



ALDRIDGE TRANSPORTATION CONSULTANTS, LLC

Advanced Transportation Planning and Traffic Engineering

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July 6, 2022

Ms. Kay Stallworthy
Cadence Capital Investments
6400 S. Fiddlers Green Circle, Suite 1820
Greenwood Village, CO 80111

RE: Transportation Impact Study - Revised
SEC Smith Road/Tower Road, Aurora, CO

Dear Ms. Stallworthy:

Aldridge Transportation Consultants (ATC) is pleased to present this traffic impact study for the proposed Gas Station with Convenience Store located on the southeast corner of Smith and Tower Roads in Aurora.

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 1,000 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.

We acknowledge that City of Aurora's review of this study is only for general performance with submittal requirements, current design criteria, and standard engineering principles and practice.

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

Respectfully submitted,
Aldridge Transportation Consultants, LLC

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





INTRODUCTION

This Traffic Impact Study examines the potential impact on traffic caused by the development of a gas station with 16 passenger car fueling stations and an approximate 4,650 square foot convenience store. Figure 1 shows the location of the site and the surrounding streets and intersections.



Figure 1 Site Location and Surrounding Area

EXISTING CONDITIONS

Tower Road is a 2-lane Arterial on the south leg and a 4-lane Arterial on the north leg. It carries approximately 16,000 ADT on the south leg, and 19,000 ADT on the north leg. The posted speed limit is 40 mph. The south leg is divided with a painted center median. The north leg is divided with a raised concrete median.

Smith Road is a 2-lane undivided Arterial and carries approximately 7,000 ADT on the west leg and 4,500 ADT on the east leg. The posted speed limit is 40 mph.

Andes Way is a 2-lane local road. The ADT is estimated at less than 500 as it is not a through road and the roadside development is limited. The road is unpaved.



The intersection of Tower/Smith is traffic signal controlled with permitted/protected left turn phasing on the northbound, southbound, and eastbound approaches and permitted only on the westbound approach. The northbound approach consists of a 125-foot left turn lane and a shared through and right turn lane. The southbound approach consists of a 325-foot left turn lane, a through lane, and a continuous right turn lane. The eastbound and westbound approaches both have 150-foot left turn lanes and shared right turn and through lanes.

AM and PM traffic counts were taken All Traffic Data on Wednesday, August 21, 2019. The count worksheet and graphics are provided in the appendix for reference.

ACCESS LOCATIONS

The site is accessible from Tower Road at right in/right out access approximately 250 feet south of Smith Road and from Smith Road at a right in/right out only access approximately 270 feet east of Tower Road. There is also a full-movement access to Andes Way, a local north/south gravel road that connects to Smith Road at a full-movement, stop sign controlled T-type intersection.

LAND USE and TRIP GENERATION

The property will be developed with a gas station and convenience store. There will be 16 passenger car fueling stations. The convenience store is around 4,000 square feet in size. The trip generation rates are from the *ITE Trip Generation Manual, 10th Edition*. The following worksheet provides the ADT and AM/PM Peak Hour traffic volumes. The average pass-by trip percent is high at 56 percent.

Trip Generation Worksheet								
ITE CODE	LAND USE	UNIT	QUANTITY	ADT	AM		PM	
					IN	OUT	IN	OUT
945	Gas Station w/ Convenience	Fueling Stations	16	205.36	6.36	6.11	7.13	6.89
				3286	102	98	114	110
	Pass-by Trip Reduction (56%)			1840	57	55	64	62
	Total Trips Assigned to Street			1446	45	43	50	48
Total Trips Assigned to Driveways				3286	102	98	114	110

TRAFFIC DISTRIBUTION & ASSIGNMENT

The distribution of the site generated traffic at each access and at the intersection (with the pass-by reduction) is shown in the following Figure 2. The existing average daily traffic and the forecast 2024 and 2040 ADT background and total traffic are shown on the Synchro graphics in the appendix.

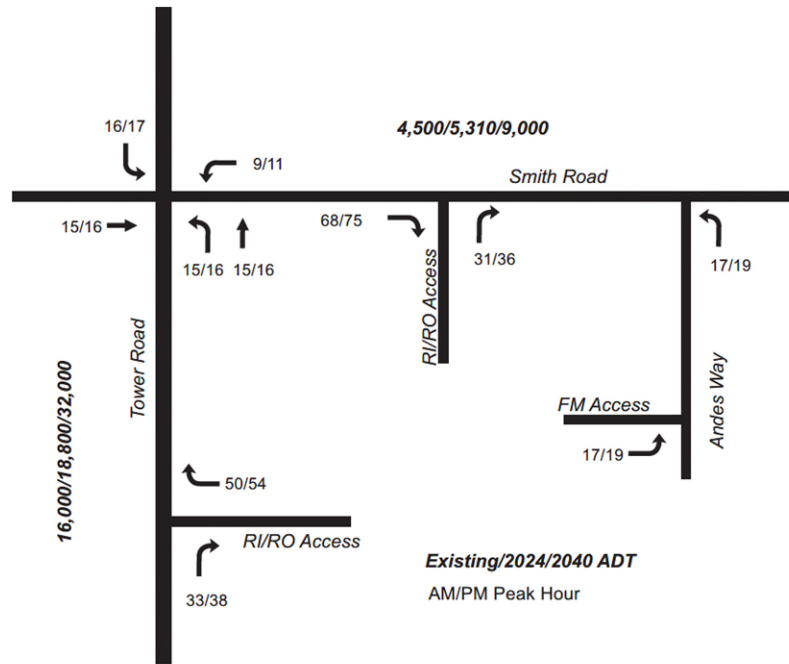


Figure 2 AM & PM Trip Assignment

FUTURE TRAFFIC VOLUMES

The DRCOG Focus Model Assigned Volumes for 2015 and 2040 shows a growth rate of approximately 3 percent per annum. This is higher than the City's standard of 2 percent per annum. Using the DRCOG assigned volumes the 5-year growth factor is 1.18 and the 20-year growth factor is 2. These were applied to determine the future impacts.

Table 2.
Recommended Traffic Volume Thresholds

ROADWAY CLASSIFICATION	NUMBER OF LANES EACH DIRECTION	RECOMMENDED DAILY TRAFFIC VOLUME LOS THRESHOLDS (VEHICLES PER DAY)		
		C	D ⁽²⁾	E
Collector	1	> 9,500 to 10,500	> 10,500 to 12,000	> 12,000 to 13,500
Minor Arterial	2	> 22,500 to 25,500	> 25,500 to 28,500	> 28,500 to 32,000
Minor Arterial ⁽¹⁾	3	> 30,000 to 34,500	> 34,500 to 38,500	> 38,500 to 43,000
Major Arterial	2	> 30,000 to 36,000	> 36,000 to 40,000	> 40,000 to 45,000
Major Arterial	3	> 46,000 to 53,000	> 53,000 to 60,000	> 60,000 to 67,000
Major Arterial ⁽¹⁾	4	> 56,000 to 64,000	> 64,000 to 72,000	> 72,000 to 80,000
Expressway	2	> 38,000 to 44,000	> 44,000 to 49,000	> 49,000 to 55,000
Expressway	3	> 56,000 to 64,000	> 64,000 to 72,000	> 72,000 to 80,000

⁽¹⁾ System performance evaluation only.

⁽²⁾ LOS D threshold volumes used for development roadway planning consistent with traffic impact study guidelines.

lane Major Arterial with 32,000 ADT in 2040 will operate at LOS C > 30,000 to 36,000. Smith Road can operate at LOS B in 2040 with the current 2-lane cross-section.

Applying the growth factors shows that Tower Road will increase from 16,000 ADT to 18,800 ADT in the 5-year design horizon and 32,000 ADT in the 20-year design horizon. Smith Road will go from 4,500 ADT to 5,310 ADT in the 5-year design horizon and 9,000 ADT in the 20-year design horizon. Based on the City's Recommended Daily Traffic Volume LOS Thresholds (Vehicles per Day) as published in the Northeast Area Transportation Study (NEATS), a 4-



A site plan has been prepared with the roadway and intersection improvements necessary to address the impacts of the project, pursuant to discussions held with Public Works and the City Attorney and the relevant legal standard for imposing requirements on a development application. This site plan allows the traffic signal to remain in place until the city undertakes certain projects related to regional traffic growth, which are unrelated to the impacts of this project. However, right of way in excess of what is required to mitigate the impacts of the project is being dedicated to assist implementation of future roadway improvements to mitigate regional growth not related to the project. As a result of this right of way dedication, the traffic signal will remain within an island that has been designed to address the needs of the project, including pedestrian safety and traffic signal maintenance access. Figure 3 shows the proposed improvements.

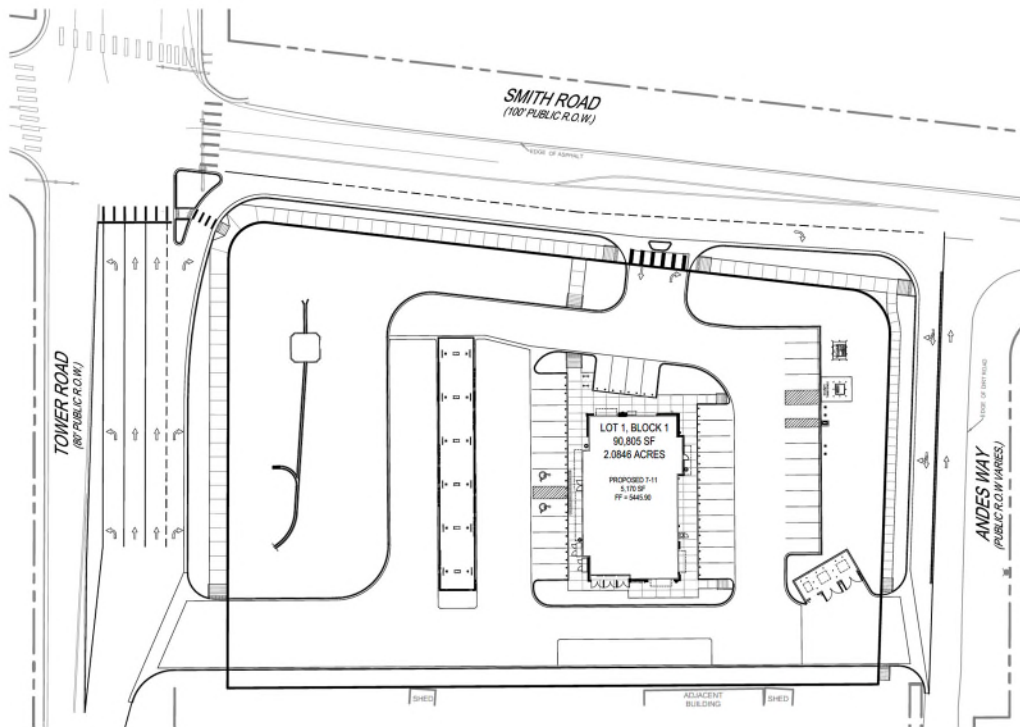


Figure 3 Recommended Roadway Improvements

The recommended roadway improvements include adding a northbound through lane and an exclusive northbound to eastbound right turn lane on Tower Road. The resulting two through lanes will match the two receiving lanes on the north leg of the intersection. Note that there is only room for two receiving lanes on the northbound leg. Also, note that the northbound leg is constrained to two lanes by the RR crossing. The right turn movement will be channelized and “free” (no stop or yield signs) excepting the yield sign for pedestrians. The left turn lane will remain in place and function as is. Coming northbound on the existing single lane will require a large diverge area which allows for the vehicle to select an appropriate lane or move into the 7-11 and gas station without any crossing or lane change movements.



On Smith Road the eastbound single through lane will be maintained but a right turn auxiliary lane will be added to serve as an accel lane for the northbound to eastbound right turn traffic and a deceleration lane for the right in/right out only access. The auxiliary lane will continue eastward to Andes Way where at that point the right turn at Andes Way must make a right turn only. This will avoid creating a merge area to the existing through lane on Smith Road.

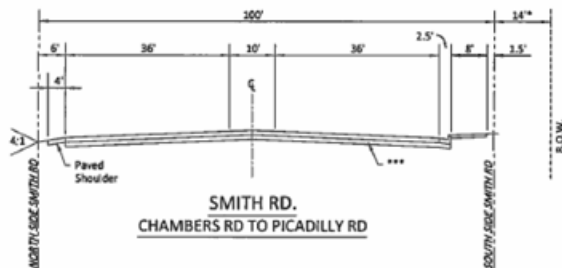
With the channelizing island the existing traffic signal pole and equipment can remain in place. This is typical configuration seen throughout Aurora and the metro area. Traffic signal improvements include an additional signal head for the new through movement on Tower Road and a right turn lane only sign on the mast arm for the new right turn lane.

Andes Way will be paved as a two-lane roadway. Sidewalks and landscaped areas per City standards are features on the frontages will enhance the appearance and walkability of the site.

The recommended partial roadway improvements are designed as the “best engineering fit” and beyond what is necessary to mitigate the impacts of the project.

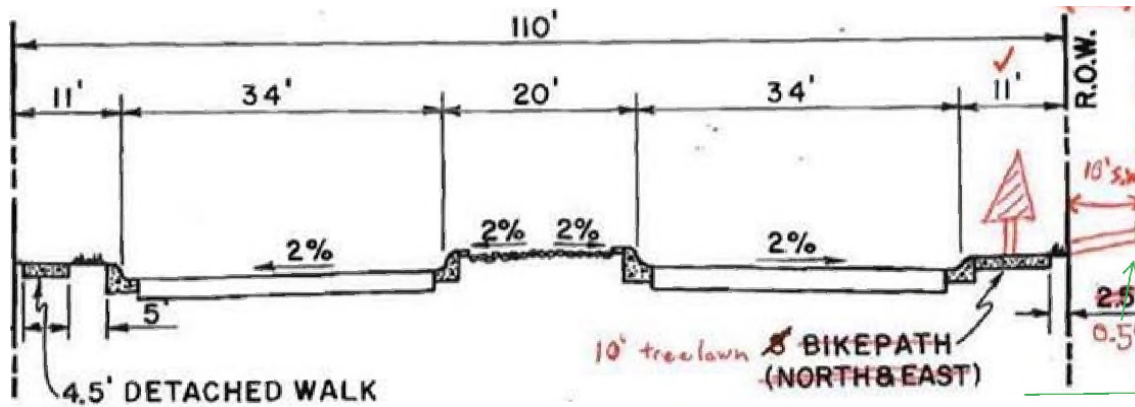
COA ULTIMATE CROSS-SECTIONS

The City has prepared cross-section designs for the “ultimate” condition on Smith Road and Tower Road. On Smith Road the cross-section on this section is shown in the figure to the left. It is



published in the City’s Roadway Design and Construction Specifications. It is a six-lane roadway within the existing 100-foot right-of-way. An additional 14 feet on the south side for an acceleration lane if needed but this would have to be acquired by the city, as it is not needed to mitigate the impacts of the project. The 8-foot sidewalk is only on the south side but placed per the cross-section. This leaves room for a landscaped buffer.

The cross-section for Tower Road is not published in the Roadway Design and Construction Specifications like the Smith Road cross-section. Rather it is a hand drawing of a modified Pre-1999 Major Arterial cross-section. It is also a six-lane roadway and includes a 10-foot tree lawn and a 10-foot sidewalk only on the east side. On the west side there is an existing 4.5-foot sidewalk and a 5-foot grassy area. The sketch provided by staff is shown on the next page.



There are no matching sections on either end - east or west ends on Smith Road and north or south ends on Tower Road. Nor are there any formal plans or CIP funding to construct adjoining sections on either ends of Smith or Tower Roads. On Tower Road there are two northbound through lanes, a single southbound through lane, left turn lane and an exclusive right turn lane. On Smith Road there a single shared right turn and through lane in both directions and exclusive left turn lanes.

The recommended roadway layout is designed for the best engineering fit to the existing intersection and roadway geometry and can be utilized as is with future improvements as needed to manage the forecast volumes at an acceptable level of service. Note that six-lanes on Smith Road will require considerable widening on the north side up to the existing right of way line adjacent to the RR property.

In the future we understand that the City of Aurora intends to conduct intersection and roadway improvements in the area to manage the forecast volumes resulting from regional traffic growth which are unrelated to the impact from this project. The city has indicated it may build up to six-lanes on Tower Road and six lanes on Smith Road.

PEAK HOUR INTERSECTION LEVEL OF SERVICE

ATC uses Synchro v.10 for operations analyses. The Synchro methodology is based on the 6th Edition of the Highway Capacity Manual (HCM). The table summarizes the AM and PM peak hour LOS for the Existing, 2023 Background and Total, and 2038 Background and Total. LOS is a 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, indicates the LOS rating for unsignalized intersections, which is generally a left turn out from the minor street approach. Caution must be used when evaluating the LOS at unsignalized intersections particularly when LOS F is shown. In case of LOS, the HCM suggests that other evaluation methods should be considered such as the volume over capacity ratio and the 95th percentile queue length to make the most effective traffic control decision. LOS F at unsignalized intersections is typically normal during the weekday peak hours. Synchro graphics and reports for each timeframe are provided in the appendix.



Unsignalized Intersection LOS Summary										
LOS/Control Delay (secs) A=0-10, B=>10-15, C=>15-25, D=>25-35, E=>35-50, F=>50										
Intersection	Existing		2025 Background		2025 Total		2040 Background		2040 Total	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Smith Access	n/a	n/a	n/a	n/a	A	A	n/a	n/a	B	A
Tower Access	n/a	n/a	n/a	n/a	C	C	n/a	n/a	C	C
Andes Way Access	n/a	n/a	n/a	n/a	A	A	n/a	n/a	A	A
Smith/Andes Way	n/a	n/a	n/a	n/a	B	B	n/a	n/a	C	C
Signalized Intersection LOS Summary										
LOS/Control Delay (secs) A=0-10, B=>10-20, C=>20-35, D=>35-55, E=>55-80, F=>80										
Intersection	Existing		2025 Background		2025 Total		2040 Background		2040 Total	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Smith/Tower	C	C	C	C	D	D	F	F	D	D

It is important to understand that Synchro is a macro-analysis with algorithms and default values for several of its signal timing procedures. The signal is actuated making the phase and cycle variable based on changing arrivals. Synchro is in essence a planning vs. operational tool to evaluate the impact of the project on a near apples-to-apples comparison.

The analysis shows that the Smith/Tower intersection currently operates at LOS C in the AM and PM peak hours and will continue to do so in the 2025 AM and PM peak hours background condition. With the site generated traffic, it will operate at LOS D in the AM peak hour and in the PM peak hour and LOS D. In 2040 with double the Background traffic in the AM and PM peak hour condition the intersection will operate at LOS F/F. In 2040 with the additional site generated traffic and recommended improvements it will provide LOS D/D operation in the AM and PM peak hours.

The city has asked the applicant to analyze the 2040 horizon with the assumption that the city will complete the widening of both Smith Road and Tower Road to six lanes total. The timing of these regional improvements is currently unknown. We have completed the analysis as directed by the city, but it is important to note that the design, timing, and ultimate impact of these improvements are within the control of the city.

The six-lane scenarios for the 2040 AM and PM peak hours are provided in the appendix. They report an overall signalized LOS B/C for the Smith/Tower intersection in the AM and PM peak hours, respectively. The 95thile queue data has been added to the table on the next page.

The Smith Road right in/right out only access will operate at a minimum LOS A in all conditions excepting the 2040 AM peak hour when it will operate at LOS B. The Tower Road right in/right out only access will operate at LOS C in all conditions. The Andes Way full-movement access will operate at LOS A/A in all conditions. The intersection of Andes Way and Smith Road will operate at LOS B/B in the 2025 conditions and LOS C/C in the 2040 conditions.

A review of the 95thile queue lengths at the Smith and Tower intersection is provided in the following table. Note that the lengths in yellow exceeds capacity (signal timing not storage) and the queue may be longer. Queue shown is maximum after two cycles. The review demonstrates



that the impact of the gas station and convenience store is negligible. The excessive queuing particularly on the eastbound left turn and the southbound left turn is due to the increase in background traffic (regional growth vs. site generated).

There are no 95th percentile queue issues at any of the access locations or at the Smith Road and Andes Way intersection.

95th Percentile Queue Length Analysis (in feet)												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Existing Storage Length	150			150			125			325		
Future Storage Length							250					
Existing AM	170	121		95	155		27	571		64	390	31
Existing PM	322	157		111	118		21	613		36	669	45
2024 BKG AM	228	134		106	176		28	714		67	468	31
2024 BKG PM	430	191		134	146		23	870		40	947	60
2024 TOTAL AM	152	164		130	177		37	867		131	471	31
2024 TOTAL PM	275	225		161	146		45	927		115	947	80
2040 BKG AM	470	217		178	304		162	2008		496	1524	150
2040 BKG PM	846	321		294	248		42	1980		147	2092	196
2040 TOTAL AM	275	252		189	284		91	1975		544	1446	138
2040 TOTAL PM	576	381		168	248		43	2072		251	2092	196
2040 TOTAL AM 6-LANE	107	80		159	64		72	304		81	274	55
2040 TOTAL PM 6-LANE	203	73		174	53		40	326		34	398	87

MITIGATION

The City uses the CDOT State Highway Access Code standards for the determination of auxiliary turn lanes at the access locations. In this case, assuming an NR-B classification, the required lanes consist of taper length and storage requirements for a roadway posted at 40 mph. The taper ratio is 12:1 or rounded to 150 feet. The storage length is 100 feet on the Smith Road right turn deceleration lanes. Acceleration lanes are not required.

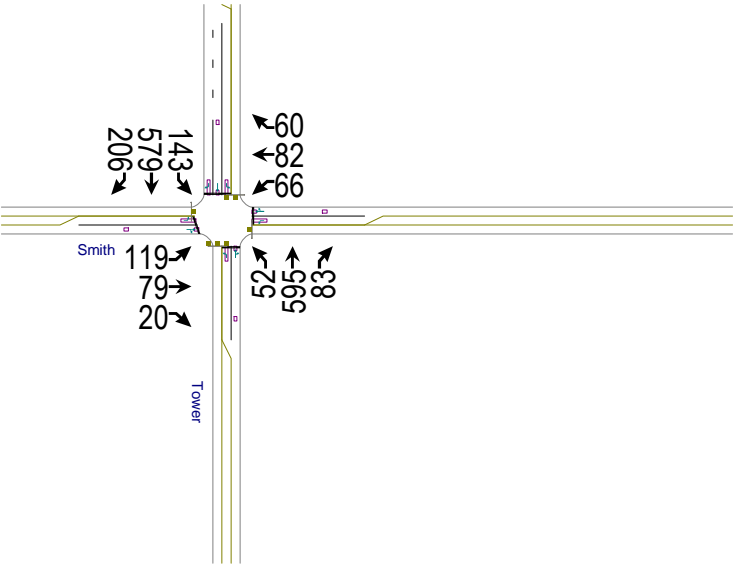
A right turn lane is warranted by Code at the Tower Road access with a 150-foot taper and 50-foot storage length. However, there are physical constraints including a ditch, culvert, and proximal driveways to the south that may require the lane to be shorter or designed with a “slip” lane (no storage) and larger radius on the entry curve.

RECOMMENDATIONS

Based on the analysis, traffic from the site can be absorbed by the adjacent streets and intersections and not cause a safety or operational problem assuming the roadway and intersection improvement are deployed per Figure 2. The proposed access locations are the best engineering fit for the parcel’s configuration and accessibility to the streets.
























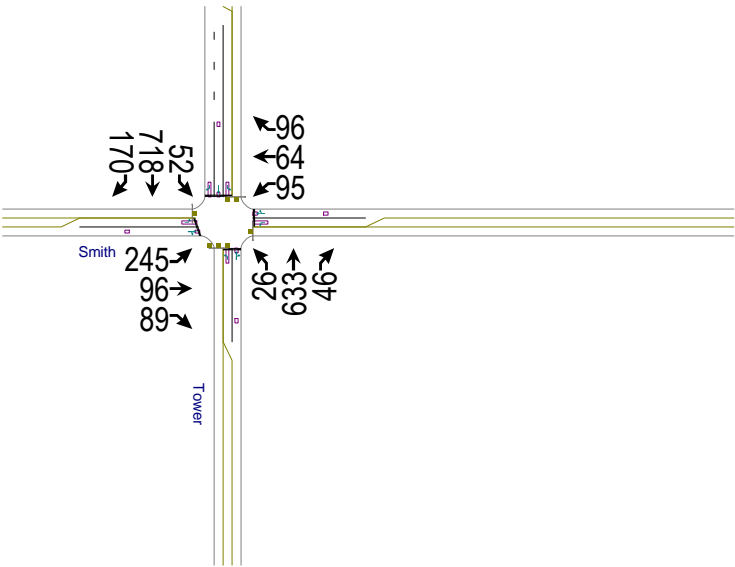
APPENDIX



Smith-Tower
3: Tower & Smith






















EX AM
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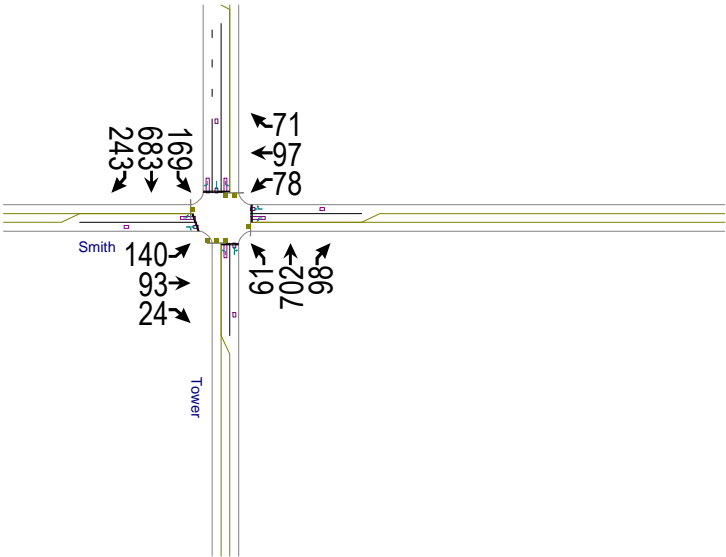
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	79	20	66	82	60	52	595	83	143	579	206
Future Volume (veh/h)	119	79	20	66	82	60	52	595	83	143	579	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	129	86	22	72	89	65	57	647	90	155	629	224
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	211	288	74	251	202	147	431	1031	143	431	1223	1037
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.03	0.64	0.64	0.05	0.65	0.65
Sat Flow, veh/h	1233	1437	368	1286	1005	734	1781	1607	223	1781	1870	1585
Grp Volume(v), veh/h	129	0	108	72	0	154	57	0	737	155	629	224
Grp Sat Flow(s),veh/h/ln	1233	0	1804	1286	0	1738	1781	0	1830	1781	1870	1585
Q Serve(g_s), s	12.5	0.0	6.2	6.2	0.0	9.5	1.3	0.0	29.6	3.6	21.5	7.0
Cycle Q Clear(g_c), s	22.0	0.0	6.2	12.4	0.0	9.5	1.3	0.0	29.6	3.6	21.5	7.0
Prop In Lane	1.00		0.20	1.00		0.42	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	211	0	362	251	0	349	431	0	1174	431	1223	1037
V/C Ratio(X)	0.61	0.00	0.30	0.29	0.00	0.44	0.13	0.00	0.63	0.36	0.51	0.22
Avail Cap(c_a), veh/h	270	0	450	314	0	433	448	0	1174	516	1223	1037
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	0.0	41.6	46.8	0.0	42.9	8.4	0.0	13.2	11.0	11.0	8.5
Incr Delay (d2), s/veh	2.9	0.0	0.5	0.6	0.0	0.9	0.1	0.0	2.5	0.5	1.5	0.5
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	4.0	0.0	2.8	2.0	0.0	4.2	0.5	0.0	12.3	1.4	8.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	0.0	42.0	47.5	0.0	43.8	8.5	0.0	15.7	11.5	12.6	9.0
LnGrp LOS	E	A	D	D	A	D	A	A	B	B	B	A
Approach Vol, veh/h		237			226			794			1008	
Approach Delay, s/veh		49.3			44.9			15.2			11.6	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	83.0		29.1	8.8	84.5		29.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	11.6	73.9		30.5	5.5	80.0		30.5				
Max Q Clear Time (g_c+I1), s	5.6	31.6		24.0	3.3	23.5		14.4				
Green Ext Time (p_c), s	0.2	6.5		0.5	0.0	6.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									



Smith Tower
3: Tower & Smith






















EX PM
09/06/2019

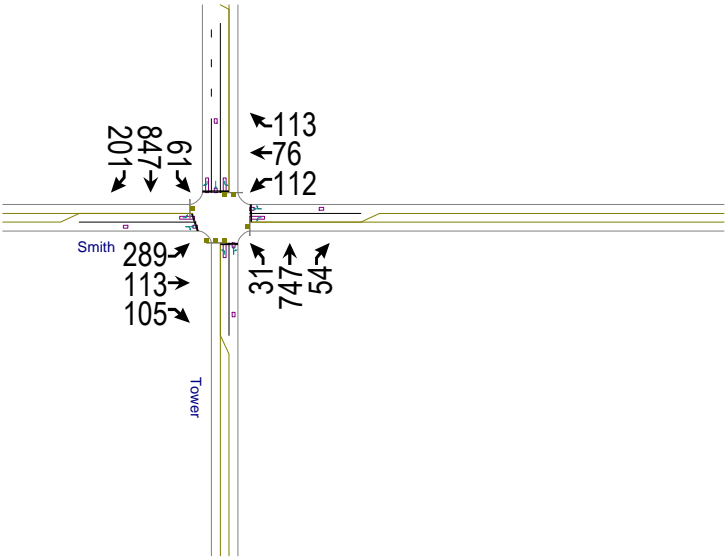
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Future Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	266	104	97	103	70	104	28	688	50	57	780	185
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	350	282	263	329	215	320	232	915	67	284	1014	859
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.03	0.53	0.53	0.04	0.54	0.54
Sat Flow, veh/h	1211	890	830	1181	679	1009	1781	1723	125	1781	1870	1585
Grp Volume(v), veh/h	266	0	201	103	0	174	28	0	738	57	780	185
Grp Sat Flow(s),veh/h/ln	1211	0	1721	1181	0	1689	1781	0	1848	1781	1870	1585
Q Serve(g_s), s	25.0	0.0	10.5	8.6	0.0	9.1	0.8	0.0	36.3	1.7	38.2	7.1
Cycle Q Clear(g_c), s	34.1	0.0	10.5	19.1	0.0	9.1	0.8	0.0	36.3	1.7	38.2	7.1
Prop In Lane	1.00		0.48	1.00		0.60	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	350	0	545	329	0	535	232	0	982	284	1014	859
V/C Ratio(X)	0.76	0.00	0.37	0.31	0.00	0.33	0.12	0.00	0.75	0.20	0.77	0.22
Avail Cap(c_a), veh/h	377	0	583	356	0	573	263	0	982	298	1014	859
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	30.8	38.2	0.0	30.3	17.8	0.0	21.3	17.4	21.0	13.8
Incr Delay (d2), s/veh	8.1	0.0	0.4	0.5	0.0	0.4	0.2	0.0	5.3	0.3	5.6	0.6
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	8.2	0.0	4.4	2.5	0.0	3.8	0.3	0.0	16.5	0.7	17.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	31.2	38.7	0.0	30.7	18.0	0.0	26.6	17.7	26.6	14.4
LnGrp LOS	D	A	C	D	A	C	B	A	C	B	C	B
Approach Vol, veh/h		467			277			766			1022	
Approach Delay, s/veh		42.7			33.7			26.3			23.9	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	66.4		41.4	7.5	67.6		41.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	61.9		39.5	5.0	62.0		39.5				
Max Q Clear Time (g_c+l1), s	3.7	38.3		36.1	2.8	40.2		21.1				
Green Ext Time (p_c), s	0.0	5.7		0.8	0.0	6.7		1.3				
Intersection Summary												
HCM 6th Ctrl Delay			29.2									
HCM 6th LOS			C									



Smith Tower
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



















2024 AM BKG
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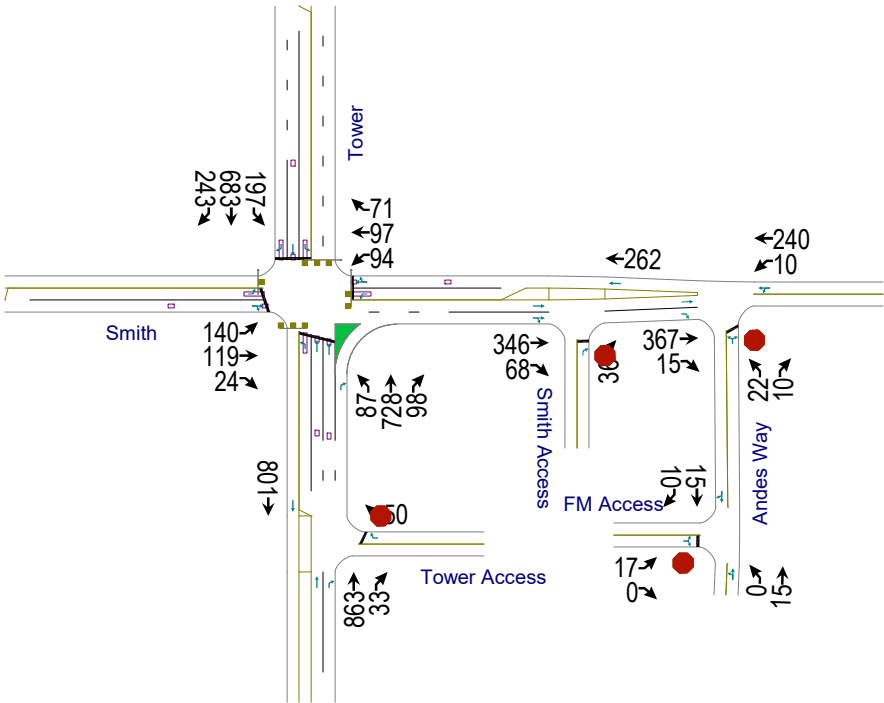
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	79	20	66	82	60	52	595	83	143	579	206
Future Volume (veh/h)	119	79	20	66	82	60	52	595	83	143	579	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	153	101	26	85	105	77	67	763	106	183	743	264
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	219	320	82	268	223	164	340	975	136	322	1171	993
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.04	0.61	0.61	0.06	0.63	0.63
Sat Flow, veh/h	1202	1435	369	1264	1003	735	1781	1607	223	1781	1870	1585
Grp Volume(v), veh/h	153	0	127	85	0	182	67	0	869	183	743	264
Grp Sat Flow(s),veh/h/ln	1202	0	1804	1264	0	1738	1781	0	1830	1781	1870	1585
Q Serve(g_s), s	15.1	0.0	7.0	7.2	0.0	10.8	1.7	0.0	42.3	4.6	29.3	8.9
Cycle Q Clear(g_c), s	25.9	0.0	7.0	14.2	0.0	10.8	1.7	0.0	42.3	4.6	29.3	8.9
Prop In Lane	1.00		0.20	1.00		0.42	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	219	0	402	268	0	387	340	0	1111	322	1171	993
V/C Ratio(X)	0.70	0.00	0.32	0.32	0.00	0.47	0.20	0.00	0.78	0.57	0.63	0.27
Avail Cap(c_a), veh/h	219	0	402	268	0	387	356	0	1111	383	1171	993
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	0.0	38.6	44.6	0.0	40.1	11.3	0.0	17.5	18.0	13.8	10.0
Incr Delay (d2), s/veh	9.4	0.0	0.4	0.7	0.0	0.9	0.3	0.0	5.5	1.6	2.6	0.7
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	5.1	0.0	3.2	2.3	0.0	4.7	0.6	0.0	18.4	2.4	12.5	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	0.0	39.1	45.3	0.0	41.0	11.6	0.0	23.0	19.6	16.4	10.6
LnGrp LOS	E	A	D	D	A	D	B	A	C	B	B	B
Approach Vol, veh/h		280			267			936			1190	
Approach Delay, s/veh		50.9			42.4			22.2			15.6	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.2	76.7		31.0	9.0	79.0		31.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.8	69.2		26.5	5.5	74.5		26.5				
Max Q Clear Time (g_c+I1), s	6.6	44.3		27.9	3.7	31.3		16.2				
Green Ext Time (p_c), s	0.2	7.5		0.0	0.0	7.7		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			24.3									
HCM 6th LOS			C									



Smith Tower
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




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Future Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
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	314	123	114	122	82	123	33	812	59	67	921	218
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	332	290	268	308	219	328	151	905	66	192	1000	848
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.03	0.53	0.53	0.04	0.53	0.53
Sat Flow, veh/h	1177	893	828	1143	675	1013	1781	1723	125	1781	1870	1585
Grp Volume(v), veh/h	314	0	237	122	0	205	33	0	871	67	921	218
Grp Sat Flow(s),veh/h/ln	1177	0	1721	1143	0	1688	1781	0	1848	1781	1870	1585
Q Serve(g_s), s	27.6	0.0	12.9	11.2	0.0	11.1	1.0	0.0	50.5	2.0	53.9	8.9
Cycle Q Clear(g_c), s	38.7	0.0	12.9	24.1	0.0	11.1	1.0	0.0	50.5	2.0	53.9	8.9
Prop In Lane	1.00		0.48	1.00		0.60	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	332	0	558	308	0	547	151	0	971	192	1000	848
V/C Ratio(X)	0.95	0.00	0.42	0.40	0.00	0.37	0.22	0.00	0.90	0.35	0.92	0.26
Avail Cap(c_a), veh/h	332	0	558	308	0	547	176	0	971	201	1000	848
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	0.0	31.6	41.0	0.0	31.0	24.6	0.0	25.4	23.8	25.4	15.0
Incr Delay (d2), s/veh	35.3	0.0	0.5	0.8	0.0	0.4	0.7	0.0	12.7	1.1	14.8	0.7
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	12.8	0.0	5.4	3.2	0.0	4.6	0.4	0.0	24.6	0.9	26.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.1	0.0	32.1	41.9	0.0	31.4	25.3	0.0	38.1	24.9	40.2	15.7
LnGrp LOS	F	A	C	D	A	C	C	A	D	C	D	B
Approach Vol, veh/h		551			327			904			1206	
Approach Delay, s/veh		61.2			35.3			37.7			34.9	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	67.2		43.2	7.8	68.3		43.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	62.7		38.7	5.0	62.8		38.7				
Max Q Clear Time (g_c+l1), s	4.0	52.5		40.7	3.0	55.9		26.1				
Green Ext Time (p_c), s	0.0	4.6		0.0	0.0	4.1		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			40.6									
HCM 6th LOS			D									







Smith-Tower
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2025 AM TOTAL




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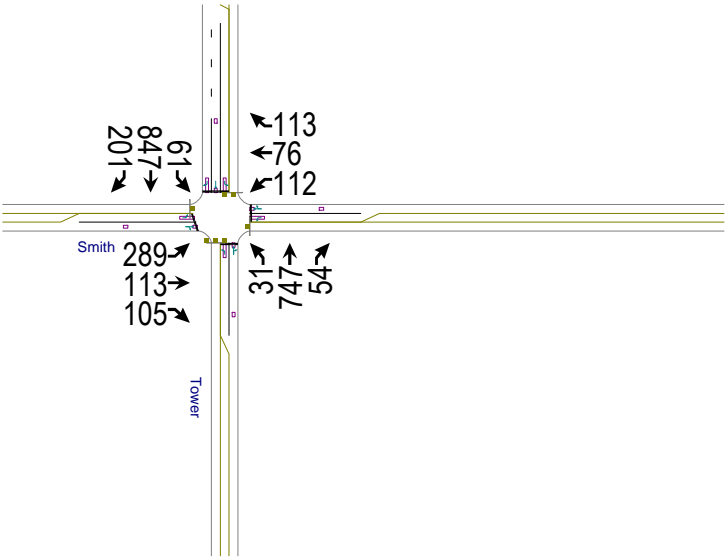
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
Future Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	153	130	26	103	105	77	95	791	0	214	743	264
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	250	385	77	217	125	92	312	1979		483	1095	928
Arrive On Green	0.09	0.25	0.25	0.13	0.13	0.13	0.04	0.56	0.00	0.07	0.59	0.59
Sat Flow, veh/h	1781	1513	303	1231	1003	735	1781	3554	1585	1781	1870	1585
Grp Volume(v), veh/h	153	0	156	103	0	182	95	791	0	214	743	264
Grp Sat Flow(s),veh/h/ln	1781	0	1816	1231	0	1738	1781	1777	1585	1781	1870	1585
Q Serve(g_s), s	8.2	0.0	8.0	9.1	0.0	11.6	2.6	14.4	0.0	5.7	31.1	9.4
Cycle Q Clear(g_c), s	8.2	0.0	8.0	9.1	0.0	11.6	2.6	14.4	0.0	5.7	31.1	9.4
Prop In Lane	1.00		0.17	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	250	0	462	217	0	217	312	1979		483	1095	928
V/C Ratio(X)	0.61	0.00	0.34	0.47	0.00	0.84	0.30	0.40		0.44	0.68	0.28
Avail Cap(c_a), veh/h	271	0	551	264	0	283	324	1979		565	1095	928
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	0.0	34.6	47.5	0.0	48.6	13.8	14.3	0.0	10.1	16.2	11.7
Incr Delay (d2), s/veh	3.5	0.0	0.4	1.6	0.0	15.5	0.5	0.6	0.0	0.6	3.4	0.8
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	3.8	0.0	3.6	2.9	0.0	6.0	1.0	5.8	0.0	2.2	13.6	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	35.0	49.1	0.0	64.0	14.3	14.9	0.0	10.8	19.6	12.5
LnGrp LOS	D	A	D	D	A	E	B	B		B	B	B
Approach Vol, veh/h		309			285			886	A		1221	
Approach Delay, s/veh		38.0			58.6			14.9			16.5	
Approach LOS		D			E			B			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	67.8		33.4	9.3	71.0	14.7	18.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	13.2	58.8		34.5	5.5	66.5	11.5	18.5				
Max Q Clear Time (g_c+I1), s	7.7	16.4		10.0	4.6	33.1	10.2	13.6				
Green Ext Time (p_c), s	0.3	6.7		0.8	0.0	7.4	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱			↑		↱
Traffic Vol, veh/h	346	68	0	262	0	36
Future Vol, veh/h	346	68	0	262	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	376	74	0	285	0	39
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	225
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	779
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	779
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	779	-	-	-		
HCM Lane V/C Ratio	0.05	-	-	-		
HCM Control Delay (s)	9.9	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	-		

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	863	33	0	801
Future Vol, veh/h	0	50	863	33	0	801
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	0	54	938	36	0	871
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	938	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	321	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	321	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.5	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	-	321	-		
HCM Lane V/C Ratio	-	-	0.169	-		
HCM Control Delay (s)	-	-	18.5	-		
HCM Lane LOS	-	-	C	-		
HCM 95th %tile Q(veh)	-	-	0.6	-		






















Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	367	15	10	240	22	10
Future Vol, veh/h	367	15	10	240	22	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	399	16	11	261	24	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	415	0	682	399
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	283	-
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	-	-	1144	-	415	651
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1144	-	410	651
Mov Cap-2 Maneuver	-	-	-	-	410	-
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	757	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		13.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	464	-	-	1144	-	
HCM Lane V/C Ratio	0.075	-	-	0.01	-	
HCM Control Delay (s)	13.4	-	-	8.2	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

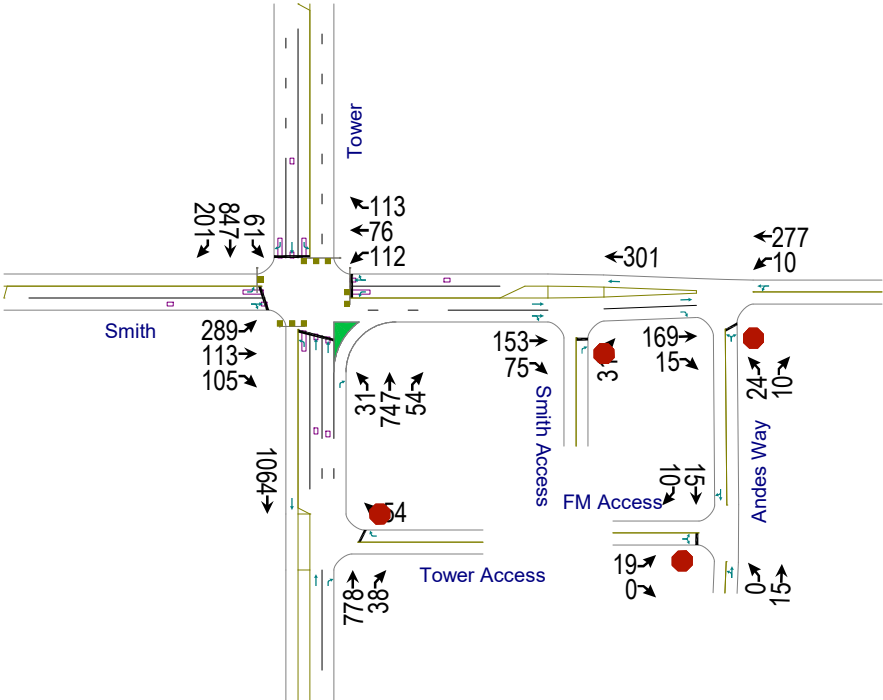
Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	0	0	15	15	10
Future Vol, veh/h	17	0	0	15	15	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	18	0	0	16	16	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	38	22	27	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	974	1055	1587	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1055	1587	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1587	-	974	-	-	
HCM Lane V/C Ratio	-	-	0.019	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	



Smith Tower
3: Tower & Smith

2024 PM BKG
09/16/2019

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Future Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
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	314	123	114	122	82	123	33	812	59	67	921	218
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	332	290	268	308	219	328	151	905	66	192	1000	848
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.03	0.53	0.53	0.04	0.53	0.53
Sat Flow, veh/h	1177	893	828	1143	675	1013	1781	1723	125	1781	1870	1585
Grp Volume(v), veh/h	314	0	237	122	0	205	33	0	871	67	921	218
Grp Sat Flow(s),veh/h/ln	1177	0	1721	1143	0	1688	1781	0	1848	1781	1870	1585
Q Serve(g_s), s	27.6	0.0	12.9	11.2	0.0	11.1	1.0	0.0	50.5	2.0	53.9	8.9
Cycle Q Clear(g_c), s	38.7	0.0	12.9	24.1	0.0	11.1	1.0	0.0	50.5	2.0	53.9	8.9
Prop In Lane	1.00		0.48	1.00		0.60	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	332	0	558	308	0	547	151	0	971	192	1000	848
V/C Ratio(X)	0.95	0.00	0.42	0.40	0.00	0.37	0.22	0.00	0.90	0.35	0.92	0.26
Avail Cap(c_a), veh/h	332	0	558	308	0	547	176	0	971	201	1000	848
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	0.0	31.6	41.0	0.0	31.0	24.6	0.0	25.4	23.8	25.4	15.0
Incr Delay (d2), s/veh	35.3	0.0	0.5	0.8	0.0	0.4	0.7	0.0	12.7	1.1	14.8	0.7
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	12.8	0.0	5.4	3.2	0.0	4.6	0.4	0.0	24.6	0.9	26.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.1	0.0	32.1	41.9	0.0	31.4	25.3	0.0	38.1	24.9	40.2	15.7
LnGrp LOS	F	A	C	D	A	C	C	A	D	C	D	B
Approach Vol, veh/h		551			327			904			1206	
Approach Delay, s/veh		61.2			35.3			37.7			34.9	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	67.2		43.2	7.8	68.3		43.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	62.7		38.7	5.0	62.8		38.7				
Max Q Clear Time (g_c+l1), s	4.0	52.5		40.7	3.0	55.9		26.1				
Green Ext Time (p_c), s	0.0	4.6		0.0	0.0	4.1		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			40.6									
HCM 6th LOS			D									



Smith-Tower
3: Smith & Tower

2025 PM TOTAL

07/05/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
Future Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
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	259	220	43	174	178	130	161	1341	0	363	1259	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	291	270	228	251	219	186	312	1597		395	1923	
Arrive On Green	0.11	0.14	0.14	0.09	0.12	0.12	0.07	0.45	0.00	0.16	0.54	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	259	220	43	174	178	130	161	1341	0	363	1259	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	12.5	12.7	2.6	9.5	10.3	8.8	5.3	37.0	0.0	15.1	27.9	0.0
Cycle Q Clear(g_c), s	12.5	12.7	2.6	9.5	10.3	8.8	5.3	37.0	0.0	15.1	27.9	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	291	270	228	251	219	186	312	1597		395	1923	
V/C Ratio(X)	0.89	0.82	0.19	0.69	0.81	0.70	0.52	0.84		0.92	0.65	
Avail Cap(c_a), veh/h	291	355	301	251	305	258	379	1597		457	1923	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.1	46.1	41.8	39.7	47.8	47.1	16.5	27.0	0.0	29.7	18.1	0.0
Incr Delay (d2), s/veh	26.6	10.6	0.4	8.0	11.0	4.8	1.3	5.5	0.0	22.0	1.8	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	3.2	6.7	1.1	4.7	5.5	3.7	2.2	16.4	0.0	6.6	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	56.7	42.2	47.7	58.8	52.0	17.8	32.5	0.0	51.6	19.8	0.0
LnGrp LOS	E	E	D	D	E	D	B	C		D	B	
Approach Vol, veh/h		522			482			1502	A		1622	A
Approach Delay, s/veh		60.5			52.9			30.9			27.0	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.1	54.4	14.0	20.5	11.9	64.6	17.0	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	21.5	49.9	9.5	21.1	11.6	59.8	12.5	18.1				
Max Q Clear Time (g_c+I1), s	17.1	39.0	11.5	14.7	7.3	29.9	14.5	12.3				
Green Ext Time (p_c), s	0.5	6.8	0.0	0.7	0.2	11.6	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D





Notes

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




Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱			↑		↱
Traffic Vol, veh/h	634	68	0	444	0	36
Future Vol, veh/h	634	68	0	444	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	689	74	0	483	0	39
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	382
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	617
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	617
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	617	-	-	-		
HCM Lane V/C Ratio	0.063	-	-	-		
HCM Control Delay (s)	11.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	-		

Smith-Tower
8: Tower Access

2025 PM TOTAL
07/05/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	1498	33	0	1358
Future Vol, veh/h	0	50	1498	33	0	1358
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	0	54	1628	36	0	1476
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	814	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	321	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	321	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.5	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 321		-		
HCM Lane V/C Ratio	-	- 0.169		-		
HCM Control Delay (s)	-	- 18.5		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.6		-		

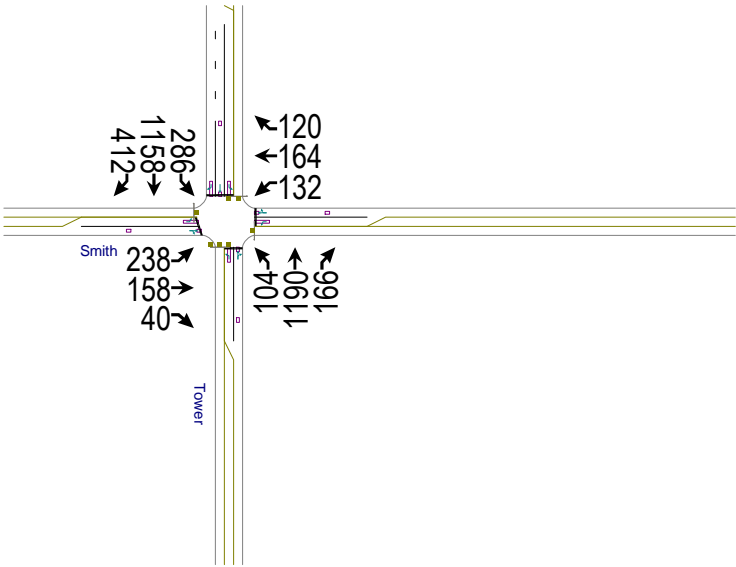
Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	655	15	10	422	22	10
Future Vol, veh/h	655	15	10	422	22	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage 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	712	16	11	459	24	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	728	0	1193	712
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	481	-
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	-	-	876	-	206	432
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	876	-	202	432
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	611	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		22.4	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	242	-	-	876	-	
HCM Lane V/C Ratio	0.144	-	-	0.012	-	
HCM Control Delay (s)	22.4	-	-	9.2	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.5	-	-	0	-	

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	0	0	15	15	10
Future Vol, veh/h	17	0	0	15	15	10
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	-	-	-	-	-
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	18	0	0	16	16	11

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	38	22	27	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	974	1055	1587	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1055	1587	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-






















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

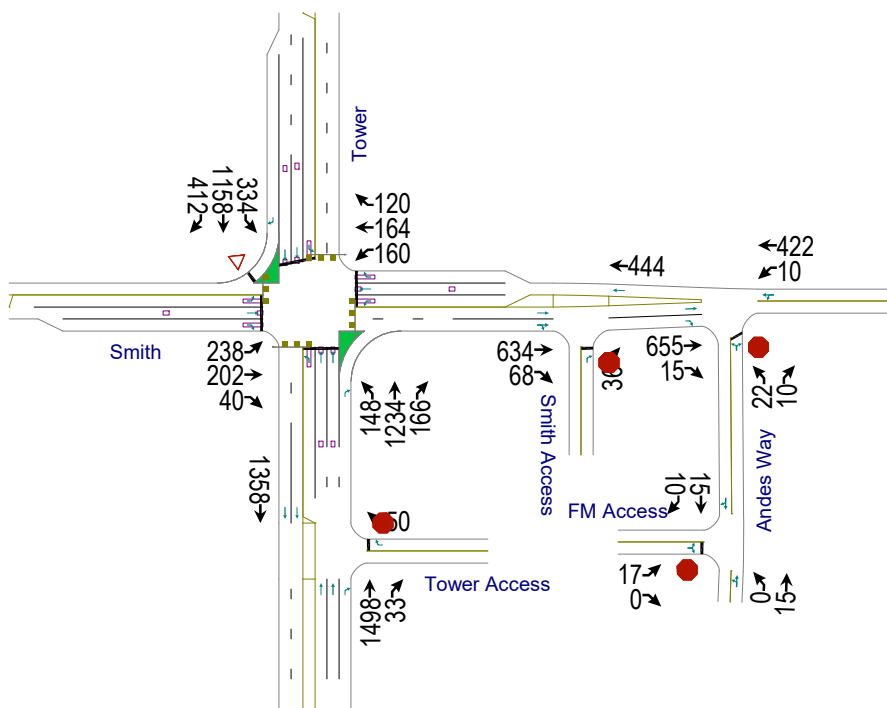
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	974	-	-
HCM Lane V/C Ratio	-	-	0.019	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



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






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	79	20	66	82	60	52	595	83	143	579	206
Future Volume (veh/h)	119	79	20	66	82	60	52	595	83	143	579	206
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	259	172	43	143	178	130	113	1293	180	311	1259	448
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	192	407	102	271	283	207	124	844	117	214	1076	912
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.53	0.53	0.09	0.58	0.58
Sat Flow, veh/h	1071	1444	361	1166	1005	734	1781	1606	224	1781	1870	1585
Grp Volume(v), veh/h	259	0	215	143	0	308	113	0	1473	311	1259	448
Grp Sat Flow(s),veh/h/ln	1071	0	1805	1166	0	1738	1781	0	1830	1781	1870	1585
Q Serve(g_s), s	16.5	0.0	12.6	14.8	0.0	20.0	4.1	0.0	68.0	11.5	74.5	21.7
Cycle Q Clear(g_c), s	36.5	0.0	12.6	27.3	0.0	20.0	4.1	0.0	68.0	11.5	74.5	21.7
Prop In Lane	1.00		0.20	1.00		0.42	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	192	0	509	271	0	490	124	0	961	214	1076	912
V/C Ratio(X)	1.35	0.00	0.42	0.53	0.00	0.63	0.91	0.00	1.53	1.45	1.17	0.49
Avail Cap(c_a), veh/h	192	0	509	271	0	490	124	0	961	214	1076	912
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	0.0	37.9	49.0	0.0	40.6	33.0	0.0	30.8	45.0	27.5	16.3
Incr Delay (d2), s/veh	187.7	0.0	0.6	1.9	0.0	2.6	53.5	0.0	245.0	228.7	86.7	1.9
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	16.4	0.0	5.7	4.5	0.0	8.9	3.7	0.0	94.1	17.1	57.3	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	246.6	0.0	38.5	50.9	0.0	43.1	86.5	0.0	275.8	273.8	114.2	18.2
LnGrp LOS	F	A	D	D	A	D	F	A	F	F	F	B
Approach Vol, veh/h		474			451			1586			2018	
Approach Delay, s/veh		152.2			45.6			262.3			117.5	
Approach LOS		F			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	72.5		41.0	9.5	79.0		41.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	11.5	68.0		36.5	5.0	74.5		36.5				
Max Q Clear Time (g_c+I1), s	13.5	70.0		38.5	6.1	76.5		29.3				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			164.7									
HCM 6th LOS			F									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
Future Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
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	259	220	43	174	178	130	161	1341	0	363	1259	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	291	270	228	251	219	186	312	1597		395	1923	
Arrive On Green	0.11	0.14	0.14	0.09	0.12	0.12	0.07	0.45	0.00	0.16	0.54	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	259	220	43	174	178	130	161	1341	0	363	1259	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	12.5	12.7	2.6	9.5	10.3	8.8	5.3	37.0	0.0	15.1	27.9	0.0
Cycle Q Clear(g_c), s	12.5	12.7	2.6	9.5	10.3	8.8	5.3	37.0	0.0	15.1	27.9	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	291	270	228	251	219	186	312	1597		395	1923	
V/C Ratio(X)	0.89	0.82	0.19	0.69	0.81	0.70	0.52	0.84		0.92	0.65	
Avail Cap(c_a), veh/h	291	355	301	251	305	258	379	1597		457	1923	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.1	46.1	41.8	39.7	47.8	47.1	16.5	27.0	0.0	29.7	18.1	0.0
Incr Delay (d2), s/veh	26.6	10.6	0.4	8.0	11.0	4.8	1.3	5.5	0.0	22.0	1.8	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	3.2	6.7	1.1	4.7	5.5	3.7	2.2	16.4	0.0	6.6	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	56.7	42.2	47.7	58.8	52.0	17.8	32.5	0.0	51.6	19.8	0.0
LnGrp LOS	E	E	D	D	E	D	B	C		D	B	
Approach Vol, veh/h		522			482			1502	A		1622	A
Approach Delay, s/veh		60.5			52.9			30.9			27.0	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.1	54.4	14.0	20.5	11.9	64.6	17.0	17.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	21.5	49.9	9.5	21.1	11.6	59.8	12.5	18.1				
Max Q Clear Time (g_c+I1), s	17.1	39.0	11.5	14.7	7.3	29.9	14.5	12.3				
Green Ext Time (p_c), s	0.5	6.8	0.0	0.7	0.2	11.6	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay 35.7

HCM 6th LOS D

Notes

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

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱			↑		↱
Traffic Vol, veh/h	634	68	0	444	0	36
Future Vol, veh/h	634	68	0	444	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	689	74	0	483	0	39
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	382
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	617
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	617
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	617	-	-	-		
HCM Lane V/C Ratio	0.063	-	-	-		
HCM Control Delay (s)	11.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	-		





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Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	50	1498	33	0	1358
Future Vol, veh/h	0	50	1498	33	0	1358
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	0	54	1628	36	0	1476
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	814	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	321	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	321	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.5	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 321		-		
HCM Lane V/C Ratio	-	- 0.169		-		
HCM Control Delay (s)	-	- 18.5		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.6		-		

Intersection




Int Delay, s/veh 0.7

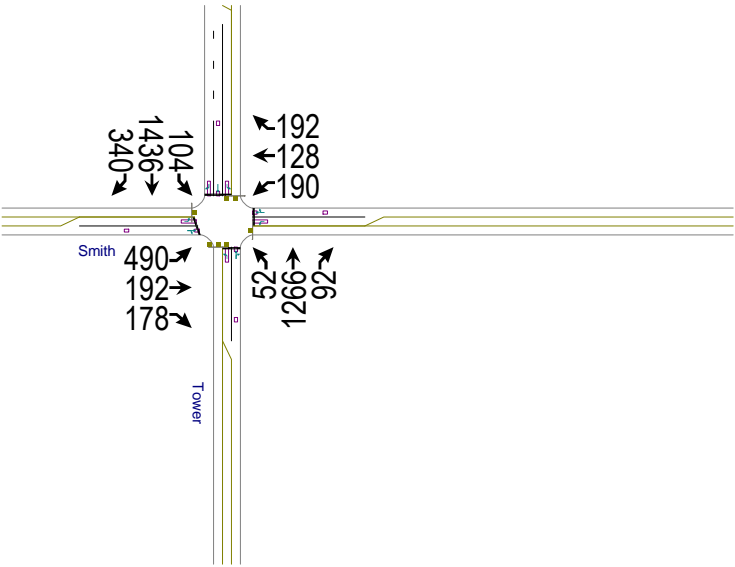
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	655	15	10	422	22	10
Future Vol, veh/h	655	15	10	422	22	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	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	712	16	11	459	24	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	728
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	876
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	876
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	22.4
HCM LOS			C






















Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	242	-	-	876	-
HCM Lane V/C Ratio	0.144	-	-	0.012	-
HCM Control Delay (s)	22.4	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

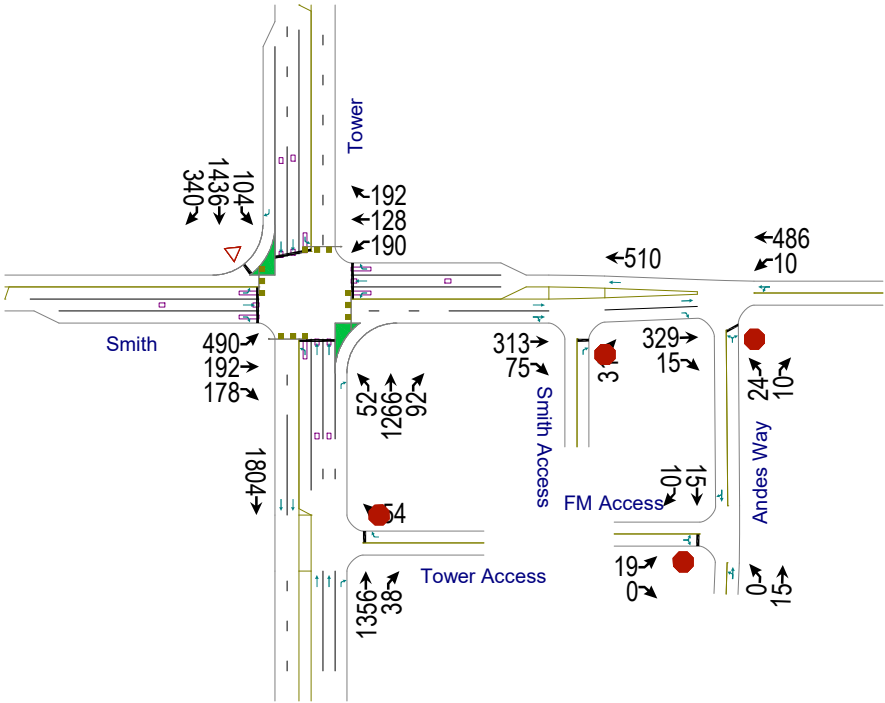
Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	0	0	15	15	10
Future Vol, veh/h	17	0	0	15	15	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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	18	0	0	16	16	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	38	22	27	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	974	1055	1587	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1055	1587	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1587	-	974	-	-	
HCM Lane V/C Ratio	-	-	0.019	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	



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






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Future Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
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	533	209	193	207	139	209	57	1376	100	113	1561	370
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	296	347	320	257	261	393	123	790	57	134	869	736
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.04	0.46	0.46	0.04	0.46	0.46
Sat Flow, veh/h	1033	895	827	983	674	1014	1781	1723	125	1781	1870	1585
Grp Volume(v), veh/h	533	0	402	207	0	348	57	0	1476	113	1561	370
Grp Sat Flow(s),veh/h/ln	1033	0	1722	983	0	1688	1781	0	1848	1781	1870	1585
Q Serve(g_s), s	27.4	0.0	22.4	24.1	0.0	19.1	2.0	0.0	55.0	4.1	55.7	19.6
Cycle Q Clear(g_c), s	46.5	0.0	22.4	46.5	0.0	19.1	2.0	0.0	55.0	4.1	55.7	19.6
Prop In Lane	1.00		0.48	1.00		0.60	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	296	0	667	257	0	654	123	0	847	134	869	736
V/C Ratio(X)	1.80	0.00	0.60	0.80	0.00	0.53	0.46	0.00	1.74	0.84	1.80	0.50
Avail Cap(c_a), veh/h	296	0	667	257	0	654	134	0	847	134	869	736
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	0.0	29.4	48.5	0.0	28.4	28.5	0.0	32.5	28.6	32.1	22.4
Incr Delay (d2), s/veh	373.7	0.0	1.5	16.7	0.0	0.8	2.7	0.0	339.2	35.7	363.0	2.4
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	39.7	0.0	9.5	7.4	0.0	7.8	0.9	0.0	103.5	3.0	111.9	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	422.8	0.0	30.9	65.2	0.0	29.2	31.2	0.0	371.7	64.4	395.2	24.9
LnGrp LOS	F	A	C	E	A	C	C	A	F	E	F	C
Approach Vol, veh/h		935			555			1533			2044	
Approach Delay, s/veh		254.3			42.6			359.0			309.9	
Approach LOS		F			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	59.5		51.0	8.8	60.2		51.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	55.0		46.5	5.0	55.0		46.5				
Max Q Clear Time (g_c+I1), s	6.1	57.0		48.5	4.0	57.7		48.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			285.2									
HCM 6th LOS			F									



Smith Tower
3: Smith & Tower

2040 PM TOTAL





07/05/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Future Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
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	533	209	193	207	139	209	57	1376	0	113	1561	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	521	460	390	409	275	233	132	1575		178	1612	
Arrive On Green	0.21	0.25	0.25	0.11	0.15	0.15	0.04	0.44	0.00	0.05	0.45	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	533	209	193	207	139	209	57	1376	0	113	1561	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	25.5	11.3	12.5	11.6	8.2	15.5	2.1	42.1	0.0	4.1	51.2	0.0
Cycle Q Clear(g_c), s	25.5	11.3	12.5	11.6	8.2	15.5	2.1	42.1	0.0	4.1	51.2	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	521	460	390	409	275	233	132	1575		178	1612	
V/C Ratio(X)	1.02	0.45	0.50	0.51	0.51	0.90	0.43	0.87		0.63	0.97	
Avail Cap(c_a), veh/h	521	460	390	430	282	239	143	1575		178	1612	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.5	38.3	38.7	36.9	47.0	50.1	28.3	30.2	0.0	26.7	31.8	0.0
Incr Delay (d2), s/veh	45.3	0.7	1.0	1.0	1.4	32.0	2.2	7.0	0.0	7.2	16.0	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	9.7	5.3	5.0	5.2	3.9	8.2	0.9	19.1	0.0	2.0	24.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.8	39.0	39.7	37.9	48.4	82.2	30.5	37.3	0.0	33.8	47.8	0.0
LnGrp LOS	F	D	D	D	D	F	C	D		C	D	
Approach Vol, veh/h		935			555			1433	A		1674	A
Approach Delay, s/veh		63.0			57.2			37.0			46.9	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	57.5	18.2	33.9	8.7	58.8	30.0	22.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	53.0	15.1	28.4	5.0	53.5	25.5	18.0				
Max Q Clear Time (g_c+I1), s	6.1	44.1	13.6	14.5	4.1	53.2	27.5	17.5				
Green Ext Time (p_c), s	0.0	6.0	0.1	1.6	0.0	0.3	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			48.3									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.												




Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱			↑		↱
Traffic Vol, veh/h	313	75	0	510	0	31
Future Vol, veh/h	313	75	0	510	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	340	82	0	554	0	34
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	211
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	-	-	0	-	0	795
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	795
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	795	-	-	-		
HCM Lane V/C Ratio	0.042	-	-	-		
HCM Control Delay (s)	9.7	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Smith Tower
8: Tower Access

2040 PM TOTAL
07/05/2021

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	54	1356	38	0	1804
Future Vol, veh/h	0	54	1356	38	0	1804
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	0	59	1474	41	0	1961
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	737	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	361	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	361	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	16.9	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 361		-		
HCM Lane V/C Ratio	-	- 0.163		-		
HCM Control Delay (s)	-	- 16.9		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.6		-		

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	329	15	10	486	24	10
Future Vol, veh/h	329	15	10	486	24	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	358	16	11	528	26	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	908	358
Stage 1	-	-	-	-	358	-
Stage 2	-	-	-	-	550	-
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	-	-	1184	-	306	686
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	578	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1184	-	302	686
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	570	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		16.1	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	362	-	-	1184	-	
HCM Lane V/C Ratio	0.102	-	-	0.009	-	
HCM Control Delay (s)	16.1	-	-	8.1	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	0	0	15	15	10
Future Vol, veh/h	19	0	0	15	15	10
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	-	-	-	-	-
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	21	0	0	16	16	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	38	22	27	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	974	1055	1587	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1055	1587	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1587	-	974	-	-	
HCM Lane V/C Ratio	-	-	0.021	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	129	108	72	154	57	737	155	629	224
v/c Ratio	0.83	0.35	0.37	0.49	0.11	0.62	0.35	0.49	0.19
Control Delay	85.3	42.3	48.6	41.4	5.7	16.9	7.0	11.9	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.3	42.3	48.6	41.4	5.7	16.9	7.0	11.9	1.6
Queue Length 50th (ft)	97	68	50	89	9	301	27	217	0
Queue Length 95th (ft)	170	121	95	155	27	571	64	390	31
Internal Link Dist (ft)		220		595		377		208	
Turn Bay Length (ft)	150		150		125		325		
Base Capacity (vph)	241	474	301	472	519	1183	480	1284	1161
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.23	0.24	0.33	0.11	0.62	0.32	0.49	0.19
Intersection Summary									



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	266	201	103	174	28	738	57	780	185
v/c Ratio	0.90	0.39	0.38	0.33	0.10	0.70	0.19	0.71	0.19
Control Delay	71.4	26.9	36.1	20.4	10.2	24.1	10.9	23.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	26.9	36.1	20.4	10.2	24.1	10.9	23.9	3.7
Queue Length 50th (ft)	185	91	60	60	7	391	15	429	7
Queue Length 95th (ft)	#322	157	111	118	21	613	36	669	45
Internal Link Dist (ft)		220		595		377		208	
Turn Bay Length (ft)	150		150		125		325		
Base Capacity (vph)	378	654	348	656	280	1050	298	1093	995
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.31	0.30	0.27	0.10	0.70	0.19	0.71	0.19

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	153	127	85	182	67	869	183	743	264
v/c Ratio	0.90	0.35	0.39	0.50	0.17	0.78	0.57	0.61	0.23
Control Delay	93.2	39.6	46.2	39.8	6.6	24.0	12.5	15.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.2	39.6	46.2	39.8	6.6	24.0	12.5	15.2	1.6
Queue Length 50th (ft)	113	76	56	103	14	486	41	334	0
Queue Length 95th (ft)	#228	134	106	176	28	714	67	468	31
Internal Link Dist (ft)		220		595		377		208	
Turn Bay Length (ft)	150		150		125		325		
Base Capacity (vph)	201	423	256	423	403	1117	345	1228	1133
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.30	0.33	0.43	0.17	0.78	0.53	0.61	0.23

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	314	237	122	205	33	871	67	921	218
v/c Ratio	0.97	0.40	0.41	0.34	0.24	0.89	0.43	0.90	0.23
Control Delay	83.0	28.0	36.8	22.3	14.2	37.4	18.6	38.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	28.0	36.8	22.3	14.2	37.4	18.6	38.1	4.9
Queue Length 50th (ft)	240	117	74	80	10	584	20	648	20
Queue Length 95th (ft)	#430	191	134	146	23	#870	40	#947	60
Internal Link Dist (ft)		220		595		377		208	
Turn Bay Length (ft)	150		150		125		325		
Base Capacity (vph)	326	595	298	601	136	983	156	1022	942
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.40	0.41	0.34	0.24	0.89	0.43	0.90	0.23

Intersection Summary

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

Smith-Tower
3: Smith & Tower













2025 AM TOTAL
07/05/2021



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	153	156	103	182	95	791	106	214	743	264
v/c Ratio	0.61	0.32	0.66	0.74	0.31	0.42	0.12	0.49	0.70	0.26
Control Delay	45.3	34.3	68.0	59.8	11.2	18.4	1.6	12.1	22.6	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	34.3	68.0	59.8	11.2	18.4	1.6	12.1	22.6	2.2
Queue Length 50th (ft)	92	89	75	114	24	187	0	59	385	0
Queue Length 95th (ft)	152	149	135	194	47	258	17	98	563	38
Internal Link Dist (ft)		220		192		170			208	
Turn Bay Length (ft)	250		150		250			325		
Base Capacity (vph)	256	545	196	300	307	1869	900	470	1069	1020
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.29	0.53	0.61	0.31	0.42	0.12	0.46	0.70	0.26
Intersection Summary										

Smith-Tower
3: Smith & Tower

2025 PM TOTAL
07/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	259	220	43	174	178	130	161	1341	180	363	1259	448
v/c Ratio	0.93	0.76	0.12	0.75	0.73	0.40	0.61	0.89	0.24	0.95	0.68	0.45
Control Delay	77.4	64.1	0.7	55.9	66.6	10.7	23.4	39.9	6.6	69.3	23.4	5.2
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	77.4	64.1	0.7	55.9	66.6	10.7	23.4	39.9	6.6	69.3	23.4	5.2
Queue Length 50th (ft)	166	161	0	106	131	0	45	493	16	224	362	31
Queue Length 95th (ft)	#275	248	0	#189	209	52	91	#651	61	#423	470	101
Internal Link Dist (ft)		220			192			170			208	
Turn Bay Length (ft)	250		200	150		150	250			325		200
Base Capacity (vph)	278	336	397	233	288	360	294	1511	758	388	1859	1004
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	0.93	0.65	0.11	0.75	0.62	0.36	0.55	0.89	0.24	0.94	0.68	0.45

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	259	215	143	308	113	1473	311	1259	448
v/c Ratio	1.45	0.42	0.56	0.60	0.90	1.53	1.45	1.18	0.44
Control Delay	264.6	39.0	49.7	42.2	81.3	269.5	257.8	116.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	264.6	39.0	49.7	42.2	81.3	269.5	257.8	116.5	7.5
Queue Length 50th (ft)	~295	140	103	204	44	~1738	~307	~1261	77
Queue Length 95th (ft)	#470	217	178	304	#162	#2008	#496	#1524	150
Internal Link Dist (ft)		220		595		377		208	
Turn Bay Length (ft)	150		150		125		325		
Base Capacity (vph)	179	516	254	511	126	964	214	1071	1019
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.45	0.42	0.56	0.60	0.90	1.53	1.45	1.18	0.44

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.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	533	402	207	348	57	1476	113	1561	370
v/c Ratio	1.88	0.58	0.86	0.50	0.42	1.74	0.84	1.77	0.45
Control Delay	433.0	29.4	66.4	24.4	23.1	364.4	66.1	375.3	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	433.0	29.4	66.4	24.4	23.1	364.4	66.1	375.3	14.7
Queue Length 50th (ft)	~630	216	145	158	20	~1712	42	~1828	113
Queue Length 95th (ft)	#846	321	#294	248	42	#1980	#147	#2092	196
Internal Link Dist (ft)		220		595		377		208	
Turn Bay Length (ft)	150		150		125		325		
Base Capacity (vph)	284	697	241	702	135	847	134	883	826
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.88	0.58	0.86	0.50	0.42	1.74	0.84	1.77	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.

Smith Tower
3: Smith & Tower

2040 PM TOTAL
07/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	533	209	193	207	139	209	57	1376	100	113	1561	370
v/c Ratio	1.08	0.51	0.42	0.60	0.64	0.68	0.41	0.85	0.13	0.77	0.92	0.42
Control Delay	96.9	44.8	13.6	34.4	62.0	30.0	22.3	34.4	1.6	52.2	39.1	9.9
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	96.9	44.8	13.6	34.4	62.0	30.0	22.3	34.4	1.6	52.2	39.1	9.9
Queue Length 50th (ft)	~363	140	27	108	100	51	19	468	0	39	575	65
Queue Length 95th (ft)	#576	217	92	168	167	133	43	607	15	#141	#794	151
Internal Link Dist (ft)		220			192			170			208	
Turn Bay Length (ft)	250		200	150		150	250			325		200
Base Capacity (vph)	492	457	501	368	289	361	139	1622	799	147	1698	873
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	1.08	0.46	0.39	0.56	0.48	0.58	0.41	0.85	0.13	0.77	0.92	0.42

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.

Smith Tower
3: Smith & Tower

2040 AM TOTAL

07/05/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	259	220	43	174	178	130	161	1341	180	363	1259	448
v/c Ratio	0.93	0.76	0.12	0.75	0.73	0.40	0.61	0.89	0.24	0.95	0.68	0.45
Control Delay	77.4	64.1	0.7	55.9	66.6	10.7	23.4	39.9	6.6	69.3	23.4	5.2
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	77.4	64.1	0.7	55.9	66.6	10.7	23.4	39.9	6.6	69.3	23.4	5.2
Queue Length 50th (ft)	166	161	0	106	131	0	45	493	16	224	362	31
Queue Length 95th (ft)	#275	248	0	#189	209	52	91	#651	61	#423	470	101
Internal Link Dist (ft)		220			192			170			208	
Turn Bay Length (ft)	250		200	150		150	250			325		200
Base Capacity (vph)	278	336	397	233	288	360	294	1511	758	388	1859	1004
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	0.93	0.65	0.11	0.75	0.62	0.36	0.55	0.89	0.24	0.94	0.68	0.45

Intersection Summary

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



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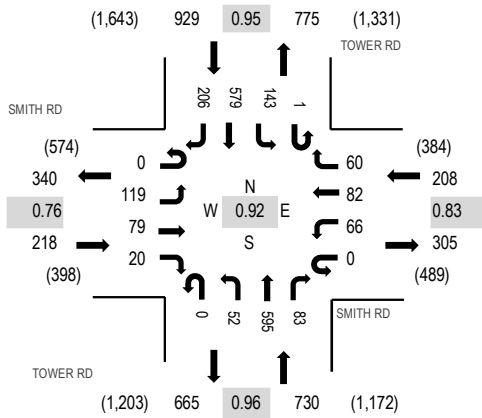
Location: 1 TOWER RD & SMITH RD AM

Date: Wednesday, August 21, 2019

Peak Hour: 07:00 AM - 08:00 AM

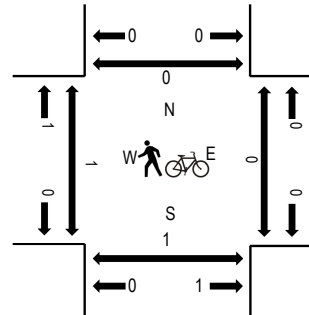
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	SMITH RD Eastbound				SMITH RD Westbound				TOWER RD Northbound				TOWER RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	16	19	5	0	12	14	17	0	14	133	37	1	39	135	40	482	2,085	0	0	0	0
7:15 AM	0	31	27	3	0	22	24	17	0	18	152	20	0	43	149	61	567	2,066	0	0	0	0
7:30 AM	0	34	8	2	0	21	28	12	0	9	148	12	0	28	149	59	510	1,886	0	0	0	0
7:45 AM	0	38	25	10	0	11	16	14	0	11	162	14	0	33	146	46	526	1,731	0	0	0	0
8:00 AM	0	25	14	4	0	13	15	16	0	10	114	8	1	28	153	62	463	1,512	0	0	0	0
8:15 AM	0	24	14	8	0	17	17	14	0	7	99	10	0	31	115	31	387		1	0	0	1
8:30 AM	0	27	8	5	0	12	7	29	0	7	105	6	0	18	97	34	355		0	0	0	0
8:45 AM	0	22	20	9	0	6	16	14	0	3	66	7	0	20	99	25	307		0	0	0	0
Count Total	0	217	135	46	0	114	137	133	0	79	979	114	2	240	1,043	358	3,597		1	0	0	1
Peak Hour	0	119	79	20	0	66	82	60	0	52	595	83	1	143	579	206	2,085		0	0	0	0



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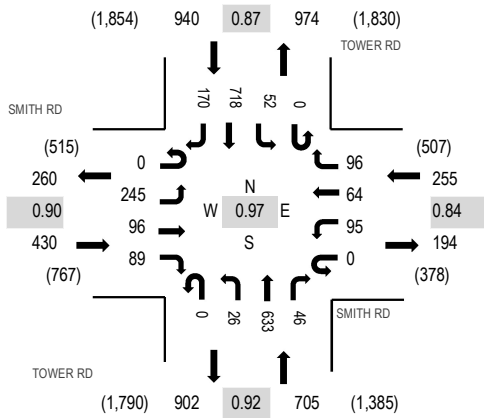
Location: 1 TOWER RD & SMITH RD PM

Date: Wednesday, August 21, 2019

Peak Hour: 04:30 PM - 05:30 PM

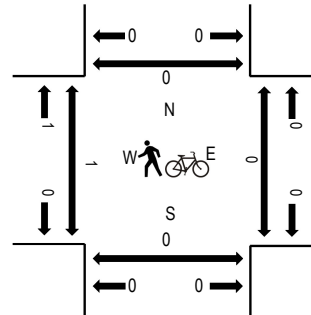
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



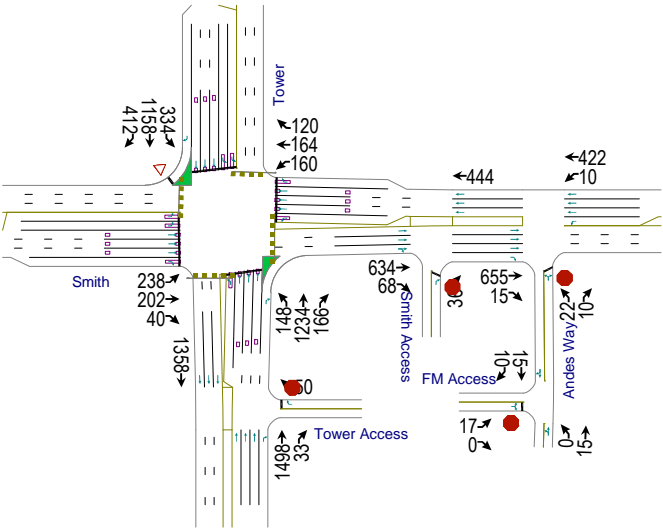
Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts













Interval Start Time	SMITH RD Eastbound				SMITH RD Westbound				TOWER RD Northbound				TOWER RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	52	24	15	0	17	15	18	0	7	169	16	0	7	202	41	583	2,229	1	0	0	0
4:15 PM	0	49	14	16	0	14	11	10	0	6	121	9	0	5	188	41	484	2,248	0	0	0	0
4:30 PM	0	55	23	21	0	33	20	33	0	4	171	11	0	8	166	53	598	2,330	1	0	0	0
4:45 PM	0	68	21	30	0	14	13	15	0	9	178	5	0	15	160	36	564	2,296	0	0	0	0
5:00 PM	0	64	30	17	0	24	14	18	0	8	140	16	0	17	215	39	602	2,284	0	0	0	0
5:15 PM	0	58	22	21	0	24	17	30	0	5	144	14	0	12	177	42	566		0	0	0	0
5:30 PM	0	37	20	17	0	33	20	26	0	10	152	22	0	9	178	40	564		0	0	0	0
5:45 PM	0	47	29	17	0	31	31	26	0	2	149	17	0	12	160	31	552		1	0	0	0
Count Total	0	430	183	154	0	190	141	176	0	51	1,224	110	0	85	1,446	323	4,513		3	0	0	0
Peak Hour	0	245	96	89	0	95	64	96	0	26	633	46	0	52	718	170	2,330		1	0	0	0



Smith Tower
3: Smith & Tower




































2040 AM TOTAL- 6 Lane

07/07/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	259	220	43	174	178	130	161	1341	180	363	1259	448
v/c Ratio	0.46	0.45	0.16	0.52	0.28	0.42	0.51	0.54	0.21	0.60	0.49	0.44
Control Delay	32.5	46.9	1.2	36.3	41.5	11.7	14.2	19.6	3.3	13.7	18.4	3.2
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	32.5	46.9	1.2	36.3	41.5	11.7	14.2	19.6	3.3	13.7	18.4	3.2
Queue Length 50th (ft)	67	49	0	90	38	0	38	209	0	44	189	0
Queue Length 95th (ft)	107	80	0	159	64	53	72	304	39	81	274	55
Internal Link Dist (ft)	220				192				170		208	
Turn Bay Length (ft)	250		200		150		150		250		325	
Base Capacity (vph)	580	985	416	374	1238	483	445	2501	869	819	2548	1016
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	0.45	0.22	0.10	0.47	0.14	0.27	0.36	0.54	0.21	0.44	0.49	0.44
Intersection Summary												

Smith Tower
3: Smith & Tower

2040 AM TOTAL- 6 Lane
07/07/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  			  		  	  	
Traffic Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
Future Volume (veh/h)	119	101	20	80	82	60	74	617	83	167	579	206
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	259	220	43	174	178	130	161	1341	0	363	1259	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	634	488	151	331	585	182	363	2688		706	2759	
Arrive On Green	0.09	0.10	0.10	0.11	0.11	0.11	0.06	0.53	0.00	0.08	0.54	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	1781	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	259	220	43	174	178	130	161	1341	0	363	1259	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1781	1702	1585	1728	1702	1585
Q Serve(g_s), s	6.2	3.8	2.4	8.1	3.0	7.4	3.8	15.9	0.0	4.4	14.1	0.0
Cycle Q Clear(g_c), s	6.2	3.8	2.4	8.1	3.0	7.4	3.8	15.9	0.0	4.4	14.1	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	634	488	151	331	585	182	363	2688		706	2759	
V/C Ratio(X)	0.41	0.45	0.28	0.53	0.30	0.72	0.44	0.50		0.51	0.46	
Avail Cap(c_a), veh/h	711	1059	329	431	1330	413	580	2688		1079	2759	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.8	40.2	39.5	33.1	38.2	40.2	10.0	14.3	0.0	10.7	13.2	0.0
Incr Delay (d2), s/veh	0.4	0.7	1.0	1.3	0.3	5.2	0.9	0.7	0.0	0.6	0.5	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	2.6	1.6	1.0	3.6	1.3	3.1	1.5	5.9	0.0	1.6	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	40.9	40.6	34.4	38.5	45.3	10.9	15.0	0.0	11.3	13.7	0.0
LnGrp LOS	C	D	D	C	D	D	B	B		B	B	
Approach Vol, veh/h		522			482			1502	A		1622	A
Approach Delay, s/veh		37.5			38.9			14.5			13.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	54.0	14.7	13.5	10.5	55.3	12.9	15.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	17.5	49.5	15.5	19.5	17.5	49.5	10.5	24.5				
Max Q Clear Time (g_c+I1), s	6.4	17.9	10.1	5.8	5.8	16.1	8.2	9.4				
Green Ext Time (p_c), s	1.0	12.4	0.2	1.2	0.3	11.6	0.2	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									
Notes												
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	634	68	0	444	0	36
Future Vol, veh/h	634	68	0	444	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	689	74	0	483	0	39
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	382
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	526
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	526
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		12.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBT	
Capacity (veh/h)	526		-	-	-	
HCM Lane V/C Ratio	0.074		-	-	-	
HCM Control Delay (s)	12.4		-	-	-	
HCM Lane LOS	B		-	-	-	
HCM 95th %tile Q(veh)	0.2		-	-	-	

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Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑↑	↗		↑↑↑
Traffic Vol, veh/h	0	50	1498	33	0	1358
Future Vol, veh/h	0	50	1498	33	0	1358
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	0	54	1628	36	0	1476
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	814	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	276	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	276	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	21.2	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	276		-		
HCM Lane V/C Ratio	-	0.197		-		
HCM Control Delay (s)	-	21.2		-		
HCM Lane LOS	-	C		-		
HCM 95th %tile Q(veh)	-	0.7		-		

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑	↑↑↑	↑	↑
Traffic Vol, veh/h	655	15	10	422	22	10
Future Vol, veh/h	655	15	10	422	22	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	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	712	16	11	459	24	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	728
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	5.34
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.12
Pot Cap-1 Maneuver	-	-	528
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	528
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	15.4
HCM LOS			C

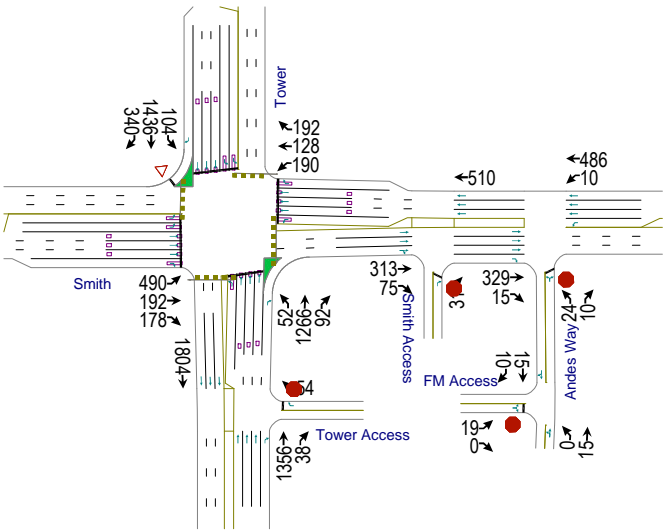
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	380	-	-	528	-
HCM Lane V/C Ratio	0.092	-	-	0.021	-
HCM Control Delay (s)	15.4	-	-	12	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	0	0	15	15	10
Future Vol, veh/h	17	0	0	15	15	10
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	-	-	-	-	-
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	18	0	0	16	16	11

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	38	22	27	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	974	1055	1587	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1055	1587	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-













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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	974	-	-
HCM Lane V/C Ratio	-	-	0.019	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	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)	533	209	193	207	139	209	57	1376	100	113	1561	370
v/c Ratio	0.64	0.27	0.51	0.58	0.23	0.74	0.28	0.53	0.12	0.27	0.59	0.38
Control Delay	33.6	41.8	14.4	35.6	44.3	38.1	14.5	20.0	3.8	12.3	21.4	4.9
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	33.6	41.8	14.4	35.6	44.3	38.1	14.5	20.0	3.8	12.3	21.4	4.9
Queue Length 50th (ft)	154	49	17	112	33	67	16	232	0	15	285	20
Queue Length 95th (ft)	203	73	82	174	53	149	40	326	30	34	398	87
Internal Link Dist (ft)		220			192			170			208	
Turn Bay Length (ft)	250		200	150		150	250			325		200
Base Capacity (vph)	843	1184	495	385	1045	412	213	2577	851	411	2624	969
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	0.18	0.39	0.54	0.13	0.51	0.27	0.53	0.12	0.27	0.59	0.38
Intersection Summary												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  			  		  	  	
Traffic Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
Future Volume (veh/h)	245	96	89	95	64	96	26	633	46	52	718	170
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	533	209	193	207	139	209	57	1376	0	113	1561	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	901	953	296	419	785	244	223	2525		513	2557	
Arrive On Green	0.15	0.19	0.19	0.12	0.15	0.15	0.04	0.49	0.00	0.04	0.50	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	1781	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	533	209	193	207	139	209	57	1376	0	113	1561	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1781	1702	1585	1728	1702	1585
Q Serve(g_s), s	14.1	3.9	12.7	10.8	2.7	14.4	1.7	20.9	0.0	1.8	24.7	0.0
Cycle Q Clear(g_c), s	14.1	3.9	12.7	10.8	2.7	14.4	1.7	20.9	0.0	1.8	24.7	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	901	953	296	419	785	244	223	2525		513	2557	
V/C Ratio(X)	0.59	0.22	0.65	0.49	0.18	0.86	0.26	0.54		0.22	0.61	
Avail Cap(c_a), veh/h	958	1160	360	460	1024	318	276	2525		533	2557	
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.4	38.7	42.3	33.9	41.3	46.3	15.8	19.6	0.0	14.7	20.1	0.0
Incr Delay (d2), s/veh	0.9	0.1	3.0	0.9	0.1	16.5	0.6	0.8	0.0	0.2	1.1	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	5.9	1.6	5.2	4.8	1.1	6.8	0.7	8.3	0.0	0.7	9.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	38.8	45.3	34.8	41.4	62.7	16.4	20.5	0.0	14.9	21.2	0.0
LnGrp LOS	C	D	D	C	D	E	B	C		B	C	
Approach Vol, veh/h		935			555			1433	A		1674	A
Approach Delay, s/veh		36.5			47.0			20.3			20.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	60.0	17.4	25.4	8.7	60.7	21.1	21.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	55.5	15.5	25.5	7.5	53.5	18.5	22.5				
Max Q Clear Time (g_c+l1), s	3.8	22.9	12.8	14.7	3.7	26.7	16.1	16.4				
Green Ext Time (p_c), s	0.0	12.9	0.2	1.5	0.0	13.9	0.6	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			27.0									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.												




Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	313	75	0	510	0	31
Future Vol, veh/h	313	75	0	510	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	340	82	0	554	0	34
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	211
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	676
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	676
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	676	-	-	-		
HCM Lane V/C Ratio	0.05	-	-	-		
HCM Control Delay (s)	10.6	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	-		

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Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑↑	↗		↑↑↑
Traffic Vol, veh/h	0	54	1356	38	0	1804
Future Vol, veh/h	0	54	1356	38	0	1804
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	0	59	1474	41	0	1961
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	737	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	310	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	310	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.3	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	310		-		
HCM Lane V/C Ratio	-	0.189		-		
HCM Control Delay (s)	-	19.3		-		
HCM Lane LOS	-	C		-		
HCM 95th %tile Q(veh)	-	0.7		-		

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↗	↘	↑↑↑↑	↘↗	
Traffic Vol, veh/h	329	15	10	486	24	10
Future Vol, veh/h	329	15	10	486	24	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	100	-	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	358	16	11	528	26	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	591	179
Stage 1	-	-	-	-	358	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	-	-	5.34	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	6.04	-
Follow-up Hdwy	-	-	3.12	-	3.82	3.92
Pot Cap-1 Maneuver	-	-	776	-	494	709
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	720	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	776	-	487	709
Mov Cap-2 Maneuver	-	-	-	-	487	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	710	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.2	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	536	-	-	776	-	
HCM Lane V/C Ratio	0.069	-	-	0.014	-	
HCM Control Delay (s)	12.2	-	-	9.7	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	0	0	15	15	10
Future Vol, veh/h	19	0	0	15	15	10
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	-	-	-	-	-
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	21	0	0	16	16	11

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	38	22	27
Stage 1	22	-	-
Stage 2	16	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	974	1055	1587
Stage 1	1001	-	-
Stage 2	1007	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	974	1055	1587
Mov Cap-2 Maneuver	974	-	-
Stage 1	1001	-	-
Stage 2	1007	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	974	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-