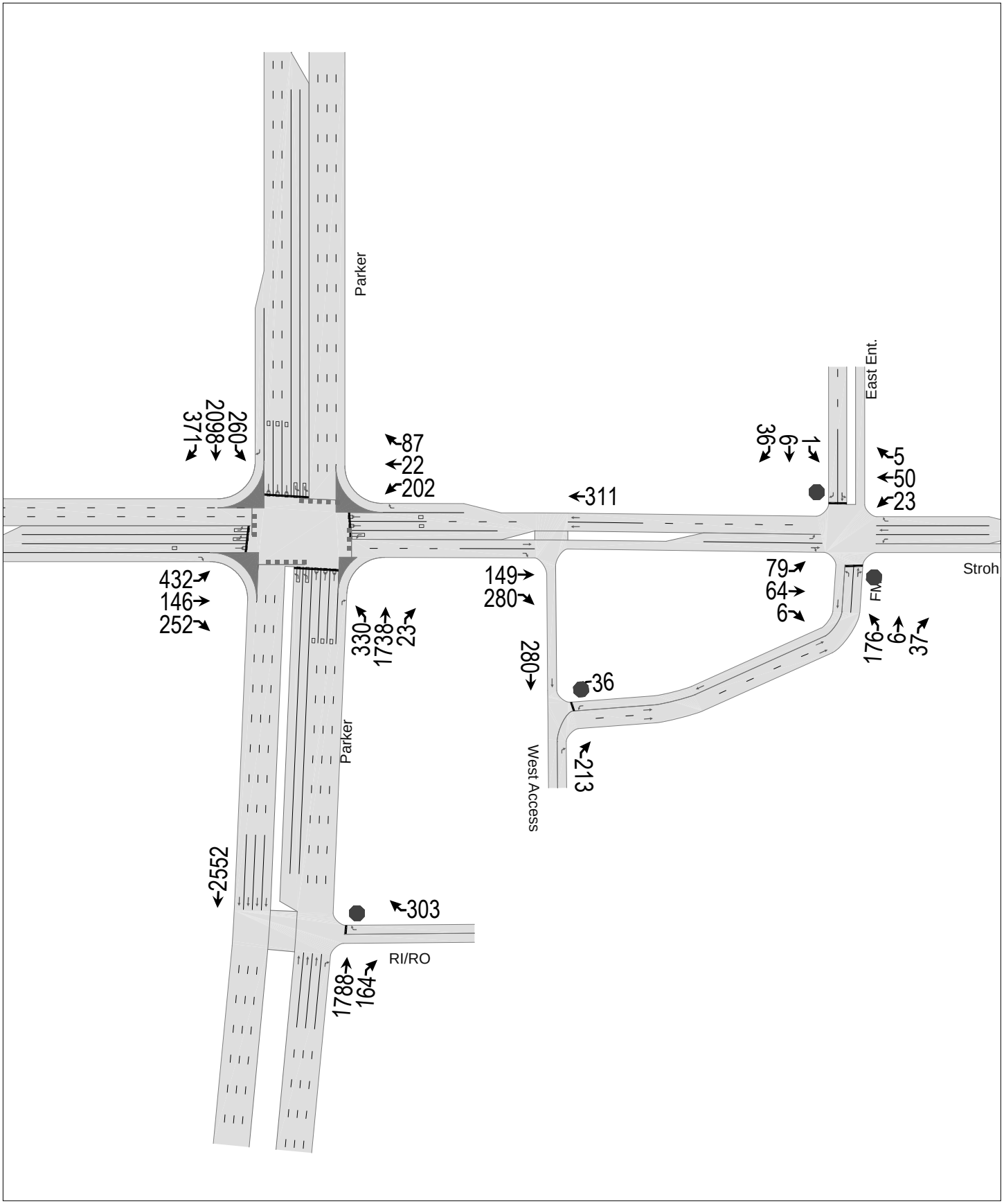
Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	58	80	5	21	47	2	126	5	18	3	5	39
Future Vol, veh/h	58	80	5	21	47	2	126	5	18	3	5	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	150	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	107	7	28	63	3	168	7	24	4	7	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	66	0	0	114	0	0	417	389	111	401	389	63
Stage 1	-	-	-	-	-	-	267	267	-	119	119	-
Stage 2	-	-	-	-	-	-	150	122	-	282	270	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1536	-	-	1475	-	-	546	546	942	560	546	1002
Stage 1	-	-	-	-	-	-	738	688	-	885	797	-
Stage 2	-	-	-	-	-	-	853	795	-	725	686	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1536	-	-	1475	-	-	485	508	942	512	508	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	485	508	-	512	508	-
Stage 1	-	-	-	-	-	-	700	653	-	840	782	-
Stage 2	-	-	-	-	-	-	786	780	-	664	651	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3	2.2	15.3	9.4
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	485	794	1536	-	-	1475	-	-	509	1002
HCM Lane V/C Ratio	0.347	0.039	0.05	-	-	0.019	-	-	0.021	0.052
HCM Control Delay (s)	16.3	9.7	7.5	-	-	7.5	-	-	12.2	8.8
HCM Lane LOS	C	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	1.5	0.1	0.2	-	-	0.1	-	-	0.1	0.2


Parker
East Ent.
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2098
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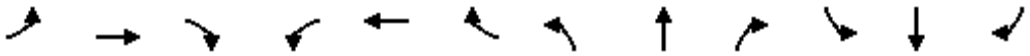
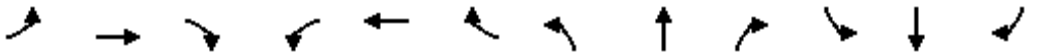


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	469	159	274	219	24	95	358	1889	25	282	2281	404
v/c Ratio	1.03	0.73	0.78	0.93	0.06	0.31	0.90	0.83	0.03	0.79	1.04	0.48
Control Delay	100.0	70.1	32.4	94.5	46.1	5.3	79.2	33.8	0.1	69.6	62.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.0	70.1	32.4	94.5	46.1	5.3	79.2	33.8	0.1	69.6	62.8	9.0
Queue Length 50th (ft)	~199	119	62	170	8	0	145	473	0	111	~696	57
Queue Length 95th (ft)	#306	193	#169	#321	22	20	#252	543	0	#181	#790	141
Internal Link Dist (ft)		434			261			454			564	
Turn Bay Length (ft)	300		400	200		150	500			550		250
Base Capacity (vph)	457	248	374	236	471	328	397	2266	781	357	2203	845
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.64	0.73	0.93	0.05	0.29	0.90	0.83	0.03	0.79	1.04	0.48

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	119	205	164	18	71	268	1413	19	211	1706	302
Future Volume (veh/h)	351	119	205	164	18	71	268	1413	19	211	1706	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	469	159	0	219	24	0	358	1889	0	282	2281	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	461	191		238	363		346	2387		336	2372	
Arrive On Green	0.13	0.10	0.00	0.13	0.10	0.00	0.10	0.47	0.00	0.10	0.46	0.00
Sat Flow, veh/h	3456	1870	1585	1781	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	469	159	0	219	24	0	358	1889	0	282	2281	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	16.0	10.0	0.0	14.6	0.7	0.0	12.0	37.5	0.0	9.6	51.9	0.0
Cycle Q Clear(g_c), s	16.0	10.0	0.0	14.6	0.7	0.0	12.0	37.5	0.0	9.6	51.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	461	191		238	363		346	2387		336	2372	
V/C Ratio(X)	1.02	0.83		0.92	0.07		1.04	0.79		0.84	0.96	
Avail Cap(c_a), veh/h	461	249		238	474		346	2387		346	2372	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.0	52.9	0.0	51.4	48.7	0.0	54.0	27.0	0.0	53.2	31.1	0.0
Incr Delay (d2), s/veh	46.5	16.6	0.0	37.9	0.1	0.0	58.0	2.8	0.0	16.3	11.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	5.5	0.0	8.9	0.3	0.0	7.8	14.4	0.0	4.8	21.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.5	69.5	0.0	89.2	48.8	0.0	112.0	29.8	0.0	69.5	42.5	0.0
LnGrp LOS	F	E		F	D		F	C		E	D	
Approach Vol, veh/h		628			243			2247			2563	
Approach Delay, s/veh		91.2			85.2			42.9			45.5	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	62.1	22.0	18.2	18.0	61.8	22.0	18.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	52.0	16.0	16.0	12.0	52.0	16.0	16.0
Max Q Clear Time (g_c+I1), s	11.6	39.5	16.6	12.0	14.0	53.9	18.0	2.7
Green Ext Time (p_c), s	0.0	8.9	0.0	0.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.2
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	52	5	19	41	4	143	5	30	1	5	29
Future Vol, veh/h	64	52	5	19	41	4	143	5	30	1	5	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	150	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	70	7	25	55	5	191	7	40	1	7	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	77	0	0	377	356	74	374	354	55
Stage 1	-	-	-	-	-	-	246	246	-	105	105	-
Stage 2	-	-	-	-	-	-	131	110	-	269	249	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1544	-	-	1522	-	-	580	570	988	583	571	1012
Stage 1	-	-	-	-	-	-	758	703	-	901	808	-
Stage 2	-	-	-	-	-	-	873	804	-	737	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1544	-	-	1522	-	-	523	530	988	524	530	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	530	-	524	530	-
Stage 1	-	-	-	-	-	-	716	664	-	851	795	-
Stage 2	-	-	-	-	-	-	819	791	-	661	662	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	2.2	14.5	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	523	879	1544	-	-	1522	-	-	529	1012
HCM Lane V/C Ratio	0.366	0.053	0.055	-	-	0.017	-	-	0.015	0.038
HCM Control Delay (s)	15.8	9.3	7.5	-	-	7.4	-	-	11.9	8.7
HCM Lane LOS	C	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	1.7	0.2	0.2	-	-	0.1	-	-	0	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	0	0	173	0	228
Future Vol, veh/h	29	0	0	173	0	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	0	0	231	0	305

Major/Minor	Minor1			Major2	
Conflicting Flow All	305	-		-	-
Stage 1	0	-		-	-
Stage 2	305	-		-	-
Critical Hdwy	6.42	-		-	-
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	5.42	-		-	-
Follow-up Hdwy	3.518	-		-	-
Pot Cap-1 Maneuver	687	0		0	-
Stage 1	-	0		0	-
Stage 2	748	0		0	-
Platoon blocked, %					-
Mov Cap-1 Maneuver	687	-		-	-
Mov Cap-2 Maneuver	687	-		-	-
Stage 1	-	-		-	-
Stage 2	748	-		-	-

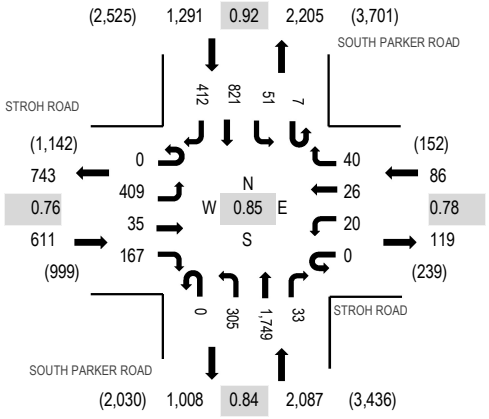
Approach	WB	SB
HCM Control Delay, s	10.6	0
HCM LOS	B	

Minor Lane/Major Mvmt	WBLn1	SBT
Capacity (veh/h)	687	-
HCM Lane V/C Ratio	0.056	-
HCM Control Delay (s)	10.6	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.2	-

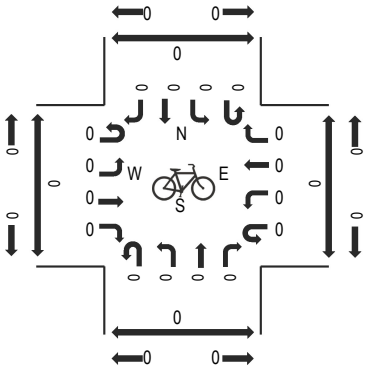
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 SOUTH PARKER ROAD & STROH ROAD AM
Date: Thursday, February 22, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

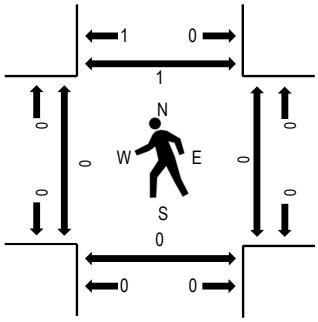
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

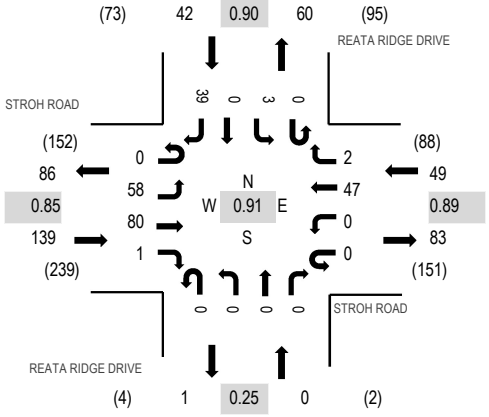
Traffic Counts - Motorized Vehicles

Interval Start Time	STROH ROAD Eastbound				STROH ROAD Westbound				SOUTH PARKER ROAD Northbound				SOUTH PARKER ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	55	5	29	0	10	3	8	0	48	410	8	1	6	192	79	854	4,075	0	0	0	0
7:15 AM	0	73	4	52	0	4	3	11	0	84	473	9	1	13	193	104	1,024	4,055	0	0	0	1
7:30 AM	0	152	16	48	0	2	7	10	0	100	515	9	4	15	200	121	1,199	3,779	0	0	0	0
7:45 AM	0	129	10	38	0	4	13	11	0	73	351	7	1	17	236	108	998	3,290	0	0	0	0
8:00 AM	0	98	11	25	0	8	9	5	0	34	319	7	6	23	212	77	834	3,037	0	0	0	0
8:15 AM	1	53	3	18	0	0	3	5	0	36	308	4	2	12	252	51	748		0	0	0	0
8:30 AM	0	51	7	25	0	3	5	9	3	28	266	4	1	14	239	55	710		0	0	0	0
8:45 AM	0	67	9	20	0	5	5	9	1	31	297	11	0	15	211	64	745		0	0	0	0
Count Total	1	678	65	255	0	36	48	68	4	434	2,939	59	16	115	1,735	659	7,112		0	0	0	1
Peak Hour	0	409	35	167	0	20	26	40	0	305	1,749	33	7	51	821	412	4,075		0	0	0	1

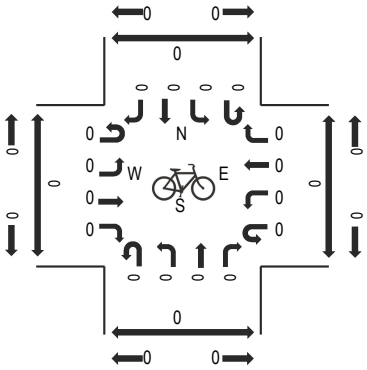
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 REATA RIDGE DRIVE & STROH ROAD AM
Date: Thursday, February 22, 2024
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

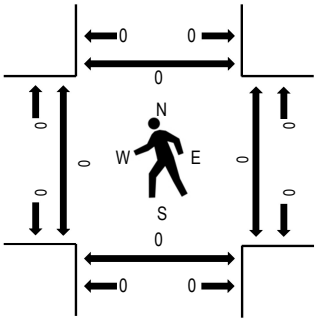
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

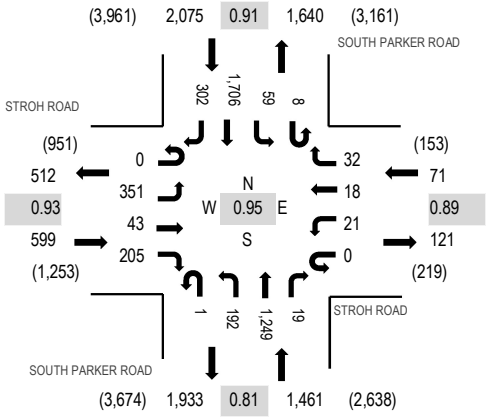
Traffic Counts - Motorized Vehicles

Interval Start Time	STROH ROAD Eastbound				STROH ROAD Westbound				REATA RIDGE DRIVE Northbound				REATA RIDGE DRIVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	10	10	0	0	0	11	1	0	0	0	0	0	1	0	11	44	212	0	0	0	0
7:15 AM	0	15	10	0	0	0	12	1	0	0	0	0	0	0	0	9	47	230	0	0	0	0
7:30 AM	0	13	27	1	0	0	10	1	0	0	0	0	0	0	0	11	63	214	0	0	0	0
7:45 AM	0	15	18	0	0	0	14	0	0	0	0	0	0	1	0	10	58	195	0	0	0	0
8:00 AM	0	15	25	0	0	0	11	0	0	0	0	0	0	2	0	9	62	190	0	0	0	0
8:15 AM	0	6	15	0	0	0	8	1	0	0	0	0	0	0	0	1	31		0	0	0	0
8:30 AM	0	9	16	0	0	0	7	0	0	0	0	0	0	0	0	12	44		0	0	0	0
8:45 AM	0	8	25	1	0	2	9	0	0	2	0	0	0	1	0	5	53		0	0	0	0
Count Total	0	91	146	2	0	2	82	4	0	2	0	0	0	5	0	68	402		0	0	0	0
Peak Hour	0	58	80	1	0	0	47	2	0	0	0	0	0	3	0	39	230		0	0	0	0

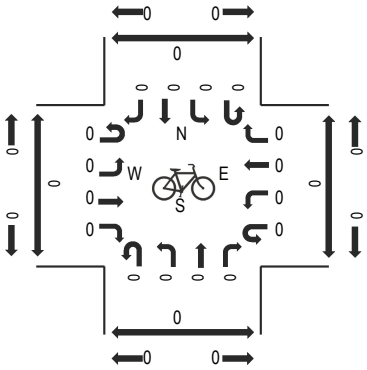
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 SOUTH PARKER ROAD & STROH ROAD PM
Date: Thursday, February 22, 2024
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

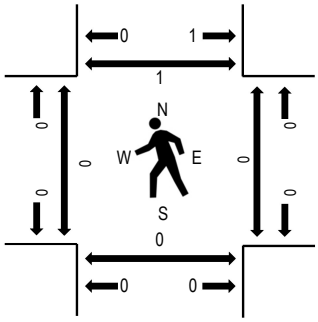
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	STROH ROAD Eastbound				STROH ROAD Westbound				SOUTH PARKER ROAD Northbound				SOUTH PARKER ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	89	9	48	0	10	2	7	0	53	395	5	0	16	392	86	1,112	4,206	0	0	0	1
4:15 PM	0	89	14	42	0	1	7	5	1	50	298	7	3	14	396	80	1,007	4,057	0	0	0	0
4:30 PM	0	88	11	56	0	4	6	12	0	40	249	5	4	14	430	70	989	4,052	0	0	0	0
4:45 PM	0	85	9	59	0	6	3	8	0	49	307	2	1	15	488	66	1,098	4,022	0	0	0	0
5:00 PM	0	94	8	42	0	5	7	7	1	36	299	1	6	17	369	71	963	3,799	0	0	0	0
5:15 PM	0	106	13	52	0	2	4	14	1	38	285	2	1	14	401	69	1,002		0	0	0	0
5:30 PM	0	111	7	46	0	4	9	10	1	33	251	2	4	12	392	77	959		0	0	0	0
5:45 PM	0	131	9	35	0	4	4	12	0	41	184	2	6	11	386	50	875		0	0	0	0
Count Total	0	793	80	380	0	36	42	75	4	340	2,268	26	25	113	3,254	569	8,005		0	0	0	1
Peak Hour	0	351	43	205	0	21	18	32	1	192	1,249	19	8	59	1,706	302	4,206		0	0	0	1

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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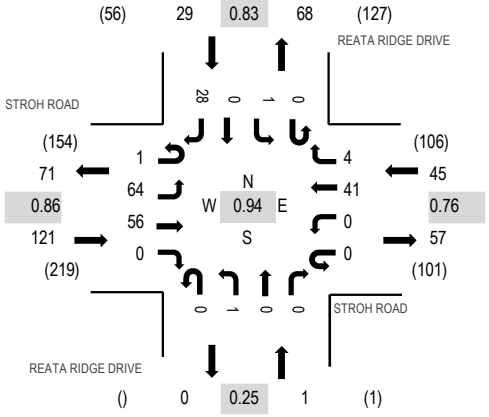
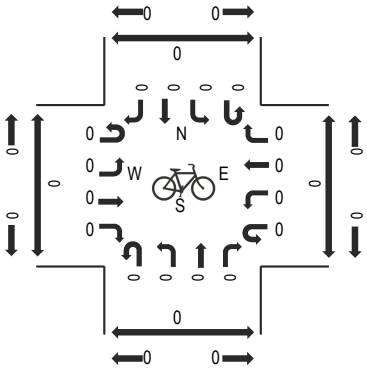
Location: 2 REATA RIDGE DRIVE & STROH ROAD PM
Date: Thursday, February 22, 2024
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

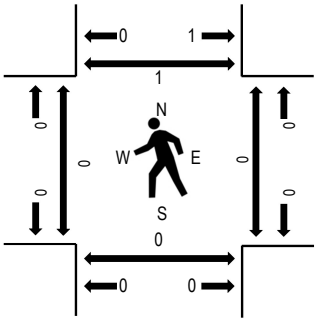
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	STROH ROAD Eastbound				STROH ROAD Westbound				REATA RIDGE DRIVE Northbound				REATA RIDGE DRIVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	20	10	0	0	0	11	1	0	0	0	0	0	0	0	8	50	196	0	0	0	0
4:15 PM	0	16	19	0	0	0	7	1	0	1	0	0	0	1	0	5	50	191	0	0	0	1
4:30 PM	1	11	17	0	0	0	14	2	0	0	0	0	0	0	0	7	52	194	0	0	0	0
4:45 PM	0	17	10	0	0	0	9	0	0	0	0	0	0	0	0	8	44	186	0	0	0	0
5:00 PM	0	14	12	0	0	0	10	0	0	0	0	0	0	0	0	9	45	186	0	0	0	0
5:15 PM	0	14	15	0	0	0	17	3	0	0	0	0	0	0	0	4	53		0	0	0	0
5:30 PM	0	12	9	0	0	0	15	1	0	0	0	0	0	0	0	7	44		0	0	0	0
5:45 PM	0	14	8	0	0	0	14	1	0	0	0	0	0	0	0	7	44		0	0	0	0
Count Total	1	118	100	0	0	0	97	9	0	1	0	0	0	1	0	55	382		0	0	0	1
Peak Hour	1	64	56	0	0	0	41	4	0	1	0	0	0	1	0	28	196		0	0	0	1