APPENDIX F

Assessment of Effects of Change in Traffic Control at SR 1 / N. Harbor Drive Intersection

September 15, 2022

Ms. Heather Gurewitz, MCRP, AICP, Associate Planner
City of Fort Bragg
416 N. Franklin St.
Fort Bragg, CA 95437

RE: GROCERY OUTLET STORE, FORT BRAGG, CA: ASSESSMENT OF EFFECTS OF CHANGE IN TRAFFIC CONTROL AT SR 1 / N. HARBOR DRIVE INTERSECTION

Dear Ms. Gurewitz:

As requested, KD Anderson & Associates has prepared this letter of opinion supplementing our October 22, 2019 Traffic Impact Analysis (TIA) for a Grocery Outlet Store (GOS) in Fort Bragg, California. As we have discussed, subsequent to report preparation Caltrans District 1 elected to remove the left turn prohibition on N. Harbor Drive at its intersection with State Route 1 (SR 1). That change allows motorist to turn left directly onto the state highway at this location instead of making the turn at the SR 1 / South Street intersection further north. The change would also provide a route for GOS customers headed south. You have asked for our opinion as to the potential effect of this change on the TIA's conclusions regarding the potential impacts and mitigation recommendations for the GOS project.

Technical Approach

Our approach to addressing your questions first involved review of the background traffic volume data contained in the TIA and identification of the volume of traffic that might be expected to move from the South Street intersection to N. Harbor Drive as a result of the traffic control change. Subsequently, we reviewed the travel times for outbound Grocery Outlet Store trips along the two routes and identified the trips that could be expected to use N. Harbor Drive in lieu of South Street. Existing and Cumulative Future traffic volumes that reflected the new access control were identified and conditions with and without the Grocery Outlet Store were estimated.

As requested, the projected traffic volumes were the basis for assessment under two criteria:

- Intersection Level of Service
- Peak Hour Traffic Signal Warrants Analysis.

The results of those calculations were then compared to the minimum operational standards of the Fort Bragg General Plan to determine whether its requirements would be met.

Traffic Volumes with SR 1 / N. Harbor Drive Traffic Control Change

Background Traffic Assumptions. Based on the configuration of the local circulation system, motorists traveling northbound on Franklin Street and turning left onto westbound South Street are the most logical candidates for diversion to N. Harbor Drive. We have conservatively assumed that all of this traffic

originated to the east on N. Harbor Drive and instead of turning onto Franklin Street to reach South Avenue would instead stay on N. Harbor Drive and turn left at SR 1. The TIA identified 17 such vehicles in the weekday p.m. peak hour and 31 vehicles in the Saturday peak. Figure 1 identifies the resulting background traffic volumes with the new traffic control.

Grocery Outlet Store Traffic. The original TIA identified the share of GOS trips that would have left the site and headed south, either as primary trips made specifically to visit the site or as pass-by trips drawn from traffic already on SR 1. Review of the GOS site plan indicates that the project's N. Harbor Drive driveway would provide the shortest path to southbound SR 1. This analysis conservatively assumes that all of the GOS traffic headed south uses this driveway and the SR 1 / N. Harbor Drive intersection. Figure 2 presents the assignment of GOS trips assuming left turn access is available at the SR 1/ N. Harbor Drive intersection. As shown, 36 GOS trips make the left turn in the weekday p.m. peak hour and 41 make the left turn in the Saturday peak hour. Figure 3 presents the sum of adjusted background traffic and these GOS trips under the "Existing Plus Project with Left Turn Access" condition

Cumulative Traffic Volumes. The TIA identified future cumulative traffic volumes assuming regional growth and occupancy of identified approved projects. The same assumptions noted above were made to redirect future cumulative traffic to the SR 1 / N. Harbor Drive intersection, and the results are noted in Figure 4. GOS project trips were superimposed onto the adjusted cumulative base, and the results are noted in Figure 5.

Analysis Level of Service Results

Analysis Methods. As directed by Fort Bragg's General Plan and Caltrans guidelines the adequacy of the circulation system is measured at intersections based on Level of Service following the methods employed for the TIA and presented in the Highway Capacity Manual, 6th Edition. The criteria contained in the California Manual of Uniform Traffic Control Device (CAMUTCD) were employed to consider the need for traffic signals.

The calculation assumptions for the modified SR 1 / N. Harbor Drive intersection account for the width of the westbound approach. The approach is wide enough to allow westbound right turns to proceed alongside vehicles waiting to turn left, and this provision is reflected in the LOS analysis even though the approach is only striped a one lane.

Existing ad Existing Plus Grocery Outlet Store Level of Service. Table 1 compares the Levels of Service at study area intersections with and without the GOS assuming left turn access is prohibited at the SR 1 / N. Harbor Drive intersection, while Table 2 presents similar information if left turns are allowed at that location. In general, with the diversion of traffic to the SR 1 / N. Harbor Drive intersection the length of delays on the westbound approach to the SR 1 / South Street intersection is less than was shown in the TIA, but delays at the N. Harbor Drive intersection are longer. As indicated, with left turns allowed the westbound approach to the SR 1 / N. Harbor Drive intersection operates at LOS D in the p.m. peak hour with the addition of GOS trips. This result satisfies the City's minimum LOS D standard for weekday peak hours. On Saturday the westbound approach also operates at LOS D, and again the General Plan's minimum LOS D standard is satisfied. This conclusion is consistent with the TIA's prior results which also indicated that City of Fort Bragg's minimum Level of Service standards would be satisfied at the South Street and N. Harbor Drive intersections with development of the GOS.

Cumulative Year 2040 and Year 2040 Plus Grocery Outlet Store Level of Service. Table 3 presents the intersection Level of Service results from the TIA assuming that left turns onto SR 1 were prohibited at the SR 1 / N. Harbor Drive intersection. Table 4 compares the Year 2040 Levels of Service at study area intersections with and without the GOS assuming left turn access is allowed at the SR 1 / N. Harbor Drive intersection. Again, the length of delays is less than had been projected in the TIA on the westbound approach to the SR 1 / South Street intersection with the diversion of traffic to N. Harbor Drive. As shown in Table 3, the TIA indicated that the addition of GOS traffic resulted in LOS E conditions at this location with the left turn prohibition in place. While the minimum LOS D standard had been exceeded, General Plan policy had allowed the City to accept LOS F condition on peak summer weekends. With traffic diverted to N. Harbor Drive the General Plan's minimum LOS D standard is no longer exceeded at the South Street intersection on Saturday.

Alternatively, the length of delays at the SR 1 / N. Harbor Drive intersection are longer under cumulative conditions if left turns are allowed. As indicated in Table 4, the westbound approach to the SR 1 / N. Harbor Drive intersection operates at LOS D in the p.m. peak hour with the addition of GOS trips. This result satisfies the City's minimum LOS D standard. On Saturday the westbound approach operates at LOS D without GOS and at LOS E with GOS. LOS E exceeds the General Plan's minimum LOS D standard, but as noted in the General Plan, the City of Fort Bragg is allowed to accept LOS F during peak hours during peak summer weekends. Thus, the GOS's effect during summer Saturday peak hour conditions would be acceptable under that policy.

TABLE 1
EXISTING PLUS GROCERY OUTLET STORE INTERSECTION LEVEL OF SERVICE
WITH LEFT TURN ACCESS PROHIBITED AT SR 1 / N. HARBOR DRIVE INTERSECTION

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
			Existing		Ex Plus Project			Existing		Ex Plus Project	
		Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
SR 1 – Main Street / Cypress Street	Signal	D	B	14	B	14	D[1]	B	13	B	13
Cypress Street / Franklin Street	AWS	C	B	12	B	12	C	A	9	B	10
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Westbound approach			C	23	D	29		C	22	D	29
South Street / Franklin Street											
Westbound left turn			A	7	A	7		A	7	A	7
Eastbound left turn	NB/SB Stop	C	A	8	A	8	C	A	7	A	7
Northbound approach			B	12	B	14		B	11	B	12
Southbound approach			B	12	B	13		B	11	B	11
SR 1 – Main Street / N. Harbor Drive											
Northbound left turn			B	11	B	11		B	11	B	11
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Eastbound approach[2]			B	13	B	13		B	13	B	13
Westbound approach[2]			B	14	B	15		C	16	C	17
N. Harbor Drive / Franklin Street	AWS	C	A	8	A	8	C	A	9	A	9

[1] LOS F accepted on Saturday summer peak hour
[2] existing left turn and through traffic contrary to posted traffic controls is not included in LOS calculation
Bold indicates conditions in excess of adopted LOS D standard. **Highlighted** values are a significant effect

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TABLE 2
EXISTING PLUS GROCERY OUTLET STORE LEVELS OF SERVICE
WITH LEFT TURN ACCESS PERMITTED AT SR 1 / N. HARBOR DRIVE INTERSECTION

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
		Min	Existing		Ex Plus Project		Min	Existing		Ex Plus Project	
			LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
SR 1 – Main Street / Cypress Street	Signal	D	B	14	B	14	D[1]	B	13	B	13
Cypress Street / Franklin Street	AWS	C	B	12	B	12	C	A	9	B	10
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Westbound approach			C	20	C	20		C	17	C	17
South Street / Franklin Street											
Westbound left turn			A	7	A	7		A	7	A	7
Eastbound left turn	NB/SB Stop	C	A	8	A	8	C	A	7	A	7
Northbound approach			B	12	B	13		B	11	B	11
Southbound approach			B	12	B	13		B	11	B	11
SR 1 – Main Street / N. Harbor Drive											
Northbound left turn			B	11	B	11		B	11	B	11
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Eastbound approach			C	17	C	24		B	13	D	26
Westbound approach			B	14	D	26		C	16	D	29
N. Harbor Drive / Franklin Street	AWS	C	A	8	A	8	C	A	9	A	9

[1]LOS F accepted on Saturday summer peak hour
Bold indicates conditions in excess of adopted LOS D standard. **Highlighted** values are a significant effect

KDA

TABLE 3
YEAR 2040 PLUS GROCERY OUTLET STORE INTERSECTION LEVEL OF SERVICE
WITH LEFT TURNS PROHIBITED AT SR 1 / N. HARBOR DRIVE

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
			Year 2040 Base		Base Plus Project			Year 2040 Base		Base Plus Project	
		Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
SR 1 – Main Street / Cypress Street	Signal	D	B	19	B	20	D[1]	B	16	B	17
Cypress Street / Franklin Street	AWS	C	B	15	B	15	C	B	11	B	11
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	13	B	13	D[1]	B	13	B	13
Westbound approach			D	32	**E**	**47**		D	32	**E**	**48**
WB right turn only[2]					C	20					
All-way stop					**F**	**176**					
Roundabout					A	9					
Traffic Signal					A	10					
South Street / Franklin Street											
Westbound left turn	NB/SB Stop	C	A	7	A	8	C	A	7	A	7
Eastbound left turn			A	8	A	8		A	7	A	7
Northbound approach			B	14	B	16		B	12	B	13
Southbound approach			B	14	B	15		B	11	B	12
SR 1 – Main Street / N. Harbor Drive											
Northbound left turn	WB Stop	D	B	12	B	13	D[1]	B	12	B	12
Southbound left turn			B	13	B	13		B	13	B	13
Eastbound approach[3]			C	15	B	15		B	14	B	14
Westbound approach[3]			C	16	B	17		C	19	C	20
N. Harbor Drive / Franklin Street	AWS	C	A	9	A	9	C	A	9	A	9

[1]LOS F accepted on Saturday summer peak hour
[2] the SR 1 / Cypress Street intersection will operate at LOS C with 21.0 seconds of delay
[3] existing left turn and through traffic contrary to posted traffic controls is not included in LOS calculation
Bold indicates conditions in excess of adopted standard. **Highlighted** values are a significant effect

KDA

TABLE 4
YEAR 2040 PLUS GROCERY OUTLET STORE INTERSECTION LEVEL OF SERVICE
WITH LEFT TURNS PERMITTED AT SR 1 / N. HARBOR DRIVE

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
			Year 2040 Base		Base Plus Project			Year 2040 Base		Base Plus Project	
		Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
SR 1 – Main Street / Cypress Street	Signal	D	B	19	B	19	D[1]	B	16	B	17
Cypress Street / Franklin Street	AWS	C	B	15	B	15	C	B	11	B	11
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	13	B	13	D[1]	B	13	B	13
Westbound approach			D	27	D	30		C	22	D	26
South Street / Franklin Street											
Westbound left turn			A	7	A	8		A	7	A	7
Eastbound left turn	NB/SB Stop	C	A	8	A	8	C	A	7	A	7
Northbound approach			B	13	B	14		B	11	B	12
Southbound approach			B	14	B	15		B	11	B	12
SR 1 – Main Street / N. Harbor Drive											
Northbound left turn			B	12	B	12		B	12	B	12
Southbound left turn	WB Stop	D	B	13	B	13	D[1]	B	13	B	13
Eastbound approach[3]			D	30	D	31		D	33	B	34
Westbound approach[3]			C	22	D	30		D	26	**E**	**36**
N. Harbor Drive / Franklin Street	AWS	C	A	9	A	9	C	A	9	A	9

[1]LOS F accepted on Saturday summer peak hour
Bold indicates conditions in excess of adopted LOS D standard. **Highlighted** values are a significant project effect

Analysis Traffic Signal Warrants Results

The volume of traffic occurring at unsignalized intersections was compared to CAMUTCD peak hour traffic warrants, and the results are noted in the tables which follow.

As shown in Table 5, the TIA had indicated that current volumes at the SR 1 (Main Street) / N. Harbor Drive intersection reach the level that satisfied peak hour volume warrants on Saturday. However, because all of the side street approach volume was turning right, a traffic signal was not justified.

Table 6 presents approach Existing and Existing plus Project traffic volumes and peak hour warrant results for conditions with left turns permitted at the SR 1 / N. Harbor Drive intersection. As indicated, with or without GOS the forecast traffic volume on Saturday continues to satisfy peak hour traffic signal warrants at that intersection. However, with the addition of GOS traffic, the volumes during the weekday p.m. peak hour also reach the level that satisfies those warrants.

Table 7 provides similar data for Year 2040 conditions. Without GOS the projected traffic volumes at the SR 1 / N. Harbor Drive intersection satisfy peak hour warrants during both the weekday p.m. and Saturday peak hour. That remains true with the addition of GOS trips, but the projected volume also satisfies peak hour warrants on Saturday at the SR 1 / South Street intersection. As a practical matter it is very unlikely that Caltrans would elect to install signals at both intersections as they are only about 400 feet apart.

TABLE 5
CURRENT TRAFFIC SIGNAL WARRANTS

Intersection	Weekday PM Peak Hour			Saturday Peak Hour		
	Volume (vph)		Warrant Met?[1]	Volume (vph)		Warrant Met?[1]
	Major	Minor		Major	Minor	
Cypress Street / Franklin Street	533	179	No	404	102	No
SR 1 – Main Street / South Street	2,277	88	No	2,224	78	No
South Street / Franklin Street	237	143	No	238	63	No
SR 1 – Main Street / N. Harbor Drive	2,330	72	No	2,338	130	**Yes**
N. Harbor Drive / Franklin Street	299	69	No	382	89	No

TABLE 6
EXISTING PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS
WITH LEFT TURN ACCESS PERMITTED AT SR 1 / N. HARBOR DRIVE INTERSECTION

Intersection	Modified Existing			Modified Existing Plus Project		
	Volume (vph)		Warrant Met?[1]	Volume (vph)		Warrant Met?[1]
	Major	Minor		Major	Minor	
Weekday Pm Peak Hour						
Cypress Street / Franklin Street	533	179	No	544	180	No
SR 1 – Main Street / South Street	2,277	71	No	2,297	91	No
South Street / Franklin Street	237	143	No	265	149	No
SR 1 – Main Street / N. Harbor Drive	2,313	90	No	2,341	137	**Yes**
N. Harbor Drive / Franklin Street	205	69	No	299	69	No
Saturday Peak Hour						
Cypress Street / Franklin Street	404	102	No	416	102	No
SR 1 – Main Street / South Street	2,224	47	No	2,245	69	No
South Street / Franklin Street	207	63	No	242	94	No
SR 1 – Main Street / N. Harbor Drive	2,207	164	**Yes**	2,238	216	**Yes**
N. Harbor Drive / Franklin Street	382	89	No	387	89	No

[1]based on Rural Peak Hour volume warrant only

TABLE 7
YEAR 2040 PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS
WITH LEFT TURN ACCESS PERMITTED AT SR 1 / N. HARBOR DRIVE INTERSECTION

YEAR 2040	Modified Year 2040			Modified Year 2040 Plus Project		
	Volume (vph)		Warrant Met?[1]	Volume (vph)		Warrant Met?[1]
	Major	Minor		Major	Minor	
Weekday PM Peak Hour						
Cypress Street / Franklin Street	625	215	No	640	216	No
SR 1 – Main Street / South Street	2,630	90	No	2,650	118	**Yes**
South Street / Franklin Street	295	170	No	323	176	No
SR 1 – Main Street / N. Harbor Drive	2,673	106	**Yes**	2,701	141	**Yes**
N. Harbor Drive / Franklin Street	345	80	No	350	80	No
Saturday Peak Hour						
Cypress Street / Franklin Street	486	125	No	501	125	No
SR 1 – Main Street / South Street	2,575	65	No	2,596	97	No
South Street / Franklin Street	245	85	No	294	116	No
SR 1 – Main Street / N. Harbor Drive	2,560	188	**Yes**	2,591	226	**Yes**
N. Harbor Drive / Franklin Street	445	105	No	450	105	No

[1]based on Rural Peak Hour volume warrant only

Thank you again for your review of these materials. Please feel free to contact me at (916) 660-1555 if you have any questions or need additional information.

Sincerely Yours,

KD Anderson & Associates, Inc.

Kenneth D. Anderson, P.E.
President

Attachment: Figures, LOS worksheets, Traffic Signal Warrant worksheets

VICINITY MAP

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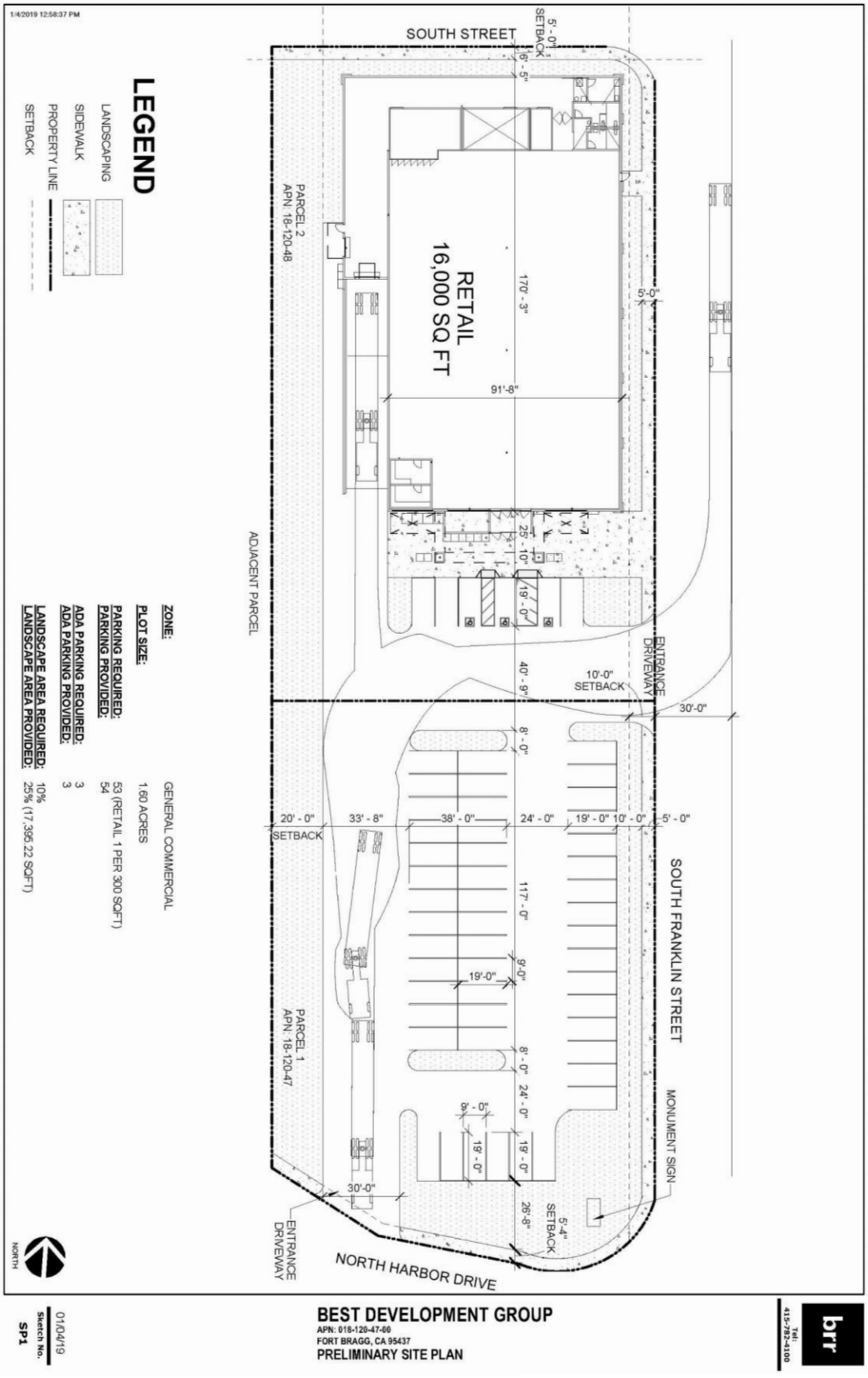
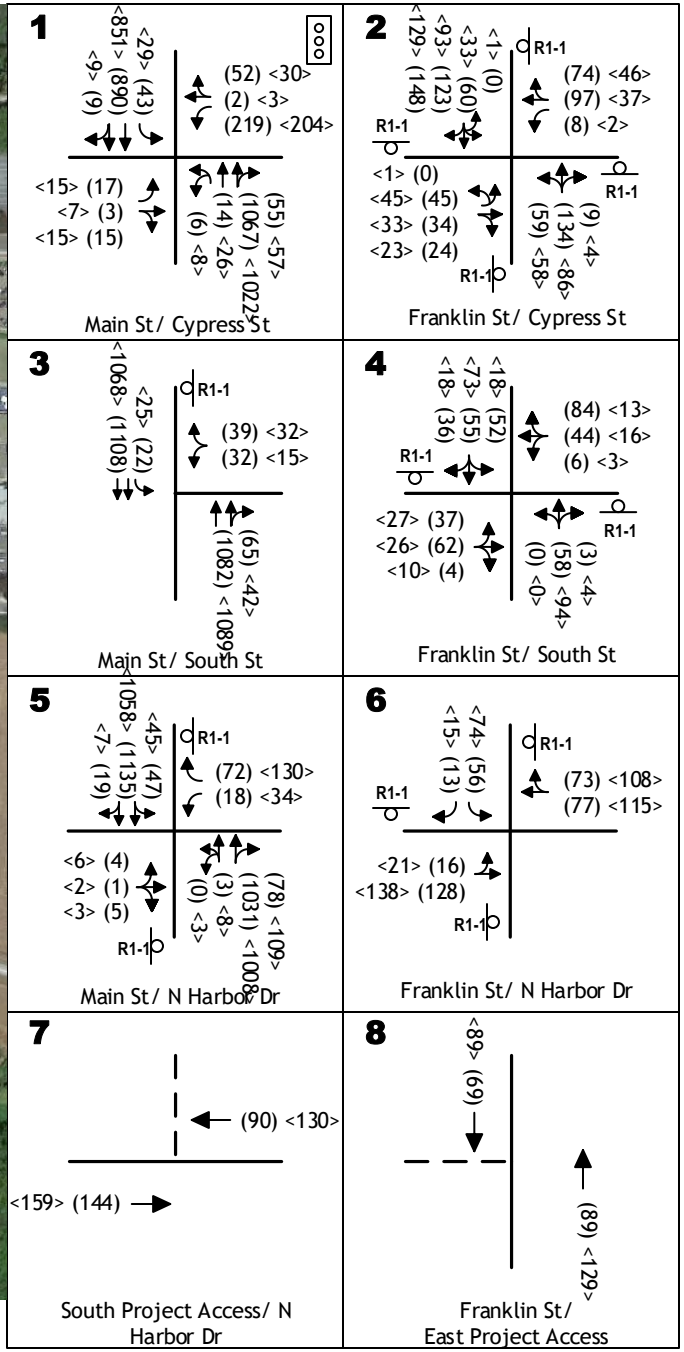
Transportation Engineers

0951-10 RA 9/14/2022

figure 1


1/4/2019 12:58:37 PM
LEGEND
LANDSCAPING
SIDEWALK
PROPERTY LINE
SETBACK
SOUTH STREET
5' - 0" SETBACK
16' - 5"
PARCEL 2
APN: 18-120-48
RETAIL
16,000 SQ FT
170' - 3"
91'-8"
5'-0"
25' - 10"
19' - 0"
ADJACENT PARCEL
40' - 9"
10'-0" SETBACK
ENTRANCE DRIVEWAY
30'-0"
8' - 0"
20' - 0" SETBACK
33' - 8"
38' - 0"
24' - 0"
19' - 0"
10' - 0"
5' - 0"
SOUTH FRANKLIN STREET
117' - 0"
9'-0"
19'-0"
PARCEL 1
APN: 18-120-47
8' - 0"
24' - 0"
9' - 0"
19' - 0"
19' - 0"
MONUMENT SIGN
30'-0"
26'-8"
5'-4" SETBACK
ENTRANCE DRIVEWAY
NORTH HARBOR DRIVE
ZONE: GENERAL COMMERCIAL
PLOT SIZE: 1.60 ACRES
PARKING REQUIRED: 53 (RETAIL 1 PER 300 SQFT)
PARKING PROVIDED: 54
ADA PARKING REQUIRED: 3
ADA PARKING PROVIDED: 3
LANDSCAPE AREA REQUIRED: 10%
LANDSCAPE AREA PROVIDED: 25% (17,395.22 SQFT)
NORTH
01/04/19
Sketch No.
SP1
BEST DEVELOPMENT GROUP
APN: 018-120-47-00
FORT BRAGG, CA 95437
PRELIMINARY SITE PLAN
brr
Tel: 415-782-4100

SITE PLAN



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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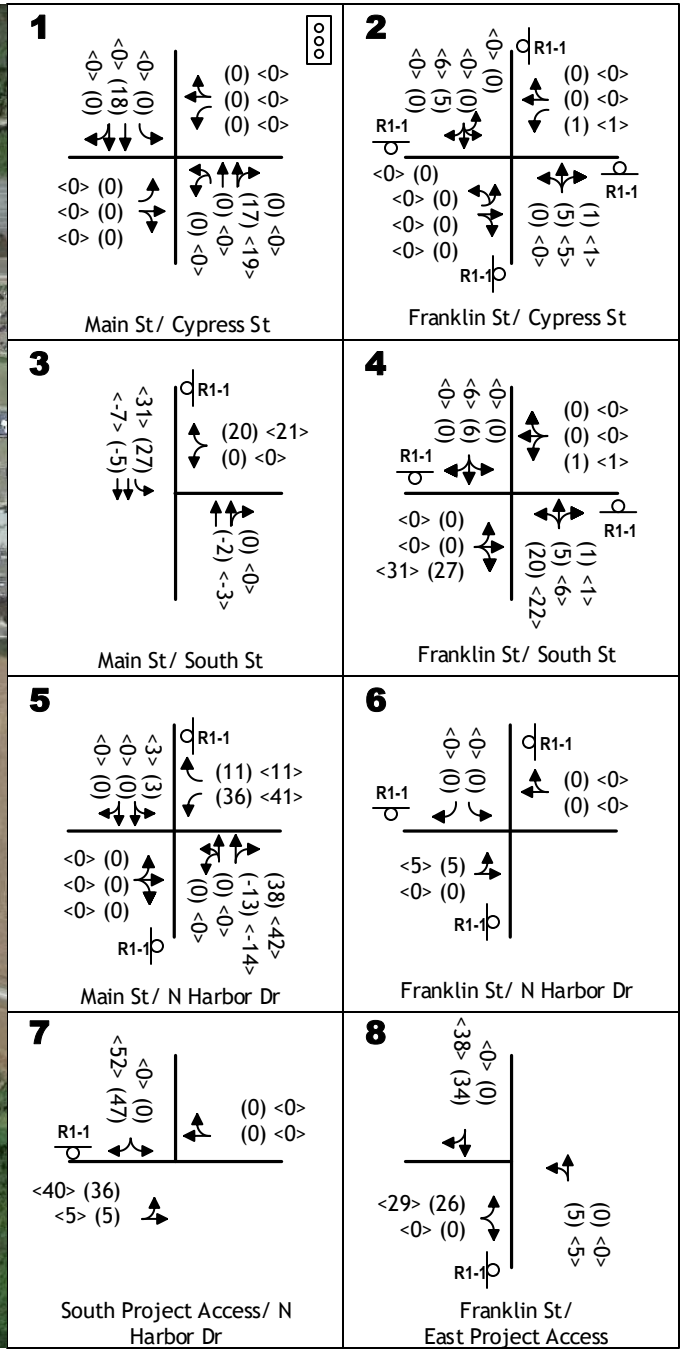
figure 3



PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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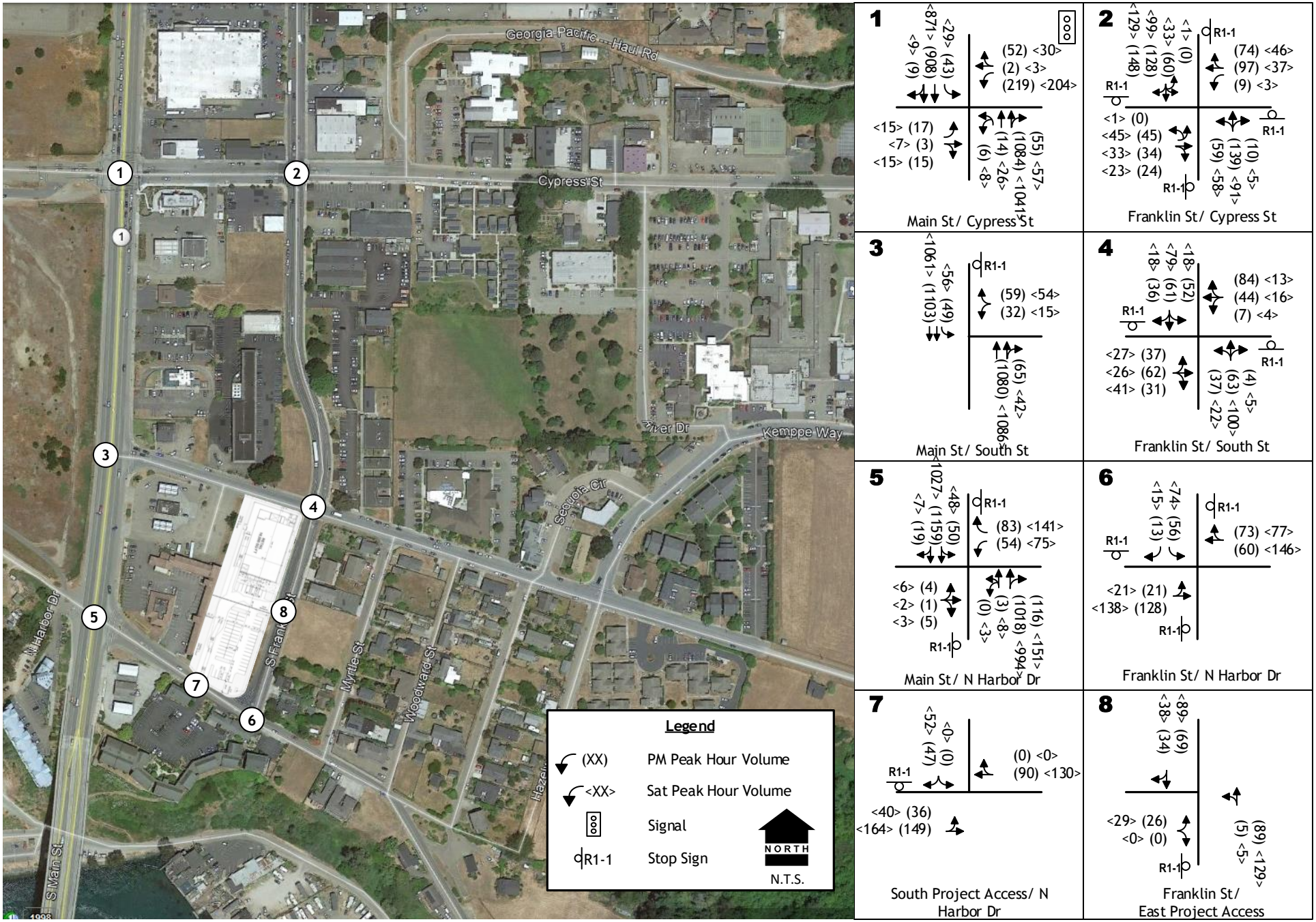
figure 4



EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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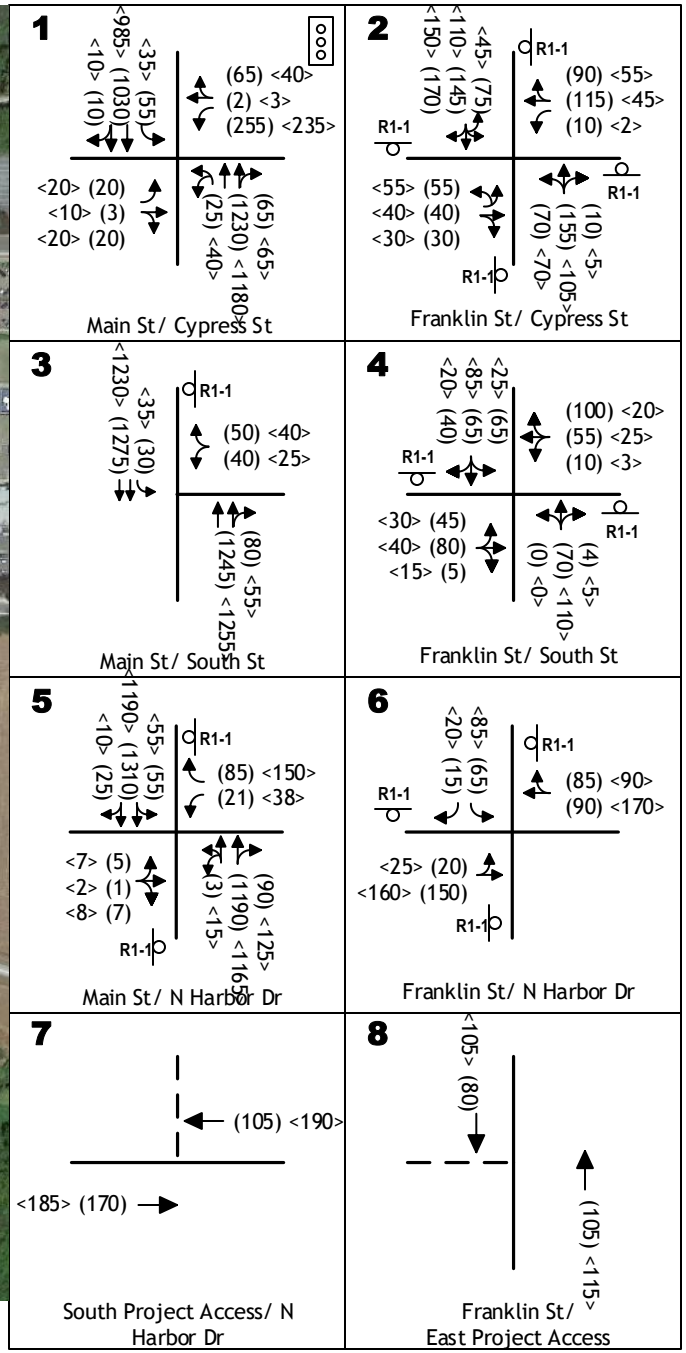

CUMULATIVE 2040 BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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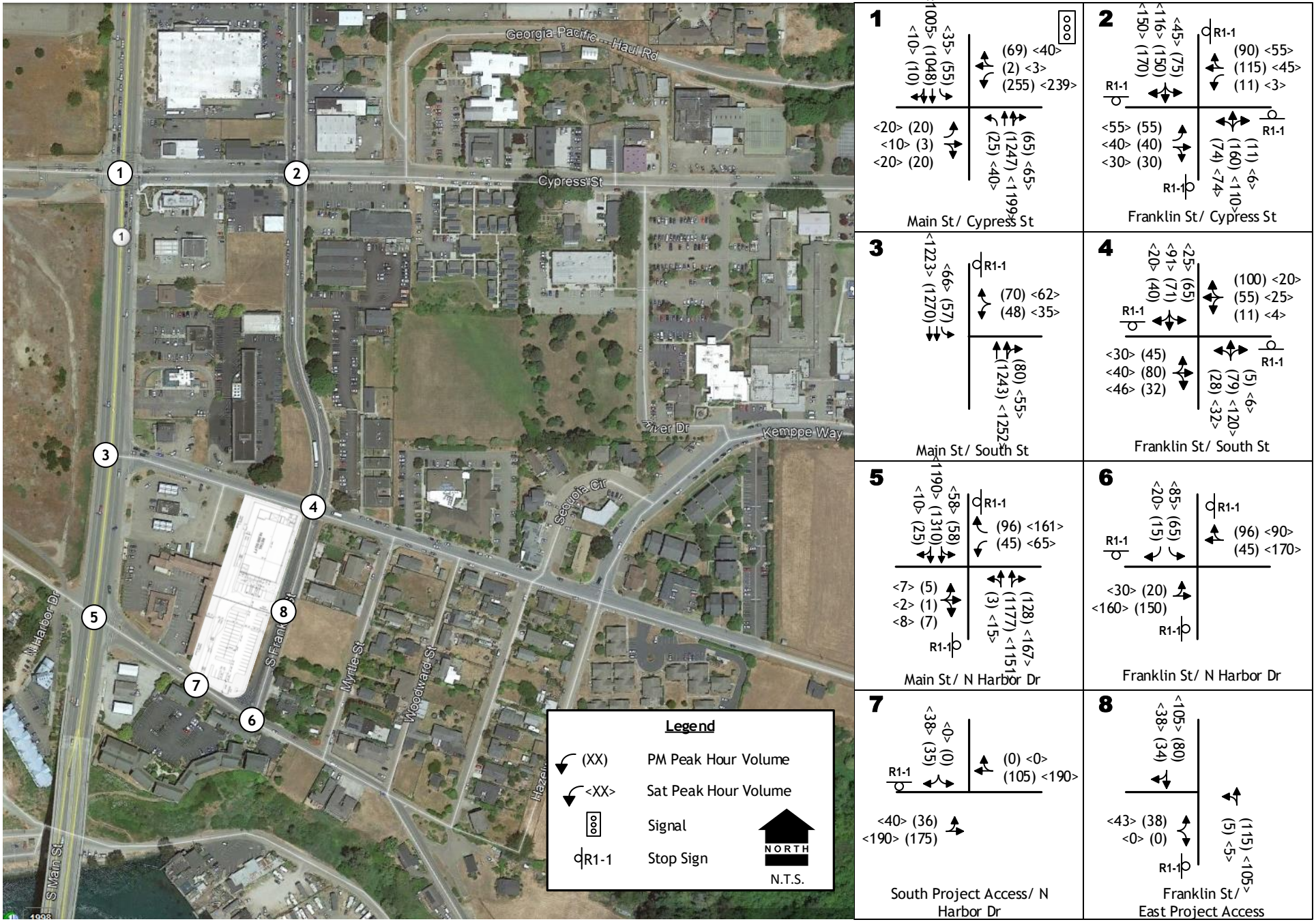
figure 6



CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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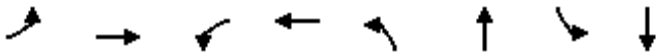
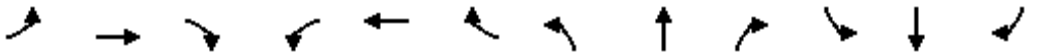


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	22	210	34	35	1113	30	886
v/c Ratio	0.04	0.04	0.48	0.06	0.15	0.58	0.13	0.46
Control Delay	15.5	10.0	20.6	7.3	31.3	16.0	31.3	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	10.0	20.6	7.3	31.3	16.0	31.3	13.9
Queue Length 50th (ft)	3	1	45	1	8	97	7	71
Queue Length 95th (ft)	16	16	130	18	48	#422	43	282
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	583	721	590	703	236	2101	236	2109
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.36	0.05	0.15	0.53	0.13	0.42

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	7	15	204	3	30	34	1022	57	29	851	9
Future Volume (veh/h)	15	7	15	204	3	30	34	1022	57	29	851	9
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	15	7	15	210	3	31	35	1054	59	30	877	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	415	107	229	427	29	296	70	1440	81	62	1500	15
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.04	0.42	0.42	0.03	0.42	0.42
Sat Flow, veh/h	1375	530	1136	1390	142	1465	1781	3394	190	1781	3575	37
Grp Volume(v), veh/h	15	0	22	210	0	34	35	547	566	30	432	454
Grp Sat Flow(s),veh/h/ln	1375	0	1666	1390	0	1607	1781	1763	1821	1781	1763	1849
Q Serve(g_s), s	0.4	0.0	0.5	6.4	0.0	0.8	0.9	11.5	11.5	0.7	8.4	8.4
Cycle Q Clear(g_c), s	1.2	0.0	0.5	6.9	0.0	0.8	0.9	11.5	11.5	0.7	8.4	8.4
Prop In Lane	1.00		0.68	1.00		0.91	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	415	0	336	427	0	324	70	748	773	62	740	776
V/C Ratio(X)	0.04	0.00	0.07	0.49	0.00	0.10	0.50	0.73	0.73	0.48	0.58	0.58
Avail Cap(c_a), veh/h	583	0	539	596	0	520	204	1006	1039	204	1006	1055
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	14.4	17.2	0.0	14.5	20.9	10.7	10.7	21.1	9.9	9.9
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.9	0.0	0.1	5.4	1.8	1.8	5.7	0.7	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	0.1	0.0	0.2	1.9	0.0	0.3	0.4	3.4	3.5	0.4	2.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	14.5	18.0	0.0	14.6	26.3	12.5	12.5	26.8	10.7	10.6
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		37			244			1148			916	
Approach Delay, s/veh		14.7			17.6			12.9			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	24.3		13.6	6.9	24.1		13.6				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	2.7	13.5		3.2	2.9	10.4		8.9				
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	4.6		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		12.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	33	23	2	37	46	58	86	4	34	93	129
Future Vol, veh/h	46	33	23	2	37	46	58	86	4	34	93	129
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	36	25	2	41	51	64	95	4	37	102	142
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.1	8.9	9.3	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	39%	100%	0%	100%	0%	13%
Vol Thru, %	58%	0%	59%	0%	45%	36%
Vol Right, %	3%	0%	41%	0%	55%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	46	56	2	83	256
LT Vol	58	46	0	2	0	34
Through Vol	86	0	33	0	37	93
RT Vol	4	0	23	0	46	129
Lane Flow Rate	163	51	62	2	91	281
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.22	0.087	0.092	0.004	0.134	0.344
Departure Headway (Hd)	4.86	6.165	5.369	6.201	5.302	4.404
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	735	578	662	573	670	813
Service Time	2.915	3.94	3.143	3.978	3.078	2.452
HCM Lane V/C Ratio	0.222	0.088	0.094	0.003	0.136	0.346
HCM Control Delay	9.3	9.5	8.7	9	8.9	9.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.3	0	0.5	1.5

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	32	1089	42	25	1068
Future Vol, veh/h	15	32	1089	42	25	1068
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	15	33	1123	43	26	1101

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1748	583	0	0	1166	0
Stage 1	1145	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	77	456	-	-	595	-
Stage 1	265	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	74	456	-	-	595	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	487	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	346	595	-
HCM Lane V/C Ratio	-	-	0.14	0.043	-
HCM Control Delay (s)	-	-	17.1	11.3	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	27	26	10	3	16	13	0	94	4	18	73	18
Future Vol, veh/h	27	26	10	3	16	13	0	94	4	18	73	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	29	11	3	18	14	0	103	4	20	80	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	40	0	0	176	133	35	179	131	25
Stage 1	-	-	-	-	-	-	95	95	-	31	31	-
Stage 2	-	-	-	-	-	-	81	38	-	148	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1570	-	-	786	758	1038	783	760	1051
Stage 1	-	-	-	-	-	-	912	816	-	986	869	-
Stage 2	-	-	-	-	-	-	927	863	-	855	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1570	-	-	696	742	1038	686	744	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	742	-	686	744	-
Stage 1	-	-	-	-	-	-	895	800	-	967	867	-
Stage 2	-	-	-	-	-	-	824	861	-	727	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0.7	10.6	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	751	1580	-	-	1570	-	-	770
HCM Lane V/C Ratio	0.143	0.019	-	-	0.002	-	-	0.156
HCM Control Delay (s)	10.6	7.3	0	-	7.3	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	3	34	0	130	11	1008	109	45	1027	7
Future Vol, veh/h	6	2	3	34	0	130	11	1008	109	45	1027	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	6	2	3	35	0	133	11	1029	111	46	1048	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1681	2306	528	1724	-	570	1055	0	0	1140	0	0
Stage 1	1144	1144	-	1107	-	-	-	-	-	-	-	-
Stage 2	537	1162	-	617	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	62	38	495	57	0	465	656	-	-	609	-	-
Stage 1	213	273	-	224	0	-	-	-	-	-	-	-
Stage 2	496	267	-	444	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	41	35	495	52	-	465	656	-	-	609	-	-
Mov Cap-2 Maneuver	131	122	-	150	-	-	-	-	-	-	-	-
Stage 1	209	252	-	220	-	-	-	-	-	-	-	-
Stage 2	349	262	-	405	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29	20	0.1	0.5
HCM LOS	D	C		

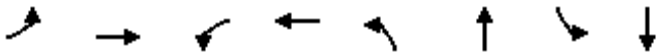
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	656	-	-	161	150	465	609	-	-
HCM Lane V/C Ratio	0.017	-	-	0.07	0.231	0.285	0.075	-	-
HCM Control Delay (s)	10.6	-	-	29	36.1	15.8	11.4	-	-
HCM Lane LOS	B	-	-	D	E	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.9	1.2	0.2	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	138	146	77	74	15
Future Vol, veh/h	21	138	146	77	74	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	147	155	82	79	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.7	8.8	9.2
HCM LOS	A	A	A

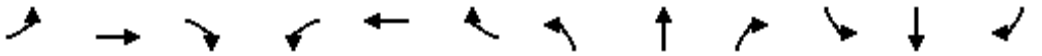
Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	100%	0%
Vol Thru, %	87%	65%	0%	0%
Vol Right, %	0%	35%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	159	223	74	15
LT Vol	21	0	74	0
Through Vol	138	146	0	0
RT Vol	0	77	0	15
Lane Flow Rate	169	237	79	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.21	0.276	0.129	0.021
Departure Headway (Hd)	4.476	4.185	5.918	4.709
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	803	861	606	759
Service Time	2.496	2.202	3.652	2.443
HCM Lane V/C Ratio	0.21	0.275	0.13	0.021
HCM Control Delay	8.7	8.8	9.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1.1	0.4	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	18	226	56	21	1157	44	927
v/c Ratio	0.05	0.04	0.56	0.11	0.11	0.75	0.23	0.56
Control Delay	15.6	9.1	23.0	6.0	31.9	19.3	32.9	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	9.1	23.0	6.0	31.9	19.3	32.9	13.7
Queue Length 50th (ft)	4	1	52	0	5	108	11	79
Queue Length 95th (ft)	18	13	140	21	33	#450	56	299
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	474	586	491	598	190	1906	190	2031
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.46	0.09	0.11	0.61	0.23	0.46

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	3	15	219	2	52	20	1067	55	43	890	9
Future Volume (veh/h)	17	3	15	219	2	52	20	1067	55	43	890	9
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	18	3	15	226	2	54	21	1100	57	44	918	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	397	57	286	434	12	324	45	1447	75	83	1592	16
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.03	0.42	0.42	0.05	0.45	0.45
Sat Flow, veh/h	1348	271	1355	1395	57	1537	1781	3410	177	1781	3577	35
Grp Volume(v), veh/h	18	0	18	226	0	56	21	568	589	44	452	475
Grp Sat Flow(s),veh/h/ln	1348	0	1626	1395	0	1594	1781	1763	1824	1781	1763	1849
Q Serve(g_s), s	0.5	0.0	0.4	7.3	0.0	1.4	0.6	13.0	13.0	1.1	9.1	9.1
Cycle Q Clear(g_c), s	1.9	0.0	0.4	7.7	0.0	1.4	0.6	13.0	13.0	1.1	9.1	9.1
Prop In Lane	1.00		0.83	1.00		0.96	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	397	0	343	434	0	336	45	748	774	83	785	823
V/C Ratio(X)	0.05	0.00	0.05	0.52	0.00	0.17	0.46	0.76	0.76	0.53	0.58	0.58
Avail Cap(c_a), veh/h	522	0	494	563	0	484	191	944	976	191	944	990
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	14.9	18.0	0.0	15.3	22.8	11.6	11.6	22.1	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.0	0.0	0.2	7.2	2.8	2.7	5.2	0.7	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	0.2	0.0	0.1	2.2	0.0	0.5	0.3	4.2	4.3	0.5	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	15.0	19.0	0.0	15.5	30.0	14.4	14.3	27.4	10.5	10.5
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		36			282			1178			971	
Approach Delay, s/veh		15.6			18.3			14.6			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	25.5		14.6	6.3	26.5		14.6				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.1	15.0		3.9	2.6	11.1		9.7				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	4.8		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	34	24	8	97	74	59	134	9	60	123	148
Future Vol, veh/h	45	34	24	8	97	74	59	134	9	60	123	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	37	26	9	107	81	65	147	10	66	135	163
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.9	11.3	11.2	13
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	100%	0%	100%	0%	18%
Vol Thru, %	66%	0%	59%	0%	57%	37%
Vol Right, %	4%	0%	41%	0%	43%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	45	58	8	171	331
LT Vol	59	45	0	8	0	60
Through Vol	134	0	34	0	97	123
RT Vol	9	0	24	0	74	148
Lane Flow Rate	222	49	64	9	188	364
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.336	0.095	0.108	0.017	0.311	0.504
Departure Headway (Hd)	5.443	6.928	6.122	6.782	5.964	4.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	659	516	584	527	601	720
Service Time	3.484	4.68	3.874	4.527	3.709	3.027
HCM Lane V/C Ratio	0.337	0.095	0.11	0.017	0.313	0.506
HCM Control Delay	11.2	10.4	9.6	9.6	11.4	13
HCM Lane LOS	B	B	A	A	B	B
HCM 95th-tile Q	1.5	0.3	0.4	0.1	1.3	2.9

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	39	1082	65	22	1108
Future Vol, veh/h	32	39	1082	65	22	1108
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	33	40	1115	67	23	1142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1766	591	0	0	1182	0
Stage 1	1149	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	75	450	-	-	587	-
Stage 1	264	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	72	450	-	-	587	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	264	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	312	587	-
HCM Lane V/C Ratio	-	-	0.235	0.039	-
HCM Control Delay (s)	-	-	20	11.4	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	37	62	4	6	44	84	0	58	3	52	55	36
Future Vol, veh/h	37	62	4	6	44	84	0	58	3	52	55	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	68	4	7	48	92	0	64	3	57	60	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	140	0	0	72	0	0	310	306	70	294	262	94
Stage 1	-	-	-	-	-	-	152	152	-	108	108	-
Stage 2	-	-	-	-	-	-	158	154	-	186	154	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1443	-	-	1528	-	-	642	608	993	658	643	963
Stage 1	-	-	-	-	-	-	850	772	-	897	806	-
Stage 2	-	-	-	-	-	-	844	770	-	816	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1443	-	-	1528	-	-	555	587	993	586	620	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	587	-	586	620	-
Stage 1	-	-	-	-	-	-	825	749	-	870	802	-
Stage 2	-	-	-	-	-	-	745	766	-	722	747	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0.3	11.8	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	599	1443	-	-	1528	-	-	666
HCM Lane V/C Ratio	0.112	0.028	-	-	0.004	-	-	0.236
HCM Control Delay (s)	11.8	7.6	0	-	7.4	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1	5	18	0	72	3	1031	78	47	1135	19
Future Vol, veh/h	4	1	5	18	0	72	3	1031	78	47	1135	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	4	1	5	18	0	73	3	1052	80	48	1158	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1796	2402	589	1774	-	566	1177	0	0	1132	0	0
Stage 1	1264	1264	-	1098	-	-	-	-	-	-	-	-
Stage 2	532	1138	-	676	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	50	33	452	52	0	467	589	-	-	613	-	-
Stage 1	179	239	-	227	0	-	-	-	-	-	-	-
Stage 2	499	275	-	409	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	39	30	452	48	-	467	589	-	-	613	-	-
Mov Cap-2 Maneuver	125	115	-	148	-	-	-	-	-	-	-	-
Stage 1	178	220	-	226	-	-	-	-	-	-	-	-
Stage 2	418	274	-	371	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.7	17.8	0	0.4
HCM LOS	C	C		

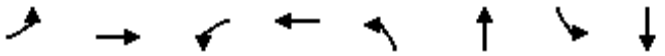
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	589	-	-	193	148	467	613	-	-
HCM Lane V/C Ratio	0.005	-	-	0.053	0.124	0.157	0.078	-	-
HCM Control Delay (s)	11.1	-	-	24.7	32.7	14.1	11.4	-	-
HCM Lane LOS	B	-	-	C	D	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.6	0.3	-	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	WBR	SBL	SBR	SEL
Lane Configurations				
Traffic Vol, veh/h	77	56	13	128
Future Vol, veh/h	77	56	13	128
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	82	60	14	136
Number of Lanes	1	1	1	1

Approach	WB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		WB
Conflicting Lanes Left	0	1
Conflicting Approach Right	SB	SE
Conflicting Lanes Right	2	1
HCM Control Delay	7.7	8.7
HCM LOS	A	A

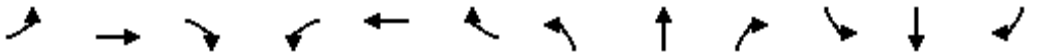
Lane	WBLn1	SELn1	SBLn1	SBLn2
Vol Left, %	0%	100%	100%	0%
Vol Thru, %	0%	0%	0%	0%
Vol Right, %	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	144	56	13
LT Vol	0	144	56	0
Through Vol	0	0	0	0
RT Vol	150	0	0	13
Lane Flow Rate	160	153	60	14
Geometry Grp	2	2	7	7
Degree of Util (X)	0.173	0.198	0.095	0.017
Departure Headway (Hd)	3.898	4.649	5.718	4.511
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	922	774	628	794
Service Time	1.913	2.669	3.442	2.235
HCM Lane V/C Ratio	0.174	0.198	0.096	0.018
HCM Control Delay	7.7	8.8	9	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.7	0.3	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	22	210	34	35	1132	30	907
v/c Ratio	0.04	0.04	0.48	0.06	0.15	0.59	0.13	0.47
Control Delay	15.5	10.0	20.7	7.4	31.4	16.2	31.4	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	10.0	20.7	7.4	31.4	16.2	31.4	14.0
Queue Length 50th (ft)	3	1	45	1	8	100	7	73
Queue Length 95th (ft)	16	16	130	18	48	#435	43	291
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	579	716	586	698	234	2093	234	2103
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.36	0.05	0.15	0.54	0.13	0.43

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	7	15	204	3	30	34	1041	57	29	871	9
Future Volume (veh/h)	15	7	15	204	3	30	34	1041	57	29	871	9
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	15	7	15	210	3	31	35	1073	59	30	898	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	413	107	229	425	29	295	70	1453	80	62	1513	15
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.04	0.43	0.43	0.03	0.42	0.42
Sat Flow, veh/h	1375	530	1136	1390	142	1465	1781	3398	187	1781	3576	36
Grp Volume(v), veh/h	15	0	22	210	0	34	35	557	575	30	443	464
Grp Sat Flow(s),veh/h/ln	1375	0	1666	1390	0	1607	1781	1763	1822	1781	1763	1849
Q Serve(g_s), s	0.4	0.0	0.5	6.5	0.0	0.8	0.9	11.9	11.9	0.7	8.7	8.7
Cycle Q Clear(g_c), s	1.2	0.0	0.5	7.0	0.0	0.8	0.9	11.9	11.9	0.7	8.7	8.7
Prop In Lane	1.00		0.68	1.00		0.91	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	413	0	336	425	0	324	70	754	779	62	746	782
V/C Ratio(X)	0.04	0.00	0.07	0.49	0.00	0.11	0.50	0.74	0.74	0.48	0.59	0.59
Avail Cap(c_a), veh/h	577	0	534	591	0	515	202	996	1030	202	996	1045
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	14.5	17.3	0.0	14.6	21.1	10.8	10.8	21.3	10.0	10.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.9	0.0	0.1	5.4	2.0	2.0	5.8	0.8	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	0.1	0.0	0.2	1.9	0.0	0.3	0.4	3.5	3.6	0.4	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	14.6	18.2	0.0	14.8	26.5	12.8	12.7	27.1	10.7	10.7
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		37			244			1167			937	
Approach Delay, s/veh		14.8			17.7			13.2			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	24.6		13.7	6.9	24.4		13.7				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	2.7	13.9		3.2	2.9	10.7		9.0				
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	4.7		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		12.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	33	23	3	37	46	58	91	5	34	99	129
Future Vol, veh/h	46	33	23	3	37	46	58	91	5	34	99	129
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	36	25	3	41	51	64	100	5	37	109	142
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.1	9	9.4	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	38%	100%	0%	100%	0%	13%
Vol Thru, %	59%	0%	59%	0%	45%	38%
Vol Right, %	3%	0%	41%	0%	55%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	154	46	56	3	83	262
LT Vol	58	46	0	3	0	34
Through Vol	91	0	33	0	37	99
RT Vol	5	0	23	0	46	129
Lane Flow Rate	169	51	62	3	91	288
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.229	0.087	0.092	0.006	0.135	0.354
Departure Headway (Hd)	4.867	6.2	5.403	6.234	5.335	4.425
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	733	574	658	570	666	809
Service Time	2.925	3.979	3.182	4.014	3.115	2.472
HCM Lane V/C Ratio	0.231	0.089	0.094	0.005	0.137	0.356
HCM Control Delay	9.4	9.6	8.7	9.1	9	9.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.9	0.3	0.3	0	0.5	1.6

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	54	1086	42	56	1061
Future Vol, veh/h	15	54	1086	42	56	1061
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	15	56	1120	43	58	1094

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1805	582	0	0	1163	0
Stage 1	1142	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	71	456	-	-	596	-
Stage 1	266	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	64	456	-	-	596	-
Mov Cap-2 Maneuver	221	-	-	-	-	-
Stage 1	266	-	-	-	-	-
Stage 2	428	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	370	596	-
HCM Lane V/C Ratio	-	-	0.192	0.097	-
HCM Control Delay (s)	-	-	17	11.7	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.7	0.3	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	26	41	4	16	13	22	100	5	18	79	18
Future Vol, veh/h	27	26	41	4	16	13	22	100	5	18	79	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	29	45	4	18	14	24	110	5	20	87	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	74	0	0	199	152	52	202	167	25
Stage 1	-	-	-	-	-	-	112	112	-	33	33	-
Stage 2	-	-	-	-	-	-	87	40	-	169	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1526	-	-	760	740	1016	756	726	1051
Stage 1	-	-	-	-	-	-	893	803	-	983	868	-
Stage 2	-	-	-	-	-	-	921	862	-	833	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1526	-	-	664	723	1016	653	709	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	664	723	-	653	709	-
Stage 1	-	-	-	-	-	-	875	787	-	963	865	-
Stage 2	-	-	-	-	-	-	811	859	-	699	769	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.9	11.2	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1580	-	-	1526	-	-	737
HCM Lane V/C Ratio	0.194	0.019	-	-	0.003	-	-	0.171
HCM Control Delay (s)	11.2	7.3	0	-	7.4	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	7	75	0	141	11	994	151	48	1027	7
Future Vol, veh/h	6	2	7	75	0	141	11	994	151	48	1027	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	6	2	7	77	0	144	11	1014	154	49	1048	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1679	2340	528	1736	-	584	1055	0	0	1168	0	0
Stage 1	1150	1150	-	1113	-	-	-	-	-	-	-	-
Stage 2	529	1190	-	623	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	62	36	495	~ 56	0	455	656	-	-	594	-	-
Stage 1	211	271	-	222	0	-	-	-	-	-	-	-
Stage 2	501	259	-	440	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	39	32	495	~ 50	-	455	656	-	-	594	-	-
Mov Cap-2 Maneuver	127	117	-	148	-	-	-	-	-	-	-	-
Stage 1	207	249	-	218	-	-	-	-	-	-	-	-
Stage 2	337	255	-	395	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.5	29.1	0.1	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	656	-	-	191	148	455	594	-	-
HCM Lane V/C Ratio	0.017	-	-	0.08	0.517	0.316	0.082	-	-
HCM Control Delay (s)	10.6	-	-	25.5	52.8	16.5	11.6	-	-
HCM Lane LOS	B	-	-	D	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	2.5	1.3	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	138	146	77	74	15
Future Vol, veh/h	26	138	146	77	74	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	147	155	82	79	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.7	8.8	9.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	0%	100%	0%
Vol Thru, %	84%	65%	0%	0%
Vol Right, %	0%	35%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	223	74	15
LT Vol	26	0	74	0
Through Vol	138	146	0	0
RT Vol	0	77	0	15
Lane Flow Rate	174	237	79	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.217	0.276	0.13	0.021
Departure Headway (Hd)	4.481	4.191	5.93	4.721
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	803	859	605	757
Service Time	2.503	2.21	3.665	2.455
HCM Lane V/C Ratio	0.217	0.276	0.131	0.021
HCM Control Delay	8.7	8.8	9.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1.1	0.4	0.1

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	164	130	0	0	52
Future Vol, veh/h	40	164	130	0	0	52
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	43	178	141	0	0	57

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	141	0	-	0	405	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	264	-
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	1442	-	-	-	602	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1442	-	-	-	582	907
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	780	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1442	-	-	-	907
HCM Lane V/C Ratio	0.03	-	-	-	0.062
HCM Control Delay (s)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

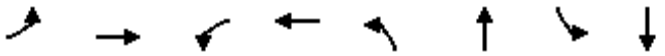
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	0	5	129	89	38
Future Vol, veh/h	29	0	5	129	89	38
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	32	0	5	140	97	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	268	118	138	0	-	0
Stage 1	118	-	-	-	-	-
Stage 2	150	-	-	-	-	-
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	721	934	1446	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	718	934	1446	-	-	-
Mov Cap-2 Maneuver	718	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.3	0
HCM LOS	B		

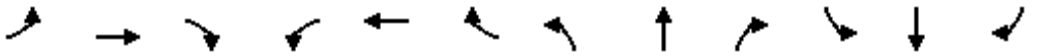
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1446	-	718	-	-
HCM Lane V/C Ratio	0.004	-	0.044	-	-
HCM Control Delay (s)	7.5	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	18	226	56	21	1175	44	945
v/c Ratio	0.05	0.04	0.56	0.11	0.11	0.76	0.23	0.57
Control Delay	15.7	9.1	23.2	6.0	32.0	19.5	33.0	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	9.1	23.2	6.0	32.0	19.5	33.0	13.8
Queue Length 50th (ft)	4	1	53	0	5	111	11	81
Queue Length 95th (ft)	18	13	140	21	33	#462	56	306
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	471	582	488	594	189	1892	189	2018
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.46	0.09	0.11	0.62	0.23	0.47

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	3	15	219	2	52	20	1084	55	43	908	9
Future Volume (veh/h)	17	3	15	219	2	52	20	1084	55	43	908	9
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	18	3	15	226	2	54	21	1118	57	44	936	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	396	57	286	432	12	324	45	1458	74	82	1603	15
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.03	0.43	0.43	0.05	0.45	0.45
Sat Flow, veh/h	1348	271	1355	1395	57	1537	1781	3413	174	1781	3578	34
Grp Volume(v), veh/h	18	0	18	226	0	56	21	577	598	44	461	484
Grp Sat Flow(s),veh/h/ln	1348	0	1626	1395	0	1594	1781	1763	1824	1781	1763	1849
Q Serve(g_s), s	0.5	0.0	0.4	7.4	0.0	1.4	0.6	13.3	13.4	1.2	9.4	9.4
Cycle Q Clear(g_c), s	1.9	0.0	0.4	7.8	0.0	1.4	0.6	13.3	13.4	1.2	9.4	9.4
Prop In Lane	1.00		0.83	1.00		0.96	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	396	0	343	432	0	336	45	753	779	82	790	829
V/C Ratio(X)	0.05	0.00	0.05	0.52	0.00	0.17	0.46	0.77	0.77	0.53	0.58	0.58
Avail Cap(c_a), veh/h	518	0	490	558	0	480	190	936	969	190	936	982
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	0.0	15.1	18.2	0.0	15.4	23.0	11.7	11.7	22.3	9.9	9.9
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.0	0.0	0.2	7.2	3.0	3.0	5.3	0.7	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	0.2	0.0	0.1	2.3	0.0	0.5	0.3	4.3	4.4	0.5	2.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	0.0	15.1	19.2	0.0	15.7	30.2	14.7	14.6	27.6	10.6	10.5
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		36			282			1196			989	
Approach Delay, s/veh		15.7			18.5			14.9			11.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	25.8		14.7	6.3	26.8		14.7				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.2	15.4		3.9	2.6	11.4		9.8				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	4.9		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		13.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	34	24	9	97	74	59	139	10	60	128	148
Future Vol, veh/h	45	34	24	9	97	74	59	139	10	60	128	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	37	26	10	107	81	65	153	11	66	141	163
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10	11.4	11.4	13.3
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	28%	100%	0%	100%	0%	18%
Vol Thru, %	67%	0%	59%	0%	57%	38%
Vol Right, %	5%	0%	41%	0%	43%	44%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	45	58	9	171	336
LT Vol	59	45	0	9	0	60
Through Vol	139	0	34	0	97	128
RT Vol	10	0	24	0	74	148
Lane Flow Rate	229	49	64	10	188	369
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.346	0.096	0.109	0.019	0.313	0.514
Departure Headway (Hd)	5.457	6.97	6.164	6.82	6.002	5.012
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	658	513	580	524	598	716
Service Time	3.502	4.723	3.917	4.566	3.748	3.052
HCM Lane V/C Ratio	0.348	0.096	0.11	0.019	0.314	0.515
HCM Control Delay	11.4	10.5	9.7	9.7	11.5	13.3
HCM Lane LOS	B	B	A	A	B	B
HCM 95th-tile Q	1.5	0.3	0.4	0.1	1.3	3

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	59	1080	65	49	1103
Future Vol, veh/h	32	59	1080	65	49	1103
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	33	61	1113	67	51	1137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1818	590	0	0	1180	0
Stage 1	1147	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	69	451	-	-	588	-
Stage 1	265	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	63	451	-	-	588	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	429	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.2	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	329	588	-
HCM Lane V/C Ratio	-	-	0.285	0.086	-
HCM Control Delay (s)	-	-	20.2	11.7	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.3	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	37	62	31	7	44	84	20	63	4	52	61	36
Future Vol, veh/h	37	62	31	7	44	84	20	63	4	52	61	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	68	34	8	48	92	22	69	4	57	67	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	140	0	0	102	0	0	331	323	85	314	294	94
Stage 1	-	-	-	-	-	-	167	167	-	110	110	-
Stage 2	-	-	-	-	-	-	164	156	-	204	184	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1443	-	-	1490	-	-	622	595	974	639	617	963
Stage 1	-	-	-	-	-	-	835	760	-	895	804	-
Stage 2	-	-	-	-	-	-	838	769	-	798	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1443	-	-	1490	-	-	531	574	974	562	595	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	531	574	-	562	595	-
Stage 1	-	-	-	-	-	-	810	737	-	868	799	-
Stage 2	-	-	-	-	-	-	732	764	-	698	725	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.4	12.5	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	574	1443	-	-	1490	-	-	641
HCM Lane V/C Ratio	0.167	0.028	-	-	0.005	-	-	0.255
HCM Control Delay (s)	12.5	7.6	0	-	7.4	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1	6	54	0	83	3	1018	116	50	1135	19
Future Vol, veh/h	4	1	6	54	0	83	3	1018	116	50	1135	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	4	1	6	55	0	85	3	1039	118	51	1158	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1796	2433	589	1786	-	579	1177	0	0	1157	0	0
Stage 1	1270	1270	-	1104	-	-	-	-	-	-	-	-
Stage 2	526	1163	-	682	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	50	31	452	~ 51	0	458	589	-	-	600	-	-
Stage 1	178	237	-	225	0	-	-	-	-	-	-	-
Stage 2	503	267	-	406	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	38	28	452	~ 47	-	458	589	-	-	600	-	-
Mov Cap-2 Maneuver	123	111	-	146	-	-	-	-	-	-	-	-
Stage 1	177	217	-	224	-	-	-	-	-	-	-	-
Stage 2	408	266	-	365	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24	26.1	0	0.5
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	589	-	-	201	146	458	600	-	-
HCM Lane V/C Ratio	0.005	-	-	0.056	0.377	0.185	0.085	-	-
HCM Control Delay (s)	11.1	-	-	24	43.9	14.6	11.6	-	-
HCM Lane LOS	B	-	-	C	E	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.6	0.7	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	128	77	73	56	13
Future Vol, veh/h	21	128	77	73	56	13
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	136	82	78	60	14
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.3	7.9	8.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	100%	0%
Vol Thru, %	86%	51%	0%	0%
Vol Right, %	0%	49%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	150	56	13
LT Vol	21	0	56	0
Through Vol	128	77	0	0
RT Vol	0	73	0	13
Lane Flow Rate	159	160	60	14
Geometry Grp	2	2	7	7
Degree of Util (X)	0.19	0.178	0.095	0.017
Departure Headway (Hd)	4.323	4.013	5.716	4.509
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	834	897	629	795
Service Time	2.334	2.024	3.436	2.229
HCM Lane V/C Ratio	0.191	0.178	0.095	0.018
HCM Control Delay	8.3	7.9	9	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.6	0.3	0.1

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	149	90	0	0	47
Future Vol, veh/h	36	149	90	0	0	47
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	39	162	98	0	0	51

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	98	0	-	0	338	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	240	-
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	1495	-	-	-	658	958
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1495	-	-	-	639	958
Mov Cap-2 Maneuver	-	-	-	-	639	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	800	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1495	-	-	-	958
HCM Lane V/C Ratio	0.026	-	-	-	0.053
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

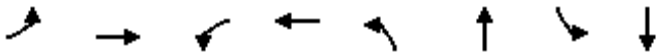
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	0	5	89	69	34
Future Vol, veh/h	26	0	5	89	69	34
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	28	0	5	97	75	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	201	94	112	0	-	0
Stage 1	94	-	-	-	-	-
Stage 2	107	-	-	-	-	-
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	788	963	1478	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	785	963	1478	-	-	-
Mov Cap-2 Maneuver	785	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.4	0
HCM LOS	A		

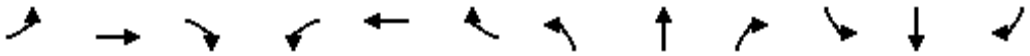
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1478	-	785	-	-
HCM Lane V/C Ratio	0.004	-	0.036	-	-
HCM Control Delay (s)	7.4	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	31	242	44	41	1283	36	1025
v/c Ratio	0.05	0.06	0.61	0.09	0.23	0.81	0.20	0.64
Control Delay	15.8	9.5	25.1	6.7	33.5	21.3	33.1	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	9.5	25.1	6.7	33.5	21.3	33.1	16.8
Queue Length 50th (ft)	4	2	60	1	11	135	10	97
Queue Length 95th (ft)	20	19	151	20	53	#528	49	#353
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	449	569	455	558	177	1770	177	1778
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.53	0.08	0.23	0.72	0.20	0.58

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	20	235	3	40	40	1180	65	35	985	10
Future Volume (veh/h)	20	10	20	235	3	40	40	1180	65	35	985	10
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	10	21	242	3	41	41	1216	67	36	1015	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	419	121	255	432	25	337	77	1492	82	70	1557	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.44	0.44	0.04	0.44	0.44
Sat Flow, veh/h	1362	538	1129	1378	109	1493	1781	3398	187	1781	3577	35
Grp Volume(v), veh/h	21	0	31	242	0	44	41	630	653	36	500	525
Grp Sat Flow(s),veh/h/ln	1362	0	1667	1378	0	1602	1781	1763	1822	1781	1763	1849
Q Serve(g_s), s	0.6	0.0	0.7	8.6	0.0	1.1	1.2	15.9	16.0	1.0	11.4	11.4
Cycle Q Clear(g_c), s	1.8	0.0	0.7	9.3	0.0	1.1	1.2	15.9	16.0	1.0	11.4	11.4
Prop In Lane	1.00		0.68	1.00		0.93	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	419	0	377	432	0	362	77	774	800	70	767	805
V/C Ratio(X)	0.05	0.00	0.08	0.56	0.00	0.12	0.53	0.81	0.82	0.52	0.65	0.65
Avail Cap(c_a), veh/h	495	0	470	510	0	452	178	877	906	178	877	920
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	15.6	19.3	0.0	15.7	23.9	12.5	12.5	24.1	11.4	11.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	0.1	5.6	5.4	5.3	5.8	1.4	1.4
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	0.2	0.0	0.3	2.6	0.0	0.4	0.5	5.7	5.9	0.5	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	0.0	15.7	20.4	0.0	15.9	29.5	17.8	17.8	29.9	12.8	12.7
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		52			286			1324			1061	
Approach Delay, s/veh		16.0			19.7			18.2			13.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	27.8		16.1	7.3	27.6		16.1				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.0	18.0		3.8	3.2	13.4		11.3				
Green Ext Time (p_c), s	0.0	4.4		0.1	0.0	4.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		16.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	2	45	55	70	105	5	45	110	150
Future Vol, veh/h	55	40	30	2	45	55	70	105	5	45	110	150
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	2	49	60	77	115	5	49	121	165
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.7	9.6	10.2	11.2
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	39%	100%	0%	100%	0%	15%
Vol Thru, %	58%	0%	57%	0%	45%	36%
Vol Right, %	3%	0%	43%	0%	55%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	55	70	2	100	305
LT Vol	70	55	0	2	0	45
Through Vol	105	0	40	0	45	110
RT Vol	5	0	30	0	55	150
Lane Flow Rate	198	60	77	2	110	335
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.285	0.11	0.123	0.004	0.174	0.429
Departure Headway (Hd)	5.183	6.552	5.739	6.604	5.705	4.605
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	698	549	627	544	631	771
Service Time	3.183	4.267	3.454	4.32	3.421	2.701
HCM Lane V/C Ratio	0.284	0.109	0.123	0.004	0.174	0.435
HCM Control Delay	10.2	10.1	9.3	9.3	9.6	11.2
HCM Lane LOS	B	B	A	A	A	B
HCM 95th-tile Q	1.2	0.4	0.4	0	0.6	2.2

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	40	1255	55	35	1230
Future Vol, veh/h	25	40	1255	55	35	1230
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	26	41	1294	57	36	1268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2029	676	0	0	1351	0
Stage 1	1323	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	50	396	-	-	505	-
Stage 1	213	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	396	-	-	505	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	274	505	-
HCM Lane V/C Ratio	-	-	0.245	0.071	-
HCM Control Delay (s)	-	-	22.3	12.7	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	40	15	3	25	20	0	110	5	25	85	20
Future Vol, veh/h	30	40	15	3	25	20	0	110	5	25	85	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	44	16	3	27	22	0	121	5	27	93	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	60	0	0	220	173	52	225	170	38
Stage 1	-	-	-	-	-	-	118	118	-	44	44	-
Stage 2	-	-	-	-	-	-	102	55	-	181	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1544	-	-	736	720	1016	730	723	1034
Stage 1	-	-	-	-	-	-	887	798	-	970	858	-
Stage 2	-	-	-	-	-	-	904	849	-	821	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1544	-	-	636	703	1016	619	706	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	703	-	619	706	-
Stage 1	-	-	-	-	-	-	867	780	-	949	856	-
Stage 2	-	-	-	-	-	-	787	847	-	675	775	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0.5	11.1	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	713	1558	-	-	1544	-	-	722
HCM Lane V/C Ratio	0.177	0.021	-	-	0.002	-	-	0.198
HCM Control Delay (s)	11.1	7.4	0	-	7.3	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	2	8	38	0	150	15	1165	125	55	1190	10
Future Vol, veh/h	7	2	8	38	0	150	15	1165	125	55	1190	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	7	2	8	39	0	153	15	1189	128	56	1214	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1956	2678	612	2003	-	659	1224	0	0	1317	0	0
Stage 1	1331	1331	-	1283	-	-	-	-	-	-	-	-
Stage 2	625	1347	-	720	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	38	22	436	~ 35	0	406	565	-	-	521	-	-
Stage 1	163	222	-	175	0	-	-	-	-	-	-	-
Stage 2	439	218	-	385	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	21	19	436	~ 30	-	406	565	-	-	521	-	-
Mov Cap-2 Maneuver	92	88	-	113	-	-	-	-	-	-	-	-
Stage 1	159	198	-	170	-	-	-	-	-	-	-	-
Stage 2	266	212	-	334	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.2	25.9	0.1	0.6
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	565	-	-	145	113	406	521	-	-
HCM Lane V/C Ratio	0.027	-	-	0.12	0.343	0.377	0.108	-	-
HCM Control Delay (s)	11.5	-	-	33.2	52.7	19.1	12.7	-	-
HCM Lane LOS	B	-	-	D	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	1.4	1.7	0.4	-	-

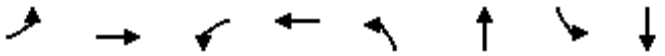
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	160	170	90	85	20
Future Vol, veh/h	25	160	170	90	85	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	170	181	96	90	21
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	9.1	9.4	9.5
HCM LOS	A	A	A

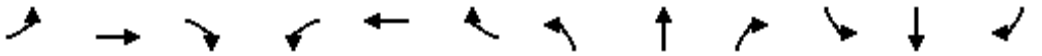
Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	100%	0%
Vol Thru, %	86%	65%	0%	0%
Vol Right, %	0%	35%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	260	85	20
LT Vol	25	0	85	0
Through Vol	160	170	0	0
RT Vol	0	90	0	20
Lane Flow Rate	197	277	90	21
Geometry Grp	2	2	7	7
Degree of Util (X)	0.25	0.328	0.152	0.029
Departure Headway (Hd)	4.577	4.274	6.071	4.86
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	841	590	734
Service Time	2.605	2.297	3.817	2.606
HCM Lane V/C Ratio	0.251	0.329	0.153	0.029
HCM Control Delay	9.1	9.4	9.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.4	0.5	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	24	263	69	26	1335	57	1072
v/c Ratio	0.06	0.05	0.67	0.14	0.16	0.87	0.35	0.64
Control Delay	16.7	8.4	28.7	5.7	33.8	25.5	37.8	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	8.4	28.7	5.7	33.8	25.5	37.8	17.0
Queue Length 50th (ft)	6	1	89	1	9	224	20	103
Queue Length 95th (ft)	20	15	165	24	39	#561	#78	#398
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	414	520	431	542	165	1651	165	1776
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.61	0.13	0.16	0.81	0.35	0.60

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	3	20	255	2	65	25	1230	65	55	1030	10
Future Volume (veh/h)	20	3	20	255	2	65	25	1230	65	55	1030	10
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	3	21	263	2	67	26	1268	67	57	1062	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	398	47	331	441	11	362	53	1482	78	95	1641	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.44	0.44	0.05	0.46	0.46
Sat Flow, veh/h	1332	202	1414	1387	46	1546	1781	3406	180	1781	3579	34
Grp Volume(v), veh/h	21	0	24	263	0	69	26	655	680	57	523	549
Grp Sat Flow(s),veh/h/ln	1332	0	1616	1387	0	1592	1781	1763	1823	1781	1763	1849
Q Serve(g_s), s	0.7	0.0	0.6	9.9	0.0	1.9	0.8	18.2	18.3	1.7	12.4	12.4
Cycle Q Clear(g_c), s	2.6	0.0	0.6	10.5	0.0	1.9	0.8	18.2	18.3	1.7	12.4	12.4
Prop In Lane	1.00		0.88	1.00		0.97	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	398	0	378	441	0	373	53	767	793	95	808	848
V/C Ratio(X)	0.05	0.00	0.06	0.60	0.00	0.19	0.49	0.85	0.86	0.60	0.65	0.65
Avail Cap(c_a), veh/h	439	0	428	484	0	422	167	823	852	167	823	864
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	16.2	20.3	0.0	16.7	26.0	13.8	13.8	25.2	11.3	11.3
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.7	0.0	0.2	6.8	8.3	8.2	6.0	1.7	1.7
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	0.2	0.0	0.2	3.2	0.0	0.7	0.4	7.2	7.4	0.8	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	16.3	22.0	0.0	16.9	32.8	22.1	22.0	31.2	13.1	13.0
LnGrp LOS	B	A	B	C	A	B	C	C	C	C	B	B
Approach Vol, veh/h		45			332			1361			1129	
Approach Delay, s/veh		17.0			20.9			22.3			14.0	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	29.1		17.3	6.7	30.3		17.3				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.7	20.3		4.6	2.8	14.4		12.5				
Green Ext Time (p_c), s	0.0	3.4		0.1	0.0	4.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		18.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	10	115	90	70	155	10	75	145	170
Future Vol, veh/h	55	40	30	10	115	90	70	155	10	75	145	170
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	11	126	99	77	170	11	82	159	187
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.9	13.3	13.2	17.5
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	30%	100%	0%	100%	0%	19%
Vol Thru, %	66%	0%	57%	0%	56%	37%
Vol Right, %	4%	0%	43%	0%	44%	44%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	55	70	10	205	390
LT Vol	70	55	0	10	0	75
Through Vol	155	0	40	0	115	145
RT Vol	10	0	30	0	90	170
Lane Flow Rate	258	60	77	11	225	429
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.421	0.125	0.141	0.022	0.4	0.638
Departure Headway (Hd)	5.875	7.431	6.611	7.222	6.396	5.359
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	607	479	538	493	559	669
Service Time	3.96	5.231	4.409	5.007	4.18	3.431
HCM Lane V/C Ratio	0.425	0.125	0.143	0.022	0.403	0.641
HCM Control Delay	13.2	11.3	10.5	10.2	13.4	17.5
HCM Lane LOS	B	B	B	B	B	C
HCM 95th-tile Q	2.1	0.4	0.5	0.1	1.9	4.6

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	50	1245	80	30	1275
Future Vol, veh/h	40	50	1245	80	30	1275
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	41	52	1284	82	31	1314

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2044	683	0	0	1366	0
Stage 1	1325	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	49	392	-	-	499	-
Stage 1	213	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	392	-	-	499	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	416	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.3	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	499	-
HCM Lane V/C Ratio	-	-	0.357	0.062	-
HCM Control Delay (s)	-	-	26.3	12.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.6	0.2	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	45	80	5	10	55	100	0	70	4	65	65	40
Future Vol, veh/h	45	80	5	10	55	100	0	70	4	65	65	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	88	5	11	60	110	0	77	4	71	71	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	93	0	0	384	381	91	366	328	115
Stage 1	-	-	-	-	-	-	189	189	-	137	137	-
Stage 2	-	-	-	-	-	-	195	192	-	229	191	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1501	-	-	574	552	967	590	591	937
Stage 1	-	-	-	-	-	-	813	744	-	866	783	-
Stage 2	-	-	-	-	-	-	807	742	-	774	742	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1501	-	-	478	527	967	504	564	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	478	527	-	504	564	-
Stage 1	-	-	-	-	-	-	783	716	-	834	777	-
Stage 2	-	-	-	-	-	-	693	736	-	662	715	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0.4	12.8	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	540	1407	-	-	1501	-	-	593
HCM Lane V/C Ratio	0.151	0.035	-	-	0.007	-	-	0.315
HCM Control Delay (s)	12.8	7.7	0	-	7.4	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	1.3

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1	7	21	0	85	3	1190	90	55	1310	25
Future Vol, veh/h	5	1	7	21	0	85	3	1190	90	55	1310	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	5	1	7	21	0	87	3	1214	92	56	1337	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2075	2774	682	2047	-	653	1363	0	0	1306	0	0
Stage 1	1462	1462	-	1266	-	-	-	-	-	-	-	-
Stage 2	613	1312	-	781	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	31	19	392	33	0	410	500	-	-	526	-	-
Stage 1	135	192	-	179	0	-	-	-	-	-	-	-
Stage 2	446	227	-	354	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	22	17	392	29	-	410	500	-	-	526	-	-
Mov Cap-2 Maneuver	92	86	-	115	-	-	-	-	-	-	-	-
Stage 1	134	172	-	178	-	-	-	-	-	-	-	-
Stage 2	350	226	-	309	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.4	21.5	0	0.5
HCM LOS	D	C		

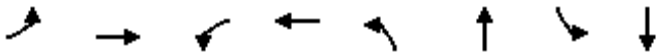
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	500	-	-	155	115	410	526	-	-
HCM Lane V/C Ratio	0.006	-	-	0.086	0.186	0.212	0.107	-	-
HCM Control Delay (s)	12.2	-	-	30.4	43.3	16.1	12.7	-	-
HCM Lane LOS	B	-	-	D	E	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.7	0.8	0.4	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	150	90	85	65	15
Future Vol, veh/h	20	150	90	85	65	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	160	96	90	69	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.6	8.2	8.9
HCM LOS	A	A	A

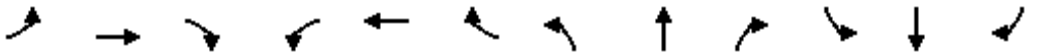
Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	0%	100%	0%
Vol Thru, %	88%	51%	0%	0%
Vol Right, %	0%	49%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	175	65	15
LT Vol	20	0	65	0
Through Vol	150	90	0	0
RT Vol	0	85	0	15
Lane Flow Rate	181	186	69	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.22	0.211	0.112	0.02
Departure Headway (Hd)	4.385	4.078	5.824	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	882	616	775
Service Time	2.399	2.09	3.552	2.344
HCM Lane V/C Ratio	0.22	0.211	0.112	0.021
HCM Control Delay	8.6	8.2	9.3	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.8	0.4	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	31	246	44	41	1303	36	1046
v/c Ratio	0.05	0.06	0.62	0.09	0.23	0.81	0.21	0.65
Control Delay	15.8	9.5	25.5	6.7	33.5	21.7	33.2	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	9.5	25.5	6.7	33.5	21.7	33.2	17.1
Queue Length 50th (ft)	4	2	61	1	11	138	10	100
Queue Length 95th (ft)	20	19	154	20	53	#541	49	#382
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	446	564	451	554	175	1754	175	1761
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.55	0.08	0.23	0.74	0.21	0.59

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	20	239	3	40	40	1199	65	35	1005	10
Future Volume (veh/h)	20	10	20	239	3	40	40	1199	65	35	1005	10
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	10	21	246	3	41	41	1236	67	36	1036	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	420	123	258	434	25	340	77	1499	81	70	1562	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.44	0.44	0.04	0.44	0.44
Sat Flow, veh/h	1362	538	1129	1378	109	1493	1781	3401	184	1781	3578	35
Grp Volume(v), veh/h	21	0	31	246	0	44	41	640	663	36	510	536
Grp Sat Flow(s),veh/h/ln	1362	0	1667	1378	0	1602	1781	1763	1822	1781	1763	1849
Q Serve(g_s), s	0.6	0.0	0.8	8.8	0.0	1.1	1.2	16.5	16.5	1.0	11.9	11.9
Cycle Q Clear(g_c), s	1.8	0.0	0.8	9.6	0.0	1.1	1.2	16.5	16.5	1.0	11.9	11.9
Prop In Lane	1.00		0.68	1.00		0.93	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	420	0	380	434	0	365	77	777	803	70	770	808
V/C Ratio(X)	0.05	0.00	0.08	0.57	0.00	0.12	0.53	0.82	0.83	0.52	0.66	0.66
Avail Cap(c_a), veh/h	489	0	465	503	0	446	176	866	896	176	866	909
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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	15.7	19.5	0.0	15.8	24.2	12.7	12.7	24.4	11.5	11.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.2	0.0	0.1	5.7	6.0	5.9	5.8	1.6	1.5
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	0.2	0.0	0.3	2.7	0.0	0.4	0.6	6.0	6.2	0.5	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	15.8	20.6	0.0	16.0	29.9	18.6	18.6	30.2	13.2	13.1
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		52			290			1344			1082	
Approach Delay, s/veh		16.1			19.9			18.9			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	28.2		16.4	7.3	28.0		16.4				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.0	18.5		3.8	3.2	13.9		11.6				
Green Ext Time (p_c), s	0.0	4.2		0.1	0.0	4.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		16.9	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	3	45	55	74	110	6	45	116	150
Future Vol, veh/h	55	40	30	3	45	55	74	110	6	45	116	150
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	3	49	60	81	121	7	49	127	165
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.7	9.7	10.4	11.4
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	39%	100%	0%	100%	0%	14%
Vol Thru, %	58%	0%	57%	0%	45%	37%
Vol Right, %	3%	0%	43%	0%	55%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	55	70	3	100	311
LT Vol	74	55	0	3	0	45
Through Vol	110	0	40	0	45	116
RT Vol	6	0	30	0	55	150
Lane Flow Rate	209	60	77	3	110	342
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.302	0.111	0.124	0.006	0.176	0.44
Departure Headway (Hd)	5.203	6.607	5.793	6.658	5.757	4.735
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	695	545	621	539	625	766
Service Time	3.203	4.324	3.51	4.376	3.475	2.735
HCM Lane V/C Ratio	0.301	0.11	0.124	0.006	0.176	0.446
HCM Control Delay	10.4	10.1	9.3	9.4	9.7	11.4
HCM Lane LOS	B	B	A	A	A	B
HCM 95th-tile Q	1.3	0.4	0.4	0	0.6	2.3

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	62	1252	55	66	1223
Future Vol, veh/h	35	62	1252	55	66	1223
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	36	64	1291	57	68	1261

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2087	674	0	0	1348	0
Stage 1	1320	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	45	397	-	-	507	-
Stage 1	214	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	39	397	-	-	507	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	214	-	-	-	-	-
Stage 2	363	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.5	0	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	274	507	-
HCM Lane V/C Ratio	-	-	0.365	0.134	-
HCM Control Delay (s)	-	-	25.5	13.2	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.6	0.5	-

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	40	46	4	25	20	32	120	6	25	91	20
Future Vol, veh/h	30	40	46	4	25	20	32	120	6	25	91	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	44	51	4	27	22	35	132	7	27	100	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	95	0	0	243	193	70	251	207	38
Stage 1	-	-	-	-	-	-	136	136	-	46	46	-
Stage 2	-	-	-	-	-	-	107	57	-	205	161	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1499	-	-	711	702	993	702	690	1034
Stage 1	-	-	-	-	-	-	867	784	-	968	857	-
Stage 2	-	-	-	-	-	-	898	847	-	797	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1499	-	-	605	684	993	583	673	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	605	684	-	583	673	-
Stage 1	-	-	-	-	-	-	848	767	-	947	854	-
Stage 2	-	-	-	-	-	-	774	844	-	641	748	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0.6	12.2	11.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	674	1558	-	-	1499	-	-	689
HCM Lane V/C Ratio	0.258	0.021	-	-	0.003	-	-	0.217
HCM Control Delay (s)	12.2	7.4	0	-	7.4	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	2	8	65	0	161	15	1151	167	58	1190	10
Future Vol, veh/h	7	2	8	65	0	161	15	1151	167	58	1190	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	7	2	8	66	0	164	15	1174	170	59	1214	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1954	2711	612	2015	-	672	1224	0	0	1344	0	0
Stage 1	1337	1337	-	1289	-	-	-	-	-	-	-	-
Stage 2	617	1374	-	726	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	38	21	436	~ 34	0	398	565	-	-	509	-	-
Stage 1	162	220	-	173	0	-	-	-	-	-	-	-
Stage 2	444	211	-	382	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	20	18	436	~ 29	-	398	565	-	-	509	-	-
Mov Cap-2 Maneuver	89	84	-	112	-	-	-	-	-	-	-	-
Stage 1	158	194	-	168	-	-	-	-	-	-	-	-
Stage 2	254	205	-	328	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.1	36.2	0.1	0.6
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	565	-	-	141	112	398	509	-	-
HCM Lane V/C Ratio	0.027	-	-	0.123	0.592	0.413	0.116	-	-
HCM Control Delay (s)	11.5	-	-	34.1	75.7	20.3	13	-	-
HCM Lane LOS	B	-	-	D	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	2.9	2	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	160	170	90	85	20
Future Vol, veh/h	30	160	170	90	85	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	170	181	96	90	21
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	9.2	9.4	9.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	0%	100%	0%
Vol Thru, %	84%	65%	0%	0%
Vol Right, %	0%	35%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	260	85	20
LT Vol	30	0	85	0
Through Vol	160	170	0	0
RT Vol	0	90	0	20
Lane Flow Rate	202	277	90	21
Geometry Grp	2	2	7	7
Degree of Util (X)	0.257	0.329	0.153	0.029
Departure Headway (Hd)	4.582	4.279	6.081	4.871
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	784	841	589	732
Service Time	2.612	2.306	3.831	2.62
HCM Lane V/C Ratio	0.258	0.329	0.153	0.029
HCM Control Delay	9.2	9.4	9.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.4	0.5	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	190	190	0	0	38
Future Vol, veh/h	40	190	190	0	0	38
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	43	207	207	0	0	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	207	0	-	0	500	207
Stage 1	-	-	-	-	207	-
Stage 2	-	-	-	-	293	-
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	1364	-	-	-	530	833
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	757	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1364	-	-	-	511	833
Mov Cap-2 Maneuver	-	-	-	-	511	-
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	757	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1364	-	-	-	833
HCM Lane V/C Ratio	0.032	-	-	-	0.05
HCM Control Delay (s)	7.7	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

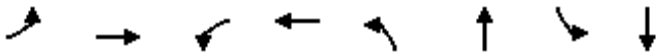
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	0	5	115	105	38
Future Vol, veh/h	43	0	5	115	105	38
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	47	0	5	125	114	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	270	135	155	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	135	-	-	-	-	-
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	719	914	1425	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	716	914	1425	-	-	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	891	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.3	0
HCM LOS	B		

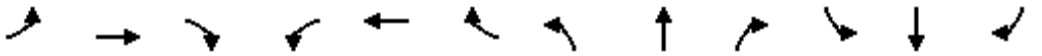
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1425	-	716	-	-
HCM Lane V/C Ratio	0.004	-	0.065	-	-
HCM Control Delay (s)	7.5	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	24	263	73	26	1353	57	1090
v/c Ratio	0.06	0.05	0.67	0.15	0.16	0.88	0.35	0.65
Control Delay	16.7	8.4	28.7	5.6	33.8	26.2	37.9	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	8.4	28.7	5.6	33.8	26.2	37.9	17.2
Queue Length 50th (ft)	6	1	89	1	9	229	20	106
Queue Length 95th (ft)	20	15	165	25	39	#572	#78	#410
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	411	518	429	543	164	1646	164	1769
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.61	0.13	0.16	0.82	0.35	0.62

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	3	20	255	2	69	25	1247	65	55	1048	10
Future Volume (veh/h)	20	3	20	255	2	69	25	1247	65	55	1048	10
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	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	3	21	263	2	71	26	1286	67	57	1080	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	393	47	331	440	10	362	53	1490	78	94	1647	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.44	0.44	0.05	0.46	0.46
Sat Flow, veh/h	1327	202	1414	1387	44	1548	1781	3409	177	1781	3579	33
Grp Volume(v), veh/h	21	0	24	263	0	73	26	664	689	57	532	558
Grp Sat Flow(s),veh/h/ln	1327	0	1616	1387	0	1592	1781	1763	1824	1781	1763	1850
Q Serve(g_s), s	0.7	0.0	0.6	9.9	0.0	2.0	0.8	18.6	18.7	1.7	12.8	12.8
Cycle Q Clear(g_c), s	2.7	0.0	0.6	10.6	0.0	2.0	0.8	18.6	18.7	1.7	12.8	12.8
Prop In Lane	1.00		0.88	1.00		0.97	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	393	0	378	440	0	372	53	770	797	94	811	851
V/C Ratio(X)	0.05	0.00	0.06	0.60	0.00	0.20	0.49	0.86	0.86	0.60	0.66	0.66
Avail Cap(c_a), veh/h	432	0	426	481	0	419	166	819	847	166	819	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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	16.3	20.4	0.0	16.8	26.1	13.9	13.9	25.3	11.4	11.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.7	0.0	0.3	6.8	9.0	8.9	6.1	1.9	1.8
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	0.2	0.0	0.2	3.2	0.0	0.7	0.4	7.5	7.7	0.8	4.1	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	16.4	22.1	0.0	17.1	32.9	22.9	22.8	31.4	13.3	13.2
LnGrp LOS	B	A	B	C	A	B	C	C	C	C	B	B
Approach Vol, veh/h		45			336			1379			1147	
Approach Delay, s/veh		17.1			21.0			23.0			14.2	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	29.3		17.4	6.7	30.6		17.4				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.7	20.7		4.7	2.8	14.8		12.6				
Green Ext Time (p_c), s	0.0	3.2		0.1	0.0	4.9		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		19.2	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	11	115	90	74	160	11	75	150	170
Future Vol, veh/h	55	40	30	11	115	90	74	160	11	75	150	170
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	12	126	99	81	176	12	82	165	187
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11	13.4	13.7	18.1
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	30%	100%	0%	100%	0%	19%
Vol Thru, %	65%	0%	57%	0%	56%	38%
Vol Right, %	4%	0%	43%	0%	44%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	55	70	11	205	395
LT Vol	74	55	0	11	0	75
Through Vol	160	0	40	0	115	150
RT Vol	11	0	30	0	90	170
Lane Flow Rate	269	60	77	12	225	434
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.442	0.128	0.145	0.024	0.404	0.651
Departure Headway (Hd)	5.904	7.604	6.782	7.28	6.454	5.398
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	474	532	488	552	664
Service Time	4.001	5.304	4.482	5.077	4.25	3.482
HCM Lane V/C Ratio	0.446	0.127	0.145	0.025	0.408	0.654
HCM Control Delay	13.7	11.4	10.6	10.3	13.6	18.1
HCM Lane LOS	B	B	B	B	B	C
HCM 95th-tile Q	2.3	0.4	0.5	0.1	1.9	4.8

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	70	1243	80	57	1270
Future Vol, veh/h	48	70	1243	80	57	1270
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	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	49	72	1281	82	59	1309

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2095	682	0	0	1363	0
Stage 1	1322	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 45	392	-	-	500	-
Stage 1	213	-	-	-	-	-
Stage 2	416	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 40	392	-	-	500	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	367	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.1	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	262	500	-
HCM Lane V/C Ratio	-	-	0.464	0.118	-
HCM Control Delay (s)	-	-	30.1	13.2	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.3	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	45	80	32	11	55	100	28	79	5	65	71	40
Future Vol, veh/h	45	80	32	11	55	100	28	79	5	65	71	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	88	35	12	60	110	31	87	5	71	78	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	123	0	0	404	398	106	389	360	115
Stage 1	-	-	-	-	-	-	204	204	-	139	139	-
Stage 2	-	-	-	-	-	-	200	194	-	250	221	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1464	-	-	557	540	948	570	567	937
Stage 1	-	-	-	-	-	-	798	733	-	864	782	-
Stage 2	-	-	-	-	-	-	802	740	-	754	720	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1464	-	-	456	515	948	477	540	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	456	515	-	477	540	-
Stage 1	-	-	-	-	-	-	768	705	-	831	775	-
Stage 2	-	-	-	-	-	-	681	733	-	632	693	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.5	14.3	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	509	1407	-	-	1464	-	-	567
HCM Lane V/C Ratio	0.242	0.035	-	-	0.008	-	-	0.341
HCM Control Delay (s)	14.3	7.7	0	-	7.5	0	-	14.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.5

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1	7	45	0	96	3	1177	128	58	1310	25
Future Vol, veh/h	5	1	7	45	0	96	3	1177	128	58	1310	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	5	1	7	46	0	98	3	1201	131	59	1337	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2075	2806	682	2060	-	666	1363	0	0	1332	0	0
Stage 1	1468	1468	-	1273	-	-	-	-	-	-	-	-
Stage 2	607	1338	-	787	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	31	18	392	~ 32	0	402	500	-	-	514	-	-
Stage 1	134	190	-	177	0	-	-	-	-	-	-	-
Stage 2	450	220	-	351	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	21	16	392	~ 28	-	402	500	-	-	514	-	-
Mov Cap-2 Maneuver	90	82	-	113	-	-	-	-	-	-	-	-
Stage 1	133	168	-	176	-	-	-	-	-	-	-	-
Stage 2	338	219	-	303	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.9	29.7	0	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	500	-	-	152	113	402	514	-	-
HCM Lane V/C Ratio	0.006	-	-	0.087	0.406	0.244	0.115	-	-
HCM Control Delay (s)	12.2	-	-	30.9	57.1	16.8	12.9	-	-
HCM Lane LOS	B	-	-	D	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1.7	0.9	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	150	95	85	65	15
Future Vol, veh/h	20	150	95	85	65	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	160	101	90	69	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.7	8.2	9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	0%	100%	0%
Vol Thru, %	88%	53%	0%	0%
Vol Right, %	0%	47%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	180	65	15
LT Vol	20	0	65	0
Through Vol	150	95	0	0
RT Vol	0	85	0	15
Lane Flow Rate	181	191	69	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.221	0.217	0.112	0.021
Departure Headway (Hd)	4.391	4.086	5.835	4.627
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	881	615	773
Service Time	2.406	2.101	3.564	2.356
HCM Lane V/C Ratio	0.221	0.217	0.112	0.021
HCM Control Delay	8.7	8.2	9.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.8	0.4	0.1

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	175	105	0	0	35
Future Vol, veh/h	36	175	105	0	0	35
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	39	190	114	0	0	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	114	0	-	0	382	114
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	268	-
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	1475	-	-	-	620	939
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1475	-	-	-	601	939
Mov Cap-2 Maneuver	-	-	-	-	601	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	777	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1475	-	-	-	939
HCM Lane V/C Ratio	0.027	-	-	-	0.041
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.6

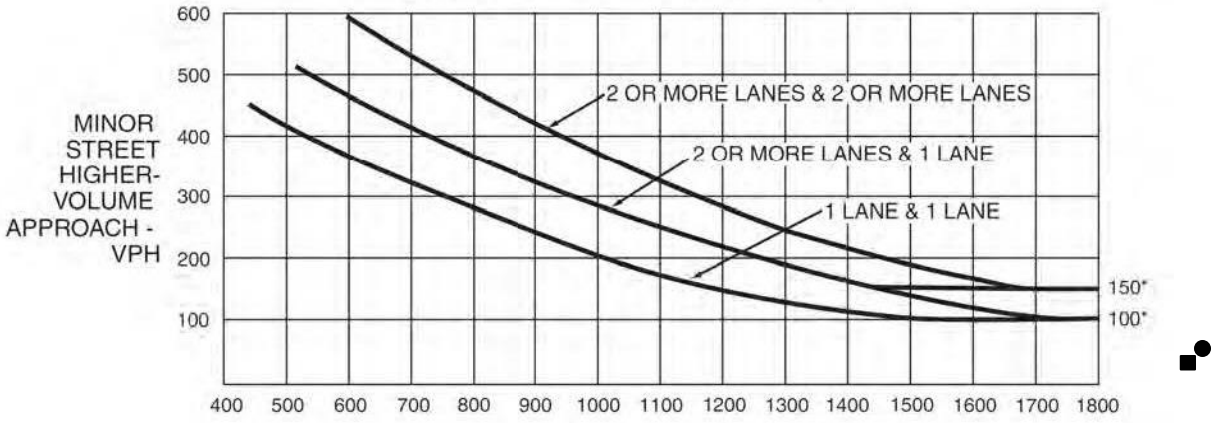
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	0	5	105	80	34
Future Vol, veh/h	38	0	5	105	80	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	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	41	0	5	114	87	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	230	106	124	0	-	0
Stage 1	106	-	-	-	-	-
Stage 2	124	-	-	-	-	-
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	758	948	1463	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	755	948	1463	-	-	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.3	0
HCM LOS	B		

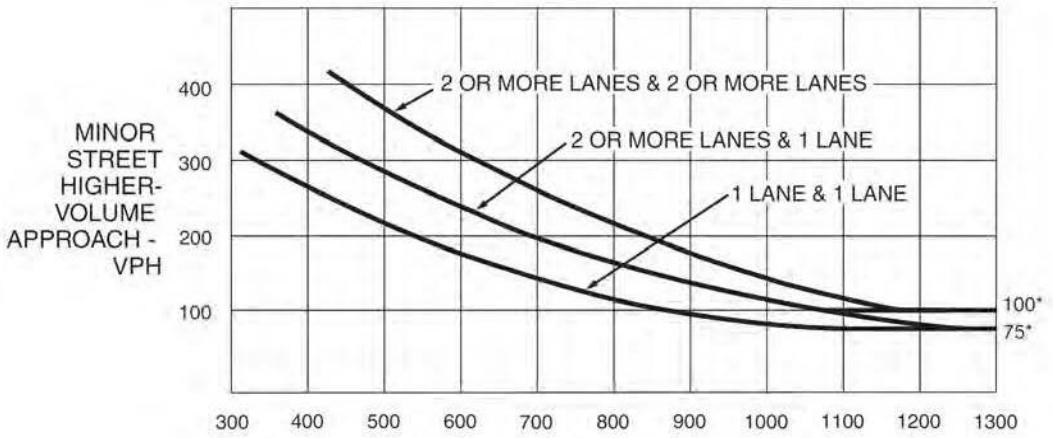
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1463	-	755	-	-
HCM Lane V/C Ratio	0.004	-	0.055	-	-
HCM Control Delay (s)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

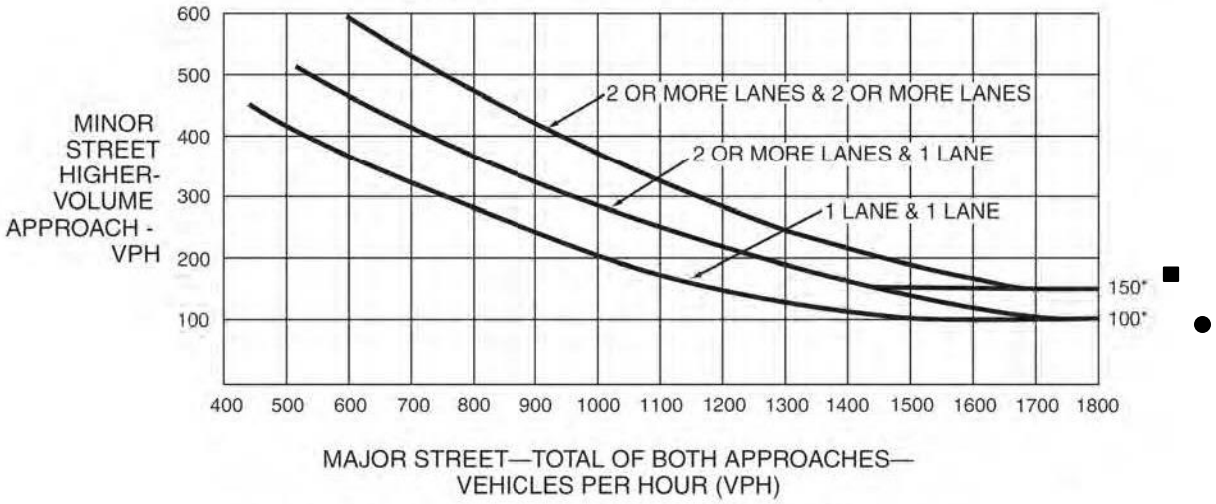


*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAIN STREET – SOUTH STREET : MODIFIED EXISTING

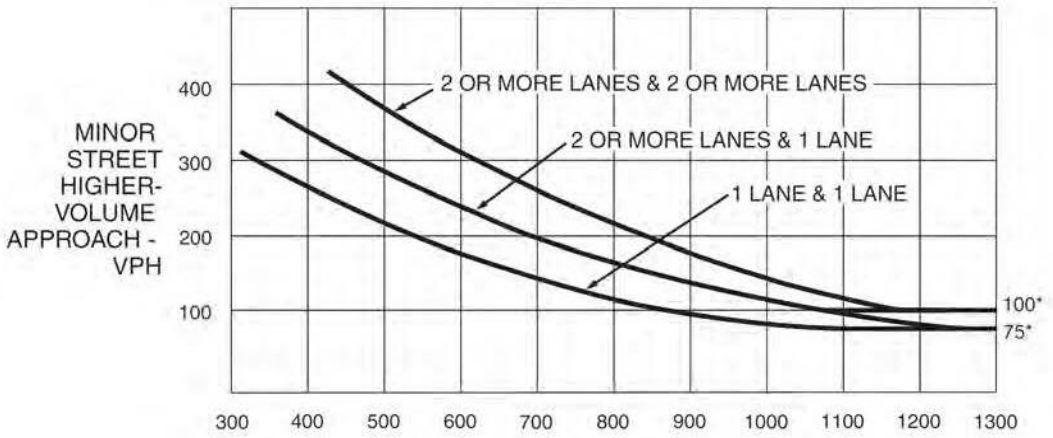
PM (●) : MAJOR 2277 MINOR 71
SAT (■) : MAJOR 2224 MINOR 47

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

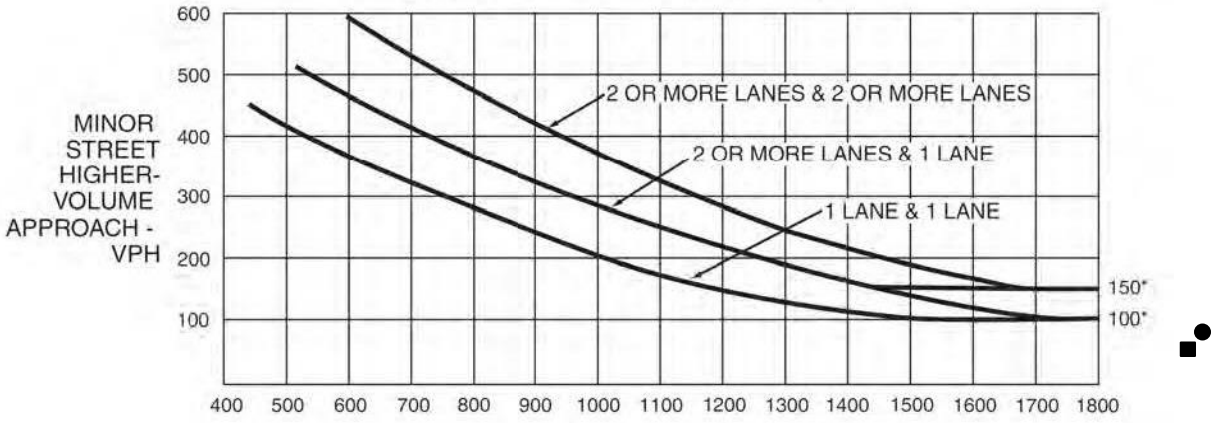


*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAIN STREET – NORTH HARBOR DRIVE : MODIFIED EXISTING

PM (●) : MAJOR 2313 MINOR 90
SAT (■) : MAJOR 2207 MINOR 164

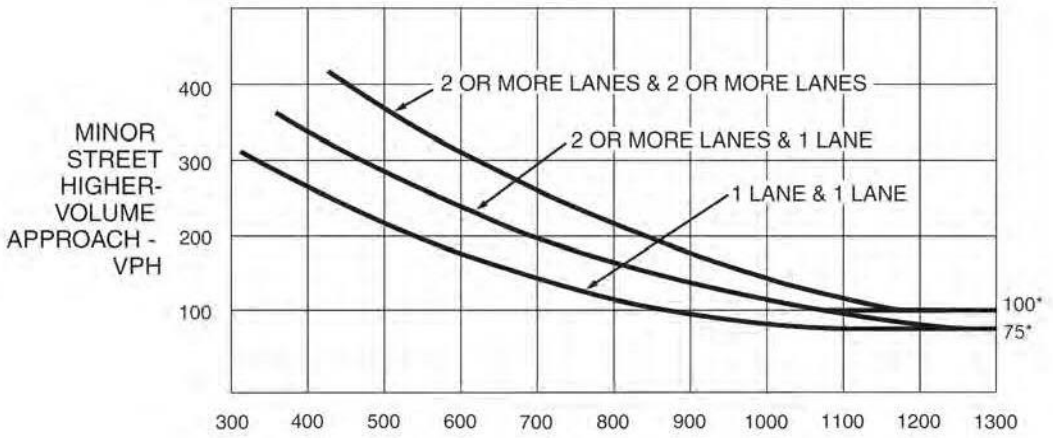
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

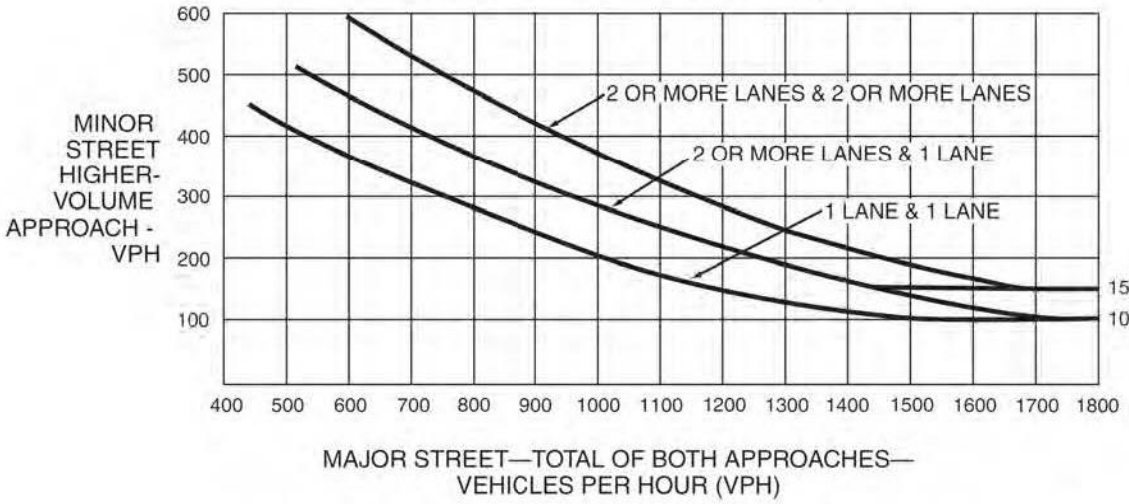


*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAIN STREET – SOUTH STREET : MODIFIED EXISTING PLUS PROJECT

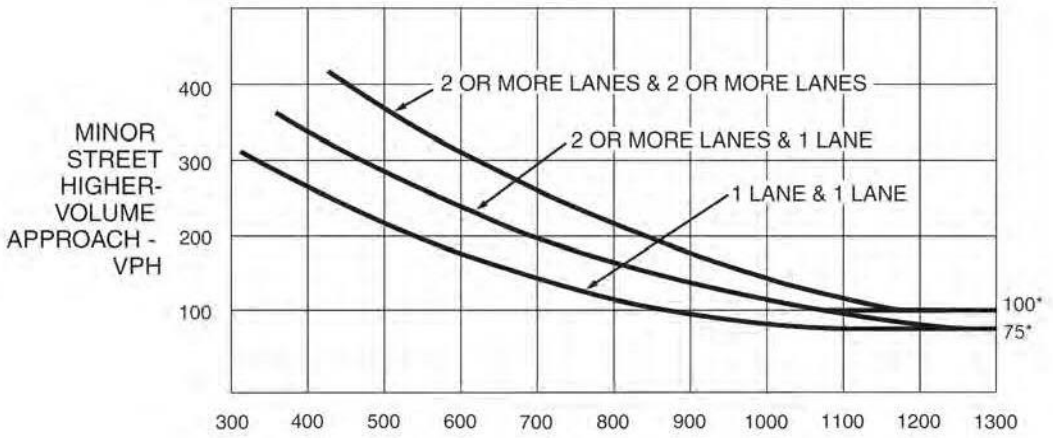
PM (●) : MAJOR 2297 MINOR 91
SAT (■) : MAJOR 2245 MINOR 69

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

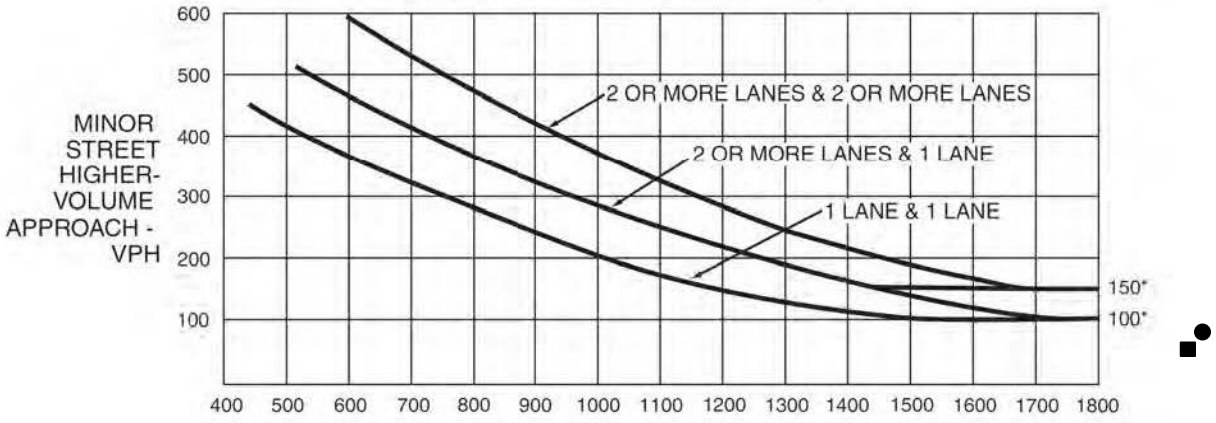


*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAIN STREET – NORTH HARBOR DRIVE : MODIFIED EXISTING PLUS PROJECT

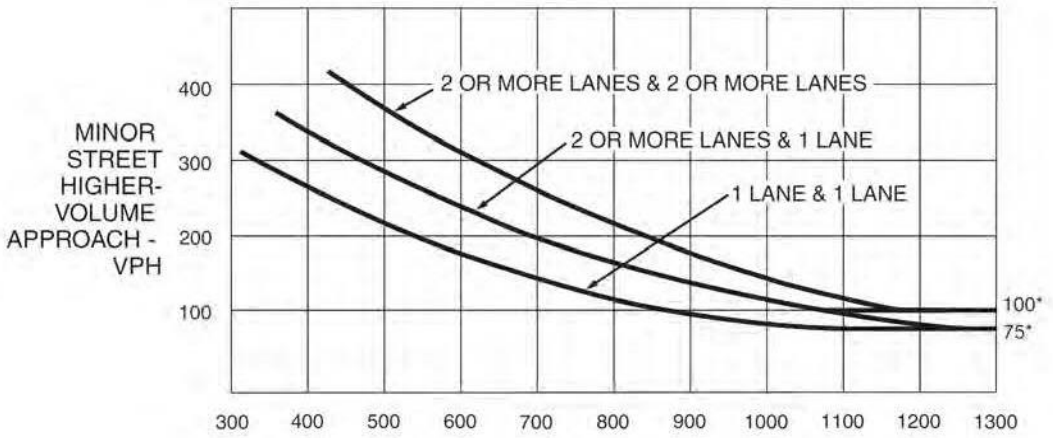
PM (●) : MAJOR 2341 MINOR 137
SAT (■) : MAJOR 2238 MINOR 216

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

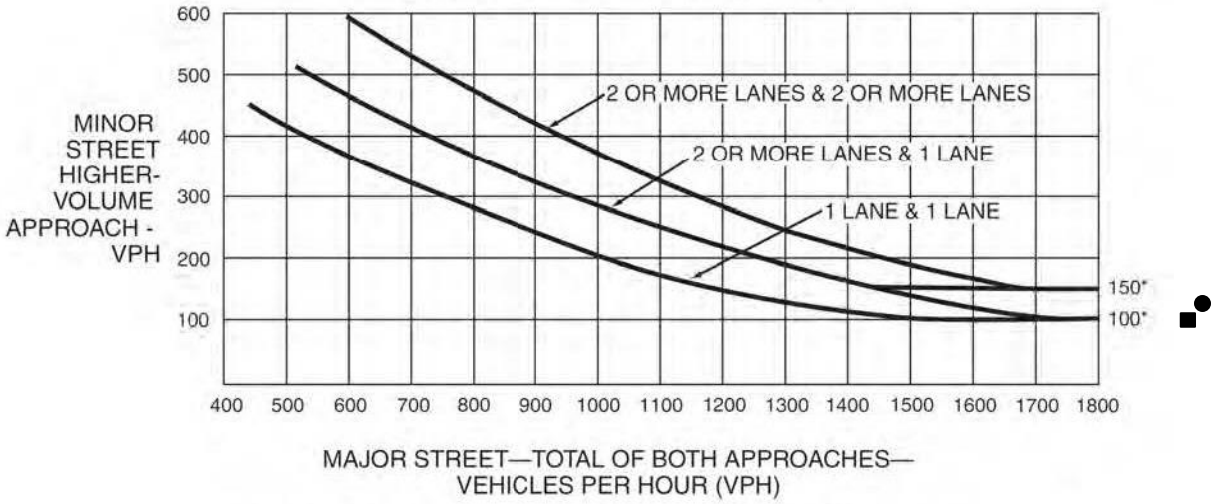


*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAIN STREET – SOUTH STREET : 2040 CUMULATIVE

PM (●) : MAJOR 2630 MINOR 90
SAT (■) : MAJOR 2575 MINOR 65

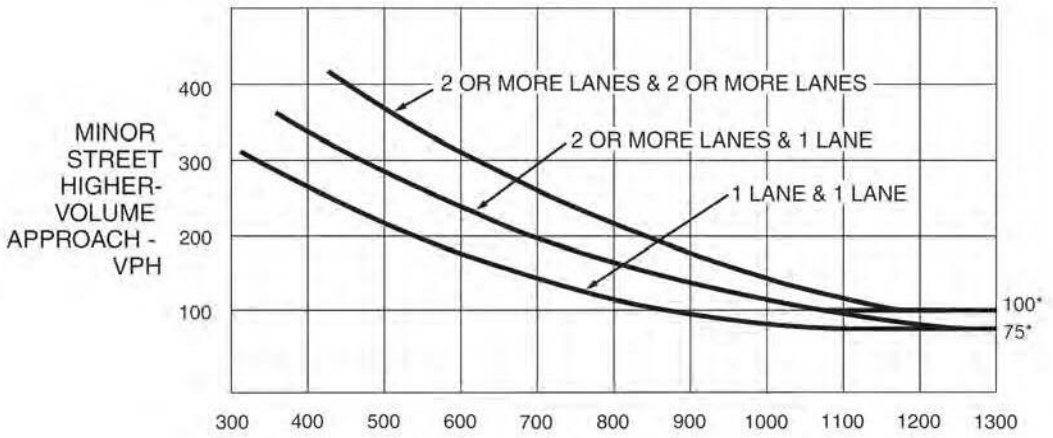
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAIN STREET – SOUTH STREET : 2040 CUMULATIVE PLUS PROJECT

PM (●) : MAJOR 2650 MINOR 118
SAT (■) : MAJOR 2596 MINOR 97