Appendix D

Intersection Level of Service Analysis

1: 2023 Existing Conditions: Weekday AM Peak-Hour LOS and Delays

2. 2023 Existing Conditions: Weekday PM Peak-Hour LOS and Delays

3. 2023 Existing Conditions: Weekend Saturday PM Peak-Hour LOS and Delays

4. 2035 No Build Conditions: Weekday AM Peak-Hour LOS and Delays

5. 2035 No Build Conditions: Weekday PM Peak-Hour LOS and Delays

6. 2035 No Build Conditions: Weekend Saturday PM Peak-Hour LOS and

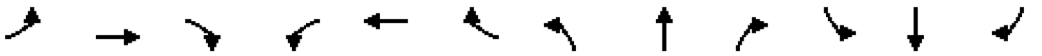
7. 2035 Build Conditions: Weekday AM Peak-Hour LOS and Delays

8. 2035 Build Conditions: Weekday PM Peak-Hour LOS and Delays

9. 2035 Build Conditions: Weekend Saturday PM Peak-Hour LOS and Delays

10. Traffic Signal Warrant Analysis

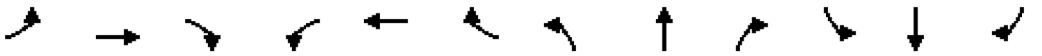
Part 1: Existing Conditions: Weekday AM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	10	100	60	10	30	380	820	350	120	500	130
Future Volume (veh/h)	40	10	100	60	10	30	380	820	350	120	500	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	11	106	64	11	32	404	872	372	128	532	138
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	155	33	395	134	45	132	490	1526	647	156	1592	411
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.14	0.64	0.64	0.09	0.58	0.58
Sat Flow, veh/h	880	304	1560	1255	415	1208	3401	2392	1015	1753	2751	711
Grp Volume(v), veh/h	54	0	106	64	0	43	404	636	608	128	337	333
Grp Sat Flow(s),veh/h/ln	1183	0	1560	1255	0	1623	1700	1749	1658	1753	1749	1713
Q Serve(g_s), s	3.3	0.0	6.0	5.6	0.0	2.7	12.7	22.8	23.0	7.9	11.1	11.2
Cycle Q Clear(g_c), s	6.0	0.0	6.0	11.5	0.0	2.7	12.7	22.8	23.0	7.9	11.1	11.2
Prop In Lane	0.80		1.00	1.00		0.74	1.00		0.61	1.00		0.41
Lane Grp Cap(c), veh/h	188	0	395	134	0	177	490	1116	1058	156	1012	991
V/C Ratio(X)	0.29	0.00	0.27	0.48	0.00	0.24	0.82	0.57	0.57	0.82	0.33	0.34
Avail Cap(c_a), veh/h	188	0	395	134	0	177	819	1116	1058	239	1012	991
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	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	0.0	32.9	51.8	0.0	44.8	45.7	11.3	11.4	49.2	12.1	12.1
Incr Delay (d2), s/veh	0.8	0.0	0.4	2.6	0.0	0.7	2.9	1.7	1.8	12.2	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.9	0.0	1.1	5.5	8.7	8.4	4.0	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.8	0.0	33.3	54.4	0.0	45.5	48.6	13.0	13.2	61.5	13.0	13.0
LnGrp LOS	D		C	D		D	D	B	B	E	B	B
Approach Vol, veh/h		160			107			1648			798	
Approach Delay, s/veh		38.2			50.8			21.8			20.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	75.2		18.0	23.4	68.6		18.0				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	15.0	65.0		12.0	26.5	53.0		12.0				
Max Q Clear Time (g_c+I1), s	9.9	25.0		8.0	14.7	13.2		13.5				
Green Ext Time (p_c), s	0.1	11.8		0.2	1.2	4.8		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			23.6									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	10	330	10	10	10	460	1340	10	10	450	190
Future Volume (veh/h)	170	10	330	10	10	10	460	1340	10	10	450	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	179	0	0	10	10	10	469	1367	10	10	459	0
Peak Hour Factor	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	365	0		70	62	44	537	2606	19	21	2050	
Arrive On Green	0.08	0.00	0.00	0.08	0.08	0.08	0.16	0.74	0.74	0.02	1.00	0.00
Sat Flow, veh/h	2718	0	1547	327	756	541	3374	3530	26	1739	3469	1547
Grp Volume(v), veh/h	179	0	0	30	0	0	469	672	705	10	459	0
Grp Sat Flow(s),veh/h/ln	1359	0	1547	1624	0	0	1687	1735	1821	1739	1735	1547
Q Serve(g_s), s	4.8	0.0	0.0	0.0	0.0	0.0	14.9	18.2	18.2	0.6	0.0	0.0
Cycle Q Clear(g_c), s	6.6	0.0	0.0	1.8	0.0	0.0	14.9	18.2	18.2	0.6	0.0	0.0
Prop In Lane	1.00		1.00	0.33		0.33	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	365	0		176	0	0	537	1280	1344	21	2050	
V/C Ratio(X)	0.49	0.00		0.17	0.00	0.00	0.87	0.52	0.52	0.48	0.22	
Avail Cap(c_a), veh/h	625	0		326	0	0	613	1280	1344	95	2050	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.72	0.72	0.72	0.95	0.95	0.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	47.2	0.0	0.0	45.2	6.2	6.2	53.3	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.5	0.0	0.0	9.1	1.1	1.1	15.4	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	0.8	0.0	0.0	6.9	6.0	6.3	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	0.0	0.0	47.7	0.0	0.0	54.2	7.3	7.2	68.8	0.2	0.0
LnGrp LOS	D			D			D	A	A	E	A	
Approach Vol, veh/h		179			30			1846			469	
Approach Delay, s/veh		50.3			47.7			19.2			1.7	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	86.2		16.5	23.5	70.0		16.5				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	6.0	66.0		19.5	20.0	52.0		19.5				
Max Q Clear Time (g_c+I1), s	2.6	20.2		8.6	16.9	2.0		3.8				
Green Ext Time (p_c), s	0.0	13.9		0.4	0.6	3.5		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh		18.5
HCM 7th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations				↑↑	↱		↑↑	↱	↰↰		↱
Traffic Volume (veh/h)	0	0	0	670	110	0	1340	520	470	0	440
Future Volume (veh/h)	0	0	0	670	110	0	1340	520	470	0	440
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1811	1811	0	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h			0	691	0	0	1381	0	485	485	0
Peak Hour Factor			0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %			0	6	6	0	6	6	6	6	6
Cap, veh/h			0	2468		0	2468		581	581	
Arrive On Green			0.00	0.72	0.00	0.00	1.00	0.00	0.17	0.17	0.00
Sat Flow, veh/h			0	3532	1535	0	3532	1535	3346	3346	1535
Grp Volume(v), veh/h			0	691	0	0	1381	0	485	485	0
Grp Sat Flow(s),veh/h/ln			0	1721	1535	0	1721	1535	1673	1673	1535
Q Serve(g_s), s			0.0	7.8	0.0	0.0	0.0	0.0	15.4	15.4	0.0
Cycle Q Clear(g_c), s			0.0	7.8	0.0	0.0	0.0	0.0	15.4	15.4	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2468		0	2468		581	581	
V/C Ratio(X)			0.00	0.28		0.00	0.56		0.83	0.83	
Avail Cap(c_a), veh/h			0	2468		0	2468		1095	1095	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.98	0.00	0.00	0.83	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	5.5	0.0	0.0	0.0	0.0	43.9	43.9	0.0
Incr Delay (d2), s/veh			0.0	0.3	0.0	0.0	0.8	0.0	3.2	3.2	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	2.6	0.0	0.0	0.3	0.0	6.6	6.6	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	5.8	0.0	0.0	0.8	0.0	47.2	47.2	0.0
LnGrp LOS				A			A		D	D	
Approach Vol, veh/h				691			1381		485	485	
Approach Delay, s/veh				5.8			0.8		47.2	47.2	
Approach LOS				A			A		D	D	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	83.9		26.1		83.9						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	62.0		36.0		62.0						
Max Q Clear Time (g_c+I1), s	2.0		17.4		9.8						
Green Ext Time (p_c), s	16.4		1.7		5.7						

Intersection Summary											
HCM 7th Control Delay, s/veh		10.9									
HCM 7th LOS		B									

Notes

Unsignalized Delay for [NER, NWR, SER] is excluded from calculations of the approach delay and intersection delay.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	60	800	230	80	1260	20	280	30	30	20	70	250
Future Volume (veh/h)	60	800	230	80	1260	20	280	30	30	20	70	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	64	851	245	85	1340	21	298	32	32	21	74	266
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	132	2096	600	108	2870	45	491	189	189	101	326	348
Arrive On Green	0.04	0.54	0.54	0.06	0.57	0.57	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	3374	3849	1102	1739	5056	79	1970	838	838	270	1448	1547
Grp Volume(v), veh/h	64	734	362	85	881	480	298	0	64	95	0	266
Grp Sat Flow(s),veh/h/ln	1687	1662	1628	1739	1662	1812	985	0	1675	1718	0	1547
Q Serve(g_s), s	2.0	14.2	14.3	5.3	17.2	17.2	16.0	0.0	3.4	0.0	0.0	17.7
Cycle Q Clear(g_c), s	2.0	14.2	14.3	5.3	17.2	17.2	20.7	0.0	3.4	4.7	0.0	17.7
Prop In Lane	1.00		0.68	1.00		0.04	1.00		0.50	0.22		1.00
Lane Grp Cap(c), veh/h	132	1810	886	108	1886	1028	491	0	377	427	0	348
V/C Ratio(X)	0.49	0.41	0.41	0.79	0.47	0.47	0.61	0.00	0.17	0.22	0.00	0.76
Avail Cap(c_a), veh/h	199	1810	886	198	1886	1028	871	0	701	751	0	647
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)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	14.6	14.7	50.9	14.0	14.0	43.3	0.0	34.3	34.8	0.0	39.9
Incr Delay (d2), s/veh	2.7	0.6	1.3	11.9	0.8	1.5	1.2	0.0	0.2	0.3	0.0	3.5
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	0.9	5.4	5.5	2.7	6.4	7.2	4.0	0.0	1.4	2.1	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.4	15.3	16.0	62.8	14.8	15.5	44.5	0.0	34.5	35.1	0.0	43.4
LnGrp LOS	D	B	B	E	B	B	D		C	D		D
Approach Vol, veh/h		1160			1446			362			361	
Approach Delay, s/veh		17.7			17.9			42.7			41.2	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	67.4		30.8	14.3	64.9		30.8				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	6.5	39.0		46.0	12.5	33.0		46.0				
Max Q Clear Time (g_c+I1), s	4.0	19.2		22.7	7.3	16.3		19.7				
Green Ext Time (p_c), s	0.0	9.6		2.1	0.1	7.0		1.5				

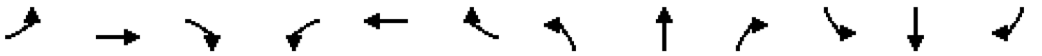
Intersection Summary												
HCM 7th Control Delay, s/veh			23.0									
HCM 7th LOS			C									

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	140	580	0	0	1350	60	0	5	0	30	0	40
Future Volume (veh/h)	140	580	0	0	1350	60	0	5	0	30	0	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	0	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	144	598	0	0	1392	62	0	5	0	45	0	26
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, %	6	6	6	0	6	6	6	6	6	6	6	6
Cap, veh/h	205	2956	0	0	2526	1127	0	74	0	236	0	63
Arrive On Green	0.06	0.86	0.00	0.00	0.73	0.73	0.00	0.04	0.00	0.04	0.00	0.04
Sat Flow, veh/h	3346	3532	0	0	3532	1535	0	1811	0	2733	0	1535
Grp Volume(v), veh/h	144	598	0	0	1392	62	0	5	0	45	0	26
Grp Sat Flow(s),veh/h/ln	1673	1721	0	0	1721	1535	0	1811	0	1366	0	1535
Q Serve(g_s), s	4.6	3.3	0.0	0.0	19.9	1.2	0.0	0.3	0.0	1.8	0.0	1.8
Cycle Q Clear(g_c), s	4.6	3.3	0.0	0.0	19.9	1.2	0.0	0.3	0.0	2.1	0.0	1.8
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	2956	0	0	2526	1127	0	74	0	236	0	63
V/C Ratio(X)	0.70	0.20	0.00	0.00	0.55	0.06	0.00	0.07	0.00	0.19	0.00	0.41
Avail Cap(c_a), veh/h	365	2956	0	0	2526	1127	0	148	0	347	0	126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.71	0.71	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.6	1.3	0.0	0.0	6.5	4.1	0.0	50.7	0.0	51.7	0.0	51.5
Incr Delay (d2), s/veh	4.3	0.2	0.0	0.0	0.6	0.1	0.0	0.4	0.0	0.4	0.0	4.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.6	0.0	0.0	6.3	0.4	0.0	0.1	0.0	0.6	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.0	1.5	0.0	0.0	7.2	4.1	0.0	51.1	0.0	52.1	0.0	55.7
LnGrp LOS	D	A			A	A		D		D		E
Approach Vol, veh/h		742			1454			5			71	
Approach Delay, s/veh		11.9			7.0			51.1			53.4	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.7	85.7		10.5		99.5		10.5				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	12.0	71.0		9.0		90.0		9.0				
Max Q Clear Time (g_c+I1), s	6.6	21.9		2.3		5.3		4.1				
Green Ext Time (p_c), s	0.2	16.4		0.0		4.8		0.1				

Intersection Summary			
HCM 7th Control Delay, s/veh		10.1	
HCM 7th LOS		B	

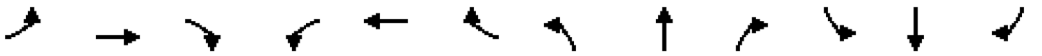
Notes
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	10	10	0	10	20	1360	140	50	690	10
Future Volume (veh/h)	20	5	10	10	0	10	20	1360	140	50	690	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	22	5	11	11	0	11	22	1462	151	54	742	11
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	80	9	16	131	0	137	38	2339	240	85	2670	40
Arrive On Green	0.04	0.04	0.04	0.04	0.00	0.04	0.02	0.74	0.74	0.05	0.77	0.77
Sat Flow, veh/h	713	235	386	1623	0	1535	1725	3151	323	1725	3471	51
Grp Volume(v), veh/h	38	0	0	11	0	11	22	793	820	54	368	385
Grp Sat Flow(s),veh/h/ln	1334	0	0	1623	0	1535	1725	1721	1753	1725	1721	1802
Q Serve(g_s), s	2.5	0.0	0.0	0.0	0.0	0.7	1.4	24.3	24.9	3.4	6.9	6.9
Cycle Q Clear(g_c), s	3.2	0.0	0.0	0.7	0.0	0.7	1.4	24.3	24.9	3.4	6.9	6.9
Prop In Lane	0.58		0.29	1.00		1.00	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	105	0	0	131	0	137	38	1277	1301	85	1324	1386
V/C Ratio(X)	0.36	0.00	0.00	0.08	0.00	0.08	0.57	0.62	0.63	0.63	0.28	0.28
Avail Cap(c_a), veh/h	225	0	0	242	0	264	212	1277	1301	212	1324	1386
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	0.00	1.00	0.00	1.00	0.21	0.21	0.21	0.99	0.99	0.99
Uniform Delay (d), s/veh	52.3	0.0	0.0	51.0	0.0	45.9	53.3	6.8	6.9	51.3	3.7	3.7
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.3	0.0	0.2	2.8	0.5	0.5	7.5	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.3	0.0	0.3	0.6	7.5	7.9	1.6	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.4	0.0	0.0	51.3	0.0	46.2	56.1	7.3	7.4	58.8	4.2	4.2
LnGrp LOS	D			D		D	E	A	A	E	A	A
Approach Vol, veh/h		38			22			1635			807	
Approach Delay, s/veh		54.4			48.7			8.0			7.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	87.1		10.9	8.9	90.1		10.9				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	13.5	64.5		13.5	13.5	64.5		13.5				
Max Q Clear Time (g_c+I1), s	5.4	26.9		5.2	3.4	8.9		2.7				
Green Ext Time (p_c), s	0.0	17.4		0.1	0.0	5.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			9.0									
HCM 7th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	90	10	670	0	0	330	20
Future Volume (veh/h)	10	0	10	20	10	90	10	670	0	0	330	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	0	0	1841	1841
Adj Flow Rate, veh/h	11	0	11	22	11	98	11	728	0	0	359	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	0	0	4	4
Cap, veh/h	196	29	127	101	41	194	71	1128	0	0	1060	65
Arrive On Green	0.16	0.00	0.16	0.16	0.16	0.16	0.62	0.62	0.00	0.00	0.62	0.62
Sat Flow, veh/h	598	179	776	149	249	1181	8	1825	0	0	1717	105
Grp Volume(v), veh/h	22	0	0	131	0	0	739	0	0	0	0	381
Grp Sat Flow(s),veh/h/ln	1553	0	0	1579	0	0	1834	0	0	0	0	1822
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Cycle Q Clear(g_c), s	0.6	0.0	0.0	4.1	0.0	0.0	14.1	0.0	0.0	0.0	0.0	5.6
Prop In Lane	0.50		0.50	0.17		0.75	0.01		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	353	0	0	336	0	0	1199	0	0	0	0	1125
V/C Ratio(X)	0.06	0.00	0.00	0.39	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.34
Avail Cap(c_a), veh/h	479	0	0	475	0	0	1199	0	0	0	0	1125
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	0.0	0.0	20.9	0.0	0.0	6.7	0.0	0.0	0.0	0.0	5.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.7	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.5	0.0	0.0	4.4	0.0	0.0	0.0	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.6	0.0	0.0	21.7	0.0	0.0	9.1	0.0	0.0	0.0	0.0	5.9
LnGrp LOS	B			C			A					A
Approach Vol, veh/h		22			131			739			381	
Approach Delay, s/veh		19.6			21.7			9.1			5.9	
Approach LOS		B			C			A			A	

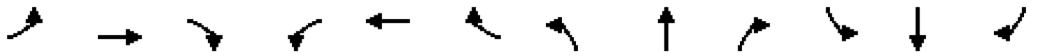
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		15.0		40.0		15.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		34.0		14.0		34.0		14.0				
Max Q Clear Time (g_c+I1), s		16.1		2.6		7.6		6.1				
Green Ext Time (p_c), s		5.1		0.0		2.5		0.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	9.6
HCM 7th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	230	40	640	320	70	290
Future Volume (veh/h)	230	40	640	320	70	290
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	250	43	696	348	76	315
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	320	385	846	717	113	1145
Arrive On Green	0.18	0.18	0.46	0.46	0.06	0.62
Sat Flow, veh/h	1753	1560	1841	1560	1753	1841
Grp Volume(v), veh/h	250	43	696	348	76	315
Grp Sat Flow(s),veh/h/ln	1753	1560	1841	1560	1753	1841
Q Serve(g_s), s	7.0	1.1	16.8	7.9	2.2	4.0
Cycle Q Clear(g_c), s	7.0	1.1	16.8	7.9	2.2	4.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	320	385	846	717	113	1145
V/C Ratio(X)	0.78	0.11	0.82	0.49	0.67	0.28
Avail Cap(c_a), veh/h	549	589	1080	916	309	1584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	14.9	12.0	9.6	23.4	4.4
Incr Delay (d2), s/veh	4.2	0.1	4.1	0.5	6.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.4	6.3	2.2	1.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.1	15.0	16.1	10.1	30.1	4.5
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	293		1044			391
Approach Delay, s/veh	22.8		14.1			9.5
Approach LOS	C		B			A

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.3	28.5				36.8	14.3
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	4.2	18.8				6.0	9.0
Green Ext Time (p_c), s	0.1	4.7				2.1	0.5

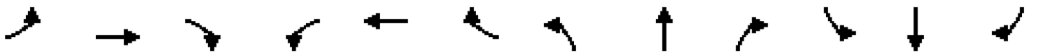
Intersection Summary	
HCM 7th Control Delay, s/veh	14.6
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	30	240	0	0	0	430	600	5	5	240	270
Future Volume (veh/h)	320	30	240	0	0	0	430	600	5	5	240	270
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841				1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	348	33	261				467	652	5	5	261	293
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4				4	4	4	4	4	4
Cap, veh/h	506	51	407				495	921	7	87	500	429
Arrive On Green	0.29	0.29	0.29				0.11	0.50	0.50	0.27	0.27	0.27
Sat Flow, veh/h	1753	178	1409				1753	1824	14	9	1818	1560
Grp Volume(v), veh/h	348	0	294				467	0	657	266	0	293
Grp Sat Flow(s),veh/h/ln	1753	0	1587				1753	0	1838	1828	0	1560
Q Serve(g_s), s	7.7	0.0	7.0				5.0	0.0	12.0	0.0	0.0	7.3
Cycle Q Clear(g_c), s	7.7	0.0	7.0				5.0	0.0	12.0	5.3	0.0	7.3
Prop In Lane	1.00		0.89				1.00		0.01	0.02		1.00
Lane Grp Cap(c), veh/h	506	0	458				495	0	928	587	0	429
V/C Ratio(X)	0.69	0.00	0.64				0.94	0.00	0.71	0.45	0.00	0.68
Avail Cap(c_a), veh/h	1127	0	1021				495	0	1816	1453	0	1182
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	13.5				13.8	0.0	8.3	13.4	0.0	14.1
Incr Delay (d2), s/veh	1.7	0.0	1.5				26.9	0.0	1.0	0.5	0.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	2.2				5.6	0.0	3.4	1.9	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.4	0.0	15.0				40.7	0.0	9.3	13.9	0.0	16.0
LnGrp LOS	B		B				D		A	B		B
Approach Vol, veh/h		642						1124			559	
Approach Delay, s/veh		15.2						22.4			15.0	
Approach LOS		B						C			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		27.0		16.6	10.0	17.0						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		43.0		28.0	5.0	33.0						
Max Q Clear Time (g_c+I1), s		14.0		9.7	7.0	9.3						
Green Ext Time (p_c), s		5.1		2.9	0.0	2.7						

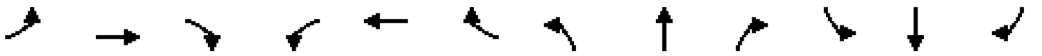
Intersection Summary												
HCM 7th Control Delay, s/veh			18.6									
HCM 7th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	180	230	120	390	50	410	430	200	70	280	5
Future Volume (veh/h)	5	180	230	120	390	50	410	430	200	70	280	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	196	250	130	424	54	446	467	217	76	304	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	52	321	276	164	542	69	505	752	637	99	576	9
Arrive On Green	0.18	0.18	0.18	0.09	0.34	0.34	0.29	0.41	0.41	0.06	0.16	0.16
Sat Flow, veh/h	14	1827	1572	1767	1613	205	1767	1856	1572	1767	3550	58
Grp Volume(v), veh/h	201	0	250	130	0	478	446	467	217	76	151	158
Grp Sat Flow(s),veh/h/ln	1841	0	1572	1767	0	1819	1767	1856	1572	1767	1763	1845
Q Serve(g_s), s	0.0	0.0	11.5	5.3	0.0	17.5	17.9	14.8	7.0	3.1	5.8	5.8
Cycle Q Clear(g_c), s	7.4	0.0	11.5	5.3	0.0	17.5	17.9	14.8	7.0	3.1	5.8	5.8
Prop In Lane	0.02		1.00	1.00		0.11	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	373	0	276	164	0	611	505	752	637	99	286	300
V/C Ratio(X)	0.54	0.00	0.91	0.79	0.00	0.78	0.88	0.62	0.34	0.77	0.53	0.53
Avail Cap(c_a), veh/h	373	0	276	215	0	663	836	752	637	430	286	300
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	28.2	0.0	29.9	32.9	0.0	22.1	25.3	17.5	15.2	34.5	28.4	28.4
Incr Delay (d2), s/veh	1.5	0.0	30.8	13.9	0.0	5.6	6.5	3.8	1.5	11.6	6.8	6.5
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	3.3	0.0	6.5	2.8	0.0	7.9	7.9	6.6	2.6	1.6	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.8	0.0	60.7	46.8	0.0	27.8	31.8	21.3	16.6	46.0	35.2	34.9
LnGrp LOS	C		E	D		C	C	C	B	D	D	C
Approach Vol, veh/h		451			608			1130			385	
Approach Delay, s/veh		46.9			31.8			24.6			37.2	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	35.0	11.9	18.0	27.1	17.0		29.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	30.0	9.0	13.0	35.0	12.0		27.0				
Max Q Clear Time (g_c+I1), s	5.1	16.8	7.3	13.5	19.9	7.8		19.5				
Green Ext Time (p_c), s	0.1	3.1	0.0	0.0	1.3	0.6		1.8				

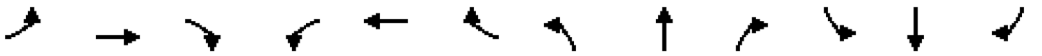
Intersection Summary	
HCM 7th Control Delay, s/veh	32.1
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	10	0	0	0	40	1020	0	0	600	50
Future Volume (veh/h)	20	0	10	0	0	0	40	1020	0	0	600	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	0	11	0	0	0	43	1109	0	0	652	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	203	0	47	0	56	0	65	1385	0	0	1010	84
Arrive On Green	0.03	0.00	0.03	0.00	0.00	0.00	0.04	0.75	0.00	0.00	0.60	0.60
Sat Flow, veh/h	1406	0	1572	0	1856	0	1767	1856	0	0	1690	140
Grp Volume(v), veh/h	22	0	11	0	0	0	43	1109	0	0	0	706
Grp Sat Flow(s),veh/h/ln	1406	0	1572	0	1856	0	1767	1856	0	0	0	1830
Q Serve(g_s), s	0.7	0.0	0.3	0.0	0.0	0.0	1.1	16.9	0.0	0.0	0.0	11.3
Cycle Q Clear(g_c), s	0.7	0.0	0.3	0.0	0.0	0.0	1.1	16.9	0.0	0.0	0.0	11.3
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h	203	0	47	0	56	0	65	1385	0	0	0	1093
V/C Ratio(X)	0.11	0.00	0.23	0.00	0.00	0.00	0.66	0.80	0.00	0.00	0.00	0.65
Avail Cap(c_a), veh/h	476	0	352	0	415	0	395	2905	0	0	0	2252
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	21.2	0.0	0.0	0.0	21.2	3.6	0.0	0.0	0.0	5.9
Incr Delay (d2), s/veh	0.2	0.0	2.5	0.0	0.0	0.0	10.7	1.1	0.0	0.0	0.0	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	0.0	0.0	0.0	0.6	1.2	0.0	0.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.6	0.0	23.7	0.0	0.0	0.0	31.9	4.7	0.0	0.0	0.0	6.5
LnGrp LOS	C		C				C	A				A
Approach Vol, veh/h		33			0			1152			706	
Approach Delay, s/veh		22.3			0.0			5.7			6.5	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		38.4		6.3	6.7	31.7		6.3				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		70.0		10.0	10.0	55.0		10.0				
Max Q Clear Time (g_c+I1), s		18.9		2.7	3.1	13.3		0.0				
Green Ext Time (p_c), s		14.5		0.0	0.0	6.0		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	6.3
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	0	90	0	0	1	120	620	0	0	380	220
Future Volume (veh/h)	230	0	90	0	0	1	120	620	0	0	380	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	237	0	93	0	0	1	124	639	0	0	392	227
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	381	0	316	0	0	316	157	704	0	0	674	390
Arrive On Green	0.20	0.00	0.20	0.00	0.00	0.20	0.61	0.61	0.00	0.00	0.61	0.61
Sat Flow, veh/h	1405	0	1572	0	0	1572	161	1151	0	0	1102	638
Grp Volume(v), veh/h	237	0	93	0	0	1	763	0	0	0	0	619
Grp Sat Flow(s),veh/h/ln	1405	0	1572	0	0	1573	1312	0	0	0	0	1741
Q Serve(g_s), s	11.7	0.0	3.6	0.0	0.0	0.0	24.8	0.0	0.0	0.0	0.0	15.4
Cycle Q Clear(g_c), s	11.7	0.0	3.6	0.0	0.0	0.0	40.2	0.0	0.0	0.0	0.0	15.4
Prop In Lane	1.00		1.00	0.00		1.00	0.16		0.00	0.00		0.37
Lane Grp Cap(c), veh/h	381	0	316	0	0	316	861	0	0	0	0	1064
V/C Ratio(X)	0.62	0.00	0.29	0.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.58
Avail Cap(c_a), veh/h	510	0	459	0	0	492	894	0	0	0	0	1102
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	0.0	24.4	0.0	0.0	23.0	14.4	0.0	0.0	0.0	0.0	8.4
Incr Delay (d2), s/veh	1.7	0.0	0.5	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.0	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	3.9	0.0	1.3	0.0	0.0	0.0	12.6	0.0	0.0	0.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.3	0.0	24.9	0.0	0.0	23.0	24.8	0.0	0.0	0.0	0.0	9.2
LnGrp LOS	C		C			C	C					A
Approach Vol, veh/h		330			1			763			619	
Approach Delay, s/veh		28.1			23.0			24.8			9.2	
Approach LOS		C			C			C			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	51.5	20.4	51.5	20.4
Change Period (Y+Rc), s	7.5	6.0	7.5	* 6
Max Green Setting (Gmax), s	45.5	21.0	45.5	* 23
Max Q Clear Time (g_c+I1), s	42.2	13.7	17.4	2.0
Green Ext Time (p_c), s	1.7	0.7	4.9	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	19.8
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	0	0	0	10	670	0	0	320	0
Future Volume (veh/h)	5	0	5	0	0	0	10	670	0	0	320	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	0	5	0	0	0	11	705	0	0	337	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	0	10	0	24	0	94	1319	0	0	1329	0
Arrive On Green	0.01	0.00	0.01	0.00	0.00	0.00	0.72	0.72	0.00	0.00	0.72	0.00
Sat Flow, veh/h	736	0	736	0	1841	0	8	1827	0	0	1841	0
Grp Volume(v), veh/h	10	0	0	0	0	0	716	0	0	0	337	0
Grp Sat Flow(s),veh/h/ln	1473	0	0	0	1841	0	1835	0	0	0	1841	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	2.6	0.0
Prop In Lane	0.50		0.50	0.00		0.00	0.02		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	149	0	0	0	24	0	1413	0	0	0	1329	0
V/C Ratio(X)	0.07	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.25	0.00
Avail Cap(c_a), veh/h	520	0	0	0	532	0	1413	0	0	0	1329	0
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	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.4	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.6	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.1	0.0
LnGrp LOS	C						A				A	
Approach Vol, veh/h		10			0			716			337	
Approach Delay, s/veh		20.6			0.0			2.9			2.1	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.5		36.0		5.5				
Change Period (Y+Rc), s		6.0		5.0		6.0		* 5				
Max Green Setting (Gmax), s		30.0		11.0		30.0		* 12				
Max Q Clear Time (g_c+I1), s		9.3		2.3		4.6		0.0				
Green Ext Time (p_c), s		5.2		0.0		2.1		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	2.8
HCM 7th LOS	A

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.1

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	320	50	170	740	40	130
Future Vol, veh/h	320	50	170	740	40	130
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	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	337	53	179	779	42	137

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	389	0	1500	363
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	1137	-
Critical Hdwy	-	-	4.15	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3	3
Pot Cap-1 Maneuver	-	-	1153	-	173	759
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	332	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1153	-	125	759
Mov Cap-2 Maneuver	-	-	-	-	125	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	241	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	1.62	25.95
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	347	336	-	-	-
HCM Lane V/C Ratio	0.516	0.155	-	-	-
HCM Control Delay (s/veh)	25.9	8.7	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	2.8	0.5	-	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	30	120	100	350	760	30
Future Vol, veh/h	30	120	100	350	760	30
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, %	4	4	4	4	4	4
Mvmt Flow	33	130	109	380	826	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1440	842	859	0	-	0
Stage 1	842	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Critical Hdwy	6	6	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3	3	2.236	-	-	-
Pot Cap-1 Maneuver	187	410	774	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	154	410	774	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	384	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v	29.19	2.31	0
HCM LOS	D		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	307	400	-
HCM Lane V/C Ratio	-	-	0.53	0.14	-
HCM Control Delay (s/veh)	-	-	29.2	10.4	0
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	2.9	0.5	-

Intersection	
Int Delay, s/veh	24.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	150	910	150	80	520
Future Vol, veh/h	80	150	910	150	80	520
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	83	156	948	156	83	542

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1734	1026	0	0	1104	0
Stage 1	1026	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.236	-
Pot Cap-1 Maneuver	126	323	-	-	625	-
Stage 1	379	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	109	323	-	-	625	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	379	-	-	-	-	-
Stage 2	472	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	195.9	0	1.55
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	192	625	-
HCM Lane V/C Ratio	-	-	1.247	0.133	-
HCM Control Delay (s/veh)	-	-	195.9	11.6	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	12.9	0.5	-

Intersection	
Int Delay, s/veh	4.2

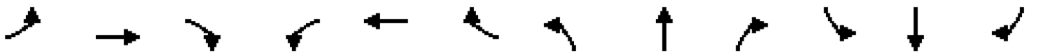
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	5	10	5	100	10	920	10	50	520	20
Future Vol, veh/h	10	0	5	10	5	100	10	920	10	50	520	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	11	0	5	11	5	106	11	979	11	53	553	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1673	1681	564	1665	1686	984	574	0	0	989	0	0
Stage 1	670	670	-	1005	1005	-	-	-	-	-	-	-
Stage 2	1003	1011	-	660	681	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	75	94	521	76	93	299	989	-	-	691	-	-
Stage 1	443	452	-	288	317	-	-	-	-	-	-	-
Stage 2	289	315	-	449	447	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	39	81	521	65	80	299	989	-	-	691	-	-
Mov Cap-2 Maneuver	39	81	-	65	80	-	-	-	-	-	-	-
Stage 1	393	401	-	282	309	-	-	-	-	-	-	-
Stage 2	179	307	-	394	397	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	91.06	44.01	0.09	0.9
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	57	209	151	-	-
HCM Lane V/C Ratio	0.011	-	-	0.28	0.585	0.077	-	-
HCM Control Delay (s/veh)	8.7	0	-	91.1	44	10.6	0	-
HCM Lane LOS	A	A	-	F	E	B	A	-
HCM 95th %tile Q(veh)	0	-	-	1	3.3	0.2	-	-

Part 2: Existing Conditions: Weekday PM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	280	290	20	80	230	430	80	40	1050	110
Future Volume (veh/h)	70	10	280	290	20	80	230	430	80	40	1050	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	10	292	302	21	83	240	448	83	42	1094	115
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	448	58	707	374	124	489	245	1329	245	56	1298	136
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.07	0.44	0.44	0.03	0.40	0.40
Sat Flow, veh/h	1045	155	1585	1077	330	1305	3456	2996	552	1781	3245	341
Grp Volume(v), veh/h	83	0	292	302	0	104	240	264	267	42	598	611
Grp Sat Flow(s),veh/h/ln	1200	0	1585	1077	0	1635	1728	1777	1771	1781	1777	1809
Q Serve(g_s), s	4.9	0.0	15.0	33.1	0.0	5.1	8.3	11.7	11.8	2.8	36.6	36.7
Cycle Q Clear(g_c), s	10.0	0.0	15.0	43.1	0.0	5.1	8.3	11.7	11.8	2.8	36.6	36.7
Prop In Lane	0.88		1.00	1.00		0.80	1.00		0.31	1.00		0.19
Lane Grp Cap(c), veh/h	506	0	707	374	0	613	245	788	786	56	711	724
V/C Ratio(X)	0.16	0.00	0.41	0.81	0.00	0.17	0.98	0.34	0.34	0.75	0.84	0.84
Avail Cap(c_a), veh/h	506	0	707	374	0	613	245	788	786	104	711	724
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	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	22.6	41.8	0.0	25.0	55.7	21.8	21.9	57.7	32.6	32.6
Incr Delay (d2), s/veh	0.2	0.0	0.4	12.2	0.0	0.1	51.3	1.1	1.1	18.1	11.6	11.5
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	1.7	0.0	5.6	10.0	0.0	2.0	5.4	5.1	5.2	1.5	17.7	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.1	0.0	23.0	54.0	0.0	25.2	107.0	22.9	23.0	75.7	44.2	44.1
LnGrp LOS	C		C	D		C	F	C	C	E	D	D
Approach Vol, veh/h		375			406			771			1251	
Approach Delay, s/veh		24.1			46.6			49.1			45.2	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	58.2		51.0	16.0	53.0		51.0				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	7.0	50.0		45.0	8.5	48.0		45.0				
Max Q Clear Time (g_c+I1), s	4.8	13.8		17.0	10.3	38.7		45.1				
Green Ext Time (p_c), s	0.0	3.6		1.5	0.0	5.3		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		43.7	
HCM 7th LOS		D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	490	20	5	5	430	650	20	10	1230	420
Future Volume (veh/h)	70	10	490	20	5	5	430	650	20	10	1230	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	0	0	21	5	5	443	670	21	10	1268	0
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	2	2	2	2	2
Cap, veh/h	249	0		88	15	10	518	2791	87	21	2329	
Arrive On Green	0.04	0.00	0.00	0.04	0.04	0.04	0.15	0.79	0.79	0.02	1.00	0.00
Sat Flow, veh/h	2810	0	1585	923	361	247	3456	3517	110	1781	3554	1585
Grp Volume(v), veh/h	79	0	0	31	0	0	443	338	353	10	1268	0
Grp Sat Flow(s),veh/h/ln	1405	0	1585	1531	0	0	1728	1777	1851	1781	1777	1585
Q Serve(g_s), s	0.4	0.0	0.0	1.9	0.0	0.0	15.0	5.8	5.8	0.7	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0	2.3	0.0	0.0	15.0	5.8	5.8	0.7	0.0	0.0
Prop In Lane	1.00		1.00	0.68		0.16	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	249	0		112	0	0	518	1410	1468	21	2329	
V/C Ratio(X)	0.32	0.00		0.28	0.00	0.00	0.86	0.24	0.24	0.48	0.54	
Avail Cap(c_a), veh/h	544	0		271	0	0	691	1410	1468	134	2329	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.94	0.94	0.94	0.59	0.59	0.00
Uniform Delay (d), s/veh	56.5	0.0	0.0	56.3	0.0	0.0	49.7	3.2	3.2	58.2	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.3	0.0	0.0	7.6	0.4	0.4	9.5	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	1.0	0.0	0.0	7.0	1.8	1.9	0.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.2	0.0	0.0	57.6	0.0	0.0	57.3	3.5	3.5	67.7	0.5	0.0
LnGrp LOS	E			E			E	A	A	E	A	
Approach Vol, veh/h		79			31			1134			1278	
Approach Delay, s/veh		57.2			57.6			24.5			1.1	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	100.2		12.4	24.0	83.6		12.4				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	9.0	75.0		17.5	24.0	60.0		17.5				
Max Q Clear Time (g_c+I1), s	2.7	7.8		4.7	17.0	2.0		4.3				
Green Ext Time (p_c), s	0.0	5.0		0.1	1.0	13.9		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	14.1	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations				↑↑	↱		↑↑	↱	↰↰		↱
Traffic Volume (veh/h)	0	0	0	1460	260	0	920	650	180	0	600
Future Volume (veh/h)	0	0	0	1460	260	0	920	650	180	0	600
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1885	1885	0	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h			0	1475	0	0	929	657	182	182	0
Peak Hour Factor			0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %			0	1	1	0	1	1	1	1	1
Cap, veh/h			0	2967		0	2967	1323	250	250	
Arrive On Green			0.00	0.83	0.00	0.00	1.00	1.00	0.07	0.07	0.00
Sat Flow, veh/h			0	3676	1598	0	3676	1598	3483	3483	1598
Grp Volume(v), veh/h			0	1475	0	0	929	657	182	182	0
Grp Sat Flow(s),veh/h/ln			0	1791	1598	0	1791	1598	1742	1742	1598
Q Serve(g_s), s			0.0	14.4	0.0	0.0	0.0	0.0	6.1	6.1	0.0
Cycle Q Clear(g_c), s			0.0	14.4	0.0	0.0	0.0	0.0	6.1	6.1	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2967		0	2967	1323	250	250	
V/C Ratio(X)			0.00	0.50		0.00	0.31	0.50	0.73	0.73	
Avail Cap(c_a), veh/h			0	2967		0	2967	1323	668	668	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.84	0.00	0.00	0.85	0.85	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	3.0	0.0	0.0	0.0	0.0	54.6	54.6	0.0
Incr Delay (d2), s/veh			0.0	0.5	0.0	0.0	0.2	1.1	4.0	4.0	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	3.8	0.0	0.0	0.1	0.4	2.8	2.8	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	3.5	0.0	0.0	0.2	1.1	58.6	58.6	0.0
LnGrp LOS				A			A	A	E	E	
Approach Vol, veh/h				1475			1586		182	182	
Approach Delay, s/veh				3.5			0.6		58.6	58.6	
Approach LOS				A			A		E	E	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	104.4		15.6		104.4						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	85.0		23.0		85.0						
Max Q Clear Time (g_c+I1), s	2.0		8.1		16.4						
Green Ext Time (p_c), s	14.0		0.5		18.8						

Intersection Summary	
HCM 7th Control Delay, s/veh	5.2
HCM 7th LOS	A

Notes

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	370	1320	340	110	890	60	270	90	90	40	100	340
Future Volume (veh/h)	370	1320	340	110	890	60	270	90	90	40	100	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	381	1361	351	113	918	62	278	93	93	41	103	351
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	2	2	2	2	2
Cap, veh/h	454	1926	495	138	2062	139	450	251	251	133	316	463
Arrive On Green	0.13	0.48	0.48	0.08	0.42	0.42	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	3456	4046	1041	1781	4886	329	1818	858	858	324	1080	1585
Grp Volume(v), veh/h	381	1144	568	113	639	341	278	0	186	144	0	351
Grp Sat Flow(s),veh/h/ln	1728	1702	1683	1781	1702	1811	909	0	1716	1404	0	1585
Q Serve(g_s), s	12.9	31.9	32.0	7.5	16.0	16.1	17.7	0.0	10.3	3.0	0.0	24.2
Cycle Q Clear(g_c), s	12.9	31.9	32.0	7.5	16.0	16.1	31.0	0.0	10.3	13.3	0.0	24.2
Prop In Lane	1.00		0.62	1.00		0.18	1.00		0.50	0.28		1.00
Lane Grp Cap(c), veh/h	454	1620	801	138	1437	764	450	0	502	449	0	463
V/C Ratio(X)	0.84	0.71	0.71	0.82	0.44	0.45	0.62	0.00	0.37	0.32	0.00	0.76
Avail Cap(c_a), veh/h	648	1620	801	156	1437	764	585	0	629	569	0	581
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)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.9	24.8	24.9	54.5	24.7	24.7	47.4	0.0	33.7	33.9	0.0	38.6
Incr Delay (d2), s/veh	5.8	2.3	4.5	25.5	1.0	1.9	1.4	0.0	0.5	0.4	0.0	4.4
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	5.9	13.1	13.5	4.3	6.6	7.3	4.1	0.0	4.4	3.5	0.0	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.7	27.1	29.4	80.0	25.7	26.6	48.8	0.0	34.2	34.3	0.0	43.0
LnGrp LOS	E	C	C	E	C	C	D		C	C		D
Approach Vol, veh/h		2093			1093			464			495	
Approach Delay, s/veh		33.1			31.6			42.9			40.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.3	55.6		41.1	16.8	62.1		41.1				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	22.5	35.0		44.0	10.5	47.0		44.0				
Max Q Clear Time (g_c+I1), s	14.9	18.1		33.0	9.5	34.0		26.2				
Green Ext Time (p_c), s	0.9	6.1		2.2	0.0	9.2		2.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		34.7
HCM 7th LOS		C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	350	1120	0	0	780	140	0	0	0	160	0	290
Future Volume (veh/h)	350	1120	0	0	780	140	0	0	0	160	0	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	368	1179	0	0	821	147	0	0	0	112	0	365
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	442	2726	0	0	2064	921	0	264	0	312	0	448
Arrive On Green	0.13	0.77	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.14	0.00	0.14
Sat Flow, veh/h	3456	3647	0	0	3647	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	368	1179	0	0	821	147	0	0	0	112	0	365
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	12.5	13.9	0.0	0.0	15.1	5.1	0.0	0.0	0.0	6.9	0.0	13.4
Cycle Q Clear(g_c), s	12.5	13.9	0.0	0.0	15.1	5.1	0.0	0.0	0.0	6.9	0.0	13.4
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	442	2726	0	0	2064	921	0	264	0	312	0	448
V/C Ratio(X)	0.83	0.43	0.00	0.00	0.40	0.16	0.00	0.00	0.00	0.36	0.00	0.82
Avail Cap(c_a), veh/h	662	2726	0	0	2064	921	0	452	0	490	0	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.89	0.89	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.1	4.9	0.0	0.0	13.7	11.6	0.0	0.0	0.0	47.2	0.0	50.0
Incr Delay (d2), s/veh	5.7	0.5	0.0	0.0	0.5	0.3	0.0	0.0	0.0	0.7	0.0	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	4.5	0.0	0.0	6.1	1.9	0.0	0.0	0.0	3.1	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.8	5.4	0.0	0.0	14.2	11.9	0.0	0.0	0.0	47.9	0.0	53.7
LnGrp LOS	E	A			B	B				D		D
Approach Vol, veh/h		1547			968			0			477	
Approach Delay, s/veh		17.6			13.9			0.0			52.3	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	22.4	74.7		22.9		97.1		22.9				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	23.0	50.0		29.0		80.0		29.0				
Max Q Clear Time (g_c+I1), s	14.5	17.1		0.0		15.9		15.4				
Green Ext Time (p_c), s	0.9	7.4		0.0		12.5		1.5				

Intersection Summary												
HCM 7th Control Delay, s/veh			21.9									
HCM 7th LOS			C									

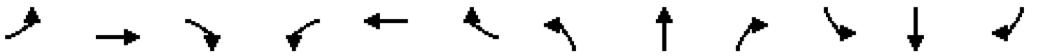
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1	20	140	1	90	20	830	130	10	1300	30
Future Volume (veh/h)	30	1	20	140	1	90	20	830	130	10	1300	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	32	1	21	147	1	95	21	874	137	11	1368	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	82	13	30	252	1	331	37	1939	304	74	2309	54
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.02	0.64	0.64	0.04	0.66	0.66
Sat Flow, veh/h	204	78	180	1135	8	1572	1767	3054	479	1767	3521	82
Grp Volume(v), veh/h	54	0	0	148	0	95	21	505	506	11	684	716
Grp Sat Flow(s),veh/h/ln	463	0	0	1143	0	1572	1767	1763	1769	1767	1763	1841
Q Serve(g_s), s	2.9	0.0	0.0	0.0	0.0	6.1	1.4	17.6	17.6	0.7	26.2	26.3
Cycle Q Clear(g_c), s	18.1	0.0	0.0	15.3	0.0	6.1	1.4	17.6	17.6	0.7	26.2	26.3
Prop In Lane	0.59		0.39	0.99		1.00	1.00		0.27	1.00		0.04
Lane Grp Cap(c), veh/h	126	0	0	253	0	331	37	1120	1124	74	1156	1207
V/C Ratio(X)	0.43	0.00	0.00	0.58	0.00	0.29	0.57	0.45	0.45	0.15	0.59	0.59
Avail Cap(c_a), veh/h	303	0	0	428	0	531	96	1120	1124	96	1156	1207
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	0.00	1.00	0.00	1.00	0.09	0.09	0.09	0.86	0.86	0.86
Uniform Delay (d), s/veh	50.6	0.0	0.0	47.8	0.0	39.8	58.2	11.2	11.2	55.4	11.6	11.6
Incr Delay (d2), s/veh	2.3	0.0	0.0	2.1	0.0	0.5	1.2	0.1	0.1	0.8	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	1.7	0.0	0.0	4.4	0.0	2.4	0.6	6.6	6.6	0.3	10.2	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.9	0.0	0.0	49.9	0.0	40.3	59.4	11.3	11.3	56.2	13.5	13.5
LnGrp LOS	D			D		D	E	B	B	E	B	B
Approach Vol, veh/h		54			243			1032			1411	
Approach Delay, s/veh		52.9			46.1			12.3			13.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	81.7		26.8	9.0	84.2		26.8				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	6.5	59.5		35.5	6.5	59.5		35.5				
Max Q Clear Time (g_c+I1), s	2.7	19.6		20.1	3.4	28.3		17.3				
Green Ext Time (p_c), s	0.0	8.3		0.2	0.0	12.6		1.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		16.9	
HCM 7th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	50	10	480	0	0	700	50
Future Volume (veh/h)	10	0	10	20	10	50	10	480	0	0	700	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	10	0	10	21	10	52	10	500	0	0	729	52
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	242	12	78	183	21	95	126	1064	0	0	996	71
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.58	0.58	0.00	0.00	0.58	0.58
Sat Flow, veh/h	688	126	815	375	217	993	10	1843	0	0	1725	123
Grp Volume(v), veh/h	20	0	0	83	0	0	510	0	0	0	0	781
Grp Sat Flow(s),veh/h/ln	1629	0	0	1585	0	0	1853	0	0	0	0	1848
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.5	0.0	0.0	4.8	0.0	0.0	0.0	0.0	9.5
Prop In Lane	0.50		0.50	0.25		0.63	0.02		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	332	0	0	299	0	0	1190	0	0	0	0	1067
V/C Ratio(X)	0.06	0.00	0.00	0.28	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.73
Avail Cap(c_a), veh/h	907	0	0	917	0	0	2218	0	0	0	0	2117
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	13.2	0.0	0.0	3.8	0.0	0.0	0.0	0.0	4.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.5	0.0	0.0	0.6	0.0	0.0	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.7	0.0	0.0	13.7	0.0	0.0	4.0	0.0	0.0	0.0	0.0	5.7
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		20			83			510			781	
Approach Delay, s/veh		12.7			13.7			4.0			5.7	
Approach LOS		B			B			A			A	

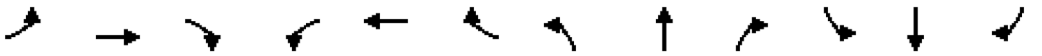
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.6		7.9		22.6		7.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		15.0		35.0		15.0				
Max Q Clear Time (g_c+I1), s		6.8		2.3		11.5		3.5				
Green Ext Time (p_c), s		3.6		0.0		6.2		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			5.7									
HCM 7th LOS			A									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	290	120	370	310	170	560
Future Volume (veh/h)	290	120	370	310	170	560
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	125	385	323	177	583
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	391	348	611	866	227	1053
Arrive On Green	0.22	0.22	0.33	0.33	0.13	0.56
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	302	125	385	323	177	583
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	7.3	3.1	8.0	5.3	4.4	9.1
Cycle Q Clear(g_c), s	7.3	3.1	8.0	5.3	4.4	9.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	391	348	611	866	227	1053
V/C Ratio(X)	0.77	0.36	0.63	0.37	0.78	0.55
Avail Cap(c_a), veh/h	620	552	1221	1383	349	1791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	15.2	13.1	5.9	19.4	6.4
Incr Delay (d2), s/veh	3.3	0.6	1.1	0.3	6.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.0	3.0	2.4	2.0	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.1	15.8	14.2	6.2	25.4	6.8
LnGrp LOS	C	B	B	A	C	A
Approach Vol, veh/h	427		708			760
Approach Delay, s/veh	18.9		10.6			11.2
Approach LOS	B		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.9	20.0				30.9	15.1
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	6.4	10.0				11.1	9.3
Green Ext Time (p_c), s	0.1	3.5				4.4	0.8

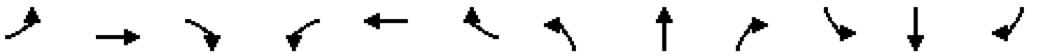
Intersection Summary		
HCM 7th Control Delay, s/veh		12.7
HCM 7th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	120	250	0	0	0	300	380	10	20	440	320
Future Volume (veh/h)	330	120	250	0	0	0	300	380	10	20	440	320
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	0.92	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	340	124	258				309	392	10	21	454	330
Peak Hour Factor	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	2	2
Cap, veh/h	427	141	293				474	1139	29	63	814	717
Arrive On Green	0.26	0.26	0.26				0.11	0.63	0.63	0.45	0.45	0.45
Sat Flow, veh/h	1639	541	1126				1781	1816	46	36	1801	1585
Grp Volume(v), veh/h	340	0	382				309	0	402	475	0	330
Grp Sat Flow(s),veh/h/ln	1639	0	1668				1781	0	1862	1838	0	1585
Q Serve(g_s), s	15.5	0.0	17.6				6.9	0.0	8.2	0.0	0.0	11.5
Cycle Q Clear(g_c), s	15.5	0.0	17.6				6.9	0.0	8.2	14.9	0.0	11.5
Prop In Lane	1.00		0.68				1.00		0.02	0.04		1.00
Lane Grp Cap(c), veh/h	427	0	434				474	0	1168	878	0	717
V/C Ratio(X)	0.80	0.00	0.88				0.65	0.00	0.34	0.54	0.00	0.46
Avail Cap(c_a), veh/h	471	0	479				496	0	1168	878	0	717
HCM Platoon Ratio	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	0.75	0.00	0.75
Uniform Delay (d), s/veh	27.6	0.0	28.4				11.4	0.0	7.1	16.1	0.0	15.2
Incr Delay (d2), s/veh	8.5	0.0	16.0				2.9	0.0	0.8	1.8	0.0	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	8.6				2.7	0.0	3.0	6.4	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.1	0.0	44.3				14.3	0.0	7.9	17.9	0.0	16.8
LnGrp LOS	D		D				B		A	B		B
Approach Vol, veh/h		722						711			805	
Approach Delay, s/veh		40.5						10.7			17.4	
Approach LOS		D						B			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		55.2		24.8	14.0	41.2						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		48.0		23.0	10.0	33.0						
Max Q Clear Time (g_c+I1), s		10.2		19.6	8.9	16.9						
Green Ext Time (p_c), s		2.8		1.2	0.1	4.0						

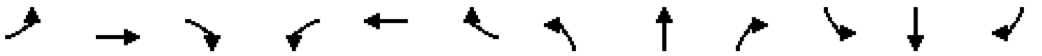
Intersection Summary		
HCM 7th Control Delay, s/veh		22.7
HCM 7th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	300	360	210	360	50	270	330	180	200	400	10
Future Volume (veh/h)	0	300	360	210	360	50	270	330	180	200	400	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	309	371	216	371	52	278	340	186	206	412	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	2	2	2	2	2
Cap, veh/h	0	535	453	379	723	101	320	381	323	251	536	13
Arrive On Green	0.00	0.29	0.29	0.10	0.45	0.45	0.18	0.20	0.20	0.14	0.15	0.15
Sat Flow, veh/h	0	1870	1585	1781	1605	225	1781	1870	1585	1781	3546	86
Grp Volume(v), veh/h	0	309	371	216	0	423	278	340	186	206	206	216
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	0	1830	1781	1870	1585	1781	1777	1855
Q Serve(g_s), s	0.0	10.3	15.9	6.0	0.0	12.1	11.1	12.9	7.7	8.2	8.1	8.2
Cycle Q Clear(g_c), s	0.0	10.3	15.9	6.0	0.0	12.1	11.1	12.9	7.7	8.2	8.1	8.2
Prop In Lane	0.00		1.00	1.00		0.12	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	0	535	453	379	0	824	320	381	323	251	269	280
V/C Ratio(X)	0.00	0.58	0.82	0.57	0.00	0.51	0.87	0.89	0.58	0.82	0.77	0.77
Avail Cap(c_a), veh/h	0	870	738	379	0	1152	341	381	323	366	340	355
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)	0.00	1.00	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	0.0	22.3	24.3	16.0	0.0	14.4	29.1	28.3	26.2	30.5	29.8	29.8
Incr Delay (d2), s/veh	0.0	1.0	3.8	2.0	0.0	0.5	19.8	22.4	2.5	9.3	7.9	7.7
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	0.0	4.4	6.1	2.4	0.0	4.7	6.3	7.9	3.0	4.0	3.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	23.3	28.1	18.0	0.0	14.9	48.9	50.7	28.8	39.8	37.6	37.5
LnGrp LOS		C	C	B		B	D	D	C	D	D	D
Approach Vol, veh/h		680			639			804			628	
Approach Delay, s/veh		25.9			15.9			45.0			38.3	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	15.3	19.9	12.0	25.9	19.1	16.0		37.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	14.0	7.0	34.0	14.0	14.0		46.0				
Max Q Clear Time (g_c+I1), s	10.2	14.9	8.0	17.9	13.1	10.2		14.1				
Green Ext Time (p_c), s	0.2	0.0	0.0	3.0	0.1	0.9		2.9				

Intersection Summary	
HCM 7th Control Delay, s/veh	32.0
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	40	0	0	0	40	720	0	0	890	60
Future Volume (veh/h)	80	0	40	0	0	0	40	720	0	0	890	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	0	41	0	0	0	41	742	0	0	918	62
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	2	2	2	2	2
Cap, veh/h	236	0	181	0	151	0	59	1403	0	0	1096	74
Arrive On Green	0.08	0.00	0.08	0.00	0.00	0.00	0.03	0.75	0.00	0.00	0.63	0.63
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1870	0	0	1732	117
Grp Volume(v), veh/h	82	0	41	0	0	0	41	742	0	0	0	980
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1870	0	0	0	1849
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	0.0	1.3	9.7	0.0	0.0	0.0	24.5
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	0.0	1.3	9.7	0.0	0.0	0.0	24.5
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	236	0	181	0	151	0	59	1403	0	0	0	1170
V/C Ratio(X)	0.35	0.00	0.23	0.00	0.00	0.00	0.69	0.53	0.00	0.00	0.00	0.84
Avail Cap(c_a), veh/h	361	0	320	0	316	0	211	2687	0	0	0	2282
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	23.8	0.0	0.0	0.0	28.3	3.1	0.0	0.0	0.0	8.5
Incr Delay (d2), s/veh	0.9	0.0	0.6	0.0	0.0	0.0	13.6	0.3	0.0	0.0	0.0	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	1.1	0.0	0.5	0.0	0.0	0.0	0.8	1.6	0.0	0.0	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.4	0.0	24.5	0.0	0.0	0.0	41.9	3.4	0.0	0.0	0.0	10.2
LnGrp LOS	C		C				D	A				B
Approach Vol, veh/h		123			0			783			980	
Approach Delay, s/veh		26.4			0.0			5.4			10.2	
Approach LOS		C						A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		49.4		9.8	7.0	42.4		9.8				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		85.0		10.0	7.0	73.0		10.0				
Max Q Clear Time (g_c+I1), s		11.7		5.3	3.3	26.5		0.0				
Green Ext Time (p_c), s		6.6		0.2	0.0	10.9		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	9.2
HCM 7th LOS	A

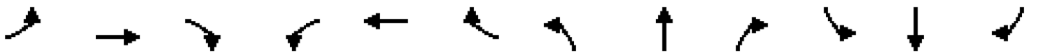
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1	90	0	0	0	60	410	1	0	670	270
Future Volume (veh/h)	250	1	90	0	0	0	60	410	1	0	670	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	266	1	96	0	0	0	64	436	1	0	713	287
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	404	3	280	0	333	0	90	578	1	0	836	336
Arrive On Green	0.18	0.18	0.18	0.00	0.00	0.00	0.66	0.66	0.66	0.00	0.66	0.66
Sat Flow, veh/h	1781	16	1571	0	1870	0	62	877	2	0	1268	510
Grp Volume(v), veh/h	266	0	97	0	0	0	501	0	0	0	0	1000
Grp Sat Flow(s),veh/h/ln	1781	0	1588	0	1870	0	940	0	0	0	0	1778
Q Serve(g_s), s	11.9	0.0	4.4	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	36.3
Cycle Q Clear(g_c), s	11.9	0.0	4.4	0.0	0.0	0.0	48.5	0.0	0.0	0.0	0.0	36.3
Prop In Lane	1.00		0.99	0.00		0.00	0.13		0.00	0.00		0.29
Lane Grp Cap(c), veh/h	404	0	283	0	333	0	668	0	0	0	0	1172
V/C Ratio(X)	0.66	0.00	0.34	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.85
Avail Cap(c_a), veh/h	539	0	403	0	486	0	1034	0	0	0	0	1622
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	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	32.9	0.0	29.8	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	11.0
Incr Delay (d2), s/veh	1.8	0.0	0.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	3.4
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	5.2	0.0	1.7	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.7	0.0	30.5	0.0	0.0	0.0	13.2	0.0	0.0	0.0	0.0	14.4
LnGrp LOS	C		C				B					B
Approach Vol, veh/h		363			0			501			1000	
Approach Delay, s/veh		33.6			0.0			13.2			14.4	
Approach LOS		C						B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		20.7		62.0		20.7				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		75.5		21.0		75.5		* 22				
Max Q Clear Time (g_c+I1), s		50.5		13.9		38.3		0.0				
Green Ext Time (p_c), s		4.1		0.8		11.2		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.8
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	1	0	0	5	470	0	0	680	0
Future Volume (veh/h)	5	0	5	1	0	0	5	470	0	0	680	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	0	5	1	0	0	5	490	0	0	708	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	149	0	17	210	0	0	91	1342	0	0	1349	0
Arrive On Green	0.02	0.00	0.02	0.02	0.00	0.00	0.73	0.73	0.00	0.00	0.73	0.00
Sat Flow, veh/h	740	0	740	1493	0	0	4	1832	0	0	1841	0
Grp Volume(v), veh/h	10	0	0	1	0	0	495	0	0	0	708	0
Grp Sat Flow(s),veh/h/ln	1481	0	0	1493	0	0	1835	0	0	0	1841	0
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	6.8	0.0
Prop In Lane	0.50		0.50	1.00		0.00	0.01		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	166	0	0	210	0	0	1434	0	0	0	1349	0
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.52	0.00
Avail Cap(c_a), veh/h	564	0	0	585	0	0	1434	0	0	0	1349	0
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	0.0	19.6	0.0	0.0	2.0	0.0	0.0	0.0	2.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.8	0.0	0.0	19.6	0.0	0.0	2.1	0.0	0.0	0.0	2.8	0.0
LnGrp LOS	B			B			A				A	
Approach Vol, veh/h		10			1			495			708	
Approach Delay, s/veh		19.8			19.6			2.1			2.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		4.9		36.0		4.9				
Change Period (Y+Rc), s		6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s		30.0		12.0		30.0		12.0				
Max Q Clear Time (g_c+I1), s		6.0		2.3		8.8		2.0				
Green Ext Time (p_c), s		3.3		0.0		5.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			2.7									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	1

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	800	20	55	620	10	40
Future Vol, veh/h	800	20	55	620	10	40
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	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	860	22	59	667	11	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	882	0	1656	871
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	785	-
Critical Hdwy	-	-	4.12	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	767	-	140	395
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	767	-	123	395
Mov Cap-2 Maneuver	-	-	-	-	123	-
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	440	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.82	21.33
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	274	147	-	-	-
HCM Lane V/C Ratio	0.196	0.077	-	-	-
HCM Control Delay (s/veh)	21.3	10.1	0	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.7	0.2	-	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	100	740	550	20	30	100
Future Vol, veh/h	100	740	550	20	30	100
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	106	787	585	21	32	106

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	606	0	-	0	1596	596
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	1000	-
Critical Hdwy	4.12	-	-	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3	3
Pot Cap-1 Maneuver	972	-	-	-	152	564
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	392	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	972	-	-	-	122	564
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	392	-

Approach	SE	NW	SW
HCM Control Delay, s/v	1.09	0	25.92
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	214	-	308
HCM Lane V/C Ratio	-	-	0.109	-	0.45
HCM Control Delay (s/veh)	-	-	9.2	0	25.9
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.4	-	2.2

Intersection	
Int Delay, s/veh	22.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	90	120	660	140	90	860
Future Vol, veh/h	90	120	660	140	90	860
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	94	125	688	146	94	896

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1844	760	0	0	833	0
Stage 1	760	-	-	-	-	-
Stage 2	1083	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.218	-
Pot Cap-1 Maneuver	109	456	-	-	800	-
Stage 1	518	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	96	456	-	-	800	-
Mov Cap-2 Maneuver	96	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	315	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	203.52	0	0.96
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	175	800	-
HCM Lane V/C Ratio	-	-	1.251	0.117	-
HCM Control Delay (s/veh)	-	-	203.5	10.1	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	12.2	0.4	-

Intersection	
Int Delay, s/veh	30.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	20	20	5	5	65	20	690	10	50	910	40
Future Vol, veh/h	40	20	20	5	5	65	20	690	10	50	910	40
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	-	-	-	-	-	-	-	-	-	-	-	-
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	44	22	22	5	5	71	22	758	11	55	1000	44

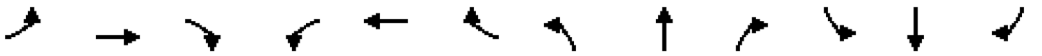
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1937	1945	1022	1929	1962	764	1044	0	0	769	0	0
Stage 1	1132	1132	-	808	808	-	-	-	-	-	-	-
Stage 2	805	813	-	1121	1154	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	49	65	287	50	63	404	666	-	-	845	-	-
Stage 1	247	278	-	375	394	-	-	-	-	-	-	-
Stage 2	376	392	-	251	272	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 29	52	287	23	50	404	666	-	-	845	-	-
Mov Cap-2 Maneuver	~ 29	52	-	23	50	-	-	-	-	-	-	-
Stage 1	208	235	-	353	371	-	-	-	-	-	-	-
Stage 2	287	369	-	177	229	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $/6	61.38	50.62	0.29	0.48
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	50	-	-	44	157	89	-	-
HCM Lane V/C Ratio	0.033	-	-	1.994	0.524	0.065	-	-
HCM Control Delay (s/veh)	10.6	0	-	$ 661.4	50.6	9.6	0	-
HCM Lane LOS	B	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	9.1	2.6	0.2	-	-

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

Part 3: 2023 Existing Conditions: Weekend Saturday PM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	10	190	70	5	30	280	370	50	80	800	30
Future Volume (veh/h)	50	10	190	70	5	30	280	370	50	80	800	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	10	198	73	5	31	292	385	52	83	833	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	34	386	168	31	189	372	1968	264	106	1997	74
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.62	0.62	0.06	0.57	0.57
Sat Flow, veh/h	1028	251	1585	1174	225	1394	3456	3149	422	1781	3494	130
Grp Volume(v), veh/h	62	0	198	73	0	36	292	216	221	83	424	440
Grp Sat Flow(s),veh/h/ln	1279	0	1585	1174	0	1619	1728	1777	1794	1781	1777	1847
Q Serve(g_s), s	3.5	0.0	10.8	6.1	0.0	2.0	8.2	5.2	5.3	4.6	13.4	13.4
Cycle Q Clear(g_c), s	5.4	0.0	10.8	11.5	0.0	2.0	8.2	5.2	5.3	4.6	13.4	13.4
Prop In Lane	0.84		1.00	1.00		0.86	1.00		0.24	1.00		0.07
Lane Grp Cap(c), veh/h	240	0	386	168	0	220	372	1110	1121	106	1016	1056
V/C Ratio(X)	0.26	0.00	0.51	0.44	0.00	0.16	0.78	0.19	0.20	0.78	0.42	0.42
Avail Cap(c_a), veh/h	260	0	408	184	0	243	570	1110	1121	107	1016	1056
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	32.7	45.0	0.0	38.2	43.5	8.0	8.0	46.4	12.0	12.0
Incr Delay (d2), s/veh	0.6	0.0	1.1	1.8	0.0	0.3	3.9	0.4	0.4	30.6	1.3	1.2
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	1.4	0.0	4.2	1.8	0.0	0.8	3.7	2.0	2.0	2.9	5.4	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.8	0.0	33.8	46.8	0.0	38.5	47.3	8.4	8.4	77.0	13.3	13.3
LnGrp LOS	D		C	D		D	D	A	A	E	B	B
Approach Vol, veh/h		260			109			729			947	
Approach Delay, s/veh		35.4			44.1			24.0			18.9	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	67.5		19.6	18.3	62.2		19.6				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		15.0	16.5	50.0		15.0				
Max Q Clear Time (g_c+I1), s	6.6	7.3		12.8	10.2	15.4		13.5				
Green Ext Time (p_c), s	0.0	2.9		0.2	0.5	6.4		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		24.1
HCM 7th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	20	570	60	30	20	620	600	70	10	790	250
Future Volume (veh/h)	80	20	570	60	30	20	620	600	70	10	790	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	64	0	62	31	21	639	619	72	10	814	0
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	2	2	2	2	2
Cap, veh/h	209	211		122	53	27	725	2214	257	22	1751	
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.21	0.69	0.69	0.02	0.99	0.00
Sat Flow, veh/h	1352	1870	1585	587	471	239	3456	3208	372	1781	3554	1585
Grp Volume(v), veh/h	52	64	0	114	0	0	639	342	349	10	814	0
Grp Sat Flow(s),veh/h/ln	1352	1870	1585	1297	0	0	1728	1777	1803	1781	1777	1585
Q Serve(g_s), s	0.0	3.1	0.0	5.8	0.0	0.0	17.9	7.4	7.4	0.6	0.6	0.0
Cycle Q Clear(g_c), s	4.1	3.1	0.0	8.9	0.0	0.0	17.9	7.4	7.4	0.6	0.6	0.0
Prop In Lane	1.00		1.00	0.54		0.18	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	209	211		202	0	0	725	1227	1245	22	1751	
V/C Ratio(X)	0.25	0.30		0.57	0.00	0.00	0.88	0.28	0.28	0.46	0.46	
Avail Cap(c_a), veh/h	334	383		340	0	0	829	1227	1245	107	1751	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	0.91	0.91	0.91	0.90	0.90	0.00
Uniform Delay (d), s/veh	41.2	40.8	0.0	43.7	0.0	0.0	38.3	5.9	5.9	48.5	0.4	0.0
Incr Delay (d2), s/veh	0.6	0.8	0.0	2.5	0.0	0.0	9.2	0.5	0.5	13.2	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.5	0.0	2.9	0.0	0.0	8.4	2.6	2.6	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.8	41.6	0.0	46.2	0.0	0.0	47.5	6.5	6.5	61.7	1.2	0.0
LnGrp LOS	D	D		D			D	A	A	E	A	
Approach Vol, veh/h		116			114			1330			824	
Approach Delay, s/veh		41.7			46.2			26.2			1.9	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	74.0		18.8	27.0	54.3		18.8				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	6.0	55.0		20.5	24.0	37.0		20.5				
Max Q Clear Time (g_c+I1), s	2.6	9.4		6.1	19.9	2.6		10.9				
Green Ext Time (p_c), s	0.0	5.0		0.3	1.0	6.7		0.3				

Intersection Summary		
HCM 7th Control Delay, s/veh	19.5	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations				↑↑	↱		↑↑	↱	↰↰		↱
Traffic Volume (veh/h)	0	0	0	1300	160	0	1100	780	160	0	710
Future Volume (veh/h)	0	0	0	1300	160	0	1100	780	160	0	710
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1885	1885	0	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h			0	1313	0	0	1111	788	162	162	0
Peak Hour Factor			0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %			0	1	1	0	1	1	1	1	1
Cap, veh/h			0	2910		0	2910	1298	235	235	
Arrive On Green			0.00	0.81	0.00	0.00	0.54	0.54	0.07	0.07	0.00
Sat Flow, veh/h			0	3676	1598	0	3676	1598	3483	3483	1598
Grp Volume(v), veh/h			0	1313	0	0	1111	788	162	162	0
Grp Sat Flow(s),veh/h/ln			0	1791	1598	0	1791	1598	1742	1742	1598
Q Serve(g_s), s			0.0	10.8	0.0	0.0	17.8	33.6	4.5	4.5	0.0
Cycle Q Clear(g_c), s			0.0	10.8	0.0	0.0	17.8	33.6	4.5	4.5	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2910		0	2910	1298	235	235	
V/C Ratio(X)			0.00	0.45		0.00	0.38	0.61	0.69	0.69	
Avail Cap(c_a), veh/h			0	2910		0	2910	1298	488	488	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.88	0.00	0.00	0.65	0.65	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	2.8	0.0	0.0	8.3	11.9	45.6	45.6	0.0
Incr Delay (d2), s/veh			0.0	0.4	0.0	0.0	0.2	1.4	3.6	3.6	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	2.6	0.0	0.0	7.6	13.1	2.1	2.1	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	3.2	0.0	0.0	8.6	13.3	49.2	49.2	0.0
LnGrp LOS				A			A	B	D	D	
Approach Vol, veh/h				1313			1899		162	162	
Approach Delay, s/veh				3.2			10.5		49.2	49.2	
Approach LOS				A			B		D	D	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	86.3		13.7		86.3						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	74.0		14.0		74.0						
Max Q Clear Time (g_c+I1), s	35.6		6.5		12.8						
Green Ext Time (p_c), s	16.8		0.3		14.9						

Intersection Summary	
HCM 7th Control Delay, s/veh	9.5
HCM 7th LOS	A

Notes

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	550	1180	250	120	1110	60	240	70	90	50	70	570
Future Volume (veh/h)	550	1180	250	120	1110	60	240	70	90	50	70	570
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	567	1216	258	124	1144	62	247	72	93	52	72	588
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	2	2	2	2	2
Cap, veh/h	658	1810	384	153	1610	87	434	222	287	195	251	476
Arrive On Green	0.19	0.43	0.43	0.09	0.32	0.32	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	3456	4218	895	1781	4958	269	1502	741	957	480	837	1585
Grp Volume(v), veh/h	567	981	493	124	785	421	247	0	165	124	0	588
Grp Sat Flow(s),veh/h/ln	1728	1702	1709	1781	1702	1822	751	0	1698	1318	0	1585
Q Serve(g_s), s	15.9	23.1	23.1	6.8	20.3	20.3	15.9	0.0	7.5	3.2	0.0	30.0
Cycle Q Clear(g_c), s	15.9	23.1	23.1	6.8	20.3	20.3	26.6	0.0	7.5	10.7	0.0	30.0
Prop In Lane	1.00		0.52	1.00		0.15	1.00		0.56	0.42		1.00
Lane Grp Cap(c), veh/h	658	1460	733	153	1105	592	434	0	509	446	0	476
V/C Ratio(X)	0.86	0.67	0.67	0.81	0.71	0.71	0.57	0.00	0.32	0.28	0.00	1.24
Avail Cap(c_a), veh/h	812	1460	733	187	1105	592	434	0	509	446	0	476
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)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.2	22.9	22.9	44.9	29.6	29.6	39.0	0.0	27.1	28.1	0.0	35.0
Incr Delay (d2), s/veh	7.0	2.2	4.3	19.2	3.9	7.1	1.8	0.0	0.4	0.3	0.0	123.5
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	7.3	9.4	9.8	3.8	8.7	9.8	3.0	0.0	3.1	2.4	0.0	27.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.3	25.1	27.2	64.1	33.5	36.8	40.7	0.0	27.5	28.4	0.0	158.5
LnGrp LOS	D	C	C	E	C	D	D		C	C		F
Approach Vol, veh/h		2041			1330			412			712	
Approach Delay, s/veh		31.5			37.4			35.4			135.8	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.5	37.5		36.0	16.1	47.9		36.0				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	23.5	28.0		30.0	10.5	41.0		30.0				
Max Q Clear Time (g_c+I1), s	17.9	22.3		28.6	8.8	25.1		32.0				
Green Ext Time (p_c), s	1.1	3.6		0.4	0.0	9.2		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	50.1
HCM 7th LOS	D

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	600	750	0	0	800	230	0	0	0	170	0	420
Future Volume (veh/h)	600	750	0	0	800	230	0	0	0	170	0	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	632	789	0	0	842	242	0	0	0	119	0	506
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	728	2497	0	0	1499	669	0	351	0	406	0	594
Arrive On Green	0.21	0.70	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.19	0.00	0.19
Sat Flow, veh/h	3456	3647	0	0	3647	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	632	789	0	0	842	242	0	0	0	119	0	506
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	17.7	8.5	0.0	0.0	18.0	10.4	0.0	0.0	0.0	5.8	0.0	15.4
Cycle Q Clear(g_c), s	17.7	8.5	0.0	0.0	18.0	10.4	0.0	0.0	0.0	5.8	0.0	15.4
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	728	2497	0	0	1499	669	0	351	0	406	0	594
V/C Ratio(X)	0.87	0.32	0.00	0.00	0.56	0.36	0.00	0.00	0.00	0.29	0.00	0.85
Avail Cap(c_a), veh/h	898	2497	0	0	1499	669	0	430	0	482	0	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.79	0.79	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.1	5.7	0.0	0.0	21.9	19.7	0.0	0.0	0.0	35.4	0.0	39.3
Incr Delay (d2), s/veh	7.7	0.3	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.4	0.0	8.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	2.8	0.0	0.0	7.5	4.0	0.0	0.0	0.0	2.6	0.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	6.0	0.0	0.0	23.1	20.9	0.0	0.0	0.0	35.8	0.0	47.4
LnGrp LOS	D	A			C	C				D		D
Approach Vol, veh/h		1421			1084			0			625	
Approach Delay, s/veh		23.7			22.6			0.0			45.1	
Approach LOS		C			C						D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	28.1	47.2		24.7		75.3		24.7				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	26.0	33.0		23.0		66.0		23.0				
Max Q Clear Time (g_c+I1), s	19.7	20.0		0.0		10.5		17.4				
Green Ext Time (p_c), s	1.4	5.6		0.0		6.8		1.3				

Intersection Summary		
HCM 7th Control Delay, s/veh	27.6	
HCM 7th LOS	C	

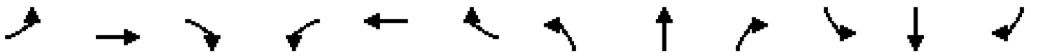
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	130	1	20	0	1030	170	20	890	0
Future Volume (veh/h)	0	0	0	130	1	20	0	1030	170	20	890	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	0	0	0	137	1	21	0	1084	179	21	937	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	221	0	238	1	266	2	1957	322	88	2683	0
Arrive On Green	0.00	0.00	0.00	0.12	0.12	0.12	0.00	0.65	0.65	0.05	0.76	0.00
Sat Flow, veh/h	0	1856	0	1399	10	1572	1767	3029	499	1767	3618	0
Grp Volume(v), veh/h	0	0	0	138	0	21	0	630	633	21	937	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1409	0	1572	1767	1763	1766	1767	1763	0
Q Serve(g_s), s	0.0	0.0	0.0	9.6	0.0	1.1	0.0	19.7	19.8	1.1	8.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	9.6	0.0	1.1	0.0	19.7	19.8	1.1	8.7	0.0
Prop In Lane	0.00		0.00	0.99		1.00	1.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	0	221	0	239	0	266	2	1139	1141	88	2683	0
V/C Ratio(X)	0.00	0.00	0.00	0.58	0.00	0.08	0.00	0.55	0.56	0.24	0.35	0.00
Avail Cap(c_a), veh/h	0	399	0	375	0	417	115	1139	1141	115	2683	0
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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.28	0.28	0.93	0.93	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	43.0	0.0	35.0	0.0	9.8	9.8	45.7	3.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.1	0.0	0.5	0.6	1.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.4	0.0	0.4	0.0	7.0	7.1	0.5	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	45.2	0.0	35.1	0.0	10.3	10.3	46.9	4.2	0.0
LnGrp LOS				D		D		B	B	D	A	
Approach Vol, veh/h		0			159			1263			958	
Approach Delay, s/veh		0.0			43.9			10.3			5.2	
Approach LOS					D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	70.1		18.4	0.0	81.6		18.4				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	6.5	53.5		21.5	6.5	53.5		21.5				
Max Q Clear Time (g_c+I1), s	3.1	21.8		0.0	0.0	10.7		11.6				
Green Ext Time (p_c), s	0.0	11.0		0.0	0.0	8.4		0.5				

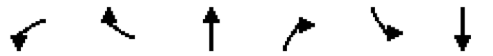
Intersection Summary			
HCM 7th Control Delay, s/veh		10.5	
HCM 7th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	50	10	650	0	0	700	50
Future Volume (veh/h)	10	0	10	20	10	50	10	650	0	0	700	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h	11	0	11	21	11	53	11	684	0	0	737	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	0	0	1	1
Cap, veh/h	242	13	80	181	23	97	123	1078	0	0	1006	72
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.58	0.58	0.00	0.00	0.58	0.58
Sat Flow, veh/h	684	136	820	361	240	997	8	1862	0	0	1738	125
Grp Volume(v), veh/h	22	0	0	85	0	0	695	0	0	0	0	790
Grp Sat Flow(s),veh/h/ln	1639	0	0	1599	0	0	1871	0	0	0	0	1863
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.5	0.0	0.0	7.6	0.0	0.0	0.0	0.0	9.6
Prop In Lane	0.50		0.50	0.25		0.62	0.02		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	334	0	0	301	0	0	1201	0	0	0	0	1078
V/C Ratio(X)	0.07	0.00	0.00	0.28	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.73
Avail Cap(c_a), veh/h	903	0	0	915	0	0	2221	0	0	0	0	2113
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	13.3	0.0	0.0	4.3	0.0	0.0	0.0	0.0	4.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.8	0.0	0.0	13.8	0.0	0.0	4.8	0.0	0.0	0.0	0.0	5.7
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		22			85			695			790	
Approach Delay, s/veh		12.8			13.8			4.8			5.7	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.9		8.0		22.9		8.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		15.0		35.0		15.0				
Max Q Clear Time (g_c+I1), s		9.6		2.4		11.6		3.5				
Green Ext Time (p_c), s		5.4		0.0		6.3		0.3				

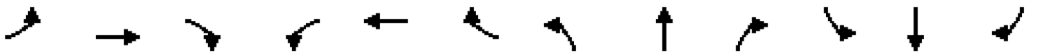
Intersection Summary												
HCM 7th Control Delay, s/veh			5.8									
HCM 7th LOS			A									



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	260	170	480	250	180	480
Future Volume (veh/h)	260	170	480	250	180	480
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	271	177	500	260	188	500
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	364	324	664	886	238	1106
Arrive On Green	0.20	0.20	0.36	0.36	0.13	0.59
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	271	177	500	260	188	500
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	7.0	4.9	11.5	4.2	5.0	7.3
Cycle Q Clear(g_c), s	7.0	4.9	11.5	4.2	5.0	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	364	324	664	886	238	1106
V/C Ratio(X)	0.75	0.55	0.75	0.29	0.79	0.45
Avail Cap(c_a), veh/h	583	519	1148	1297	328	1684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	17.4	13.9	5.7	20.5	5.6
Incr Delay (d2), s/veh	3.0	1.4	1.8	0.2	8.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.7	4.3	1.9	2.4	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.3	18.9	15.6	5.9	29.0	5.9
LnGrp LOS	C	B	B	A	C	A
Approach Vol, veh/h	448		760			688
Approach Delay, s/veh	20.3		12.3			12.2
Approach LOS	C		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.5	22.4				33.9	15.0
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	7.0	13.5				9.3	9.0
Green Ext Time (p_c), s	0.1	3.9				3.6	0.9

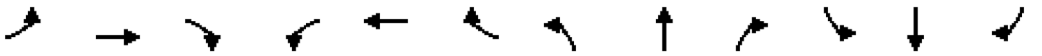
Intersection Summary	
HCM 7th Control Delay, s/veh	14.2
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	30	230	0	0	0	220	510	0	10	420	270
Future Volume (veh/h)	290	30	230	0	0	0	220	510	0	10	420	270
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	0.92	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	312	32	247				237	548	0	11	452	290
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	376	42	328				490	1230	0	53	942	812
Arrive On Green	0.23	0.23	0.23				0.08	0.66	0.00	0.51	0.51	0.51
Sat Flow, veh/h	1639	185	1428				1781	1870	0	14	1840	1585
Grp Volume(v), veh/h	312	0	279				237	548	0	463	0	290
Grp Sat Flow(s),veh/h/ln	1639	0	1613				1781	1870	0	1854	0	1585
Q Serve(g_s), s	14.5	0.0	12.9				4.7	11.3	0.0	0.0	0.0	8.7
Cycle Q Clear(g_c), s	14.5	0.0	12.9				4.7	11.3	0.0	12.8	0.0	8.7
Prop In Lane	1.00		0.89				1.00		0.00	0.02		1.00
Lane Grp Cap(c), veh/h	376	0	370				490	1230	0	996	0	812
V/C Ratio(X)	0.83	0.00	0.75				0.48	0.45	0.00	0.47	0.00	0.36
Avail Cap(c_a), veh/h	512	0	504				498	1230	0	996	0	812
HCM Platoon Ratio	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	1.00	0.00	0.82	0.00	0.82
Uniform Delay (d), s/veh	29.3	0.0	28.7				8.7	6.6	0.0	12.6	0.0	11.6
Incr Delay (d2), s/veh	8.1	0.0	4.3				0.7	1.2	0.0	1.3	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	5.2				1.6	4.1	0.0	5.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.4	0.0	33.0				9.4	7.8	0.0	13.9	0.0	12.7
LnGrp LOS	D		C				A	A		B		B
Approach Vol, veh/h		591						785			753	
Approach Delay, s/veh		35.3						8.3			13.4	
Approach LOS		D						A			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		57.6		22.4	11.7	46.0						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		46.0		25.0	7.0	34.0						
Max Q Clear Time (g_c+I1), s		13.3		16.5	6.7	14.8						
Green Ext Time (p_c), s		4.0		1.9	0.0	3.9						

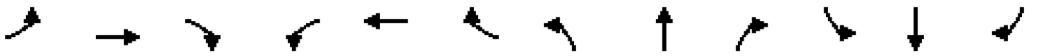
Intersection Summary		
HCM 7th Control Delay, s/veh		17.6
HCM 7th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	270	340	160	290	80	330	340	190	80	350	10
Future Volume (veh/h)	20	270	340	160	290	80	330	340	190	80	350	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	284	358	168	305	84	347	358	200	84	368	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	354	320	318	532	147	414	614	520	110	502	15
Arrive On Green	0.20	0.20	0.20	0.10	0.38	0.38	0.23	0.33	0.33	0.06	0.14	0.14
Sat Flow, veh/h	62	1754	1585	1781	1412	389	1781	1870	1585	1781	3523	105
Grp Volume(v), veh/h	305	0	358	168	0	389	347	358	200	84	185	194
Grp Sat Flow(s),veh/h/ln	1816	0	1585	1781	0	1800	1781	1870	1585	1781	1777	1851
Q Serve(g_s), s	3.9	0.0	13.0	4.5	0.0	11.1	12.0	10.2	6.2	3.0	6.4	6.5
Cycle Q Clear(g_c), s	10.3	0.0	13.0	4.5	0.0	11.1	12.0	10.2	6.2	3.0	6.4	6.5
Prop In Lane	0.07		1.00	1.00		0.22	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	426	0	320	318	0	678	414	614	520	110	253	264
V/C Ratio(X)	0.72	0.00	1.12	0.53	0.00	0.57	0.84	0.58	0.38	0.76	0.73	0.73
Avail Cap(c_a), veh/h	426	0	320	394	0	755	968	871	738	498	331	345
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	24.5	0.0	25.7	17.4	0.0	16.0	23.6	18.0	16.6	29.7	26.4	26.4
Incr Delay (d2), s/veh	5.6	0.0	86.3	1.4	0.0	0.9	4.6	0.9	0.5	10.3	5.7	5.6
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	4.8	0.0	12.2	1.8	0.0	4.3	5.2	4.2	2.2	1.5	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.2	0.0	112.0	18.8	0.0	16.8	28.2	18.8	17.1	40.1	32.2	32.1
LnGrp LOS	C		F	B		B	C	B	B	D	C	C
Approach Vol, veh/h		663			557			905			463	
Approach Delay, s/veh		74.4			17.4			22.0			33.6	
Approach LOS		E			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	26.1	11.3	18.0	21.0	14.2		29.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	30.0	9.0	13.0	35.0	12.0		27.0				
Max Q Clear Time (g_c+I1), s	5.0	12.2	6.5	15.0	14.0	8.5		13.1				
Green Ext Time (p_c), s	0.1	2.7	0.1	0.0	1.0	0.7		2.0				

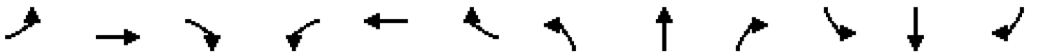
Intersection Summary	
HCM 7th Control Delay, s/veh	36.5
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	0	20	0	0	0	20	820	0	0	860	60
Future Volume (veh/h)	60	0	20	0	0	0	20	820	0	0	860	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	0	20	0	0	0	20	837	0	0	878	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	0	121	0	107	0	35	1393	0	0	1083	75
Arrive On Green	0.06	0.00	0.06	0.00	0.00	0.00	0.02	0.74	0.00	0.00	0.63	0.63
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1870	0	0	1729	120
Grp Volume(v), veh/h	61	0	20	0	0	0	20	837	0	0	0	939
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1870	0	0	0	1849
Q Serve(g_s), s	2.1	0.0	0.6	0.0	0.0	0.0	0.6	10.4	0.0	0.0	0.0	19.5
Cycle Q Clear(g_c), s	2.1	0.0	0.6	0.0	0.0	0.0	0.6	10.4	0.0	0.0	0.0	19.5
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	224	0	121	0	107	0	35	1393	0	0	0	1158
V/C Ratio(X)	0.27	0.00	0.16	0.00	0.00	0.00	0.58	0.60	0.00	0.00	0.00	0.81
Avail Cap(c_a), veh/h	423	0	345	0	370	0	247	3148	0	0	0	2672
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	21.8	0.0	0.0	0.0	24.6	3.0	0.0	0.0	0.0	7.2
Incr Delay (d2), s/veh	0.7	0.0	0.6	0.0	0.0	0.0	14.4	0.4	0.0	0.0	0.0	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	0.7	0.0	0.2	0.0	0.0	0.0	0.4	1.2	0.0	0.0	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.1	0.0	22.4	0.0	0.0	0.0	39.0	3.4	0.0	0.0	0.0	8.6
LnGrp LOS	C		C				D	A				A
Approach Vol, veh/h		81			0			857			939	
Approach Delay, s/veh		23.7			0.0			4.2			8.6	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		42.6		7.9	6.0	36.6		7.9				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		85.0		10.0	7.0	73.0		10.0				
Max Q Clear Time (g_c+I1), s		12.4		4.1	2.6	21.5		0.0				
Green Ext Time (p_c), s		8.2		0.1	0.0	10.2		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	7.2
HCM 7th LOS	A



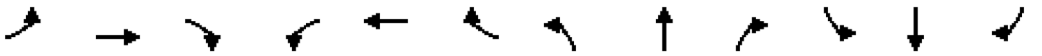
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	60	0	0	0	70	520	0	0	530	0
Future Volume (veh/h)	200	0	60	0	0	0	70	520	0	0	530	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	211	0	63	0	0	0	74	547	0	0	558	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	0
Cap, veh/h	493	0	286	0	338	0	150	735	0	0	923	0
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.50	0.50	0.00	0.00	0.50	0.00
Sat Flow, veh/h	1767	0	1572	0	1856	0	109	1478	0	0	1856	0
Grp Volume(v), veh/h	211	0	63	0	0	0	621	0	0	0	558	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572	0	1856	0	1587	0	0	0	1856	0
Q Serve(g_s), s	4.7	0.0	1.4	0.0	0.0	0.0	4.8	0.0	0.0	0.0	9.1	0.0
Cycle Q Clear(g_c), s	4.7	0.0	1.4	0.0	0.0	0.0	13.9	0.0	0.0	0.0	9.1	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.12		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	493	0	286	0	338	0	885	0	0	0	923	0
V/C Ratio(X)	0.43	0.00	0.22	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.60	0.00
Avail Cap(c_a), veh/h	1052	0	784	0	947	0	1831	0	0	0	2004	0
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	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.0	0.0	14.7	0.0	0.0	0.0	8.5	0.0	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.5	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.6	0.0	15.1	0.0	0.0	0.0	9.5	0.0	0.0	0.0	8.3	0.0
LnGrp LOS	B		B				A				A	
Approach Vol, veh/h		274			0			621			558	
Approach Delay, s/veh		16.2			0.0			9.5			8.3	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.5		13.7		28.5		13.7				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		45.5		21.0		45.5		* 22				
Max Q Clear Time (g_c+I1), s		15.9		6.7		11.1		0.0				
Green Ext Time (p_c), s		5.1		0.8		4.1		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	10.3
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	1	0	0	5	550	0	0	550	5
Future Volume (veh/h)	5	0	5	1	0	0	5	550	0	0	550	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	5	0	5	1	0	0	5	573	0	0	573	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	0	17	210	0	0	91	1355	0	0	1346	12
Arrive On Green	0.02	0.00	0.02	0.02	0.00	0.00	0.73	0.73	0.00	0.00	0.73	0.73
Sat Flow, veh/h	746	0	746	1504	0	0	3	1848	0	0	1837	16
Grp Volume(v), veh/h	10	0	0	1	0	0	578	0	0	0	0	578
Grp Sat Flow(s),veh/h/ln	1493	0	0	1504	0	0	1852	0	0	0	0	1853
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	5.0
Prop In Lane	0.50		0.50	1.00		0.00	0.01		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	166	0	0	210	0	0	1446	0	0	0	0	1358
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.43
Avail Cap(c_a), veh/h	567	0	0	589	0	0	1446	0	0	0	0	1358
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	0.0	0.0	19.6	0.0	0.0	2.1	0.0	0.0	0.0	0.0	2.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
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	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.8	0.0	0.0	19.6	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.3
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		10			1			578			578	
Approach Delay, s/veh		19.8			19.6			2.3			2.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		4.9		36.0		4.9				
Change Period (Y+Rc), s		6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s		30.0		12.0		30.0		12.0				
Max Q Clear Time (g_c+I1), s		6.9		2.3		7.0		2.0				
Green Ext Time (p_c), s		4.0		0.0		4.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			2.5									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	660	5	20	740	5	20
Future Vol, veh/h	660	5	20	740	5	20
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	717	5	22	804	5	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	723	0	1568	720
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	848	-
Critical Hdwy	-	-	4.12	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	879	-	158	481
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	467	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	879	-	151	481
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	446	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.24	16.73
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	334	47	-	-	-
HCM Lane V/C Ratio	0.081	0.025	-	-	-
HCM Control Delay (s/veh)	16.7	9.2	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	700	650	50	30	40
Future Vol, veh/h	20	700	650	50	30	40
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	22	761	707	54	33	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	761	0	-	0	1538	734
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	804	-
Critical Hdwy	4.12	-	-	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3	3
Pot Cap-1 Maneuver	851	-	-	-	164	472
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	491	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	851	-	-	-	157	472
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	491	-

Approach	SE	NW	SW
HCM Control Delay, s/v	0.26	0	25.17
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	50	-	254
HCM Lane V/C Ratio	-	-	0.026	-	0.3
HCM Control Delay (s/veh)	-	-	9.3	0	25.2
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.1	-	1.2

Intersection	
Int Delay, s/veh	9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	70	730	90	70	770
Future Vol, veh/h	80	70	730	90	70	770
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	73	760	94	73	802

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1755	807	0	0	854	0
Stage 1	807	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.218	-
Pot Cap-1 Maneuver	123	429	-	-	785	-
Stage 1	489	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	111	429	-	-	785	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	489	-	-	-	-	-
Stage 2	378	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/veh	103.43	0	0.84
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	170	785	-
HCM Lane V/C Ratio	-	-	0.919	0.093	-
HCM Control Delay (s/veh)	-	-	103.4	10.1	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	6.8	0.3	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	5	10	10	5	40	5	750	10	20	760	60
Future Vol, veh/h	10	5	10	10	5	40	5	750	10	20	760	60
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	11	11	5	43	5	815	11	22	826	65

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1731	1739	859	1704	1766	821	891	0	0	826	0	0
Stage 1	902	902	-	832	832	-	-	-	-	-	-	-
Stage 2	829	837	-	872	935	-	-	-	-	-	-	-
Critical Hdwy	6	6	6	6	6	6	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3	3	3	3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	127	125	402	131	121	422	761	-	-	805	-	-
Stage 1	430	428	-	467	465	-	-	-	-	-	-	-
Stage 2	468	462	-	445	412	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	117	402	114	113	422	761	-	-	805	-	-
Mov Cap-2 Maneuver	101	117	-	114	113	-	-	-	-	-	-	-
Stage 1	407	405	-	461	459	-	-	-	-	-	-	-
Stage 2	410	456	-	404	390	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	34.2	24.64	0.06	0.23
HCM LOS	D	C		

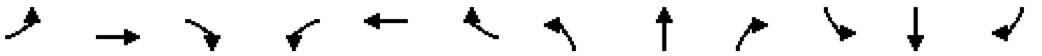
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	12	-	-	150	242	42	-	-
HCM Lane V/C Ratio	0.007	-	-	0.181	0.247	0.027	-	-
HCM Control Delay (s/veh)	9.8	0	-	34.2	24.6	9.6	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.9	0.1	-	-

Part 4: 2035 No Build Conditions: Weekday AM Peak-Hour LOS and Delays

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	10	100	60	10	30	380	820	350	120	500	130
Future Volume (veh/h)	40	10	100	60	10	30	380	820	350	120	500	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	46	11	114	68	11	34	433	933	398	137	569	148
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	155	31	409	129	43	134	520	1515	640	166	1566	406
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.15	0.63	0.63	0.09	0.57	0.57
Sat Flow, veh/h	875	283	1560	1246	396	1224	3401	2395	1012	1753	2748	713
Grp Volume(v), veh/h	57	0	114	68	0	45	433	679	652	137	361	356
Grp Sat Flow(s),veh/h/ln	1157	0	1560	1246	0	1620	1700	1749	1659	1753	1749	1712
Q Serve(g_s), s	3.6	0.0	6.4	5.6	0.0	2.8	13.6	25.6	26.2	8.4	12.3	12.4
Cycle Q Clear(g_c), s	6.4	0.0	6.4	12.0	0.0	2.8	13.6	25.6	26.2	8.4	12.3	12.4
Prop In Lane	0.81		1.00	1.00		0.76	1.00		0.61	1.00		0.42
Lane Grp Cap(c), veh/h	185	0	409	129	0	177	520	1106	1049	166	996	976
V/C Ratio(X)	0.31	0.00	0.28	0.53	0.00	0.25	0.83	0.61	0.62	0.83	0.36	0.36
Avail Cap(c_a), veh/h	185	0	409	129	0	177	819	1106	1049	239	996	976
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	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	0.0	32.3	52.4	0.0	44.9	45.2	12.1	12.2	48.9	12.8	12.8
Incr Delay (d2), s/veh	0.9	0.0	0.4	3.9	0.0	0.7	3.3	1.9	2.1	14.4	1.0	1.1
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	1.5	0.0	2.5	2.0	0.0	1.2	5.9	9.9	9.6	4.3	5.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.1	0.0	32.7	56.3	0.0	45.7	48.5	14.1	14.4	63.3	13.9	13.9
LnGrp LOS	D		C	E		D	D	B	B	E	B	B
Approach Vol, veh/h		171			113			1764			854	
Approach Delay, s/veh		37.8			52.1			22.6			21.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	74.6		18.0	24.3	67.7		18.0				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	15.0	65.0		12.0	26.5	53.0		12.0				
Max Q Clear Time (g_c+I1), s	10.4	28.2		8.4	15.6	14.4		14.0				
Green Ext Time (p_c), s	0.1	12.9		0.2	1.2	5.3		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		24.4
HCM 7th LOS		C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	10	330	10	10	10	460	1340	10	10	450	190
Future Volume (veh/h)	170	10	330	10	10	10	460	1340	10	10	450	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	192	0	0	11	11	11	502	1463	11	11	491	0
Peak Hour Factor	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	379	0		72	64	47	566	2585	19	23	2005	
Arrive On Green	0.09	0.00	0.00	0.09	0.09	0.09	0.17	0.73	0.73	0.03	1.00	0.00
Sat Flow, veh/h	2713	0	1547	334	747	541	3374	3529	27	1739	3469	1547
Grp Volume(v), veh/h	192	0	0	33	0	0	502	719	755	11	491	0
Grp Sat Flow(s),veh/h/ln	1357	0	1547	1622	0	0	1687	1735	1821	1739	1735	1547
Q Serve(g_s), s	5.1	0.0	0.0	0.0	0.0	0.0	16.0	20.8	20.8	0.7	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	0.0	2.0	0.0	0.0	16.0	20.8	20.8	0.7	0.0	0.0
Prop In Lane	1.00		1.00	0.33		0.33	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	379	0		184	0	0	566	1271	1334	23	2005	
V/C Ratio(X)	0.51	0.00		0.18	0.00	0.00	0.89	0.57	0.57	0.49	0.24	
Avail Cap(c_a), veh/h	626	0		326	0	0	613	1271	1334	95	2005	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.67	0.67	0.67	0.94	0.94	0.00
Uniform Delay (d), s/veh	49.0	0.0	0.0	46.8	0.0	0.0	44.8	6.7	6.7	53.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.5	0.0	0.0	10.0	1.2	1.2	14.5	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.9	0.0	0.0	7.4	6.9	7.3	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.0	0.0	0.0	47.3	0.0	0.0	54.8	7.9	7.9	67.7	0.3	0.0
LnGrp LOS	D			D			D	A	A	E	A	
Approach Vol, veh/h		192			33			1976			502	
Approach Delay, s/veh		50.0			47.3			19.8			1.8	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	85.6		17.0	24.4	68.6		17.0				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	6.0	66.0		19.5	20.0	52.0		19.5				
Max Q Clear Time (g_c+I1), s	2.7	22.8		9.1	18.0	2.0		4.0				
Green Ext Time (p_c), s	0.0	15.4		0.4	0.4	3.8		0.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	19.0
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	0	0	0	670	110	0	1340	520	470	0	440
Future Volume (veh/h)	0	0	0	670	110	0	1340	520	470	0	440
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1811	1811	0	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h			0	739	0	0	1478	0	518	518	0
Peak Hour Factor			0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %			0	6	6	0	6	6	6	6	6
Cap, veh/h			0	2432		0	2432		616	616	
Arrive On Green			0.00	0.71	0.00	0.00	1.00	0.00	0.18	0.18	0.00
Sat Flow, veh/h			0	3532	1535	0	3532	1535	3346	3346	1535
Grp Volume(v), veh/h			0	739	0	0	1478	0	518	518	0
Grp Sat Flow(s),veh/h/ln			0	1721	1535	0	1721	1535	1673	1673	1535
Q Serve(g_s), s			0.0	8.8	0.0	0.0	0.0	0.0	16.4	16.4	0.0
Cycle Q Clear(g_c), s			0.0	8.8	0.0	0.0	0.0	0.0	16.4	16.4	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2432		0	2432		616	616	
V/C Ratio(X)			0.00	0.30		0.00	0.61		0.84	0.84	
Avail Cap(c_a), veh/h			0	2432		0	2432		1095	1095	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.97	0.00	0.00	0.80	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	6.0	0.0	0.0	0.0	0.0	43.3	43.3	0.0
Incr Delay (d2), s/veh			0.0	0.3	0.0	0.0	0.9	0.0	3.2	3.2	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	3.0	0.0	0.0	0.3	0.0	7.0	7.0	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	6.3	0.0	0.0	0.9	0.0	46.5	46.5	0.0
LnGrp LOS				A			A		D	D	
Approach Vol, veh/h				739			1478		518	518	
Approach Delay, s/veh				6.3			0.9		46.5	46.5	
Approach LOS				A			A		D	D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	82.8	27.2	82.8
Change Period (Y+Rc), s	5.0	7.0	5.0
Max Green Setting (Gmax), s	62.0	36.0	62.0
Max Q Clear Time (g_c+I1), s	2.0	18.4	10.8
Green Ext Time (p_c), s	18.6	1.8	6.2

Intersection Summary	
HCM 7th Control Delay, s/veh	11.0
HCM 7th LOS	B

Notes

Unsignalized Delay for [NER, NWR, SER] is excluded from calculations of the approach delay and intersection delay.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	60	800	230	80	1260	20	280	30	30	20	70	250
Future Volume (veh/h)	60	800	230	80	1260	20	280	30	30	20	70	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	68	911	262	91	1434	23	319	34	34	23	80	285
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	134	2011	576	115	2774	44	512	204	204	108	348	376
Arrive On Green	0.04	0.52	0.52	0.07	0.55	0.55	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	3374	3848	1103	1739	5053	81	1926	838	838	280	1433	1547
Grp Volume(v), veh/h	68	786	387	91	943	514	319	0	68	103	0	285
Grp Sat Flow(s),veh/h/ln	1687	1662	1627	1739	1662	1811	963	0	1675	1713	0	1547
Q Serve(g_s), s	2.2	16.3	16.4	5.7	19.7	19.7	17.5	0.0	3.5	0.0	0.0	18.8
Cycle Q Clear(g_c), s	2.2	16.3	16.4	5.7	19.7	19.7	22.5	0.0	3.5	5.0	0.0	18.8
Prop In Lane	1.00		0.68	1.00		0.04	1.00		0.50	0.22		1.00
Lane Grp Cap(c), veh/h	134	1737	851	115	1824	994	512	0	407	456	0	376
V/C Ratio(X)	0.51	0.45	0.45	0.79	0.52	0.52	0.62	0.00	0.17	0.23	0.00	0.76
Avail Cap(c_a), veh/h	199	1737	851	198	1824	994	849	0	701	750	0	647
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)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	16.4	16.4	50.6	15.6	15.6	42.4	0.0	32.8	33.4	0.0	38.6
Incr Delay (d2), s/veh	2.8	0.8	1.7	11.5	1.1	1.9	1.2	0.0	0.2	0.2	0.0	3.1
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	1.0	6.2	6.3	2.8	7.4	8.4	4.2	0.0	1.5	2.2	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.6	17.2	18.1	62.1	16.7	17.5	43.7	0.0	33.0	33.6	0.0	41.8
LnGrp LOS	D	B	B	E	B	B	D		C	C		D
Approach Vol, veh/h		1241			1548			387			388	
Approach Delay, s/veh		19.5			19.6			41.8			39.6	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	65.4		32.7	14.8	62.5		32.7				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	6.5	39.0		46.0	12.5	33.0		46.0				
Max Q Clear Time (g_c+I1), s	4.2	21.7		24.5	7.7	18.4		20.8				
Green Ext Time (p_c), s	0.0	9.5		2.2	0.1	7.0		1.6				

Intersection Summary												
HCM 7th Control Delay, s/veh			24.2									
HCM 7th LOS			C									

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	140	580	0	0	1350	60	0	5	0	30	0	40
Future Volume (veh/h)	140	580	0	0	1350	60	0	5	0	30	0	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	0	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	154	640	0	0	1489	66	0	6	0	48	0	28
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, %	6	6	6	0	6	6	6	6	6	6	6	6
Cap, veh/h	216	2953	0	0	2513	1121	0	76	0	236	0	64
Arrive On Green	0.06	0.86	0.00	0.00	0.73	0.73	0.00	0.04	0.00	0.04	0.00	0.04
Sat Flow, veh/h	3346	3532	0	0	3532	1535	0	1811	0	2730	0	1535
Grp Volume(v), veh/h	154	640	0	0	1489	66	0	6	0	48	0	28
Grp Sat Flow(s),veh/h/ln	1673	1721	0	0	1721	1535	0	1811	0	1365	0	1535
Q Serve(g_s), s	5.0	3.6	0.0	0.0	22.6	1.3	0.0	0.4	0.0	1.9	0.0	2.0
Cycle Q Clear(g_c), s	5.0	3.6	0.0	0.0	22.6	1.3	0.0	0.4	0.0	2.2	0.0	2.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	2953	0	0	2513	1121	0	76	0	236	0	64
V/C Ratio(X)	0.71	0.22	0.00	0.00	0.59	0.06	0.00	0.08	0.00	0.20	0.00	0.44
Avail Cap(c_a), veh/h	365	2953	0	0	2513	1121	0	148	0	346	0	126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.65	0.65	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.5	1.4	0.0	0.0	7.1	4.2	0.0	50.7	0.0	51.8	0.0	51.4
Incr Delay (d2), s/veh	4.4	0.2	0.0	0.0	0.7	0.1	0.0	0.4	0.0	0.4	0.0	4.6
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	2.2	0.6	0.0	0.0	7.3	0.4	0.0	0.2	0.0	0.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.8	1.5	0.0	0.0	7.7	4.3	0.0	51.1	0.0	52.2	0.0	56.1
LnGrp LOS	D	A			A	A		D		D		E
Approach Vol, veh/h		794			1555			6			76	
Approach Delay, s/veh		11.9			7.6			51.1			53.6	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.1	85.3		10.6		99.4		10.6				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	12.0	71.0		9.0		90.0		9.0				
Max Q Clear Time (g_c+I1), s	7.0	24.6		2.4		5.6		4.2				
Green Ext Time (p_c), s	0.2	18.0		0.0		5.2		0.1				

Intersection Summary			
HCM 7th Control Delay, s/veh		10.5	
HCM 7th LOS		B	

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	10	10	0	10	20	1360	140	50	690	10
Future Volume (veh/h)	20	5	10	10	0	10	20	1360	140	50	690	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	23	6	12	12	0	12	23	1565	161	58	794	12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	81	12	17	134	0	145	40	2325	237	89	2659	40
Arrive On Green	0.04	0.04	0.04	0.04	0.00	0.04	0.02	0.74	0.74	0.05	0.77	0.77
Sat Flow, veh/h	690	272	398	1620	0	1535	1725	3153	321	1725	3470	52
Grp Volume(v), veh/h	41	0	0	12	0	12	23	847	879	58	394	412
Grp Sat Flow(s),veh/h/ln	1361	0	0	1620	0	1535	1725	1721	1753	1725	1721	1802
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.8	1.5	28.0	29.1	3.6	7.6	7.6
Cycle Q Clear(g_c), s	3.4	0.0	0.0	0.7	0.0	0.8	1.5	28.0	29.1	3.6	7.6	7.6
Prop In Lane	0.56		0.29	1.00		1.00	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	109	0	0	134	0	145	40	1269	1293	89	1318	1381
V/C Ratio(X)	0.38	0.00	0.00	0.09	0.00	0.08	0.58	0.67	0.68	0.65	0.30	0.30
Avail Cap(c_a), veh/h	226	0	0	243	0	268	212	1269	1293	212	1318	1381
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	0.00	1.00	0.00	1.00	0.09	0.09	0.09	0.98	0.98	0.98
Uniform Delay (d), s/veh	52.1	0.0	0.0	50.8	0.0	45.5	53.2	7.5	7.6	51.2	3.9	3.9
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.3	0.0	0.2	1.2	0.3	0.3	7.6	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	0.3	0.0	0.3	0.6	8.6	9.2	1.8	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.3	0.0	0.0	51.0	0.0	45.7	54.4	7.7	7.9	58.8	4.5	4.4
LnGrp LOS	D			D		D	D	A	A	E	A	A
Approach Vol, veh/h		41			24			1749			864	
Approach Delay, s/veh		54.3			48.4			8.4			8.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	86.6		11.2	9.0	89.8		11.2				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	13.5	64.5		13.5	13.5	64.5		13.5				
Max Q Clear Time (g_c+I1), s	5.6	31.1		5.4	3.5	9.6		2.8				
Green Ext Time (p_c), s	0.1	18.3		0.1	0.0	6.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			9.4									
HCM 7th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	90	10	670	0	0	330	20
Future Volume (veh/h)	10	0	10	20	10	90	10	670	0	0	330	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	0	0	1841	1841
Adj Flow Rate, veh/h	12	0	12	23	12	105	12	779	0	0	384	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	0	0	4	4
Cap, veh/h	198	29	130	100	41	197	72	1124	0	0	1059	63
Arrive On Green	0.17	0.00	0.17	0.17	0.17	0.17	0.62	0.62	0.00	0.00	0.62	0.62
Sat Flow, veh/h	604	176	781	147	248	1184	9	1824	0	0	1719	103
Grp Volume(v), veh/h	24	0	0	140	0	0	791	0	0	0	0	407
Grp Sat Flow(s),veh/h/ln	1561	0	0	1579	0	0	1833	0	0	0	0	1822
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
Cycle Q Clear(g_c), s	0.7	0.0	0.0	4.4	0.0	0.0	16.0	0.0	0.0	0.0	0.0	6.1
Prop In Lane	0.50		0.50	0.16		0.75	0.02		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	358	0	0	339	0	0	1195	0	0	0	0	1123
V/C Ratio(X)	0.07	0.00	0.00	0.41	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.36
Avail Cap(c_a), veh/h	479	0	0	474	0	0	1195	0	0	0	0	1123
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	0.0	21.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	5.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.8	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	1.6	0.0	0.0	5.1	0.0	0.0	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.5	0.0	0.0	21.8	0.0	0.0	10.0	0.0	0.0	0.0	0.0	6.1
LnGrp LOS	B			C			B					A
Approach Vol, veh/h		24			140			791			407	
Approach Delay, s/veh		19.5			21.8			10.0			6.1	
Approach LOS		B			C			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		15.2		40.0		15.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		34.0		14.0		34.0		14.0				
Max Q Clear Time (g_c+I1), s		18.0		2.7		8.1		6.4				
Green Ext Time (p_c), s		5.4		0.0		2.7		0.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			10.2									
HCM 7th LOS			B									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	230	40	640	320	70	290
Future Volume (veh/h)	230	40	640	320	70	290
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	268	47	744	372	81	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	334	398	868	735	113	1155
Arrive On Green	0.19	0.19	0.47	0.47	0.06	0.63
Sat Flow, veh/h	1753	1560	1841	1560	1753	1841
Grp Volume(v), veh/h	268	47	744	372	81	337
Grp Sat Flow(s),veh/h/ln	1753	1560	1841	1560	1753	1841
Q Serve(g_s), s	8.0	1.3	19.7	9.1	2.5	4.6
Cycle Q Clear(g_c), s	8.0	1.3	19.7	9.1	2.5	4.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	334	398	868	735	113	1155
V/C Ratio(X)	0.80	0.12	0.86	0.51	0.71	0.29
Avail Cap(c_a), veh/h	512	556	1008	854	288	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	15.7	12.9	10.1	25.1	4.7
Incr Delay (d2), s/veh	5.3	0.1	6.7	0.5	8.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.4	8.1	2.6	1.2	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.5	15.8	19.5	10.6	33.2	4.8
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	315		1116			418
Approach Delay, s/veh	24.9		16.6			10.3
Approach LOS	C		B			B

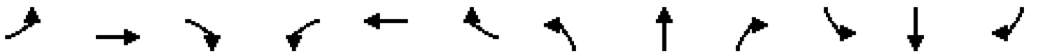
Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.5	30.8				39.4	15.4
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	4.5	21.7				6.6	10.0
Green Ext Time (p_c), s	0.1	4.2				2.2	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	16.6
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	30	240	0	0	0	430	600	5	5	240	270
Future Volume (veh/h)	320	30	240	0	0	0	430	600	5	5	240	270
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841				1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	372	35	279				500	698	6	6	279	314
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4				4	4	4	4	4	4
Cap, veh/h	525	53	422				474	919	8	83	519	446
Arrive On Green	0.30	0.30	0.30				0.11	0.50	0.50	0.29	0.29	0.29
Sat Flow, veh/h	1753	177	1410				1753	1822	16	11	1814	1560
Grp Volume(v), veh/h	372	0	314				500	0	704	285	0	314
Grp Sat Flow(s),veh/h/ln	1753	0	1587				1753	0	1838	1825	0	1560
Q Serve(g_s), s	8.7	0.0	7.9				5.0	0.0	14.1	0.0	0.0	8.3
Cycle Q Clear(g_c), s	8.7	0.0	7.9				5.0	0.0	14.1	6.0	0.0	8.3
Prop In Lane	1.00		0.89				1.00		0.01	0.02		1.00
Lane Grp Cap(c), veh/h	525	0	475				474	0	927	602	0	446
V/C Ratio(X)	0.71	0.00	0.66				1.05	0.00	0.76	0.47	0.00	0.70
Avail Cap(c_a), veh/h	1070	0	969				474	0	1723	1375	0	1122
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	14.0				14.9	0.0	9.1	13.8	0.0	14.6
Incr Delay (d2), s/veh	1.8	0.0	1.6				56.4	0.0	1.3	0.6	0.0	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	2.6				9.7	0.0	4.2	2.2	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	0.0	15.6				71.3	0.0	10.4	14.4	0.0	16.7
LnGrp LOS	B		B				F		B	B		B
Approach Vol, veh/h		686						1204			599	
Approach Delay, s/veh		15.9						35.7			15.6	
Approach LOS		B						D			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		28.1		17.7	10.0	18.1						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		43.0		28.0	5.0	33.0						
Max Q Clear Time (g_c+I1), s		16.1		10.7	7.0	10.3						
Green Ext Time (p_c), s		5.5		3.1	0.0	2.9						

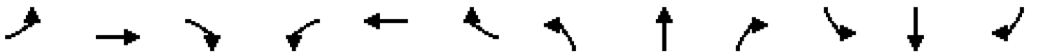
Intersection Summary												
HCM 7th Control Delay, s/veh			25.4									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	180	230	120	390	50	410	430	200	70	280	5
Future Volume (veh/h)	5	180	230	120	390	50	410	430	200	70	280	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	6	209	268	140	454	58	477	500	233	81	326	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	51	308	266	175	538	69	533	763	647	106	554	10
Arrive On Green	0.17	0.17	0.17	0.10	0.33	0.33	0.30	0.41	0.41	0.06	0.16	0.16
Sat Flow, veh/h	17	1820	1572	1767	1612	206	1767	1856	1572	1767	3541	65
Grp Volume(v), veh/h	215	0	268	140	0	512	477	500	233	81	162	170
Grp Sat Flow(s),veh/h/ln	1837	0	1572	1767	0	1818	1767	1856	1572	1767	1763	1844
Q Serve(g_s), s	0.0	0.0	13.0	5.9	0.0	20.0	19.8	16.7	7.9	3.5	6.6	6.6
Cycle Q Clear(g_c), s	8.4	0.0	13.0	5.9	0.0	20.0	19.8	16.7	7.9	3.5	6.6	6.6
Prop In Lane	0.03		1.00	1.00		0.11	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	359	0	266	175	0	606	533	763	647	106	276	288
V/C Ratio(X)	0.60	0.00	1.01	0.80	0.00	0.84	0.89	0.66	0.36	0.77	0.59	0.59
Avail Cap(c_a), veh/h	359	0	266	207	0	640	806	763	647	415	276	288
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	29.9	0.0	31.9	33.8	0.0	23.7	25.6	18.2	15.6	35.5	30.1	30.1
Incr Delay (d2), s/veh	2.7	0.0	56.6	17.2	0.0	9.7	8.7	4.4	1.6	10.9	8.9	8.6
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	3.9	0.0	8.9	3.3	0.0	9.7	9.1	7.5	2.9	1.8	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.6	0.0	88.5	51.0	0.0	33.4	34.4	22.6	17.2	46.4	38.9	38.6
LnGrp LOS	C		F	D		C	C	C	B	D	D	D
Approach Vol, veh/h		483			652			1210			413	
Approach Delay, s/veh		63.6			37.2			26.2			40.3	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	36.5	12.6	18.0	29.1	17.0		30.6				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	30.0	9.0	13.0	35.0	12.0		27.0				
Max Q Clear Time (g_c+I1), s	5.5	18.7	7.9	15.0	21.8	8.6		22.0				
Green Ext Time (p_c), s	0.1	3.2	0.0	0.0	1.3	0.6		1.5				

Intersection Summary												
HCM 7th Control Delay, s/veh			37.5									
HCM 7th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	10	0	0	0	40	1020	0	0	600	50
Future Volume (veh/h)	20	0	10	0	0	0	40	1020	0	0	600	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	0	12	0	0	0	47	1186	0	0	698	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	185	0	48	0	57	0	67	1433	0	0	1075	89
Arrive On Green	0.03	0.00	0.03	0.00	0.00	0.00	0.04	0.77	0.00	0.00	0.64	0.64
Sat Flow, veh/h	1406	0	1572	0	1856	0	1767	1856	0	0	1690	140
Grp Volume(v), veh/h	23	0	12	0	0	0	47	1186	0	0	0	756
Grp Sat Flow(s),veh/h/ln	1406	0	1572	0	1856	0	1767	1856	0	0	0	1830
Q Serve(g_s), s	0.8	0.0	0.4	0.0	0.0	0.0	1.3	20.5	0.0	0.0	0.0	13.0
Cycle Q Clear(g_c), s	0.8	0.0	0.4	0.0	0.0	0.0	1.3	20.5	0.0	0.0	0.0	13.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h	185	0	48	0	57	0	67	1433	0	0	0	1164
V/C Ratio(X)	0.12	0.00	0.25	0.00	0.00	0.00	0.70	0.83	0.00	0.00	0.00	0.65
Avail Cap(c_a), veh/h	419	0	310	0	365	0	348	2557	0	0	0	1982
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	24.0	0.0	0.0	0.0	24.1	3.6	0.0	0.0	0.0	5.7
Incr Delay (d2), s/veh	0.3	0.0	2.6	0.0	0.0	0.0	12.2	1.3	0.0	0.0	0.0	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	0.3	0.0	0.2	0.0	0.0	0.0	0.7	1.6	0.0	0.0	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.6	0.0	26.7	0.0	0.0	0.0	36.3	4.9	0.0	0.0	0.0	6.4
LnGrp LOS	C		C				D	A				A
Approach Vol, veh/h		35			0			1233			756	
Approach Delay, s/veh		25.3			0.0			6.1			6.4	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		44.2		6.6	6.9	37.3		6.6				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		70.0		10.0	10.0	55.0		10.0				
Max Q Clear Time (g_c+I1), s		22.5		2.8	3.3	15.0		0.0				
Green Ext Time (p_c), s		16.8		0.0	0.0	6.7		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	6.5
HCM 7th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	0	90	0	0	1	120	620	0	0	380	220
Future Volume (veh/h)	230	0	90	0	0	1	120	620	0	0	380	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	254	0	99	0	0	1	132	684	0	0	419	243
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	392	0	331	0	0	331	146	639	0	0	670	389
Arrive On Green	0.21	0.00	0.21	0.00	0.00	0.21	0.61	0.61	0.00	0.00	0.61	0.61
Sat Flow, veh/h	1405	0	1572	0	0	1572	148	1051	0	0	1102	639
Grp Volume(v), veh/h	254	0	99	0	0	1	816	0	0	0	0	662
Grp Sat Flow(s),veh/h/ln	1405	0	1572	0	0	1573	1198	0	0	0	0	1741
Q Serve(g_s), s	13.0	0.0	4.0	0.0	0.0	0.0	27.5	0.0	0.0	0.0	0.0	18.0
Cycle Q Clear(g_c), s	13.1	0.0	4.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	18.0
Prop In Lane	1.00		1.00	0.00		1.00	0.16		0.00	0.00		0.37
Lane Grp Cap(c), veh/h	392	0	331	0	0	331	785	0	0	0	0	1059
V/C Ratio(X)	0.65	0.00	0.30	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.62
Avail Cap(c_a), veh/h	490	0	442	0	0	473	785	0	0	0	0	1059
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	28.5	0.0	24.8	0.0	0.0	23.3	18.4	0.0	0.0	0.0	0.0	9.2
Incr Delay (d2), s/veh	2.0	0.0	0.5	0.0	0.0	0.0	42.7	0.0	0.0	0.0	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	1.5	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.5	0.0	25.3	0.0	0.0	23.3	61.0	0.0	0.0	0.0	0.0	10.4
LnGrp LOS	C		C			C	F					B
Approach Vol, veh/h		353			1			816			662	
Approach Delay, s/veh		29.1			23.3			61.0			10.4	
Approach LOS		C			C			E			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	53.0	21.8	53.0	21.8
Change Period (Y+Rc), s	7.5	6.0	7.5	* 6
Max Green Setting (Gmax), s	45.5	21.0	45.5	* 23
Max Q Clear Time (g_c+I1), s	47.5	15.1	20.0	2.0
Green Ext Time (p_c), s	0.0	0.7	5.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	36.5
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	0	0	0	10	670	0	0	320	0
Future Volume (veh/h)	5	0	5	0	0	0	10	670	0	0	320	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	6	0	6	0	0	0	11	755	0	0	360	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	141	0	11	0	29	0	93	1316	0	0	1326	0
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00	0.72	0.72	0.00	0.00	0.72	0.00
Sat Flow, veh/h	736	0	736	0	1841	0	7	1828	0	0	1841	0
Grp Volume(v), veh/h	12	0	0	0	0	0	766	0	0	0	360	0
Grp Sat Flow(s),veh/h/ln	1473	0	0	0	1841	0	1835	0	0	0	1841	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	2.8	0.0
Prop In Lane	0.50		0.50	0.00		0.00	0.01		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	153	0	0	0	29	0	1409	0	0	0	1326	0
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.27	0.00
Avail Cap(c_a), veh/h	519	0	0	0	530	0	1409	0	0	0	1326	0
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	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	2.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.6	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	2.1	0.0
LnGrp LOS	C						A				A	
Approach Vol, veh/h		12			0			766			360	
Approach Delay, s/veh		20.6			0.0			3.2			2.1	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.6		36.0		5.6				
Change Period (Y+Rc), s		6.0		5.0		6.0		* 5				
Max Green Setting (Gmax), s		30.0		11.0		30.0		* 12				
Max Q Clear Time (g_c+I1), s		10.3		2.3		4.8		0.0				
Green Ext Time (p_c), s		5.6		0.0		2.2		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	3.1
HCM 7th LOS	A

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	320	50	170	740	40	130
Future Vol, veh/h	320	50	170	740	40	130
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	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	360	56	191	833	45	146

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	417	0	1605	389
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	1216	-
Critical Hdwy	-	-	4.15	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3	3
Pot Cap-1 Maneuver	-	-	1126	-	150	735
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	303	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1126	-	102	735
Mov Cap-2 Maneuver	-	-	-	-	102	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	207	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	1.65	36.03
HCM LOS			E

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	300	336	-	-	-
HCM Lane V/C Ratio	0.639	0.17	-	-	-
HCM Control Delay (s/veh)	36	8.8	0	-	-
HCM Lane LOS	E	A	A	-	-
HCM 95th %tile Q(veh)	4.1	0.6	-	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	30	120	100	350	760	30
Future Vol, veh/h	30	120	100	350	760	30
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, %	4	4	4	4	4	4
Mvmt Flow	35	140	116	407	884	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1541	901	919	0	-	0
Stage 1	901	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Critical Hdwy	6	6	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3	3	2.236	-	-	-
Pot Cap-1 Maneuver	163	380	734	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	130	380	734	-	-	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	348	-	-	-	-	-
Stage 2	589	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v	38.5	2.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	274	400	-
HCM Lane V/C Ratio	-	-	0.636	0.158	-
HCM Control Delay (s/veh)	-	-	38.5	10.8	0
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	4	0.6	-

Intersection	
Int Delay, s/veh	40.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	150	910	150	80	520
Future Vol, veh/h	80	150	910	150	80	520
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	89	167	1014	167	89	580

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1856	1098	0	0	1181	0
Stage 1	1098	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.236	-
Pot Cap-1 Maneuver	107	294	-	-	584	-
Stage 1	349	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	91	294	-	-	584	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	$326.35	0	1.64
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	165	584	-
HCM Lane V/C Ratio	-	-	1.553	0.153	-
HCM Control Delay (s/veh)	-	-	$ 326.3	12.3	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	17	0.5	-

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

Intersection	
Int Delay, s/veh	3.4

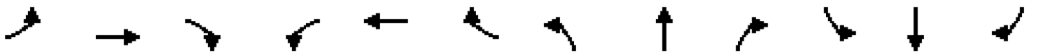
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	5	10	5	100	10	920	10	50	520	20
Future Vol, veh/h	10	0	5	10	5	100	10	920	10	50	520	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	11	0	6	11	6	114	11	1047	11	57	592	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1790	1799	603	1781	1804	1053	615	0	0	1059	0	0
Stage 1	717	717	-	1076	1076	-	-	-	-	-	-	-
Stage 2	1073	1081	-	706	729	-	-	-	-	-	-	-
Critical Hdwy	6	6	6	6	6	6	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	5.5	5.54	-	5.5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.54	-	5.5	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3	3	3	3	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	117	116	559	118	115	312	955	-	-	650	-	-
Stage 1	533	529	-	351	347	-	-	-	-	-	-	-
Stage 2	352	345	-	540	522	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	59	97	559	99	97	312	955	-	-	650	-	-
Mov Cap-2 Maneuver	59	97	-	99	97	-	-	-	-	-	-	-
Stage 1	462	458	-	341	337	-	-	-	-	-	-	-
Stage 2	214	335	-	463	452	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	58.08	35.99	0.09	0.94
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	85	243	151	-	-
HCM Lane V/C Ratio	0.012	-	-	0.202	0.54	0.088	-	-
HCM Control Delay (s/veh)	8.8	0	-	58.1	36	11.1	0	-
HCM Lane LOS	A	A	-	F	E	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	2.9	0.3	-	-

Part 5: 2035 No Build Conditions: Weekday PM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	280	290	20	80	230	430	80	40	1050	110
Future Volume (veh/h)	70	10	280	290	20	80	230	430	80	40	1050	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	11	312	323	22	89	256	479	89	45	1170	123
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	441	59	707	361	121	491	245	1325	245	58	1298	136
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.07	0.44	0.44	0.03	0.40	0.40
Sat Flow, veh/h	1027	157	1585	1057	324	1311	3456	2994	553	1781	3245	341
Grp Volume(v), veh/h	89	0	312	323	0	111	256	283	285	45	640	653
Grp Sat Flow(s),veh/h/ln	1184	0	1585	1057	0	1634	1728	1777	1771	1781	1777	1809
Q Serve(g_s), s	5.3	0.0	16.3	34.2	0.0	5.5	8.5	12.7	12.8	3.0	40.5	40.7
Cycle Q Clear(g_c), s	10.8	0.0	16.3	45.0	0.0	5.5	8.5	12.7	12.8	3.0	40.5	40.7
Prop In Lane	0.88		1.00	1.00		0.80	1.00		0.31	1.00		0.19
Lane Grp Cap(c), veh/h	500	0	707	361	0	613	245	786	784	58	711	724
V/C Ratio(X)	0.18	0.00	0.44	0.89	0.00	0.18	1.05	0.36	0.36	0.78	0.90	0.90
Avail Cap(c_a), veh/h	500	0	707	361	0	613	245	786	784	104	711	724
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	22.9	44.0	0.0	25.1	55.8	22.2	22.2	57.6	33.7	33.8
Incr Delay (d2), s/veh	0.2	0.0	0.4	23.5	0.0	0.1	69.2	1.2	1.3	19.6	16.6	16.7
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	1.9	0.0	6.1	12.1	0.0	2.2	6.1	5.6	5.6	1.7	20.4	20.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.5	0.0	23.4	67.6	0.0	25.3	124.9	23.4	23.5	77.2	50.4	50.6
LnGrp LOS	C		C	E		C	F	C	C	E	D	D
Approach Vol, veh/h		401			434			824			1338	
Approach Delay, s/veh		24.5			56.7			55.0			51.4	
Approach LOS		C			E			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	58.1		51.0	16.0	53.0		51.0				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	7.0	50.0		45.0	8.5	48.0		45.0				
Max Q Clear Time (g_c+I1), s	5.0	14.8		18.3	10.5	42.7		47.0				
Green Ext Time (p_c), s	0.0	3.9		1.7	0.0	3.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			49.5									
HCM 7th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	490	20	5	5	430	650	20	10	1230	420
Future Volume (veh/h)	70	10	490	20	5	5	430	650	20	10	1230	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	0	0	22	6	6	474	717	22	11	1357	0
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	2	2	2	2	2
Cap, veh/h	252	0		86	15	11	547	2787	85	23	2296	
Arrive On Green	0.04	0.00	0.00	0.04	0.04	0.04	0.16	0.79	0.79	0.03	1.00	0.00
Sat Flow, veh/h	2805	0	1585	891	375	271	3456	3520	108	1781	3554	1585
Grp Volume(v), veh/h	85	0	0	34	0	0	474	362	377	11	1357	0
Grp Sat Flow(s),veh/h/ln	1402	0	1585	1537	0	0	1728	1777	1851	1781	1777	1585
Q Serve(g_s), s	0.3	0.0	0.0	2.1	0.0	0.0	16.1	6.4	6.4	0.7	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0	2.6	0.0	0.0	16.1	6.4	6.4	0.7	0.0	0.0
Prop In Lane	1.00		1.00	0.65		0.18	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	252	0		113	0	0	547	1407	1466	23	2296	
V/C Ratio(X)	0.34	0.00		0.30	0.00	0.00	0.87	0.26	0.26	0.48	0.59	
Avail Cap(c_a), veh/h	545	0		271	0	0	691	1407	1466	134	2296	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.93	0.93	0.93	0.48	0.48	0.00
Uniform Delay (d), s/veh	56.5	0.0	0.0	56.4	0.0	0.0	49.2	3.3	3.3	58.1	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.5	0.0	0.0	8.7	0.4	0.4	7.4	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.1	0.0	0.0	7.6	2.0	2.1	0.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.3	0.0	0.0	57.8	0.0	0.0	58.0	3.7	3.7	65.5	0.5	0.0
LnGrp LOS	E			E			E	A	A	E	A	
Approach Vol, veh/h		85			34			1213			1368	
Approach Delay, s/veh		57.3			57.8			24.9			1.1	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	100.0		12.4	25.0	82.5		12.4				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	9.0	75.0		17.5	24.0	60.0		17.5				
Max Q Clear Time (g_c+I1), s	2.7	8.4		4.9	18.1	2.0		4.6				
Green Ext Time (p_c), s	0.0	5.4		0.2	1.0	15.7		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	14.3	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations				↑↑	↱		↑↑	↱	↰↰		↱
Traffic Volume (veh/h)	0	0	0	1460	260	0	920	650	180	0	600
Future Volume (veh/h)	0	0	0	1460	260	0	920	650	180	0	600
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1885	1885	0	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h			0	1578	0	0	994	703	195	195	0
Peak Hour Factor			0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %			0	1	1	0	1	1	1	1	1
Cap, veh/h			0	2952		0	2952	1317	264	264	
Arrive On Green			0.00	0.82	0.00	0.00	1.00	1.00	0.08	0.08	0.00
Sat Flow, veh/h			0	3676	1598	0	3676	1598	3483	3483	1598
Grp Volume(v), veh/h			0	1578	0	0	994	703	195	195	0
Grp Sat Flow(s),veh/h/ln			0	1791	1598	0	1791	1598	1742	1742	1598
Q Serve(g_s), s			0.0	16.6	0.0	0.0	0.0	0.0	6.6	6.6	0.0
Cycle Q Clear(g_c), s			0.0	16.6	0.0	0.0	0.0	0.0	6.6	6.6	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2952		0	2952	1317	264	264	
V/C Ratio(X)			0.00	0.53		0.00	0.34	0.53	0.74	0.74	
Avail Cap(c_a), veh/h			0	2952		0	2952	1317	668	668	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.80	0.00	0.00	0.81	0.81	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	3.3	0.0	0.0	0.0	0.0	54.3	54.3	0.0
Incr Delay (d2), s/veh			0.0	0.6	0.0	0.0	0.3	1.3	4.0	4.0	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	4.4	0.0	0.0	0.1	0.5	3.0	3.0	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	3.9	0.0	0.0	0.3	1.3	58.3	58.3	0.0
LnGrp LOS				A			A	A	E	E	
Approach Vol, veh/h				1578			1697		195	195	
Approach Delay, s/veh				3.9			0.7		58.3	58.3	
Approach LOS				A			A		E	E	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	103.9		16.1		103.9						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	85.0		23.0		85.0						
Max Q Clear Time (g_c+I1), s	2.0		8.6		18.6						
Green Ext Time (p_c), s	15.9		0.5		21.3						

Intersection Summary	
HCM 7th Control Delay, s/veh	5.4
HCM 7th LOS	A

Notes

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	370	1320	340	110	890	60	270	90	90	40	100	340
Future Volume (veh/h)	370	1320	340	110	890	60	270	90	90	40	100	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	408	1456	375	121	982	66	298	99	99	44	110	375
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	2	2	2	2	2
Cap, veh/h	481	1820	466	146	1919	129	466	270	270	141	335	498
Arrive On Green	0.14	0.45	0.45	0.08	0.39	0.39	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	3456	4050	1037	1781	4887	328	1767	858	858	328	1066	1585
Grp Volume(v), veh/h	408	1222	609	121	683	365	298	0	198	154	0	375
Grp Sat Flow(s),veh/h/ln	1728	1702	1684	1781	1702	1811	883	0	1716	1394	0	1585
Q Serve(g_s), s	13.8	37.0	37.4	8.0	18.3	18.4	19.6	0.0	10.7	3.4	0.0	25.5
Cycle Q Clear(g_c), s	13.8	37.0	37.4	8.0	18.3	18.4	33.8	0.0	10.7	14.2	0.0	25.5
Prop In Lane	1.00		0.62	1.00		0.18	1.00		0.50	0.29		1.00
Lane Grp Cap(c), veh/h	481	1530	757	146	1336	711	466	0	539	477	0	498
V/C Ratio(X)	0.85	0.80	0.80	0.83	0.51	0.51	0.64	0.00	0.37	0.32	0.00	0.75
Avail Cap(c_a), veh/h	648	1530	757	156	1336	711	559	0	629	561	0	581
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)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.4	28.4	28.5	54.2	27.7	27.7	46.7	0.0	31.9	32.4	0.0	37.0
Incr Delay (d2), s/veh	6.7	3.7	7.5	28.0	1.4	2.6	1.8	0.0	0.4	0.4	0.0	4.7
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	6.4	15.5	16.3	4.7	7.7	8.4	4.4	0.0	4.5	3.7	0.0	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.1	32.1	36.0	82.2	29.1	30.4	48.5	0.0	32.3	32.8	0.0	41.7
LnGrp LOS	E	C	D	F	C	C	D		C	C		D
Approach Vol, veh/h		2239			1169			496			529	
Approach Delay, s/veh		37.7			35.0			42.0			39.1	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.2	52.1		43.7	17.4	58.9		43.7				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	22.5	35.0		44.0	10.5	47.0		44.0				
Max Q Clear Time (g_c+I1), s	15.8	20.4		35.8	10.0	39.4		27.5				
Green Ext Time (p_c), s	0.9	6.1		2.0	0.0	6.1		2.1				

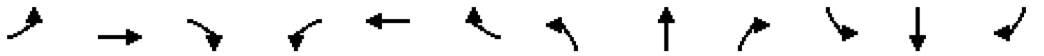
Intersection Summary												
HCM 7th Control Delay, s/veh			37.6									
HCM 7th LOS			D									

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	350	1120	0	0	780	140	0	0	0	160	0	290
Future Volume (veh/h)	350	1120	0	0	780	140	0	0	0	160	0	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	394	1261	0	0	879	158	0	0	0	120	0	391
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	468	2696	0	0	2007	895	0	280	0	327	0	475
Arrive On Green	0.14	0.76	0.00	0.00	0.56	0.56	0.00	0.00	0.00	0.15	0.00	0.15
Sat Flow, veh/h	3456	3647	0	0	3647	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	394	1261	0	0	879	158	0	0	0	120	0	391
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	13.4	15.9	0.0	0.0	17.2	5.8	0.0	0.0	0.0	7.4	0.0	14.4
Cycle Q Clear(g_c), s	13.4	15.9	0.0	0.0	17.2	5.8	0.0	0.0	0.0	7.4	0.0	14.4
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	468	2696	0	0	2007	895	0	280	0	327	0	475
V/C Ratio(X)	0.84	0.47	0.00	0.00	0.44	0.18	0.00	0.00	0.00	0.37	0.00	0.82
Avail Cap(c_a), veh/h	662	2696	0	0	2007	895	0	452	0	490	0	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.86	0.86	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.6	5.4	0.0	0.0	15.1	12.6	0.0	0.0	0.0	46.5	0.0	49.5
Incr Delay (d2), s/veh	6.8	0.6	0.0	0.0	0.6	0.4	0.0	0.0	0.0	0.7	0.0	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.3	0.0	0.0	7.0	2.1	0.0	0.0	0.0	3.3	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.4	6.0	0.0	0.0	15.7	13.0	0.0	0.0	0.0	47.2	0.0	53.4
LnGrp LOS	E	A			B	B				D		D
Approach Vol, veh/h		1655			1037			0			511	
Approach Delay, s/veh		18.3			15.3			0.0			51.9	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	23.2	72.8		24.0		96.0		24.0				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	23.0	50.0		29.0		80.0		29.0				
Max Q Clear Time (g_c+I1), s	15.4	19.2		0.0		17.9		16.4				
Green Ext Time (p_c), s	0.9	7.9		0.0		13.9		1.6				

Intersection Summary		
HCM 7th Control Delay, s/veh	22.7	
HCM 7th LOS	C	

Notes
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1	20	140	1	90	20	830	130	10	1300	30
Future Volume (veh/h)	30	1	20	140	1	90	20	830	130	10	1300	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	1	23	158	1	101	23	935	146	11	1464	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	84	13	33	264	1	353	39	1899	296	74	2257	52
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.04	1.00	1.00	0.04	0.64	0.64
Sat Flow, veh/h	198	73	178	1120	7	1572	1767	3055	477	1767	3522	82
Grp Volume(v), veh/h	58	0	0	159	0	101	23	539	542	11	732	766
Grp Sat Flow(s),veh/h/ln	450	0	0	1127	0	1572	1767	1763	1770	1767	1763	1841
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	6.4	1.5	0.0	0.0	0.7	30.6	30.7
Cycle Q Clear(g_c), s	19.7	0.0	0.0	16.6	0.0	6.4	1.5	0.0	0.0	0.7	30.6	30.7
Prop In Lane	0.59		0.40	0.99		1.00	1.00		0.27	1.00		0.04
Lane Grp Cap(c), veh/h	130	0	0	266	0	353	39	1096	1100	74	1130	1180
V/C Ratio(X)	0.45	0.00	0.00	0.60	0.00	0.29	0.58	0.49	0.49	0.15	0.65	0.65
Avail Cap(c_a), veh/h	287	0	0	422	0	531	96	1096	1100	96	1130	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.09	0.09	0.09	0.84	0.84	0.84
Uniform Delay (d), s/veh	50.2	0.0	0.0	46.9	0.0	38.6	56.8	0.0	0.0	55.4	13.2	13.3
Incr Delay (d2), s/veh	2.4	0.0	0.0	2.2	0.0	0.4	1.2	0.1	0.1	0.8	2.4	2.3
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	1.8	0.0	0.0	4.7	0.0	2.5	0.7	0.0	0.0	0.3	12.1	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.6	0.0	0.0	49.0	0.0	39.0	58.0	0.1	0.1	56.2	15.7	15.6
LnGrp LOS	D			D		D	E	A	A	E	B	B
Approach Vol, veh/h		58			260			1104			1509	
Approach Delay, s/veh		52.6			45.1			1.3			15.9	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	80.1		28.4	9.2	82.4		28.4				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	6.5	59.5		35.5	6.5	59.5		35.5				
Max Q Clear Time (g_c+I1), s	2.7	2.0		21.7	3.5	32.7		18.6				
Green Ext Time (p_c), s	0.0	9.6		0.2	0.0	13.0		1.1				

Intersection Summary		
HCM 7th Control Delay, s/veh		13.7
HCM 7th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	50	10	480	0	0	700	50
Future Volume (veh/h)	10	0	10	20	10	50	10	480	0	0	700	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	11	0	11	22	11	56	11	535	0	0	780	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	228	16	79	171	23	97	118	1101	0	0	1031	74
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.60	0.60	0.00	0.00	0.60	0.60
Sat Flow, veh/h	656	161	818	348	238	995	10	1841	0	0	1724	124
Grp Volume(v), veh/h	22	0	0	89	0	0	546	0	0	0	0	836
Grp Sat Flow(s),veh/h/ln	1635	0	0	1582	0	0	1851	0	0	0	0	1848
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.7	0.0	0.0	5.4	0.0	0.0	0.0	0.0	10.9
Prop In Lane	0.50		0.50	0.25		0.63	0.02		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	323	0	0	290	0	0	1219	0	0	0	0	1105
V/C Ratio(X)	0.07	0.00	0.00	0.31	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.76
Avail Cap(c_a), veh/h	846	0	0	855	0	0	2067	0	0	0	0	1974
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	14.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0	4.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.1
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	0.0	0.5	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.6	0.0	0.0	14.7	0.0	0.0	4.0	0.0	0.0	0.0	0.0	5.9
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		22			89			546			836	
Approach Delay, s/veh		13.6			14.7			4.0			5.9	
Approach LOS		B			B			A			A	

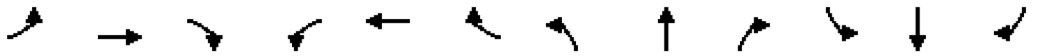
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.6		8.2		24.6		8.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		15.0		35.0		15.0				
Max Q Clear Time (g_c+I1), s		7.4		2.4		12.9		3.7				
Green Ext Time (p_c), s		4.0		0.0		6.7		0.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			5.9									
HCM 7th LOS			A									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	290	120	370	310	170	560
Future Volume (veh/h)	290	120	370	310	170	560
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	134	412	346	189	624
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	409	364	594	868	240	1045
Arrive On Green	0.23	0.23	0.32	0.32	0.13	0.56
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	323	134	412	346	189	624
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.1	3.4	9.1	6.0	4.8	10.4
Cycle Q Clear(g_c), s	8.1	3.4	9.1	6.0	4.8	10.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	409	364	594	868	240	1045
V/C Ratio(X)	0.79	0.37	0.69	0.40	0.79	0.60
Avail Cap(c_a), veh/h	604	537	1188	1371	340	1743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	15.3	14.1	6.2	19.8	6.9
Incr Delay (d2), s/veh	4.3	0.6	1.5	0.3	7.8	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.1	3.4	2.8	2.3	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.4	15.9	15.6	6.5	27.5	7.5
LnGrp LOS	C	B	B	A	C	A
Approach Vol, veh/h	457		758			813
Approach Delay, s/veh	19.8		11.4			12.1
Approach LOS	B		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.4	20.0				31.4	15.8
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	6.8	11.1				12.4	10.1
Green Ext Time (p_c), s	0.1	3.7				4.8	0.8

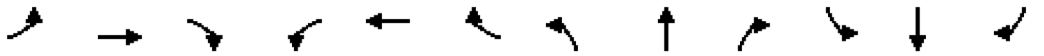
Intersection Summary	
HCM 7th Control Delay, s/veh	13.6
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	120	250	0	0	0	300	380	10	20	440	320
Future Volume (veh/h)	330	120	250	0	0	0	300	380	10	20	440	320
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	0.92	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	364	132	276				331	419	11	22	485	353
Peak Hour Factor	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	2	2
Cap, veh/h	446	147	307				451	1117	29	63	776	684
Arrive On Green	0.27	0.27	0.27				0.12	0.62	0.62	0.43	0.43	0.43
Sat Flow, veh/h	1639	539	1128				1781	1814	48	36	1799	1585
Grp Volume(v), veh/h	364	0	408				331	0	430	507	0	353
Grp Sat Flow(s),veh/h/ln	1639	0	1667				1781	0	1862	1836	0	1585
Q Serve(g_s), s	16.6	0.0	18.9				7.7	0.0	9.2	0.0	0.0	13.0
Cycle Q Clear(g_c), s	16.6	0.0	18.9				7.7	0.0	9.2	16.9	0.0	13.0
Prop In Lane	1.00		0.68				1.00		0.03	0.04		1.00
Lane Grp Cap(c), veh/h	446	0	454				451	0	1146	839	0	684
V/C Ratio(X)	0.82	0.00	0.90				0.73	0.00	0.38	0.60	0.00	0.52
Avail Cap(c_a), veh/h	471	0	479				457	0	1146	839	0	684
HCM Platoon Ratio	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	0.71	0.00	0.71
Uniform Delay (d), s/veh	27.3	0.0	28.1				13.2	0.0	7.7	17.7	0.0	16.6
Incr Delay (d2), s/veh	10.3	0.0	19.1				6.0	0.0	0.9	2.3	0.0	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	9.6				3.4	0.0	3.5	7.3	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.5	0.0	47.2				19.2	0.0	8.6	20.0	0.0	18.6
LnGrp LOS	D		D				B		A	C		B
Approach Vol, veh/h		772						761			860	
Approach Delay, s/veh		42.7						13.2			19.5	
Approach LOS		D						B			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		54.2		25.8	14.7	39.5						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		48.0		23.0	10.0	33.0						
Max Q Clear Time (g_c+I1), s		11.2		20.9	9.7	18.9						
Green Ext Time (p_c), s		3.0		0.9	0.0	4.0						

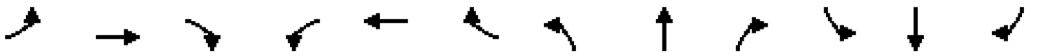
Intersection Summary												
HCM 7th Control Delay, s/veh			25.0									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	300	360	210	360	50	270	330	180	200	400	10
Future Volume (veh/h)	0	300	360	210	360	50	270	330	180	200	400	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	331	397	232	397	55	298	364	199	221	441	11
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	2	2	2	2	2
Cap, veh/h	0	560	475	363	732	101	324	378	320	264	551	14
Arrive On Green	0.00	0.30	0.30	0.09	0.46	0.46	0.18	0.20	0.20	0.15	0.16	0.16
Sat Flow, veh/h	0	1870	1585	1781	1608	223	1781	1870	1585	1781	3543	88
Grp Volume(v), veh/h	0	331	397	232	0	452	298	364	199	221	221	231
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	0	1830	1781	1870	1585	1781	1777	1854
Q Serve(g_s), s	0.0	11.6	18.0	6.7	0.0	13.8	12.7	14.9	8.8	9.3	9.2	9.3
Cycle Q Clear(g_c), s	0.0	11.6	18.0	6.7	0.0	13.8	12.7	14.9	8.8	9.3	9.2	9.3
Prop In Lane	0.00		1.00	1.00		0.12	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	0	560	475	363	0	833	324	378	320	264	276	288
V/C Ratio(X)	0.00	0.59	0.84	0.64	0.00	0.54	0.92	0.96	0.62	0.84	0.80	0.80
Avail Cap(c_a), veh/h	0	825	699	363	0	1093	324	378	320	347	323	337
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)	0.00	1.00	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	0.0	23.0	25.2	16.9	0.0	15.2	31.0	30.5	28.1	31.9	31.4	31.4
Incr Delay (d2), s/veh	0.0	1.0	5.8	3.7	0.0	0.6	30.5	36.6	3.7	12.9	11.6	11.4
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	0.0	5.0	7.2	2.9	0.0	5.4	8.0	10.3	3.6	4.8	4.7	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	24.0	31.0	20.6	0.0	15.7	61.5	67.1	31.7	44.8	43.0	42.8
LnGrp LOS		C	C	C		B	E	E	C	D	D	D
Approach Vol, veh/h		728			684			861			673	
Approach Delay, s/veh		27.8			17.4			57.0			43.5	
Approach LOS		C			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	16.4	20.6	12.0	28.1	20.0	17.0		40.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	14.0	7.0	34.0	14.0	14.0		46.0				
Max Q Clear Time (g_c+I1), s	11.3	16.9	8.7	20.0	14.7	11.3		15.8				
Green Ext Time (p_c), s	0.2	0.0	0.0	3.0	0.0	0.7		3.1				

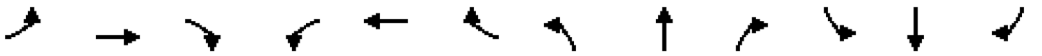
Intersection Summary	
HCM 7th Control Delay, s/veh	37.5
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	40	0	0	0	40	720	0	0	890	60
Future Volume (veh/h)	80	0	40	0	0	0	40	720	0	0	890	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	0	44	0	0	0	44	794	0	0	982	66
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	2	2	2	2	2
Cap, veh/h	228	0	187	0	159	0	59	1433	0	0	1141	77
Arrive On Green	0.08	0.00	0.08	0.00	0.00	0.00	0.03	0.77	0.00	0.00	0.66	0.66
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1870	0	0	1733	116
Grp Volume(v), veh/h	88	0	44	0	0	0	44	794	0	0	0	1048
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1870	0	0	0	1849
Q Serve(g_s), s	4.1	0.0	1.7	0.0	0.0	0.0	1.6	11.6	0.0	0.0	0.0	30.0
Cycle Q Clear(g_c), s	4.1	0.0	1.7	0.0	0.0	0.0	1.6	11.6	0.0	0.0	0.0	30.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	228	0	187	0	159	0	59	1433	0	0	0	1218
V/C Ratio(X)	0.39	0.00	0.23	0.00	0.00	0.00	0.74	0.55	0.00	0.00	0.00	0.86
Avail Cap(c_a), veh/h	318	0	289	0	278	0	186	2367	0	0	0	2010
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	26.9	0.0	0.0	0.0	32.2	3.2	0.0	0.0	0.0	9.0
Incr Delay (d2), s/veh	1.1	0.0	0.6	0.0	0.0	0.0	16.4	0.3	0.0	0.0	0.0	2.2
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	1.4	0.0	0.6	0.0	0.0	0.0	1.0	2.2	0.0	0.0	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.1	0.0	27.5	0.0	0.0	0.0	48.6	3.5	0.0	0.0	0.0	11.2
LnGrp LOS	C		C				D	A				B
Approach Vol, veh/h		132			0			838			1048	
Approach Delay, s/veh		29.9			0.0			5.9			11.2	
Approach LOS		C						A			B	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		56.5		10.7	7.2	49.2		10.7				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		85.0		10.0	7.0	73.0		10.0				
Max Q Clear Time (g_c+I1), s		13.6		6.1	3.6	32.0		0.0				
Green Ext Time (p_c), s		7.5		0.2	0.0	12.2		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			10.2									
HCM 7th LOS			B									



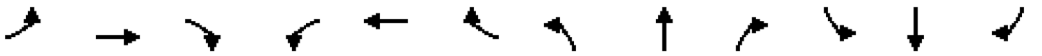
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1	90	0	0	0	60	410	1	0	670	270
Future Volume (veh/h)	250	1	90	0	0	0	60	410	1	0	670	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	285	1	102	0	0	0	68	467	1	0	763	307
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	3	281	0	334	0	80	526	1	0	880	354
Arrive On Green	0.18	0.18	0.18	0.00	0.00	0.00	0.69	0.69	0.69	0.00	0.69	0.69
Sat Flow, veh/h	1781	15	1572	0	1870	0	60	758	2	0	1268	510
Grp Volume(v), veh/h	285	0	103	0	0	0	536	0	0	0	0	1070
Grp Sat Flow(s),veh/h/ln	1781	0	1587	0	1870	0	820	0	0	0	0	1779
Q Serve(g_s), s	16.6	0.0	6.1	0.0	0.0	0.0	21.6	0.0	0.0	0.0	0.0	49.1
Cycle Q Clear(g_c), s	16.6	0.0	6.1	0.0	0.0	0.0	70.7	0.0	0.0	0.0	0.0	49.1
Prop In Lane	1.00		0.99	0.00		0.00	0.13		0.00	0.00		0.29
Lane Grp Cap(c), veh/h	386	0	284	0	334	0	607	0	0	0	0	1235
V/C Ratio(X)	0.74	0.00	0.36	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.87
Avail Cap(c_a), veh/h	420	0	314	0	378	0	630	0	0	0	0	1264
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	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	38.3	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	12.5
Incr Delay (d2), s/veh	6.2	0.0	0.8	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0	6.5
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	7.9	0.0	2.4	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.9	0.0	39.1	0.0	0.0	0.0	30.1	0.0	0.0	0.0	0.0	19.0
LnGrp LOS	D		D				C					B
Approach Vol, veh/h		388			0			536			1070	
Approach Delay, s/veh		46.3			0.0			30.1			19.0	
Approach LOS		D						C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		81.3		25.0		81.3		25.0				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		75.5		21.0		75.5		* 22				
Max Q Clear Time (g_c+I1), s		72.7		18.6		51.1		0.0				
Green Ext Time (p_c), s		1.1		0.4		10.7		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	1	0	0	5	470	0	0	680	0
Future Volume (veh/h)	5	0	5	1	0	0	5	470	0	0	680	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	6	0	6	1	0	0	6	524	0	0	758	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	151	0	20	215	0	0	92	1335	0	0	1343	0
Arrive On Green	0.03	0.00	0.03	0.03	0.00	0.00	0.73	0.73	0.00	0.00	0.73	0.00
Sat Flow, veh/h	740	0	740	1495	0	0	4	1829	0	0	1841	0
Grp Volume(v), veh/h	12	0	0	1	0	0	530	0	0	0	758	0
Grp Sat Flow(s),veh/h/ln	1480	0	0	1495	0	0	1834	0	0	0	1841	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	7.8	0.0
Prop In Lane	0.50		0.50	1.00		0.00	0.01		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	171	0	0	215	0	0	1427	0	0	0	1343	0
V/C Ratio(X)	0.07	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.56	0.00
Avail Cap(c_a), veh/h	562	0	0	583	0	0	1427	0	0	0	1343	0
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	19.5	0.0	0.0	2.1	0.0	0.0	0.0	2.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.8	0.0	0.0	19.5	0.0	0.0	2.3	0.0	0.0	0.0	3.1	0.0
LnGrp LOS	B			B			A				A	
Approach Vol, veh/h		12			1			530			758	
Approach Delay, s/veh		19.8			19.5			2.3			3.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.1		36.0		5.1				
Change Period (Y+Rc), s		6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s		30.0		12.0		30.0		12.0				
Max Q Clear Time (g_c+I1), s		6.5		2.3		9.8		2.0				
Green Ext Time (p_c), s		3.6		0.0		5.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			2.9									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	1.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	800	20	55	620	10	40
Future Vol, veh/h	800	20	55	620	10	40
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	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	920	23	63	713	12	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	943	0	1772	932
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	840	-
Critical Hdwy	-	-	4.12	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	727	-	120	365
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	727	-	103	365
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	403	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.85	24.51
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	241	147	-	-	-
HCM Lane V/C Ratio	0.238	0.087	-	-	-
HCM Control Delay (s/veh)	24.5	10.4	0	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.9	0.3	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	100	740	550	20	30	100
Future Vol, veh/h	100	740	550	20	30	100
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	114	842	626	23	34	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	649	0	-	0	1707	637
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	1070	-
Critical Hdwy	4.12	-	-	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3	3
Pot Cap-1 Maneuver	937	-	-	-	131	535
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	362	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	937	-	-	-	101	535
Mov Cap-2 Maneuver	-	-	-	-	101	-
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	362	-

Approach	SE	NW	SW
HCM Control Delay, s/v	1.12	0	33.75
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	214	-	268
HCM Lane V/C Ratio	-	-	0.121	-	0.552
HCM Control Delay (s/veh)	-	-	9.4	0	33.8
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.4	-	3.1

Intersection	
Int Delay, s/veh	37.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	90	120	660	140	90	860
Future Vol, veh/h	90	120	660	140	90	860
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	134	736	156	100	959

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1973	814	0	0	892	0
Stage 1	814	-	-	-	-	-
Stage 2	1159	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.218	-
Pot Cap-1 Maneuver	~ 91	426	-	-	760	-
Stage 1	485	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 79	426	-	-	760	-
Mov Cap-2 Maneuver	~ 79	-	-	-	-	-
Stage 1	485	-	-	-	-	-
Stage 2	284	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 345.1	0	0.99
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	148	760	-
HCM Lane V/C Ratio	-	-	1.58	0.132	-
HCM Control Delay (s/veh)	-	-	$ 345.1	10.5	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	16.2	0.5	-

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

Intersection	
Int Delay, s/veh	19.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	20	20	5	5	65	20	690	10	50	910	40
Future Vol, veh/h	40	20	20	5	5	65	20	690	10	50	910	40
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	-	-	-	-	-	-	-	-	-	-	-	-
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	47	24	24	6	6	76	24	811	12	59	1070	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2072	2081	1094	2064	2099	817	1117	0	0	823	0	0
Stage 1	1211	1211	-	864	864	-	-	-	-	-	-	-
Stage 2	861	870	-	1199	1235	-	-	-	-	-	-	-
Critical Hdwy	6	6	6	6	6	6	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3	3	3	3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	80	79	296	81	77	424	625	-	-	807	-	-
Stage 1	300	298	-	450	447	-	-	-	-	-	-	-
Stage 2	451	444	-	304	289	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 45	59	296	37	58	424	625	-	-	807	-	-
Mov Cap-2 Maneuver	~ 45	59	-	37	58	-	-	-	-	-	-	-
Stage 1	241	240	-	418	416	-	-	-	-	-	-	-
Stage 2	339	413	-	203	233	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $/+	411.81	36.43	0.31	0.49
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	50	-	-	62	200	89	-	-
HCM Lane V/C Ratio	0.038	-	-	1.521	0.441	0.073	-	-
HCM Control Delay (s/veh)	11	0	-	$ 411.8	36.4	9.8	0	-
HCM Lane LOS	B	A	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	8.3	2.1	0.2	-	-

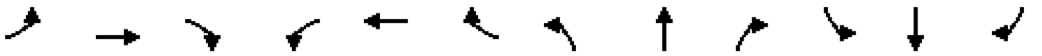
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Part 6: 2035 No Build Conditions: Weekend Saturday PM Peak-Hour LOS and Delays

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	10	190	70	5	30	280	370	50	80	800	30
Future Volume (veh/h)	50	10	190	70	5	30	280	370	50	80	800	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	11	212	78	6	33	312	412	56	89	892	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	36	409	172	36	199	392	1935	261	107	1945	72
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.62	0.62	0.06	0.56	0.56
Sat Flow, veh/h	1023	252	1585	1158	250	1373	3456	3146	425	1781	3495	129
Grp Volume(v), veh/h	67	0	212	78	0	39	312	232	236	89	454	471
Grp Sat Flow(s),veh/h/ln	1274	0	1585	1158	0	1623	1728	1777	1794	1781	1777	1847
Q Serve(g_s), s	3.8	0.0	11.5	6.6	0.0	2.1	8.8	5.8	5.8	4.9	15.2	15.2
Cycle Q Clear(g_c), s	5.9	0.0	11.5	12.5	0.0	2.1	8.8	5.8	5.8	4.9	15.2	15.2
Prop In Lane	0.84		1.00	1.00		0.85	1.00		0.24	1.00		0.07
Lane Grp Cap(c), veh/h	251	0	409	172	0	235	392	1093	1104	107	989	1028
V/C Ratio(X)	0.27	0.00	0.52	0.45	0.00	0.17	0.80	0.21	0.21	0.83	0.46	0.46
Avail Cap(c_a), veh/h	258	0	418	178	0	243	570	1093	1104	107	989	1028
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	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	31.8	44.8	0.0	37.5	43.2	8.5	8.5	46.5	13.2	13.2
Incr Delay (d2), s/veh	0.6	0.0	1.1	1.9	0.0	0.3	4.7	0.4	0.4	40.3	1.5	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	1.5	0.0	4.5	2.0	0.0	0.9	4.0	2.2	2.3	3.4	6.2	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.2	0.0	32.8	46.6	0.0	37.8	47.9	8.9	9.0	86.8	14.7	14.7
LnGrp LOS	D		C	D		D	D	A	A	F	B	B
Approach Vol, veh/h		279			117			780			1014	
Approach Delay, s/veh		34.6			43.7			24.5			21.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	66.5		20.5	18.8	60.7		20.5				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		15.0	16.5	50.0		15.0				
Max Q Clear Time (g_c+I1), s	6.9	7.8		13.5	10.8	17.2		14.5				
Green Ext Time (p_c), s	0.0	3.1		0.2	0.5	7.0		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		25.2	
HCM 7th LOS		C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	20	570	60	30	20	620	600	70	10	790	250
Future Volume (veh/h)	80	20	570	60	30	20	620	600	70	10	790	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	68	0	66	33	22	684	662	77	11	871	0
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	2	2	2	2	2
Cap, veh/h	215	223		125	55	28	762	2190	254	23	1689	
Arrive On Green	0.12	0.12	0.00	0.12	0.12	0.12	0.22	0.68	0.68	0.03	0.95	0.00
Sat Flow, veh/h	1349	1870	1585	587	465	234	3456	3207	373	1781	3554	1585
Grp Volume(v), veh/h	55	68	0	121	0	0	684	366	373	11	871	0
Grp Sat Flow(s),veh/h/ln	1349	1870	1585	1286	0	0	1728	1777	1803	1781	1777	1585
Q Serve(g_s), s	0.0	3.3	0.0	6.2	0.0	0.0	19.2	8.2	8.3	0.6	2.4	0.0
Cycle Q Clear(g_c), s	4.4	3.3	0.0	9.6	0.0	0.0	19.2	8.2	8.3	0.6	2.4	0.0
Prop In Lane	1.00		1.00	0.55		0.18	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	215	223		209	0	0	762	1213	1231	23	1689	
V/C Ratio(X)	0.26	0.31		0.58	0.00	0.00	0.90	0.30	0.30	0.47	0.52	
Avail Cap(c_a), veh/h	331	383		337	0	0	829	1213	1231	107	1689	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	0.89	0.89	0.89	0.88	0.88	0.00
Uniform Delay (d), s/veh	40.7	40.3	0.0	43.5	0.0	0.0	37.9	6.3	6.3	48.3	1.3	0.0
Incr Delay (d2), s/veh	0.6	0.8	0.0	2.5	0.0	0.0	10.8	0.6	0.6	12.3	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.6	0.0	3.1	0.0	0.0	9.1	2.9	3.0	0.3	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.4	41.0	0.0	46.0	0.0	0.0	48.7	6.9	6.9	60.6	2.3	0.0
LnGrp LOS	D	D		D			D	A	A	E	A	
Approach Vol, veh/h		123			121			1423			882	
Approach Delay, s/veh		41.2			46.0			27.0			3.1	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	73.3		19.4	28.1	52.5		19.4				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	6.0	55.0		20.5	24.0	37.0		20.5				
Max Q Clear Time (g_c+I1), s	2.6	10.3		6.4	21.2	4.4		11.6				
Green Ext Time (p_c), s	0.0	5.4		0.4	0.8	7.3		0.3				

Intersection Summary		
HCM 7th Control Delay, s/veh	20.3	
HCM 7th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

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

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations				↑↑	↱		↑↑	↱	↰↰		↱
Traffic Volume (veh/h)	0	0	0	1300	160	0	1100	780	160	0	710
Future Volume (veh/h)	0	0	0	1300	160	0	1100	780	160	0	710
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1885	1885	0	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h			0	1405	0	0	1189	843	173	173	0
Peak Hour Factor			0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %			0	1	1	0	1	1	1	1	1
Cap, veh/h			0	2898		0	2898	1293	247	247	
Arrive On Green			0.00	0.81	0.00	0.00	0.54	0.54	0.07	0.07	0.00
Sat Flow, veh/h			0	3676	1598	0	3676	1598	3483	3483	1598
Grp Volume(v), veh/h			0	1405	0	0	1189	843	173	173	0
Grp Sat Flow(s),veh/h/ln			0	1791	1598	0	1791	1598	1742	1742	1598
Q Serve(g_s), s			0.0	12.3	0.0	0.0	19.5	37.4	4.9	4.9	0.0
Cycle Q Clear(g_c), s			0.0	12.3	0.0	0.0	19.5	37.4	4.9	4.9	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2898		0	2898	1293	247	247	
V/C Ratio(X)			0.00	0.48		0.00	0.41	0.65	0.70	0.70	
Avail Cap(c_a), veh/h			0	2898		0	2898	1293	488	488	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.85	0.00	0.00	0.55	0.55	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	3.0	0.0	0.0	8.8	12.9	45.4	45.4	0.0
Incr Delay (d2), s/veh			0.0	0.5	0.0	0.0	0.2	1.4	3.6	3.6	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	3.0	0.0	0.0	8.3	14.6	2.2	2.2	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	3.5	0.0	0.0	9.1	14.4	49.0	49.0	0.0
LnGrp LOS				A			A	B	D	D	
Approach Vol, veh/h				1405			2032		173	173	
Approach Delay, s/veh				3.5			11.3		49.0	49.0	
Approach LOS				A			B		D	D	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	85.9		14.1		85.9						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	74.0		14.0		74.0						
Max Q Clear Time (g_c+I1), s	39.4		6.9		14.3						
Green Ext Time (p_c), s	17.8		0.3		16.8						

Intersection Summary											
HCM 7th Control Delay, s/veh		10.1									
HCM 7th LOS		B									

Notes

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	550	1180	250	120	1110	60	240	70	90	50	70	570
Future Volume (veh/h)	550	1180	250	120	1110	60	240	70	90	50	70	570
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	607	1302	276	132	1224	66	265	77	99	55	77	629
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	2	2	2	2	2
Cap, veh/h	694	1790	379	162	1558	84	407	223	287	190	247	476
Arrive On Green	0.20	0.42	0.42	0.09	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	3456	4219	894	1781	4959	267	1439	743	955	463	823	1585
Grp Volume(v), veh/h	607	1050	528	132	840	450	265	0	176	132	0	629
Grp Sat Flow(s),veh/h/ln	1728	1702	1709	1781	1702	1822	720	0	1698	1287	0	1585
Q Serve(g_s), s	17.0	25.7	25.7	7.3	22.5	22.5	18.3	0.0	8.1	3.6	0.0	30.0
Cycle Q Clear(g_c), s	17.0	25.7	25.7	7.3	22.5	22.5	30.0	0.0	8.1	11.7	0.0	30.0
Prop In Lane	1.00		0.52	1.00		0.15	1.00		0.56	0.42		1.00
Lane Grp Cap(c), veh/h	694	1444	725	162	1069	573	407	0	510	437	0	476
V/C Ratio(X)	0.87	0.73	0.73	0.82	0.79	0.79	0.65	0.00	0.35	0.30	0.00	1.32
Avail Cap(c_a), veh/h	812	1444	725	187	1069	573	407	0	510	437	0	476
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)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	24.0	24.0	44.6	31.2	31.2	40.9	0.0	27.3	28.5	0.0	35.0
Incr Delay (d2), s/veh	8.0	2.7	5.3	21.2	5.8	10.4	3.7	0.0	0.4	0.4	0.0	159.4
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	7.9	10.5	11.1	4.1	9.9	11.3	3.4	0.0	3.3	2.6	0.0	32.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.8	26.7	29.3	65.9	37.0	41.6	44.6	0.0	27.7	28.9	0.0	194.4
LnGrp LOS	D	C	C	E	D	D	D		C	C		F
Approach Vol, veh/h		2185			1422			441			761	
Approach Delay, s/veh		32.9			41.2			37.9			165.7	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.6	36.4		36.0	16.6	47.4		36.0				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	23.5	28.0		30.0	10.5	41.0		30.0				
Max Q Clear Time (g_c+I1), s	19.0	24.5		32.0	9.3	27.7		32.0				
Green Ext Time (p_c), s	1.1	2.5		0.0	0.0	8.7		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		56.8
HCM 7th LOS		E

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	600	750	0	0	800	230	0	0	0	170	0	420
Future Volume (veh/h)	600	750	0	0	800	230	0	0	0	170	0	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	676	845	0	0	901	259	0	0	0	127	0	541
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	768	2462	0	0	1423	635	0	369	0	423	0	625
Arrive On Green	0.22	0.69	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	3456	3647	0	0	3647	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	676	845	0	0	901	259	0	0	0	127	0	541
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	18.9	9.6	0.0	0.0	20.4	11.7	0.0	0.0	0.0	6.2	0.0	16.5
Cycle Q Clear(g_c), s	18.9	9.6	0.0	0.0	20.4	11.7	0.0	0.0	0.0	6.2	0.0	16.5
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	768	2462	0	0	1423	635	0	369	0	423	0	625
V/C Ratio(X)	0.88	0.34	0.00	0.00	0.63	0.41	0.00	0.00	0.00	0.30	0.00	0.87
Avail Cap(c_a), veh/h	898	2462	0	0	1423	635	0	430	0	482	0	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.74	0.74	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	6.2	0.0	0.0	24.1	21.5	0.0	0.0	0.0	34.7	0.0	38.8
Incr Delay (d2), s/veh	9.0	0.4	0.0	0.0	1.6	1.4	0.0	0.0	0.0	0.4	0.0	9.5
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	8.8	3.3	0.0	0.0	8.6	4.5	0.0	0.0	0.0	2.7	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.6	6.6	0.0	0.0	25.7	22.9	0.0	0.0	0.0	35.1	0.0	48.4
LnGrp LOS	D	A			C	C				D		D
Approach Vol, veh/h		1521			1160			0			668	
Approach Delay, s/veh		24.4			25.1			0.0			45.8	
Approach LOS		C			C						D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	29.2	45.0		25.7		74.3		25.7				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	26.0	33.0		23.0		66.0		23.0				
Max Q Clear Time (g_c+I1), s	20.9	22.4		0.0		11.6		18.5				
Green Ext Time (p_c), s	1.3	5.2		0.0		7.4		1.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			28.9									
HCM 7th LOS			C									

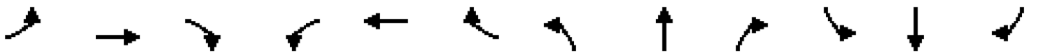
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	130	1	20	0	1030	170	20	890	0
Future Volume (veh/h)	0	0	0	130	1	20	0	1030	170	20	890	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	0	0	0	146	1	23	0	1160	191	23	1002	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	233	0	248	1	276	2	1938	318	88	2659	0
Arrive On Green	0.00	0.00	0.00	0.13	0.13	0.13	0.00	0.64	0.64	0.05	0.75	0.00
Sat Flow, veh/h	0	1856	0	1399	10	1572	1767	3032	497	1767	3618	0
Grp Volume(v), veh/h	0	0	0	147	0	23	0	672	679	23	1002	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1409	0	1572	1767	1763	1766	1767	1763	0
Q Serve(g_s), s	0.0	0.0	0.0	10.2	0.0	1.2	0.0	22.3	22.5	1.3	9.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.2	0.0	1.2	0.0	22.3	22.5	1.3	9.8	0.0
Prop In Lane	0.00		0.00	0.99		1.00	1.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	0	233	0	249	0	276	2	1127	1129	88	2659	0
V/C Ratio(X)	0.00	0.00	0.00	0.59	0.00	0.08	0.00	0.60	0.60	0.26	0.38	0.00
Avail Cap(c_a), veh/h	0	399	0	375	0	417	115	1127	1129	115	2659	0
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)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.14	0.14	0.92	0.92	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	42.7	0.0	34.5	0.0	10.5	10.6	45.7	4.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.1	0.0	0.3	0.3	1.4	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.7	0.0	0.5	0.0	7.9	8.0	0.6	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	44.9	0.0	34.6	0.0	10.9	10.9	47.1	4.6	0.0
LnGrp LOS				D		C		B	B	D	A	
Approach Vol, veh/h		0			170			1351			1025	
Approach Delay, s/veh		0.0			43.5			10.9			5.6	
Approach LOS					D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	69.4		19.1	0.0	80.9		19.1				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	6.5	53.5		21.5	6.5	53.5		21.5				
Max Q Clear Time (g_c+I1), s	3.3	24.5		0.0	0.0	11.8		12.2				
Green Ext Time (p_c), s	0.0	11.8		0.0	0.0	9.2		0.5				

Intersection Summary		
HCM 7th Control Delay, s/veh		10.9
HCM 7th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	50	10	650	0	0	700	50
Future Volume (veh/h)	10	0	10	20	10	50	10	650	0	0	700	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h	11	0	11	23	11	56	11	732	0	0	788	56
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	0	0	1	1
Cap, veh/h	228	16	80	173	23	96	116	1116	0	0	1042	74
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.60	0.60	0.00	0.00	0.60	0.60
Sat Flow, veh/h	657	166	824	364	238	991	8	1863	0	0	1739	124
Grp Volume(v), veh/h	22	0	0	90	0	0	743	0	0	0	0	844
Grp Sat Flow(s),veh/h/ln	1648	0	0	1592	0	0	1871	0	0	0	0	1863
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.8	0.0	0.0	8.6	0.0	0.0	0.0	0.0	10.9
Prop In Lane	0.50		0.50	0.26		0.62	0.01		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	324	0	0	292	0	0	1231	0	0	0	0	1116
V/C Ratio(X)	0.07	0.00	0.00	0.31	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.76
Avail Cap(c_a), veh/h	847	0	0	856	0	0	2082	0	0	0	0	1980
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	14.2	0.0	0.0	4.4	0.0	0.0	0.0	0.0	4.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.1
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	0.0	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.7	0.0	0.0	14.8	0.0	0.0	4.8	0.0	0.0	0.0	0.0	5.9
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		22			90			743			844	
Approach Delay, s/veh		13.7			14.8			4.8			5.9	
Approach LOS		B			B			A			A	

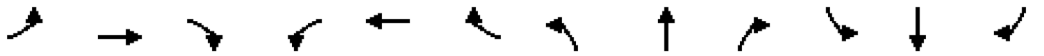
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.7		8.2		24.7		8.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		15.0		35.0		15.0				
Max Q Clear Time (g_c+I1), s		10.6		2.4		12.9		3.8				
Green Ext Time (p_c), s		5.9		0.0		6.8		0.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	6.0
HCM 7th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	260	170	480	250	180	480
Future Volume (veh/h)	260	170	480	250	180	480
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	290	189	535	279	201	535
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	371	330	686	911	251	1127
Arrive On Green	0.21	0.21	0.37	0.37	0.14	0.60
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	290	189	535	279	201	535
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.1	5.7	13.4	4.8	5.8	8.4
Cycle Q Clear(g_c), s	8.1	5.7	13.4	4.8	5.8	8.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	371	330	686	911	251	1127
V/C Ratio(X)	0.78	0.57	0.78	0.31	0.80	0.47
Avail Cap(c_a), veh/h	540	481	1063	1231	304	1559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	18.8	14.8	5.8	22.0	5.8
Incr Delay (d2), s/veh	4.6	1.6	2.0	0.2	12.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	2.0	5.2	2.2	3.0	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.3	20.4	16.8	6.0	34.0	6.2
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	479		814			736
Approach Delay, s/veh	22.8		13.1			13.8
Approach LOS	C		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.4	24.4				36.8	16.0
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	7.8	15.4				10.4	10.1
Green Ext Time (p_c), s	0.1	4.0				3.9	0.9

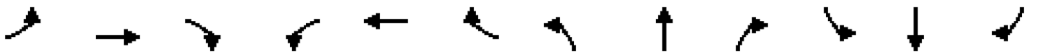
Intersection Summary							
HCM 7th Control Delay, s/veh			15.6				
HCM 7th LOS			B				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	30	230	0	0	0	220	510	0	10	420	270
Future Volume (veh/h)	290	30	230	0	0	0	220	510	0	10	420	270
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	0.92	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	334	35	265				253	587	0	12	483	311
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	397	46	346				460	1206	0	53	909	785
Arrive On Green	0.24	0.24	0.24				0.09	0.65	0.00	0.50	0.50	0.50
Sat Flow, veh/h	1639	188	1425				1781	1870	0	15	1837	1585
Grp Volume(v), veh/h	334	0	300				253	587	0	495	0	311
Grp Sat Flow(s),veh/h/ln	1639	0	1614				1781	1870	0	1852	0	1585
Q Serve(g_s), s	15.5	0.0	13.8				5.2	13.0	0.0	0.0	0.0	9.9
Cycle Q Clear(g_c), s	15.5	0.0	13.8				5.2	13.0	0.0	14.5	0.0	9.9
Prop In Lane	1.00		0.88				1.00		0.00	0.02		1.00
Lane Grp Cap(c), veh/h	397	0	391				460	1206	0	963	0	785
V/C Ratio(X)	0.84	0.00	0.77				0.55	0.49	0.00	0.51	0.00	0.40
Avail Cap(c_a), veh/h	512	0	504				460	1206	0	963	0	785
HCM Platoon Ratio	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	1.00	0.00	0.79	0.00	0.79
Uniform Delay (d), s/veh	28.8	0.0	28.2				9.9	7.3	0.0	13.9	0.0	12.7
Incr Delay (d2), s/veh	9.6	0.0	5.3				1.4	1.4	0.0	1.6	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	5.7				1.9	4.7	0.0	6.0	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.4	0.0	33.4				11.3	8.8	0.0	15.4	0.0	13.9
LnGrp LOS	D		C				B	A		B		B
Approach Vol, veh/h		634						840			806	
Approach Delay, s/veh		36.1						9.5			14.8	
Approach LOS		D						A			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		56.6		23.4	12.0	44.6						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		46.0		25.0	7.0	34.0						
Max Q Clear Time (g_c+I1), s		15.0		17.5	7.2	16.5						
Green Ext Time (p_c), s		4.4		1.9	0.0	4.1						

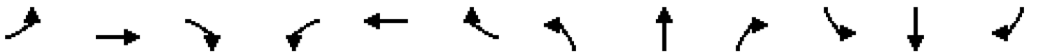
Intersection Summary												
HCM 7th Control Delay, s/veh			18.8									
HCM 7th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	270	340	160	290	80	330	340	190	80	350	10
Future Volume (veh/h)	20	270	340	160	290	80	330	340	190	80	350	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	304	383	180	327	90	372	383	214	90	394	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	337	306	303	523	144	437	636	539	118	517	14
Arrive On Green	0.19	0.19	0.19	0.10	0.37	0.37	0.25	0.34	0.34	0.07	0.15	0.15
Sat Flow, veh/h	66	1743	1585	1781	1412	389	1781	1870	1585	1781	3531	98
Grp Volume(v), veh/h	327	0	383	180	0	417	372	383	214	90	198	207
Grp Sat Flow(s),veh/h/ln	1809	0	1585	1781	0	1800	1781	1870	1585	1781	1777	1853
Q Serve(g_s), s	5.9	0.0	13.0	5.1	0.0	12.8	13.4	11.4	6.9	3.3	7.2	7.2
Cycle Q Clear(g_c), s	11.9	0.0	13.0	5.1	0.0	12.8	13.4	11.4	6.9	3.3	7.2	7.2
Prop In Lane	0.07		1.00	1.00		0.22	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	407	0	306	303	0	667	437	636	539	118	260	271
V/C Ratio(X)	0.80	0.00	1.25	0.59	0.00	0.62	0.85	0.60	0.40	0.76	0.76	0.76
Avail Cap(c_a), veh/h	407	0	306	357	0	722	927	834	707	477	317	330
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	26.6	0.0	27.1	18.6	0.0	17.3	24.2	18.4	16.9	30.9	27.6	27.6
Incr Delay (d2), s/veh	11.2	0.0	137.0	1.9	0.0	1.5	4.8	0.9	0.5	9.6	8.4	8.2
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	6.1	0.0	16.3	2.1	0.0	5.1	5.9	4.7	2.4	1.7	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.8	0.0	164.1	20.6	0.0	18.8	29.0	19.3	17.4	40.5	36.0	35.8
LnGrp LOS	D		F	C		B	C	B	B	D	D	D
Approach Vol, veh/h		710			597			969			495	
Approach Delay, s/veh		105.9			19.4			22.6			36.7	
Approach LOS		F			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	27.9	11.9	18.0	22.5	14.9		29.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	30.0	9.0	13.0	35.0	12.0		27.0				
Max Q Clear Time (g_c+I1), s	5.3	13.4	7.1	15.0	15.4	9.2		14.8				
Green Ext Time (p_c), s	0.1	2.9	0.1	0.0	1.1	0.6		2.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	45.8
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	0	20	0	0	0	20	820	0	0	860	60
Future Volume (veh/h)	60	0	20	0	0	0	20	820	0	0	860	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	0	22	0	0	0	22	895	0	0	939	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	0	132	0	117	0	37	1424	0	0	1127	79
Arrive On Green	0.06	0.00	0.06	0.00	0.00	0.00	0.02	0.76	0.00	0.00	0.65	0.65
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1870	0	0	1727	121
Grp Volume(v), veh/h	66	0	22	0	0	0	22	895	0	0	0	1005
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1870	0	0	0	1849
Q Serve(g_s), s	2.6	0.0	0.7	0.0	0.0	0.0	0.7	12.4	0.0	0.0	0.0	23.5
Cycle Q Clear(g_c), s	2.6	0.0	0.7	0.0	0.0	0.0	0.7	12.4	0.0	0.0	0.0	23.5
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	215	0	132	0	117	0	37	1424	0	0	0	1206
V/C Ratio(X)	0.31	0.00	0.17	0.00	0.00	0.00	0.60	0.63	0.00	0.00	0.00	0.83
Avail Cap(c_a), veh/h	377	0	312	0	330	0	220	2801	0	0	0	2377
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	24.2	0.0	0.0	0.0	27.6	3.1	0.0	0.0	0.0	7.5
Incr Delay (d2), s/veh	0.8	0.0	0.6	0.0	0.0	0.0	14.5	0.5	0.0	0.0	0.0	1.6
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	0.9	0.0	0.3	0.0	0.0	0.0	0.4	1.7	0.0	0.0	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	0.0	24.8	0.0	0.0	0.0	42.1	3.6	0.0	0.0	0.0	9.1
LnGrp LOS	C		C				D	A				A
Approach Vol, veh/h		88			0			917			1005	
Approach Delay, s/veh		26.4			0.0			4.5			9.1	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		48.2		8.5	6.2	42.0		8.5				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		85.0		10.0	7.0	73.0		10.0				
Max Q Clear Time (g_c+I1), s		14.4		4.6	2.7	25.5		0.0				
Green Ext Time (p_c), s		9.3		0.1	0.0	11.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			7.7									
HCM 7th LOS			A									

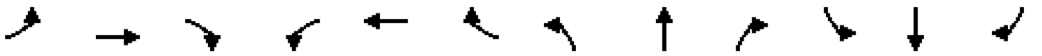
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	60	0	0	0	70	520	0	0	530	0
Future Volume (veh/h)	200	0	60	0	0	0	70	520	0	0	530	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	225	0	68	0	0	0	79	586	0	0	597	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	0
Cap, veh/h	471	0	279	0	330	0	146	762	0	0	978	0
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.53	0.53	0.00	0.00	0.53	0.00
Sat Flow, veh/h	1767	0	1572	0	1856	0	110	1445	0	0	1856	0
Grp Volume(v), veh/h	225	0	68	0	0	0	665	0	0	0	597	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572	0	1856	0	1555	0	0	0	1856	0
Q Serve(g_s), s	5.5	0.0	1.7	0.0	0.0	0.0	6.4	0.0	0.0	0.0	10.3	0.0
Cycle Q Clear(g_c), s	5.5	0.0	1.7	0.0	0.0	0.0	16.6	0.0	0.0	0.0	10.3	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.12		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	471	0	279	0	330	0	908	0	0	0	978	0
V/C Ratio(X)	0.48	0.00	0.24	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.61	0.00
Avail Cap(c_a), veh/h	968	0	722	0	872	0	1661	0	0	0	1845	0
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	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	16.2	0.0	0.0	0.0	8.7	0.0	0.0	0.0	7.5	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	0.0	16.6	0.0	0.0	0.0	9.8	0.0	0.0	0.0	8.2	0.0
LnGrp LOS	B		B				A				A	
Approach Vol, veh/h		293			0			665			597	
Approach Delay, s/veh		18.0			0.0			9.8			8.2	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.6		14.1		31.6		14.1				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		45.5		21.0		45.5		* 22				
Max Q Clear Time (g_c+I1), s		18.6		7.5		12.3		0.0				
Green Ext Time (p_c), s		5.5		0.8		4.5		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	10.7
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	1	0	0	5	550	0	0	550	5
Future Volume (veh/h)	5	0	5	1	0	0	5	550	0	0	550	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	6	0	6	1	0	0	6	613	0	0	613	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	0	20	216	0	0	91	1348	0	0	1339	13
Arrive On Green	0.03	0.00	0.03	0.03	0.00	0.00	0.73	0.73	0.00	0.00	0.73	0.73
Sat Flow, veh/h	746	0	746	1506	0	0	4	1847	0	0	1834	18
Grp Volume(v), veh/h	12	0	0	1	0	0	619	0	0	0	0	619
Grp Sat Flow(s),veh/h/ln	1491	0	0	1506	0	0	1851	0	0	0	0	1852
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	5.6
Prop In Lane	0.50		0.50	1.00		0.00	0.01		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	171	0	0	216	0	0	1439	0	0	0	0	1352
V/C Ratio(X)	0.07	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.46
Avail Cap(c_a), veh/h	565	0	0	586	0	0	1439	0	0	0	0	1352
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	19.5	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
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	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.8	0.0	0.0	19.5	0.0	0.0	2.5	0.0	0.0	0.0	0.0	2.5
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		12			1			619			619	
Approach Delay, s/veh		19.8			19.5			2.5			2.5	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.1		36.0		5.1				
Change Period (Y+Rc), s		6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s		30.0		12.0		30.0		12.0				
Max Q Clear Time (g_c+I1), s		7.6		2.3		7.6		2.0				
Green Ext Time (p_c), s		4.4		0.0		4.4		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			2.7									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	660	5	20	740	5	20
Future Vol, veh/h	660	5	20	740	5	20
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	768	6	23	861	6	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	773	0	1678	771
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	907	-
Critical Hdwy	-	-	4.12	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	842	-	136	450
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	436	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	842	-	129	450
Mov Cap-2 Maneuver	-	-	-	-	129	-
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	413	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.25	18.27
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	300	47	-	-	-
HCM Lane V/C Ratio	0.097	0.028	-	-	-
HCM Control Delay (s/veh)	18.3	9.4	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	700	650	50	30	40
Future Vol, veh/h	20	700	650	50	30	40
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	23	814	756	58	35	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	814	0	-	0	1646	785
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	861	-
Critical Hdwy	4.12	-	-	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3	3
Pot Cap-1 Maneuver	813	-	-	-	142	442
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	460	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	813	-	-	-	135	442
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	460	-

Approach	SE	NW	SW
HCM Control Delay, s/v	0.27	0	30.09
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	50	-	223
HCM Lane V/C Ratio	-	-	0.029	-	0.365
HCM Control Delay (s/veh)	-	-	9.6	0	30.1
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.1	-	1.6

Intersection	
Int Delay, s/veh	15.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	70	730	90	70	770
Future Vol, veh/h	80	70	730	90	70	770
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	78	814	100	78	858

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1878	864	0	0	914	0
Stage 1	864	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.218	-
Pot Cap-1 Maneuver	104	399	-	-	746	-
Stage 1	459	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	93	399	-	-	746	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	346	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/veh	183.66	0	0.87
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	145	746	-
HCM Lane V/C Ratio	-	-	1.155	0.105	-
HCM Control Delay (s/veh)	-	-	183.7	10.4	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	9.4	0.3	-

Intersection	
Int Delay, s/veh	1.7

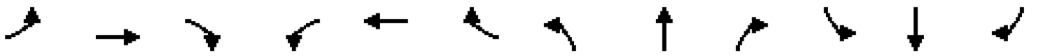
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	5	10	10	5	40	5	750	10	20	760	60
Future Vol, veh/h	10	5	10	10	5	40	5	750	10	20	760	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	6	12	12	6	47	6	872	12	23	884	70

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1852	1861	919	1823	1890	878	954	0	0	884	0	0
Stage 1	965	965	-	890	890	-	-	-	-	-	-	-
Stage 2	887	896	-	933	1000	-	-	-	-	-	-	-
Critical Hdwy	6	6	6	6	6	6	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3	3	3	3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	108	106	371	112	102	392	721	-	-	765	-	-
Stage 1	400	398	-	436	434	-	-	-	-	-	-	-
Stage 2	438	431	-	415	382	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	82	98	371	94	94	392	721	-	-	765	-	-
Mov Cap-2 Maneuver	82	98	-	94	94	-	-	-	-	-	-	-
Stage 1	373	371	-	430	427	-	-	-	-	-	-	-
Stage 2	375	425	-	370	357	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	42.29	29.45	0.07	0.23
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	12	-	-	125	210	42	-	-
HCM Lane V/C Ratio	0.008	-	-	0.232	0.304	0.03	-	-
HCM Control Delay (s/veh)	10	0	-	42.3	29.4	9.9	0	-
HCM Lane LOS	B	A	-	E	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.2	0.1	-	-

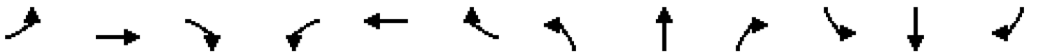
Part 7: 2035 Build Conditions: Weekday AM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	10	100	60	10	30	380	820	350	120	500	130
Future Volume (veh/h)	40	10	100	60	10	30	380	820	350	120	500	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	46	11	114	68	11	34	433	933	398	137	569	148
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	165	33	420	141	47	145	515	1493	631	167	1545	401
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.15	0.62	0.62	0.09	0.56	0.56
Sat Flow, veh/h	898	282	1560	1246	396	1224	3401	2395	1012	1753	2748	713
Grp Volume(v), veh/h	57	0	114	68	0	45	433	679	652	137	361	356
Grp Sat Flow(s),veh/h/ln	1180	0	1560	1246	0	1620	1700	1749	1659	1753	1749	1712
Q Serve(g_s), s	3.5	0.0	6.3	6.0	0.0	2.8	13.6	26.3	26.9	8.4	12.5	12.6
Cycle Q Clear(g_c), s	6.3	0.0	6.3	12.3	0.0	2.8	13.6	26.3	26.9	8.4	12.5	12.6
Prop In Lane	0.81		1.00	1.00		0.76	1.00		0.61	1.00		0.42
Lane Grp Cap(c), veh/h	199	0	420	141	0	191	515	1090	1034	167	983	963
V/C Ratio(X)	0.29	0.00	0.27	0.48	0.00	0.23	0.84	0.62	0.63	0.82	0.37	0.37
Avail Cap(c_a), veh/h	199	0	420	141	0	191	727	1090	1034	271	983	963
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	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	0.0	31.7	51.3	0.0	44.0	45.4	12.8	12.9	48.9	13.3	13.3
Incr Delay (d2), s/veh	0.8	0.0	0.3	2.5	0.0	0.6	4.9	2.1	2.3	10.0	1.1	1.1
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	1.5	0.0	2.4	2.0	0.0	1.1	6.1	10.2	9.9	4.1	5.1	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.0	0.0	32.0	53.8	0.0	44.6	50.3	14.8	15.1	58.9	14.3	14.4
LnGrp LOS	D		C	D		D	D	B	B	E	B	B
Approach Vol, veh/h		171			113			1764			854	
Approach Delay, s/veh		37.0			50.2			23.6			21.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	73.6		19.0	24.1	66.9		19.0				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	17.0	62.0		13.0	23.5	55.0		13.0				
Max Q Clear Time (g_c+I1), s	10.4	28.9		8.3	15.6	14.6		14.3				
Green Ext Time (p_c), s	0.2	12.4		0.2	1.0	5.3		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			24.8									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	10	330	10	10	10	460	1340	10	10	450	190
Future Volume (veh/h)	170	10	330	10	10	10	460	1340	10	10	450	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	192	0	0	11	11	11	502	1463	11	11	491	0
Peak Hour Factor	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	379	0		73	65	47	587	2585	19	23	1982	
Arrive On Green	0.09	0.00	0.00	0.09	0.09	0.09	0.17	0.73	0.73	0.03	1.00	0.00
Sat Flow, veh/h	2713	0	1547	334	747	541	3374	3529	27	1739	3469	1547
Grp Volume(v), veh/h	192	0	0	33	0	0	502	719	755	11	491	0
Grp Sat Flow(s),veh/h/ln	1357	0	1547	1622	0	0	1687	1735	1821	1739	1735	1547
Q Serve(g_s), s	5.1	0.0	0.0	0.0	0.0	0.0	15.9	20.8	20.9	0.7	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	0.0	2.0	0.0	0.0	15.9	20.8	20.9	0.7	0.0	0.0
Prop In Lane	1.00		1.00	0.33		0.33	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	379	0		184	0	0	587	1270	1334	23	1982	
V/C Ratio(X)	0.51	0.00		0.18	0.00	0.00	0.86	0.57	0.57	0.49	0.25	
Avail Cap(c_a), veh/h	650	0		340	0	0	797	1270	1334	79	1982	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.66	0.66	0.66	0.94	0.94	0.00
Uniform Delay (d), s/veh	48.9	0.0	0.0	46.8	0.0	0.0	44.1	6.7	6.7	53.2	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.5	0.0	0.0	4.7	1.2	1.2	14.5	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.9	0.0	0.0	7.0	6.9	7.3	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.0	0.0	0.0	47.3	0.0	0.0	48.8	7.9	7.9	67.7	0.3	0.0
LnGrp LOS	D			D			D	A	A	E	A	
Approach Vol, veh/h		192			33			1976			502	
Approach Delay, s/veh		50.0			47.3			18.3			1.8	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	85.6		17.0	25.1	67.8		17.0				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	5.0	66.0		20.5	26.0	45.0		20.5				
Max Q Clear Time (g_c+I1), s	2.7	22.9		9.1	17.9	2.0		4.0				
Green Ext Time (p_c), s	0.0	15.4		0.5	1.3	3.7		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	17.8	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

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

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	0	0	0	670	110	0	1340	520	470	0	440
Future Volume (veh/h)	0	0	0	670	110	0	1340	520	470	0	440
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1811	1811	0	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h			0	739	0	0	1478	0	518	518	0
Peak Hour Factor			0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %			0	6	6	0	6	6	6	6	6
Cap, veh/h			0	2443		0	2443		606	606	
Arrive On Green			0.00	0.71	0.00	0.00	1.00	0.00	0.18	0.18	0.00
Sat Flow, veh/h			0	3532	1535	0	3532	1535	3346	3346	1535
Grp Volume(v), veh/h			0	739	0	0	1478	0	518	518	0
Grp Sat Flow(s),veh/h/ln			0	1721	1535	0	1721	1535	1673	1673	1535
Q Serve(g_s), s			0.0	8.7	0.0	0.0	0.0	0.0	16.5	16.5	0.0
Cycle Q Clear(g_c), s			0.0	8.7	0.0	0.0	0.0	0.0	16.5	16.5	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2443		0	2443		606	606	
V/C Ratio(X)			0.00	0.30		0.00	0.61		0.85	0.85	
Avail Cap(c_a), veh/h			0	2443		0	2443		852	852	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.97	0.00	0.00	0.80	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	5.9	0.0	0.0	0.0	0.0	43.6	43.6	0.0
Incr Delay (d2), s/veh			0.0	0.3	0.0	0.0	0.9	0.0	6.2	6.2	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	2.9	0.0	0.0	0.3	0.0	7.3	7.3	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	6.2	0.0	0.0	0.9	0.0	49.8	49.8	0.0
LnGrp LOS				A			A		D	D	
Approach Vol, veh/h				739			1478		518	518	
Approach Delay, s/veh				6.2			0.9		49.8	49.8	
Approach LOS				A			A		D	D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	83.1	26.9	83.1
Change Period (Y+Rc), s	5.0	7.0	5.0
Max Green Setting (Gmax), s	70.0	28.0	70.0
Max Q Clear Time (g_c+I1), s	2.0	18.5	10.7
Green Ext Time (p_c), s	19.0	1.4	6.3

Intersection Summary	
HCM 7th Control Delay, s/veh	11.6
HCM 7th LOS	B

Notes

Unsignalized Delay for [NER, NWR, SER] is excluded from calculations of the approach delay and intersection delay.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	60	800	230	80	1260	20	280	30	30	20	70	250
Future Volume (veh/h)	60	800	230	80	1260	20	280	30	30	20	70	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	68	911	262	91	1434	23	319	34	34	23	80	285
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	134	2036	583	115	2808	45	498	198	198	106	339	366
Arrive On Green	0.04	0.53	0.53	0.07	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	3374	3848	1103	1739	5053	81	1926	838	838	278	1436	1547
Grp Volume(v), veh/h	68	786	387	91	943	514	319	0	68	103	0	285
Grp Sat Flow(s),veh/h/ln	1687	1662	1627	1739	1662	1811	963	0	1675	1714	0	1547
Q Serve(g_s), s	2.2	16.1	16.1	5.7	19.4	19.4	17.7	0.0	3.6	0.0	0.0	19.0
Cycle Q Clear(g_c), s	2.2	16.1	16.1	5.7	19.4	19.4	22.7	0.0	3.6	5.0	0.0	19.0
Prop In Lane	1.00		0.68	1.00		0.04	1.00		0.50	0.22		1.00
Lane Grp Cap(c), veh/h	134	1758	861	115	1847	1007	498	0	396	445	0	366
V/C Ratio(X)	0.51	0.45	0.45	0.79	0.51	0.51	0.64	0.00	0.17	0.23	0.00	0.78
Avail Cap(c_a), veh/h	230	1758	861	261	1847	1007	603	0	487	537	0	450
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)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.8	16.0	16.0	50.6	15.2	15.2	43.2	0.0	33.4	34.0	0.0	39.3
Incr Delay (d2), s/veh	2.8	0.8	1.6	11.2	1.0	1.9	1.7	0.0	0.2	0.3	0.0	6.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.1	6.2	2.8	7.3	8.2	4.3	0.0	1.5	2.3	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.6	16.8	17.6	61.8	16.2	17.0	44.8	0.0	33.6	34.3	0.0	46.2
LnGrp LOS	D	B	B	E	B	B	D		C	C		D
Approach Vol, veh/h		1241			1548			387			388	
Approach Delay, s/veh		19.1			19.1			42.9			43.0	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	66.1		32.0	14.8	63.2		32.0				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	7.5	52.0		32.0	16.5	43.0		32.0				
Max Q Clear Time (g_c+I1), s	4.2	21.4		24.7	7.7	18.1		21.0				
Green Ext Time (p_c), s	0.0	12.9		1.3	0.1	9.2		1.2				

Intersection Summary		
HCM 7th Control Delay, s/veh		24.3
HCM 7th LOS		C

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	140	580	0	0	1350	60	0	5	0	30	0	40
Future Volume (veh/h)	140	580	0	0	1350	60	0	5	0	30	0	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	0	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	154	640	0	0	1489	66	0	6	0	48	0	28
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, %	6	6	6	0	6	6	6	6	6	6	6	6
Cap, veh/h	216	2953	0	0	2513	1121	0	76	0	236	0	64
Arrive On Green	0.06	0.86	0.00	0.00	0.73	0.73	0.00	0.04	0.00	0.04	0.00	0.04
Sat Flow, veh/h	3346	3532	0	0	3532	1535	0	1811	0	2730	0	1535
Grp Volume(v), veh/h	154	640	0	0	1489	66	0	6	0	48	0	28
Grp Sat Flow(s),veh/h/ln	1673	1721	0	0	1721	1535	0	1811	0	1365	0	1535
Q Serve(g_s), s	5.0	3.6	0.0	0.0	22.6	1.3	0.0	0.4	0.0	1.9	0.0	2.0
Cycle Q Clear(g_c), s	5.0	3.6	0.0	0.0	22.6	1.3	0.0	0.4	0.0	2.2	0.0	2.0
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	2953	0	0	2513	1121	0	76	0	236	0	64
V/C Ratio(X)	0.71	0.22	0.00	0.00	0.59	0.06	0.00	0.08	0.00	0.20	0.00	0.44
Avail Cap(c_a), veh/h	365	2953	0	0	2513	1121	0	115	0	296	0	98
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.66	0.66	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.5	1.4	0.0	0.0	7.1	4.2	0.0	50.7	0.0	51.8	0.0	51.4
Incr Delay (d2), s/veh	4.4	0.2	0.0	0.0	0.7	0.1	0.0	0.4	0.0	0.4	0.0	4.6
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	2.2	0.6	0.0	0.0	7.3	0.4	0.0	0.2	0.0	0.7	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.8	1.5	0.0	0.0	7.7	4.3	0.0	51.1	0.0	52.2	0.0	56.1
LnGrp LOS	D	A			A	A		D		D		E
Approach Vol, veh/h		794			1555			6			76	
Approach Delay, s/veh		11.9			7.6			51.1			53.6	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.1	85.3		10.6		99.4		10.6				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	12.0	73.0		7.0		92.0		7.0				
Max Q Clear Time (g_c+I1), s	7.0	24.6		2.4		5.6		4.2				
Green Ext Time (p_c), s	0.2	18.3		0.0		5.2		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		10.5	
HCM 7th LOS		B	

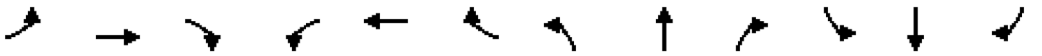
Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	10	10	0	10	20	1360	140	50	690	10
Future Volume (veh/h)	20	5	10	10	0	10	20	1360	140	50	690	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	23	6	12	12	0	12	23	1565	161	58	794	12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	81	12	17	134	0	144	40	2326	237	89	2659	40
Arrive On Green	0.04	0.04	0.04	0.04	0.00	0.04	0.02	0.74	0.74	0.05	0.77	0.77
Sat Flow, veh/h	690	272	398	1620	0	1535	1725	3153	321	1725	3470	52
Grp Volume(v), veh/h	41	0	0	12	0	12	23	847	879	58	394	412
Grp Sat Flow(s),veh/h/ln	1361	0	0	1620	0	1535	1725	1721	1753	1725	1721	1802
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	0.8	1.5	27.9	29.0	3.6	7.6	7.6
Cycle Q Clear(g_c), s	3.4	0.0	0.0	0.7	0.0	0.8	1.5	27.9	29.0	3.6	7.6	7.6
Prop In Lane	0.56		0.29	1.00		1.00	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	109	0	0	134	0	144	40	1270	1294	89	1318	1381
V/C Ratio(X)	0.38	0.00	0.00	0.09	0.00	0.08	0.58	0.67	0.68	0.66	0.30	0.30
Avail Cap(c_a), veh/h	226	0	0	243	0	267	86	1270	1294	118	1318	1381
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	0.00	1.00	0.00	1.00	0.12	0.12	0.12	0.98	0.98	0.98
Uniform Delay (d), s/veh	52.1	0.0	0.0	50.8	0.0	45.5	53.2	7.4	7.6	51.2	3.9	3.9
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.3	0.0	0.2	1.6	0.3	0.4	7.8	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	0.3	0.0	0.3	0.6	8.7	9.2	1.8	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.3	0.0	0.0	51.0	0.0	45.8	54.8	7.8	7.9	59.0	4.5	4.4
LnGrp LOS	D			D		D	D	A	A	E	A	A
Approach Vol, veh/h		41			24			1749			864	
Approach Delay, s/veh		54.3			48.4			8.5			8.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	86.7		11.2	9.0	89.8		11.2				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	7.5	70.5		13.5	5.5	72.5		13.5				
Max Q Clear Time (g_c+I1), s	5.6	31.0		5.4	3.5	9.6		2.8				
Green Ext Time (p_c), s	0.0	20.0		0.1	0.0	6.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			9.4									
HCM 7th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	90	10	670	0	0	330	20
Future Volume (veh/h)	10	0	10	20	10	90	10	670	0	0	330	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	0	0	1841	1841
Adj Flow Rate, veh/h	12	0	12	23	12	105	12	779	0	0	384	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	0	0	4	4
Cap, veh/h	188	27	124	94	39	186	67	1168	0	0	1101	66
Arrive On Green	0.16	0.00	0.16	0.16	0.16	0.16	0.64	0.64	0.00	0.00	0.64	0.64
Sat Flow, veh/h	614	174	788	149	245	1183	9	1824	0	0	1719	103
Grp Volume(v), veh/h	24	0	0	140	0	0	791	0	0	0	0	407
Grp Sat Flow(s),veh/h/ln	1576	0	0	1578	0	0	1833	0	0	0	0	1822
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
Cycle Q Clear(g_c), s	0.7	0.0	0.0	4.8	0.0	0.0	16.1	0.0	0.0	0.0	0.0	6.1
Prop In Lane	0.50		0.50	0.16		0.75	0.02		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	339	0	0	319	0	0	1235	0	0	0	0	1167
V/C Ratio(X)	0.07	0.00	0.00	0.44	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.35
Avail Cap(c_a), veh/h	355	0	0	336	0	0	1235	0	0	0	0	1167
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	23.1	0.0	0.0	6.7	0.0	0.0	0.0	0.0	4.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.8	0.0	0.0	5.1	0.0	0.0	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.5	0.0	0.0	24.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0	5.8
LnGrp LOS	C			C			A					A
Approach Vol, veh/h		24			140			791			407	
Approach Delay, s/veh		21.5			24.0			9.3			5.8	
Approach LOS		C			C			A			A	

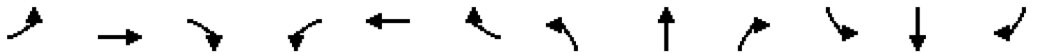
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.0		15.3		44.0		15.3				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		38.0		10.0		38.0		10.0				
Max Q Clear Time (g_c+I1), s		18.1		2.7		8.1		6.8				
Green Ext Time (p_c), s		5.9		0.0		2.7		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			10.0									
HCM 7th LOS			A									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	230	40	640	320	70	290
Future Volume (veh/h)	230	40	640	320	70	290
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	268	47	744	372	81	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	327	390	895	758	111	1173
Arrive On Green	0.19	0.19	0.49	0.49	0.06	0.64
Sat Flow, veh/h	1753	1560	1841	1560	1753	1841
Grp Volume(v), veh/h	268	47	744	372	81	337
Grp Sat Flow(s),veh/h/ln	1753	1560	1841	1560	1753	1841
Q Serve(g_s), s	8.4	1.3	19.8	9.2	2.6	4.6
Cycle Q Clear(g_c), s	8.4	1.3	19.8	9.2	2.6	4.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	327	390	895	758	111	1173
V/C Ratio(X)	0.82	0.12	0.83	0.49	0.73	0.29
Avail Cap(c_a), veh/h	431	483	1165	987	154	1488
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	16.5	12.6	9.9	26.2	4.6
Incr Delay (d2), s/veh	9.1	0.1	4.1	0.5	10.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.4	7.6	2.7	1.3	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	31.3	16.6	16.7	10.4	36.4	4.7
LnGrp LOS	C	B	B	B	D	A
Approach Vol, veh/h	315		1116			418
Approach Delay, s/veh	29.1		14.6			10.9
Approach LOS	C		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.6	32.7				41.3	15.6
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	5.0	36.0				46.0	14.0
Max Q Clear Time (g_c+I1), s	4.6	21.8				6.6	10.4
Green Ext Time (p_c), s	0.0	5.8				2.2	0.4

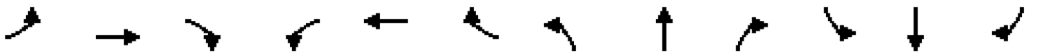
Intersection Summary	
HCM 7th Control Delay, s/veh	16.2
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	30	240	0	0	0	430	600	5	5	240	270
Future Volume (veh/h)	320	30	240	0	0	0	430	600	5	5	240	270
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841				1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	372	35	279				500	698	6	6	279	314
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4				4	4	4	4	4	4
Cap, veh/h	479	48	385				626	1047	9	65	473	406
Arrive On Green	0.27	0.27	0.27				0.23	0.57	0.57	0.26	0.26	0.26
Sat Flow, veh/h	1753	177	1410				1753	1822	16	11	1814	1560
Grp Volume(v), veh/h	372	0	314				500	0	704	285	0	314
Grp Sat Flow(s),veh/h/ln	1753	0	1587				1753	0	1838	1825	0	1560
Q Serve(g_s), s	11.6	0.0	10.6				11.2	0.0	15.6	0.0	0.0	11.0
Cycle Q Clear(g_c), s	11.6	0.0	10.6				11.2	0.0	15.6	8.0	0.0	11.0
Prop In Lane	1.00		0.89				1.00		0.01	0.02		1.00
Lane Grp Cap(c), veh/h	479	0	434				626	0	1056	538	0	406
V/C Ratio(X)	0.78	0.00	0.72				0.80	0.00	0.67	0.53	0.00	0.77
Avail Cap(c_a), veh/h	740	0	670				667	0	1427	856	0	685
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	19.5				11.2	0.0	8.7	19.2	0.0	20.3
Incr Delay (d2), s/veh	2.8	0.0	2.3				6.5	0.0	0.7	0.8	0.0	3.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	3.8				4.6	0.0	4.9	3.2	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.6	0.0	21.8				17.7	0.0	9.4	20.0	0.0	23.4
LnGrp LOS	C		C				B		A	B		C
Approach Vol, veh/h		686						1204			599	
Approach Delay, s/veh		22.3						12.9			21.8	
Approach LOS		C						B			C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		39.0		20.2	18.6	20.4						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		46.0		25.0	15.0	26.0						
Max Q Clear Time (g_c+I1), s		17.6		13.6	13.2	13.0						
Green Ext Time (p_c), s		5.6		2.6	0.4	2.4						

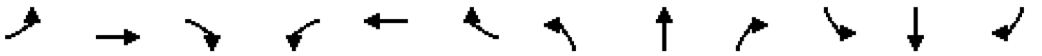
Intersection Summary												
HCM 7th Control Delay, s/veh			17.6									
HCM 7th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	180	230	120	390	50	410	430	200	70	280	5
Future Volume (veh/h)	5	180	230	120	390	50	410	430	200	70	280	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	6	209	268	140	454	58	477	500	233	81	326	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	48	349	301	174	566	72	523	757	641	104	561	10
Arrive On Green	0.19	0.19	0.19	0.10	0.35	0.35	0.30	0.41	0.41	0.06	0.16	0.16
Sat Flow, veh/h	16	1822	1572	1767	1612	206	1767	1856	1572	1767	3541	65
Grp Volume(v), veh/h	215	0	268	140	0	512	477	500	233	81	162	170
Grp Sat Flow(s),veh/h/ln	1838	0	1572	1767	0	1818	1767	1856	1572	1767	1763	1844
Q Serve(g_s), s	0.0	0.0	13.6	6.4	0.0	20.9	21.4	17.9	8.5	3.7	7.0	7.0
Cycle Q Clear(g_c), s	8.7	0.0	13.6	6.4	0.0	20.9	21.4	17.9	8.5	3.7	7.0	7.0
Prop In Lane	0.03		1.00	1.00		0.11	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	397	0	301	174	0	638	523	757	641	104	279	292
V/C Ratio(X)	0.54	0.00	0.89	0.81	0.00	0.80	0.91	0.66	0.36	0.78	0.58	0.58
Avail Cap(c_a), veh/h	403	0	306	215	0	686	645	858	728	129	279	292
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	30.4	0.0	32.4	36.3	0.0	24.1	27.9	19.7	16.9	38.1	32.0	32.0
Incr Delay (d2), s/veh	1.4	0.0	25.5	16.3	0.0	6.4	15.2	1.6	0.3	21.2	8.5	8.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	7.2	3.5	0.0	9.6	10.8	7.6	3.0	2.2	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.8	0.0	57.9	52.6	0.0	30.5	43.0	21.3	17.2	59.4	40.6	40.3
LnGrp LOS	C		E	D		C	D	C	B	E	D	D
Approach Vol, veh/h		483			652			1210			413	
Approach Delay, s/veh		46.3			35.3			29.1			44.2	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	38.5	13.1	20.7	30.3	18.0		33.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	38.0	10.0	16.0	30.0	13.0		31.0				
Max Q Clear Time (g_c+I1), s	5.7	19.9	8.4	15.6	23.4	9.0		22.9				
Green Ext Time (p_c), s	0.0	3.9	0.1	0.1	0.9	0.7		2.1				

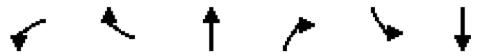
Intersection Summary	
HCM 7th Control Delay, s/veh	35.8
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	10	0	0	0	40	1020	0	0	600	50
Future Volume (veh/h)	20	0	10	0	0	0	40	1020	0	0	600	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	0	12	0	0	0	47	1186	0	0	698	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	0	48	0	57	0	67	1438	0	0	1081	90
Arrive On Green	0.03	0.00	0.03	0.00	0.00	0.00	0.04	0.77	0.00	0.00	0.64	0.64
Sat Flow, veh/h	1406	0	1572	0	1856	0	1767	1856	0	0	1690	140
Grp Volume(v), veh/h	23	0	12	0	0	0	47	1186	0	0	0	756
Grp Sat Flow(s),veh/h/ln	1406	0	1572	0	1856	0	1767	1856	0	0	0	1830
Q Serve(g_s), s	0.8	0.0	0.4	0.0	0.0	0.0	1.4	20.5	0.0	0.0	0.0	13.0
Cycle Q Clear(g_c), s	0.8	0.0	0.4	0.0	0.0	0.0	1.4	20.5	0.0	0.0	0.0	13.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.08
Lane Grp Cap(c), veh/h	183	0	48	0	57	0	67	1438	0	0	0	1171
V/C Ratio(X)	0.13	0.00	0.25	0.00	0.00	0.00	0.70	0.82	0.00	0.00	0.00	0.65
Avail Cap(c_a), veh/h	249	0	122	0	144	0	241	2743	0	0	0	2278
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	0.0	24.3	0.0	0.0	0.0	24.4	3.6	0.0	0.0	0.0	5.7
Incr Delay (d2), s/veh	0.3	0.0	2.7	0.0	0.0	0.0	12.3	1.3	0.0	0.0	0.0	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	0.3	0.0	0.2	0.0	0.0	0.0	0.8	1.6	0.0	0.0	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.9	0.0	27.0	0.0	0.0	0.0	36.8	4.9	0.0	0.0	0.0	6.3
LnGrp LOS	C		C				D	A				A
Approach Vol, veh/h		35			0			1233			756	
Approach Delay, s/veh		25.6			0.0			6.1			6.3	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		44.8		6.6	7.0	37.9		6.6				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		76.0		4.0	7.0	64.0		4.0				
Max Q Clear Time (g_c+I1), s		22.5		2.8	3.4	15.0		0.0				
Green Ext Time (p_c), s		17.3		0.0	0.0	6.8		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	6.5
HCM 7th LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	80	150	910	150	80	520
Future Volume (veh/h)	80	150	910	150	80	520
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	89	167	1014	167	89	580
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	236	210	1150	189	216	1373
Arrive On Green	0.13	0.13	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1753	1560	1541	254	467	1841
Grp Volume(v), veh/h	89	167	0	1181	89	580
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1795	467	1841
Q Serve(g_s), s	3.5	7.8	0.0	36.9	13.2	8.8
Cycle Q Clear(g_c), s	3.5	7.8	0.0	36.9	50.1	8.8
Prop In Lane	1.00	1.00		0.14	1.00	
Lane Grp Cap(c), veh/h	236	210	0	1339	216	1373
V/C Ratio(X)	0.38	0.79	0.00	0.88	0.41	0.42
Avail Cap(c_a), veh/h	360	320	0	1558	273	1598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	31.6	0.0	7.1	25.7	3.6
Incr Delay (d2), s/veh	1.0	7.6	0.0	5.6	1.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.3	0.0	10.5	1.5	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	30.8	39.3	0.0	12.8	27.0	3.8
LnGrp LOS	C	D		B	C	A
Approach Vol, veh/h	256		1181			669
Approach Delay, s/veh	36.3		12.8			6.8
Approach LOS	D		B			A

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	60.8				60.8	14.7
Change Period (Y+Rc), s	4.5				4.5	4.5
Max Green Setting (Gmax), s	65.5				65.5	15.5
Max Q Clear Time (g_c+I1), s	38.9				52.1	9.8
Green Ext Time (p_c), s	13.2				4.2	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	13.7
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	0	90	0	0	1	120	620	0	0	380	220
Future Volume (veh/h)	230	0	90	0	0	1	120	620	0	0	380	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	254	0	99	0	0	1	132	684	0	0	419	243
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	326	0	277	0	0	277	162	761	0	0	744	431
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.18	0.68	0.68	0.00	0.00	0.68	0.68
Sat Flow, veh/h	1405	0	1572	0	0	1572	172	1128	0	0	1102	639
Grp Volume(v), veh/h	254	0	99	0	0	1	816	0	0	0	0	662
Grp Sat Flow(s),veh/h/ln	1405	0	1572	0	0	1573	1300	0	0	0	0	1741
Q Serve(g_s), s	16.0	0.0	5.0	0.0	0.0	0.0	35.2	0.0	0.0	0.0	0.0	18.1
Cycle Q Clear(g_c), s	16.0	0.0	5.0	0.0	0.0	0.0	53.3	0.0	0.0	0.0	0.0	18.1
Prop In Lane	1.00		1.00	0.00		1.00	0.16		0.00	0.00		0.37
Lane Grp Cap(c), veh/h	326	0	277	0	0	277	923	0	0	0	0	1175
V/C Ratio(X)	0.78	0.00	0.36	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.56
Avail Cap(c_a), veh/h	326	0	277	0	0	303	1077	0	0	0	0	1352
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	0.0	32.9	0.0	0.0	30.8	15.5	0.0	0.0	0.0	0.0	7.7
Incr Delay (d2), s/veh	11.4	0.0	0.8	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.4
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	6.6	0.0	1.9	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.0	0.0	33.6	0.0	0.0	30.8	23.5	0.0	0.0	0.0	0.0	8.2
LnGrp LOS	D		C			C	C					A
Approach Vol, veh/h		353			1			816			662	
Approach Delay, s/veh		44.7			30.8			23.5			8.2	
Approach LOS		D			C			C			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		68.8		22.0		68.8		22.0				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		70.5		16.0		70.5		* 18				
Max Q Clear Time (g_c+I1), s		55.3		18.0		20.1		2.0				
Green Ext Time (p_c), s		6.0		0.0		5.8		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	22.0
HCM 7th LOS	C

Notes

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

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	0	0	0	10	670	0	0	320	0
Future Volume (veh/h)	5	0	5	0	0	0	10	670	0	0	320	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	6	0	6	0	0	0	11	755	0	0	360	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	141	0	11	0	29	0	93	1316	0	0	1326	0
Arrive On Green	0.02	0.00	0.02	0.00	0.00	0.00	0.72	0.72	0.00	0.00	0.72	0.00
Sat Flow, veh/h	736	0	736	0	1841	0	7	1828	0	0	1841	0
Grp Volume(v), veh/h	12	0	0	0	0	0	766	0	0	0	360	0
Grp Sat Flow(s),veh/h/ln	1473	0	0	0	1841	0	1835	0	0	0	1841	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	2.8	0.0
Prop In Lane	0.50		0.50	0.00		0.00	0.01		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	153	0	0	0	29	0	1409	0	0	0	1326	0
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.27	0.00
Avail Cap(c_a), veh/h	342	0	0	0	309	0	1628	0	0	0	1547	0
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	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	2.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.6	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	2.1	0.0
LnGrp LOS	C						A				A	
Approach Vol, veh/h		12			0			766			360	
Approach Delay, s/veh		20.6			0.0			3.1			2.1	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.6		36.0		5.6				
Change Period (Y+Rc), s		6.0		5.0		6.0		* 5				
Max Green Setting (Gmax), s		35.0		6.0		35.0		* 7				
Max Q Clear Time (g_c+I1), s		10.3		2.3		4.8		0.0				
Green Ext Time (p_c), s		6.1		0.0		2.3		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	3.0
HCM 7th LOS	A

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	320	50	170	740	40	130
Future Vol, veh/h	320	50	170	740	40	130
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	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	360	56	191	833	45	146

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	417	0	1605	389
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	1216	-
Critical Hdwy	-	-	4.15	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3	3
Pot Cap-1 Maneuver	-	-	1126	-	150	735
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	303	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1126	-	102	735
Mov Cap-2 Maneuver	-	-	-	-	102	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	207	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	1.65	36.03
HCM LOS			E

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	300	336	-	-	-
HCM Lane V/C Ratio	0.639	0.17	-	-	-
HCM Control Delay (s/veh)	36	8.8	0	-	-
HCM Lane LOS	E	A	A	-	-
HCM 95th %tile Q(veh)	4.1	0.6	-	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	30	120	100	350	760	30
Future Vol, veh/h	30	120	100	350	760	30
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, %	4	4	4	4	4	4
Mvmt Flow	35	140	116	407	884	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1541	901	919	0	-	0
Stage 1	901	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Critical Hdwy	6	6	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3	3	2.236	-	-	-
Pot Cap-1 Maneuver	163	380	734	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	130	380	734	-	-	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	348	-	-	-	-	-
Stage 2	589	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v	38.5	2.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	NWR	WBLn1	SEL	SET
Capacity (veh/h)	-	-	274	400	-
HCM Lane V/C Ratio	-	-	0.636	0.158	-
HCM Control Delay (s/veh)	-	-	38.5	10.8	0
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	4	0.6	-

Intersection	
Int Delay, s/veh	40.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	150	910	150	80	520
Future Vol, veh/h	80	150	910	150	80	520
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	89	167	1014	167	89	580

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1856	1098	0	0	1181	0
Stage 1	1098	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Critical Hdwy	6	6	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3	3	-	-	2.236	-
Pot Cap-1 Maneuver	107	294	-	-	584	-
Stage 1	349	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	91	294	-	-	584	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	$326.35	0	1.64
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	165	584	-
HCM Lane V/C Ratio	-	-	1.553	0.153	-
HCM Control Delay (s/veh)	-	-	$ 326.3	12.3	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	17	0.5	-

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

Intersection	
Int Delay, s/veh	3.4

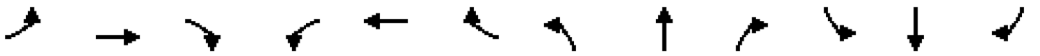
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	5	10	5	100	10	920	10	50	520	20
Future Vol, veh/h	10	0	5	10	5	100	10	920	10	50	520	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	11	0	6	11	6	114	11	1047	11	57	592	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1790	1799	603	1781	1804	1053	615	0	0	1059	0	0
Stage 1	717	717	-	1076	1076	-	-	-	-	-	-	-
Stage 2	1073	1081	-	706	729	-	-	-	-	-	-	-
Critical Hdwy	6	6	6	6	6	6	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	5.5	5.54	-	5.5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.54	-	5.5	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3	3	3	3	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	117	116	559	118	115	312	955	-	-	650	-	-
Stage 1	533	529	-	351	347	-	-	-	-	-	-	-
Stage 2	352	345	-	540	522	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	59	97	559	99	97	312	955	-	-	650	-	-
Mov Cap-2 Maneuver	59	97	-	99	97	-	-	-	-	-	-	-
Stage 1	462	458	-	341	337	-	-	-	-	-	-	-
Stage 2	214	335	-	463	452	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	58.08	35.99	0.09	0.94
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	85	243	151	-	-
HCM Lane V/C Ratio	0.012	-	-	0.202	0.54	0.088	-	-
HCM Control Delay (s/veh)	8.8	0	-	58.1	36	11.1	0	-
HCM Lane LOS	A	A	-	F	E	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	2.9	0.3	-	-

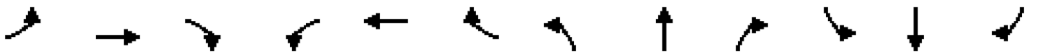
Part 8: 2035 Build Conditions: Weekday PM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	280	290	20	80	230	430	80	40	1050	110
Future Volume (veh/h)	70	10	280	290	20	80	230	430	80	40	1050	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	11	312	323	22	89	256	479	89	45	1170	123
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	441	59	733	361	121	491	302	1325	245	58	1244	131
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.09	0.44	0.44	0.03	0.38	0.38
Sat Flow, veh/h	1027	157	1585	1057	324	1311	3456	2994	553	1781	3245	341
Grp Volume(v), veh/h	89	0	312	323	0	111	256	283	285	45	640	653
Grp Sat Flow(s),veh/h/ln	1184	0	1585	1057	0	1634	1728	1777	1771	1781	1777	1809
Q Serve(g_s), s	5.3	0.0	15.8	34.2	0.0	5.5	8.8	12.7	12.8	3.0	41.6	41.8
Cycle Q Clear(g_c), s	10.8	0.0	15.8	45.0	0.0	5.5	8.8	12.7	12.8	3.0	41.6	41.8
Prop In Lane	0.88		1.00	1.00		0.80	1.00		0.31	1.00		0.19
Lane Grp Cap(c), veh/h	500	0	733	361	0	613	302	786	784	58	681	693
V/C Ratio(X)	0.18	0.00	0.43	0.89	0.00	0.18	0.85	0.36	0.36	0.78	0.94	0.94
Avail Cap(c_a), veh/h	500	0	733	361	0	613	302	786	784	104	681	693
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	21.6	44.0	0.0	25.1	54.0	22.2	22.2	57.6	35.6	35.7
Incr Delay (d2), s/veh	0.2	0.0	0.4	23.5	0.0	0.1	19.0	1.2	1.3	19.6	22.4	22.6
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	1.9	0.0	5.9	12.1	0.0	2.2	4.6	5.6	5.6	1.7	21.9	22.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.5	0.0	22.0	67.6	0.0	25.3	72.9	23.4	23.5	77.2	58.0	58.4
LnGrp LOS	C		C	E		C	E	C	C	E	E	E
Approach Vol, veh/h		401			434			824			1338	
Approach Delay, s/veh		23.4			56.7			38.8			58.8	
Approach LOS		C			E			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	58.1		51.0	18.0	51.0		51.0				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	7.0	50.0		45.0	10.5	46.0		45.0				
Max Q Clear Time (g_c+I1), s	5.0	14.8		17.8	10.8	43.8		47.0				
Green Ext Time (p_c), s	0.0	3.9		1.7	0.0	1.6		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		48.3	
HCM 7th LOS		D	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	10	490	20	5	5	430	650	20	10	1230	420
Future Volume (veh/h)	70	10	490	20	5	5	430	650	20	10	1230	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	0	0	22	6	6	474	717	22	11	1357	0
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	2	2	2	2	2
Cap, veh/h	252	0		86	15	11	547	2787	85	23	2296	
Arrive On Green	0.04	0.00	0.00	0.04	0.04	0.04	0.16	0.79	0.79	0.03	1.00	0.00
Sat Flow, veh/h	2805	0	1585	891	375	271	3456	3520	108	1781	3554	1585
Grp Volume(v), veh/h	85	0	0	34	0	0	474	362	377	11	1357	0
Grp Sat Flow(s),veh/h/ln	1402	0	1585	1537	0	0	1728	1777	1851	1781	1777	1585
Q Serve(g_s), s	0.3	0.0	0.0	2.1	0.0	0.0	16.1	6.4	6.4	0.7	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0	2.6	0.0	0.0	16.1	6.4	6.4	0.7	0.0	0.0
Prop In Lane	1.00		1.00	0.65		0.18	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	252	0		113	0	0	547	1407	1466	23	2296	
V/C Ratio(X)	0.34	0.00		0.30	0.00	0.00	0.87	0.26	0.26	0.48	0.59	
Avail Cap(c_a), veh/h	545	0		271	0	0	691	1407	1466	134	2296	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.93	0.93	0.93	0.50	0.50	0.00
Uniform Delay (d), s/veh	56.5	0.0	0.0	56.4	0.0	0.0	49.2	3.3	3.3	58.1	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.5	0.0	0.0	8.7	0.4	0.4	7.7	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.1	0.0	0.0	7.6	2.0	2.1	0.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.3	0.0	0.0	57.8	0.0	0.0	58.0	3.7	3.7	65.8	0.6	0.0
LnGrp LOS	E			E			E	A	A	E	A	
Approach Vol, veh/h		85			34			1213			1368	
Approach Delay, s/veh		57.3			57.8			24.9			1.1	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	100.0		12.4	25.0	82.5		12.4				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	9.0	75.0		17.5	24.0	60.0		17.5				
Max Q Clear Time (g_c+I1), s	2.7	8.4		4.9	18.1	2.0		4.6				
Green Ext Time (p_c), s	0.0	5.4		0.2	1.0	15.7		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	14.3	
HCM 7th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

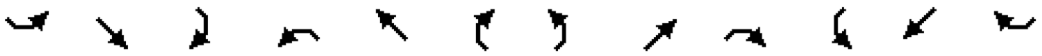
Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations				↑↑	↱		↑↑	↱	↰↰		↱
Traffic Volume (veh/h)	0	0	0	1460	260	0	920	650	180	0	600
Future Volume (veh/h)	0	0	0	1460	260	0	920	650	180	0	600
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1885	1885	0	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h			0	1578	0	0	994	703	195	195	0
Peak Hour Factor			0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %			0	1	1	0	1	1	1	1	1
Cap, veh/h			0	2952		0	2952	1317	264	264	
Arrive On Green			0.00	0.82	0.00	0.00	1.00	1.00	0.08	0.08	0.00
Sat Flow, veh/h			0	3676	1598	0	3676	1598	3483	3483	1598
Grp Volume(v), veh/h			0	1578	0	0	994	703	195	195	0
Grp Sat Flow(s),veh/h/ln			0	1791	1598	0	1791	1598	1742	1742	1598
Q Serve(g_s), s			0.0	16.6	0.0	0.0	0.0	0.0	6.6	6.6	0.0
Cycle Q Clear(g_c), s			0.0	16.6	0.0	0.0	0.0	0.0	6.6	6.6	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2952		0	2952	1317	264	264	
V/C Ratio(X)			0.00	0.53		0.00	0.34	0.53	0.74	0.74	
Avail Cap(c_a), veh/h			0	2952		0	2952	1317	668	668	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.80	0.00	0.00	0.81	0.81	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	3.3	0.0	0.0	0.0	0.0	54.3	54.3	0.0
Incr Delay (d2), s/veh			0.0	0.6	0.0	0.0	0.3	1.3	4.0	4.0	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	4.4	0.0	0.0	0.1	0.5	3.0	3.0	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	3.9	0.0	0.0	0.3	1.3	58.3	58.3	0.0
LnGrp LOS				A			A	A	E	E	
Approach Vol, veh/h				1578			1697		195	195	
Approach Delay, s/veh				3.9			0.7		58.3	58.3	
Approach LOS				A			A		E	E	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	103.9		16.1		103.9						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	85.0		23.0		85.0						
Max Q Clear Time (g_c+I1), s	2.0		8.6		18.6						
Green Ext Time (p_c), s	15.9		0.5		21.3						

Intersection Summary	
HCM 7th Control Delay, s/veh	5.4
HCM 7th LOS	A

Notes

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



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	370	1320	340	110	890	60	270	90	90	40	100	340
Future Volume (veh/h)	370	1320	340	110	890	60	270	90	90	40	100	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	408	1456	375	121	982	66	298	99	99	44	110	375
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	2	2	2	2	2
Cap, veh/h	481	1826	468	148	1928	129	462	268	268	141	333	495
Arrive On Green	0.14	0.45	0.45	0.08	0.39	0.39	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	3456	4050	1037	1781	4887	328	1767	858	858	326	1065	1585
Grp Volume(v), veh/h	408	1222	609	121	683	365	298	0	198	154	0	375
Grp Sat Flow(s),veh/h/ln	1728	1702	1684	1781	1702	1811	883	0	1716	1392	0	1585
Q Serve(g_s), s	13.8	36.9	37.3	8.0	18.3	18.3	19.6	0.0	10.8	3.5	0.0	25.6
Cycle Q Clear(g_c), s	13.8	36.9	37.3	8.0	18.3	18.3	33.9	0.0	10.8	14.3	0.0	25.6
Prop In Lane	1.00		0.62	1.00		0.18	1.00		0.50	0.29		1.00
Lane Grp Cap(c), veh/h	481	1534	759	148	1343	715	462	0	536	473	0	495
V/C Ratio(X)	0.85	0.80	0.80	0.82	0.51	0.51	0.65	0.00	0.37	0.33	0.00	0.76
Avail Cap(c_a), veh/h	648	1534	759	215	1343	715	528	0	601	534	0	555
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)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.4	28.2	28.3	54.1	27.5	27.5	47.0	0.0	32.1	32.6	0.0	37.2
Incr Delay (d2), s/veh	6.7	3.7	7.4	14.7	1.4	2.6	2.2	0.0	0.4	0.4	0.0	5.3
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	6.4	15.5	16.3	4.2	7.7	8.4	4.4	0.0	4.6	3.7	0.0	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.1	31.9	35.7	68.9	28.9	30.1	49.2	0.0	32.5	33.0	0.0	42.5
LnGrp LOS	E	C	D	E	C	C	D		C	C		D
Approach Vol, veh/h		2239			1169			496			529	
Approach Delay, s/veh		37.5			33.4			42.5			39.7	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.2	52.3		43.5	17.4	59.1		43.5				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	22.5	37.0		42.0	14.5	45.0		42.0				
Max Q Clear Time (g_c+I1), s	15.8	20.3		35.9	10.0	39.3		27.6				
Green Ext Time (p_c), s	0.9	6.6		1.6	0.1	4.7		2.0				

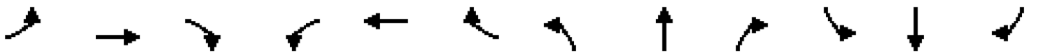
Intersection Summary												
HCM 7th Control Delay, s/veh			37.3									
HCM 7th LOS			D									

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	350	1120	0	0	780	140	0	0	0	160	0	290
Future Volume (veh/h)	350	1120	0	0	780	140	0	0	0	160	0	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	394	1261	0	0	879	158	0	0	0	120	0	391
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	474	2699	0	0	2004	894	0	278	0	325	0	472
Arrive On Green	0.14	0.76	0.00	0.00	0.56	0.56	0.00	0.00	0.00	0.15	0.00	0.15
Sat Flow, veh/h	3456	3647	0	0	3647	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	394	1261	0	0	879	158	0	0	0	120	0	391
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	13.3	15.9	0.0	0.0	17.2	5.8	0.0	0.0	0.0	7.4	0.0	14.4
Cycle Q Clear(g_c), s	13.3	15.9	0.0	0.0	17.2	5.8	0.0	0.0	0.0	7.4	0.0	14.4
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	474	2699	0	0	2004	894	0	278	0	325	0	472
V/C Ratio(X)	0.83	0.47	0.00	0.00	0.44	0.18	0.00	0.00	0.00	0.37	0.00	0.83
Avail Cap(c_a), veh/h	778	2699	0	0	2004	894	0	421	0	461	0	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.86	0.86	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.4	5.4	0.0	0.0	15.2	12.7	0.0	0.0	0.0	46.6	0.0	49.6
Incr Delay (d2), s/veh	4.0	0.6	0.0	0.0	0.6	0.4	0.0	0.0	0.0	0.7	0.0	5.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	5.2	0.0	0.0	7.0	2.1	0.0	0.0	0.0	3.3	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.5	6.0	0.0	0.0	15.8	13.0	0.0	0.0	0.0	47.3	0.0	54.6
LnGrp LOS	D	A			B	B				D		D
Approach Vol, veh/h		1655			1037			0			511	
Approach Delay, s/veh		17.5			15.3			0.0			52.9	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	23.4	72.7		23.9		96.1		23.9				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	27.0	48.0		27.0		82.0		27.0				
Max Q Clear Time (g_c+I1), s	15.3	19.2		0.0		17.9		16.4				
Green Ext Time (p_c), s	1.1	7.8		0.0		14.0		1.5				

Intersection Summary		
HCM 7th Control Delay, s/veh	22.5	
HCM 7th LOS	C	

Notes
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1	20	140	1	90	20	830	130	10	1300	30
Future Volume (veh/h)	30	1	20	140	1	90	20	830	130	10	1300	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	1	23	158	1	101	23	935	146	11	1464	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	84	13	32	264	1	352	39	1900	297	74	2258	52
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.02	0.62	0.62	0.04	0.64	0.64
Sat Flow, veh/h	198	73	178	1120	7	1572	1767	3055	477	1767	3522	82
Grp Volume(v), veh/h	58	0	0	159	0	101	23	539	542	11	732	766
Grp Sat Flow(s),veh/h/ln	449	0	0	1127	0	1572	1767	1763	1770	1767	1763	1841
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	6.4	1.5	20.0	20.0	0.7	30.6	30.7
Cycle Q Clear(g_c), s	19.7	0.0	0.0	16.6	0.0	6.4	1.5	20.0	20.0	0.7	30.6	30.7
Prop In Lane	0.59		0.40	0.99		1.00	1.00		0.27	1.00		0.04
Lane Grp Cap(c), veh/h	129	0	0	265	0	352	39	1096	1100	74	1130	1180
V/C Ratio(X)	0.45	0.00	0.00	0.60	0.00	0.29	0.58	0.49	0.49	0.15	0.65	0.65
Avail Cap(c_a), veh/h	264	0	0	399	0	505	125	1096	1100	125	1130	1180
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	0.00	1.00	0.00	1.00	0.42	0.42	0.42	0.84	0.84	0.84
Uniform Delay (d), s/veh	50.2	0.0	0.0	46.9	0.0	38.6	58.1	12.4	12.4	55.4	13.2	13.2
Incr Delay (d2), s/veh	2.4	0.0	0.0	2.2	0.0	0.4	5.6	0.7	0.7	0.8	2.4	2.3
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	1.8	0.0	0.0	4.7	0.0	2.5	0.8	7.8	7.8	0.3	12.1	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.6	0.0	0.0	49.0	0.0	39.0	63.7	13.0	13.0	56.2	15.6	15.6
LnGrp LOS	D			D		D	E	B	B	E	B	B
Approach Vol, veh/h		58			260			1104			1509	
Approach Delay, s/veh		52.6			45.2			14.1			15.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	80.1		28.4	9.2	82.4		28.4				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	8.5	59.5		33.5	8.5	59.5		33.5				
Max Q Clear Time (g_c+I1), s	2.7	22.0		21.7	3.5	32.7		18.6				
Green Ext Time (p_c), s	0.0	9.1		0.2	0.0	13.0		1.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		18.5	
HCM 7th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	50	10	480	0	0	700	50
Future Volume (veh/h)	10	0	10	20	10	50	10	480	0	0	700	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h	11	0	11	22	11	56	11	535	0	0	780	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	0	2	2
Cap, veh/h	228	16	79	171	23	97	118	1101	0	0	1031	74
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.60	0.60	0.00	0.00	0.60	0.60
Sat Flow, veh/h	656	161	818	348	238	995	10	1841	0	0	1724	124
Grp Volume(v), veh/h	22	0	0	89	0	0	546	0	0	0	0	836
Grp Sat Flow(s),veh/h/ln	1635	0	0	1582	0	0	1851	0	0	0	0	1848
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.7	0.0	0.0	5.4	0.0	0.0	0.0	0.0	10.9
Prop In Lane	0.50		0.50	0.25		0.63	0.02		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	323	0	0	290	0	0	1219	0	0	0	0	1105
V/C Ratio(X)	0.07	0.00	0.00	0.31	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.76
Avail Cap(c_a), veh/h	846	0	0	855	0	0	2067	0	0	0	0	1974
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	14.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0	4.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.1
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	0.0	0.5	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.6	0.0	0.0	14.7	0.0	0.0	4.0	0.0	0.0	0.0	0.0	5.9
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		22			89			546			836	
Approach Delay, s/veh		13.6			14.7			4.0			5.9	
Approach LOS		B			B			A			A	

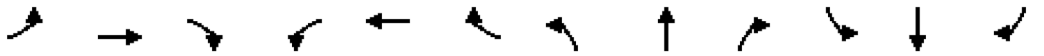
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.6		8.2		24.6		8.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		15.0		35.0		15.0				
Max Q Clear Time (g_c+I1), s		7.4		2.4		12.9		3.7				
Green Ext Time (p_c), s		4.0		0.0		6.7		0.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			5.9									
HCM 7th LOS			A									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	290	120	370	310	170	560
Future Volume (veh/h)	290	120	370	310	170	560
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	134	412	346	189	624
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	415	369	589	869	244	1042
Arrive On Green	0.23	0.23	0.32	0.32	0.14	0.56
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	323	134	412	346	189	624
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.1	3.4	9.2	6.0	4.9	10.6
Cycle Q Clear(g_c), s	8.1	3.4	9.2	6.0	4.9	10.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	415	369	589	869	244	1042
V/C Ratio(X)	0.78	0.36	0.70	0.40	0.78	0.60
Avail Cap(c_a), veh/h	711	632	943	1168	449	1610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	15.3	14.3	6.2	19.8	7.0
Incr Delay (d2), s/veh	3.2	0.6	1.5	0.3	5.2	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.1	3.5	2.8	2.2	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.3	15.9	15.8	6.5	25.1	7.6
LnGrp LOS	C	B	B	A	C	A
Approach Vol, veh/h	457		758			813
Approach Delay, s/veh	19.0		11.6			11.6
Approach LOS	B		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.5	20.0				31.5	16.1
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	12.0	24.0				41.0	19.0
Max Q Clear Time (g_c+I1), s	6.9	11.2				12.6	10.1
Green Ext Time (p_c), s	0.2	3.2				4.7	1.0

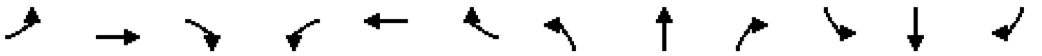
Intersection Summary			
HCM 7th Control Delay, s/veh		13.3	
HCM 7th LOS		B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	120	250	0	0	0	300	380	10	20	440	320
Future Volume (veh/h)	330	120	250	0	0	0	300	380	10	20	440	320
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	0.92	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	364	132	276				331	419	11	22	485	353
Peak Hour Factor	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	2	2
Cap, veh/h	457	150	314				447	1104	29	62	758	668
Arrive On Green	0.28	0.28	0.28				0.12	0.61	0.61	0.42	0.42	0.42
Sat Flow, veh/h	1639	539	1128				1781	1814	48	37	1799	1585
Grp Volume(v), veh/h	364	0	408				331	0	430	507	0	353
Grp Sat Flow(s),veh/h/ln	1639	0	1667				1781	0	1862	1836	0	1585
Q Serve(g_s), s	16.5	0.0	18.7				7.8	0.0	9.4	0.0	0.0	13.3
Cycle Q Clear(g_c), s	16.5	0.0	18.7				7.8	0.0	9.4	17.2	0.0	13.3
Prop In Lane	1.00		0.68				1.00		0.03	0.04		1.00
Lane Grp Cap(c), veh/h	457	0	465				447	0	1133	821	0	668
V/C Ratio(X)	0.80	0.00	0.88				0.74	0.00	0.38	0.62	0.00	0.53
Avail Cap(c_a), veh/h	512	0	521				470	0	1133	821	0	668
HCM Platoon Ratio	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	0.72	0.00	0.72
Uniform Delay (d), s/veh	26.7	0.0	27.5				13.6	0.0	8.0	18.4	0.0	17.2
Incr Delay (d2), s/veh	7.8	0.0	14.5				5.8	0.0	1.0	2.5	0.0	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	9.0				3.4	0.0	3.6	7.5	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.5	0.0	42.0				19.5	0.0	8.9	20.9	0.0	19.4
LnGrp LOS	C		D				B		A	C		B
Approach Vol, veh/h		772						761			860	
Approach Delay, s/veh		38.5						13.5			20.3	
Approach LOS		D						B			C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		53.7		26.3	15.0	38.7						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		46.0		25.0	11.0	30.0						
Max Q Clear Time (g_c+I1), s		11.4		20.7	9.8	19.2						
Green Ext Time (p_c), s		3.0		1.6	0.1	3.5						

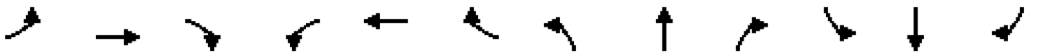
Intersection Summary												
HCM 7th Control Delay, s/veh			24.0									
HCM 7th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	300	360	210	360	50	270	330	180	200	400	10
Future Volume (veh/h)	0	300	360	210	360	50	270	330	180	200	400	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	331	397	232	397	55	298	364	199	221	441	11
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	2	2	2	2	2
Cap, veh/h	0	507	429	350	696	96	342	437	370	262	624	16
Arrive On Green	0.00	0.27	0.27	0.10	0.43	0.43	0.19	0.23	0.23	0.15	0.18	0.18
Sat Flow, veh/h	0	1870	1585	1781	1608	223	1781	1870	1585	1781	3543	88
Grp Volume(v), veh/h	0	331	397	232	0	452	298	364	199	221	221	231
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1781	0	1830	1781	1870	1585	1781	1777	1854
Q Serve(g_s), s	0.0	12.6	19.6	7.3	0.0	14.9	13.0	14.9	8.8	9.7	9.4	9.4
Cycle Q Clear(g_c), s	0.0	12.6	19.6	7.3	0.0	14.9	13.0	14.9	8.8	9.7	9.4	9.4
Prop In Lane	0.00		1.00	1.00		0.12	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	0	507	429	350	0	792	342	437	370	262	313	326
V/C Ratio(X)	0.00	0.65	0.92	0.66	0.00	0.57	0.87	0.83	0.54	0.84	0.71	0.71
Avail Cap(c_a), veh/h	0	512	434	350	0	798	444	582	493	333	420	439
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)	0.00	1.00	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	0.0	25.9	28.5	18.8	0.0	17.2	31.5	29.3	27.0	33.4	31.1	31.1
Incr Delay (d2), s/veh	0.0	2.9	25.5	4.6	0.0	1.0	13.9	7.7	1.2	14.5	3.5	3.4
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	0.0	5.8	10.1	3.3	0.0	6.1	6.7	7.4	3.4	5.1	4.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	28.9	54.0	23.5	0.0	18.1	45.4	37.0	28.2	47.9	34.6	34.5
LnGrp LOS		C	D	C		B	D	D	C	D	C	C
Approach Vol, veh/h		728			684			861			673	
Approach Delay, s/veh		42.6			19.9			37.9			38.9	
Approach LOS		D			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	23.8	13.0	26.8	21.4	19.1		39.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0	8.0	22.0	20.0	19.0		35.0				
Max Q Clear Time (g_c+I1), s	11.7	16.9	9.3	21.6	15.0	11.4		16.9				
Green Ext Time (p_c), s	0.2	1.9	0.0	0.2	0.4	1.6		2.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	35.1
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	40	0	0	0	40	720	0	0	890	60
Future Volume (veh/h)	80	0	40	0	0	0	40	720	0	0	890	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	0	44	0	0	0	44	794	0	0	982	66
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	2	2	2	2	2
Cap, veh/h	196	0	179	0	153	0	56	1509	0	0	1248	84
Arrive On Green	0.08	0.00	0.08	0.00	0.00	0.00	0.06	1.00	0.00	0.00	0.72	0.72
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1870	0	0	1733	116
Grp Volume(v), veh/h	88	0	44	0	0	0	44	794	0	0	0	1048
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1870	0	0	0	1849
Q Serve(g_s), s	5.5	0.0	2.3	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	32.9
Cycle Q Clear(g_c), s	5.5	0.0	2.3	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	32.9
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	196	0	179	0	153	0	56	1509	0	0	0	1332
V/C Ratio(X)	0.45	0.00	0.25	0.00	0.00	0.00	0.79	0.53	0.00	0.00	0.00	0.79
Avail Cap(c_a), veh/h	269	0	261	0	249	0	198	1509	0	0	0	1332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.74	0.74	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	0.0	36.4	0.0	0.0	0.0	41.9	0.0	0.0	0.0	0.0	8.1
Incr Delay (d2), s/veh	1.6	0.0	0.7	0.0	0.0	0.0	16.5	1.0	0.0	0.0	0.0	4.8
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	2.0	0.0	0.9	0.0	0.0	0.0	1.2	0.4	0.0	0.0	0.0	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.0	0.0	37.1	0.0	0.0	0.0	58.4	1.0	0.0	0.0	0.0	12.9
LnGrp LOS	D		D				E	A				B
Approach Vol, veh/h		132			0			838			1048	
Approach Delay, s/veh		40.4			0.0			4.0			12.9	
Approach LOS		D						A			B	

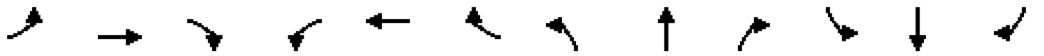
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		77.6		12.4	7.8	69.8		12.4				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		68.0		12.0	10.0	53.0		12.0				
Max Q Clear Time (g_c+I1), s		2.0		7.5	4.2	34.9		0.0				
Green Ext Time (p_c), s		7.4		0.2	0.0	8.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			11.0									
HCM 7th LOS			B									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	90	120	660	140	90	860
Future Volume (veh/h)	90	120	660	140	90	860
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	134	736	156	100	959
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	194	172	1167	247	434	1459
Arrive On Green	0.11	0.11	0.78	0.78	1.00	1.00
Sat Flow, veh/h	1781	1585	1496	317	624	1870
Grp Volume(v), veh/h	100	134	0	892	100	959
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1813	624	1870
Q Serve(g_s), s	4.8	7.4	0.0	19.2	5.0	0.0
Cycle Q Clear(g_c), s	4.8	7.4	0.0	19.2	24.1	0.0
Prop In Lane	1.00	1.00		0.17	1.00	
Lane Grp Cap(c), veh/h	194	172	0	1414	434	1459
V/C Ratio(X)	0.52	0.78	0.00	0.63	0.23	0.66
Avail Cap(c_a), veh/h	336	299	0	1414	434	1459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.47	0.47
Uniform Delay (d), s/veh	37.9	39.0	0.0	4.3	3.3	0.0
Incr Delay (d2), s/veh	2.1	7.3	0.0	2.1	0.6	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.2	0.0	5.4	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	40.0	46.4	0.0	6.4	3.9	1.1
LnGrp LOS	D	D		A	A	A
Approach Vol, veh/h	234		892			1059
Approach Delay, s/veh	43.6		6.4			1.4
Approach LOS	D		A			A

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	75.2				75.2	14.8
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	63.0				63.0	17.0
Max Q Clear Time (g_c+I1), s	21.2				26.1	9.4
Green Ext Time (p_c), s	9.1				11.4	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	8.0
HCM 7th LOS	A



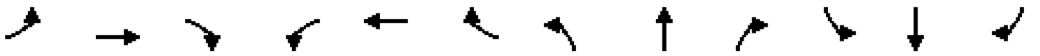
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	1	90	0	0	0	60	410	1	0	670	270
Future Volume (veh/h)	250	1	90	0	0	0	60	410	1	0	670	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	285	1	102	0	0	0	68	467	1	0	763	307
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	3	281	0	334	0	80	526	1	0	880	354
Arrive On Green	0.18	0.18	0.18	0.00	0.00	0.00	0.69	0.69	0.69	0.00	0.69	0.69
Sat Flow, veh/h	1781	15	1572	0	1870	0	60	758	2	0	1268	510
Grp Volume(v), veh/h	285	0	103	0	0	0	536	0	0	0	0	1070
Grp Sat Flow(s),veh/h/ln	1781	0	1587	0	1870	0	820	0	0	0	0	1779
Q Serve(g_s), s	16.6	0.0	6.1	0.0	0.0	0.0	21.6	0.0	0.0	0.0	0.0	49.1
Cycle Q Clear(g_c), s	16.6	0.0	6.1	0.0	0.0	0.0	70.7	0.0	0.0	0.0	0.0	49.1
Prop In Lane	1.00		0.99	0.00		0.00	0.13		0.00	0.00		0.29
Lane Grp Cap(c), veh/h	386	0	284	0	334	0	607	0	0	0	0	1235
V/C Ratio(X)	0.74	0.00	0.36	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.87
Avail Cap(c_a), veh/h	420	0	314	0	378	0	630	0	0	0	0	1264
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	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	38.3	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	12.5
Incr Delay (d2), s/veh	6.2	0.0	0.8	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0	6.5
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	7.9	0.0	2.4	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.9	0.0	39.1	0.0	0.0	0.0	30.1	0.0	0.0	0.0	0.0	19.0
LnGrp LOS	D		D				C					B
Approach Vol, veh/h		388			0			536			1070	
Approach Delay, s/veh		46.3			0.0			30.1			19.0	
Approach LOS		D						C			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		81.3		25.0		81.3		25.0				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		75.5		21.0		75.5		* 22				
Max Q Clear Time (g_c+I1), s		72.7		18.6		51.1		0.0				
Green Ext Time (p_c), s		1.1		0.4		10.7		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	1	0	0	5	470	0	0	680	0
Future Volume (veh/h)	5	0	5	1	0	0	5	470	0	0	680	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	6	0	6	1	0	0	6	524	0	0	758	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	151	0	20	215	0	0	92	1335	0	0	1343	0
Arrive On Green	0.03	0.00	0.03	0.03	0.00	0.00	0.73	0.73	0.00	0.00	0.73	0.00
Sat Flow, veh/h	740	0	740	1495	0	0	4	1829	0	0	1841	0
Grp Volume(v), veh/h	12	0	0	1	0	0	530	0	0	0	758	0
Grp Sat Flow(s),veh/h/ln	1480	0	0	1495	0	0	1834	0	0	0	1841	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	7.8	0.0
Prop In Lane	0.50		0.50	1.00		0.00	0.01		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	171	0	0	215	0	0	1427	0	0	0	1343	0
V/C Ratio(X)	0.07	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.56	0.00
Avail Cap(c_a), veh/h	562	0	0	583	0	0	1427	0	0	0	1343	0
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	19.5	0.0	0.0	2.1	0.0	0.0	0.0	2.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.8	0.0	0.0	19.5	0.0	0.0	2.3	0.0	0.0	0.0	3.1	0.0
LnGrp LOS	B			B			A				A	
Approach Vol, veh/h		12			1			530			758	
Approach Delay, s/veh		19.8			19.5			2.3			3.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.1		36.0		5.1				
Change Period (Y+Rc), s		6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s		30.0		12.0		30.0		12.0				
Max Q Clear Time (g_c+I1), s		6.5		2.3		9.8		2.0				
Green Ext Time (p_c), s		3.6		0.0		5.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			2.9									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	1.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	800	20	55	620	10	40
Future Vol, veh/h	800	20	55	620	10	40
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	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	920	23	63	713	12	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	943	0	1772	932
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	840	-
Critical Hdwy	-	-	4.12	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3	3
Pot Cap-1 Maneuver	-	-	727	-	120	365
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	727	-	103	365
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	403	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.85	24.51
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	241	147	-	-	-
HCM Lane V/C Ratio	0.238	0.087	-	-	-
HCM Control Delay (s/veh)	24.5	10.4	0	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.9	0.3	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	100	740	550	20	30	100
Future Vol, veh/h	100	740	550	20	30	100
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	114	842	626	23	34	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	649	0	-	0	1707	637
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	1070	-
Critical Hdwy	4.12	-	-	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3	3
Pot Cap-1 Maneuver	937	-	-	-	131	535
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	362	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	937	-	-	-	101	535
Mov Cap-2 Maneuver	-	-	-	-	101	-
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	362	-

Approach	SE	NW	SW
HCM Control Delay, s/v	1.12	0	33.75
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	214	-	268
HCM Lane V/C Ratio	-	-	0.121	-	0.552
HCM Control Delay (s/veh)	-	-	9.4	0	33.8
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.4	-	3.1

Intersection	
Int Delay, s/veh	19.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	20	20	5	5	65	20	690	10	50	910	40
Future Vol, veh/h	40	20	20	5	5	65	20	690	10	50	910	40
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	-	-	-	-	-	-	-	-	-	-	-	-
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	47	24	24	6	6	76	24	811	12	59	1070	47

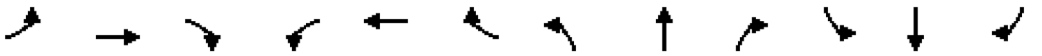
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2072	2081	1094	2064	2099	817	1117	0	0	823	0	0
Stage 1	1211	1211	-	864	864	-	-	-	-	-	-	-
Stage 2	861	870	-	1199	1235	-	-	-	-	-	-	-
Critical Hdwy	6	6	6	6	6	6	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3	3	3	3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	80	79	296	81	77	424	625	-	-	807	-	-
Stage 1	300	298	-	450	447	-	-	-	-	-	-	-
Stage 2	451	444	-	304	289	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 45	59	296	37	58	424	625	-	-	807	-	-
Mov Cap-2 Maneuver	~ 45	59	-	37	58	-	-	-	-	-	-	-
Stage 1	241	240	-	418	416	-	-	-	-	-	-	-
Stage 2	339	413	-	203	233	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $/+	411.81	36.43	0.31	0.49
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	50	-	-	62	200	89	-	-
HCM Lane V/C Ratio	0.038	-	-	1.521	0.441	0.073	-	-
HCM Control Delay (s/veh)	11	0	-	$ 411.8	36.4	9.8	0	-
HCM Lane LOS	B	A	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	8.3	2.1	0.2	-	-

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

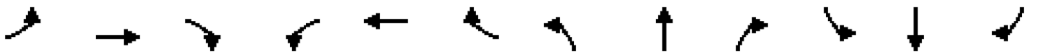
Part 9: 2035 Build Conditions: Weekend Saturday PM Peak-Hour LOS and Delays



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	10	190	70	5	30	280	370	50	80	800	30
Future Volume (veh/h)	50	10	190	70	5	30	280	370	50	80	800	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	11	212	78	6	33	312	412	56	89	892	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	36	409	172	36	199	392	1935	261	107	1945	72
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	0.62	0.62	0.06	0.56	0.56
Sat Flow, veh/h	1023	252	1585	1158	250	1373	3456	3146	425	1781	3495	129
Grp Volume(v), veh/h	67	0	212	78	0	39	312	232	236	89	454	471
Grp Sat Flow(s),veh/h/ln	1274	0	1585	1158	0	1623	1728	1777	1794	1781	1777	1847
Q Serve(g_s), s	3.8	0.0	11.5	6.6	0.0	2.1	8.8	5.8	5.8	4.9	15.2	15.2
Cycle Q Clear(g_c), s	5.9	0.0	11.5	12.5	0.0	2.1	8.8	5.8	5.8	4.9	15.2	15.2
Prop In Lane	0.84		1.00	1.00		0.85	1.00		0.24	1.00		0.07
Lane Grp Cap(c), veh/h	251	0	409	172	0	235	392	1093	1104	107	989	1028
V/C Ratio(X)	0.27	0.00	0.52	0.45	0.00	0.17	0.80	0.21	0.21	0.83	0.46	0.46
Avail Cap(c_a), veh/h	258	0	418	178	0	243	570	1093	1104	107	989	1028
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	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	31.8	44.8	0.0	37.5	43.2	8.5	8.5	46.5	13.2	13.2
Incr Delay (d2), s/veh	0.6	0.0	1.1	1.9	0.0	0.3	4.7	0.4	0.4	40.3	1.5	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	1.5	0.0	4.5	2.0	0.0	0.9	4.0	2.2	2.3	3.4	6.2	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.2	0.0	32.8	46.6	0.0	37.8	47.9	8.9	9.0	86.8	14.7	14.7
LnGrp LOS	D		C	D		D	D	A	A	F	B	B
Approach Vol, veh/h		279			117			780			1014	
Approach Delay, s/veh		34.6			43.7			24.5			21.0	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	66.5		20.5	18.8	60.7		20.5				
Change Period (Y+Rc), s	7.0	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		15.0	16.5	50.0		15.0				
Max Q Clear Time (g_c+I1), s	6.9	7.8		13.5	10.8	17.2		14.5				
Green Ext Time (p_c), s	0.0	3.1		0.2	0.5	7.0		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		25.2	
HCM 7th LOS		C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	20	570	60	30	20	620	600	70	10	790	250
Future Volume (veh/h)	80	20	570	60	30	20	620	600	70	10	790	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	68	0	66	33	22	684	662	77	11	871	0
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	2	2	2	2	2
Cap, veh/h	215	223		125	55	28	762	2190	254	23	1689	
Arrive On Green	0.12	0.12	0.00	0.12	0.12	0.12	0.22	0.68	0.68	0.03	0.95	0.00
Sat Flow, veh/h	1349	1870	1585	587	465	234	3456	3207	373	1781	3554	1585
Grp Volume(v), veh/h	55	68	0	121	0	0	684	366	373	11	871	0
Grp Sat Flow(s),veh/h/ln	1349	1870	1585	1286	0	0	1728	1777	1803	1781	1777	1585
Q Serve(g_s), s	0.0	3.3	0.0	6.2	0.0	0.0	19.2	8.2	8.3	0.6	2.4	0.0
Cycle Q Clear(g_c), s	4.4	3.3	0.0	9.6	0.0	0.0	19.2	8.2	8.3	0.6	2.4	0.0
Prop In Lane	1.00		1.00	0.55		0.18	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	215	223		209	0	0	762	1213	1231	23	1689	
V/C Ratio(X)	0.26	0.31		0.58	0.00	0.00	0.90	0.30	0.30	0.47	0.52	
Avail Cap(c_a), veh/h	331	383		337	0	0	829	1213	1231	107	1689	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	0.89	0.89	0.89	0.88	0.88	0.00
Uniform Delay (d), s/veh	40.7	40.3	0.0	43.5	0.0	0.0	37.9	6.3	6.3	48.3	1.3	0.0
Incr Delay (d2), s/veh	0.6	0.8	0.0	2.5	0.0	0.0	10.8	0.6	0.6	12.3	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.6	0.0	3.1	0.0	0.0	9.1	2.9	3.0	0.3	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.4	41.0	0.0	46.0	0.0	0.0	48.7	6.9	6.9	60.6	2.3	0.0
LnGrp LOS	D	D		D			D	A	A	E	A	
Approach Vol, veh/h		123			121			1423			882	
Approach Delay, s/veh		41.2			46.0			27.0			3.1	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	73.3		19.4	28.1	52.5		19.4				
Change Period (Y+Rc), s	6.0	5.0		7.5	6.0	5.0		7.5				
Max Green Setting (Gmax), s	6.0	55.0		20.5	24.0	37.0		20.5				
Max Q Clear Time (g_c+I1), s	2.6	10.3		6.4	21.2	4.4		11.6				
Green Ext Time (p_c), s	0.0	5.4		0.4	0.8	7.3		0.3				

Intersection Summary		
HCM 7th Control Delay, s/veh	20.3	
HCM 7th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	0	0	0	1300	160	0	1100	780	160	0	710
Future Volume (veh/h)	0	0	0	1300	160	0	1100	780	160	0	710
Initial Q (Qb), veh			0	0	0	0	0	0	0	0	0
Lane Width Adj.			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)			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
Work Zone On Approach				No			No			No	
Adj Sat Flow, veh/h/ln			0	1885	1885	0	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h			0	1405	0	0	1189	843	173	173	0
Peak Hour Factor			0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %			0	1	1	0	1	1	1	1	1
Cap, veh/h			0	2898		0	2898	1293	247	247	
Arrive On Green			0.00	0.81	0.00	0.00	0.54	0.54	0.07	0.07	0.00
Sat Flow, veh/h			0	3676	1598	0	3676	1598	3483	3483	1598
Grp Volume(v), veh/h			0	1405	0	0	1189	843	173	173	0
Grp Sat Flow(s),veh/h/ln			0	1791	1598	0	1791	1598	1742	1742	1598
Q Serve(g_s), s			0.0	12.3	0.0	0.0	19.5	37.4	4.9	4.9	0.0
Cycle Q Clear(g_c), s			0.0	12.3	0.0	0.0	19.5	37.4	4.9	4.9	0.0
Prop In Lane			0.00		1.00	0.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h			0	2898		0	2898	1293	247	247	
V/C Ratio(X)			0.00	0.48		0.00	0.41	0.65	0.70	0.70	
Avail Cap(c_a), veh/h			0	2898		0	2898	1293	488	488	
HCM Platoon Ratio			1.00	1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)			0.00	0.85	0.00	0.00	0.55	0.55	1.00	1.00	0.00
Uniform Delay (d), s/veh			0.0	3.0	0.0	0.0	8.8	12.9	45.4	45.4	0.0
Incr Delay (d2), s/veh			0.0	0.5	0.0	0.0	0.2	1.4	3.6	3.6	0.0
Initial Q Delay(d3), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			0.0	3.0	0.0	0.0	8.3	14.6	2.2	2.2	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh			0.0	3.5	0.0	0.0	9.1	14.4	49.0	49.0	0.0
LnGrp LOS				A			A	B	D	D	
Approach Vol, veh/h				1405			2032		173	173	
Approach Delay, s/veh				3.5			11.3		49.0	49.0	
Approach LOS				A			B		D	D	

Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	85.9		14.1		85.9						
Change Period (Y+Rc), s	5.0		7.0		5.0						
Max Green Setting (Gmax), s	74.0		14.0		74.0						
Max Q Clear Time (g_c+I1), s	39.4		6.9		14.3						
Green Ext Time (p_c), s	17.8		0.3		16.8						

Intersection Summary											
HCM 7th Control Delay, s/veh		10.1									
HCM 7th LOS		B									

Notes

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	550	1180	250	120	1110	60	240	70	90	50	70	570
Future Volume (veh/h)	550	1180	250	120	1110	60	240	70	90	50	70	570
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	607	1302	276	132	1224	66	265	77	99	55	77	629
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	2	2	2	2	2
Cap, veh/h	694	1790	379	162	1558	84	407	223	287	190	247	476
Arrive On Green	0.20	0.42	0.42	0.09	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	3456	4219	894	1781	4959	267	1439	743	955	463	823	1585
Grp Volume(v), veh/h	607	1050	528	132	840	450	265	0	176	132	0	629
Grp Sat Flow(s),veh/h/ln	1728	1702	1709	1781	1702	1822	720	0	1698	1287	0	1585
Q Serve(g_s), s	17.0	25.7	25.7	7.3	22.5	22.5	18.3	0.0	8.1	3.6	0.0	30.0
Cycle Q Clear(g_c), s	17.0	25.7	25.7	7.3	22.5	22.5	30.0	0.0	8.1	11.7	0.0	30.0
Prop In Lane	1.00		0.52	1.00		0.15	1.00		0.56	0.42		1.00
Lane Grp Cap(c), veh/h	694	1444	725	162	1069	573	407	0	510	437	0	476
V/C Ratio(X)	0.87	0.73	0.73	0.82	0.79	0.79	0.65	0.00	0.35	0.30	0.00	1.32
Avail Cap(c_a), veh/h	812	1444	725	187	1069	573	407	0	510	437	0	476
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)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	24.0	24.0	44.6	31.2	31.2	40.9	0.0	27.3	28.5	0.0	35.0
Incr Delay (d2), s/veh	8.0	2.7	5.3	21.2	5.8	10.4	3.7	0.0	0.4	0.4	0.0	159.4
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	7.9	10.5	11.1	4.1	9.9	11.3	3.4	0.0	3.3	2.6	0.0	32.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.8	26.7	29.3	65.9	37.0	41.6	44.6	0.0	27.7	28.9	0.0	194.4
LnGrp LOS	D	C	C	E	D	D	D		C	C		F
Approach Vol, veh/h		2185			1422			441			761	
Approach Delay, s/veh		32.9			41.2			37.9			165.7	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.6	36.4		36.0	16.6	47.4		36.0				
Change Period (Y+Rc), s	7.5	5.0		6.0	7.5	5.0		6.0				
Max Green Setting (Gmax), s	23.5	28.0		30.0	10.5	41.0		30.0				
Max Q Clear Time (g_c+I1), s	19.0	24.5		32.0	9.3	27.7		32.0				
Green Ext Time (p_c), s	1.1	2.5		0.0	0.0	8.7		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		56.8
HCM 7th LOS		E

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	600	750	0	0	800	230	0	0	0	170	0	420
Future Volume (veh/h)	600	750	0	0	800	230	0	0	0	170	0	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	676	845	0	0	901	259	0	0	0	127	0	541
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	768	2462	0	0	1423	635	0	369	0	423	0	625
Arrive On Green	0.22	0.69	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	3456	3647	0	0	3647	1585	0	1870	0	1781	0	3170
Grp Volume(v), veh/h	676	845	0	0	901	259	0	0	0	127	0	541
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	0	1870	0	1781	0	1585
Q Serve(g_s), s	18.9	9.6	0.0	0.0	20.4	11.7	0.0	0.0	0.0	6.2	0.0	16.5
Cycle Q Clear(g_c), s	18.9	9.6	0.0	0.0	20.4	11.7	0.0	0.0	0.0	6.2	0.0	16.5
Prop In Lane	1.00		0.00	0.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	768	2462	0	0	1423	635	0	369	0	423	0	625
V/C Ratio(X)	0.88	0.34	0.00	0.00	0.63	0.41	0.00	0.00	0.00	0.30	0.00	0.87
Avail Cap(c_a), veh/h	898	2462	0	0	1423	635	0	430	0	482	0	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.74	0.74	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.6	6.2	0.0	0.0	24.1	21.5	0.0	0.0	0.0	34.7	0.0	38.8
Incr Delay (d2), s/veh	9.0	0.4	0.0	0.0	1.6	1.4	0.0	0.0	0.0	0.4	0.0	9.5
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	8.8	3.3	0.0	0.0	8.6	4.5	0.0	0.0	0.0	2.7	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.6	6.6	0.0	0.0	25.7	22.9	0.0	0.0	0.0	35.1	0.0	48.4
LnGrp LOS	D	A			C	C				D		D
Approach Vol, veh/h		1521			1160			0			668	
Approach Delay, s/veh		24.4			25.1			0.0			45.8	
Approach LOS		C			C						D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	29.2	45.0		25.7		74.3		25.7				
Change Period (Y+Rc), s	7.0	5.0		6.0		5.0		6.0				
Max Green Setting (Gmax), s	26.0	33.0		23.0		66.0		23.0				
Max Q Clear Time (g_c+I1), s	20.9	22.4		0.0		11.6		18.5				
Green Ext Time (p_c), s	1.3	5.2		0.0		7.4		1.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			28.9									
HCM 7th LOS			C									

Notes

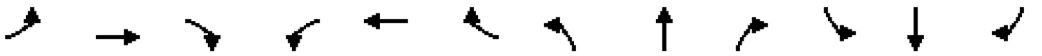
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	130	1	20	0	1030	170	20	890	0
Future Volume (veh/h)	0	0	0	130	1	20	0	1030	170	20	890	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	0	0	0	146	1	23	0	1160	191	23	1002	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	0
Cap, veh/h	0	233	0	248	1	276	2	1938	318	88	2659	0
Arrive On Green	0.00	0.00	0.00	0.13	0.13	0.13	0.00	1.00	1.00	0.05	0.75	0.00
Sat Flow, veh/h	0	1856	0	1399	10	1572	1767	3032	497	1767	3618	0
Grp Volume(v), veh/h	0	0	0	147	0	23	0	672	679	23	1002	0
Grp Sat Flow(s),veh/h/ln	0	1856	0	1409	0	1572	1767	1763	1766	1767	1763	0
Q Serve(g_s), s	0.0	0.0	0.0	10.2	0.0	1.2	0.0	0.0	0.0	1.3	9.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.2	0.0	1.2	0.0	0.0	0.0	1.3	9.8	0.0
Prop In Lane	0.00		0.00	0.99		1.00	1.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	0	233	0	249	0	276	2	1127	1129	88	2659	0
V/C Ratio(X)	0.00	0.00	0.00	0.59	0.00	0.08	0.00	0.60	0.60	0.26	0.38	0.00
Avail Cap(c_a), veh/h	0	399	0	375	0	417	115	1127	1129	115	2659	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.09	0.09	0.92	0.92	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	42.7	0.0	34.5	0.0	0.0	0.0	45.7	4.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.1	0.0	0.2	0.2	1.4	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.7	0.0	0.5	0.0	0.1	0.1	0.6	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	44.9	0.0	34.6	0.0	0.2	0.2	47.1	4.6	0.0
LnGrp LOS				D		C		A	A	D	A	
Approach Vol, veh/h		0			170			1351			1025	
Approach Delay, s/veh		0.0			43.5			0.2			5.6	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	69.4		19.1	0.0	80.9		19.1				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	6.5	53.5		21.5	6.5	53.5		21.5				
Max Q Clear Time (g_c+I1), s	3.3	2.0		0.0	0.0	11.8		12.2				
Green Ext Time (p_c), s	0.0	14.0		0.0	0.0	9.2		0.5				

Intersection Summary		
HCM 7th Control Delay, s/veh		5.3
HCM 7th LOS		A

HCM 7th Edition methodology does not support more than 4 approaches.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	20	10	50	10	650	0	0	700	50
Future Volume (veh/h)	10	0	10	20	10	50	10	650	0	0	700	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h	11	0	11	23	11	56	11	732	0	0	788	56
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	0	0	1	1
Cap, veh/h	228	16	80	173	23	96	116	1116	0	0	1042	74
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.60	0.60	0.00	0.00	0.60	0.60
Sat Flow, veh/h	657	166	824	364	238	991	8	1863	0	0	1739	124
Grp Volume(v), veh/h	22	0	0	90	0	0	743	0	0	0	0	844
Grp Sat Flow(s),veh/h/ln	1648	0	0	1592	0	0	1871	0	0	0	0	1863
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.8	0.0	0.0	8.6	0.0	0.0	0.0	0.0	10.9
Prop In Lane	0.50		0.50	0.26		0.62	0.01		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	324	0	0	292	0	0	1231	0	0	0	0	1116
V/C Ratio(X)	0.07	0.00	0.00	0.31	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.76
Avail Cap(c_a), veh/h	847	0	0	856	0	0	2082	0	0	0	0	1980
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	14.2	0.0	0.0	4.4	0.0	0.0	0.0	0.0	4.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.0	0.5	0.0	0.0	0.0	0.0	1.1
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	0.0	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.7	0.0	0.0	14.8	0.0	0.0	4.8	0.0	0.0	0.0	0.0	5.9
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		22			90			743			844	
Approach Delay, s/veh		13.7			14.8			4.8			5.9	
Approach LOS		B			B			A			A	

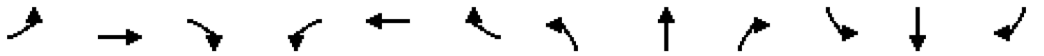
Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	24.7	8.2	24.7	8.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	35.0	15.0	35.0	15.0
Max Q Clear Time (g_c+I1), s	10.6	2.4	12.9	3.8
Green Ext Time (p_c), s	5.9	0.0	6.8	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	6.0
HCM 7th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	260	170	480	250	180	480
Future Volume (veh/h)	260	170	480	250	180	480
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	290	189	535	279	201	535
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	371	330	686	911	251	1127
Arrive On Green	0.21	0.21	0.37	0.37	0.14	0.60
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	290	189	535	279	201	535
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.1	5.7	13.4	4.8	5.8	8.4
Cycle Q Clear(g_c), s	8.1	5.7	13.4	4.8	5.8	8.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	371	330	686	911	251	1127
V/C Ratio(X)	0.78	0.57	0.78	0.31	0.80	0.47
Avail Cap(c_a), veh/h	540	481	1063	1231	304	1559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	18.8	14.8	5.8	22.0	5.8
Incr Delay (d2), s/veh	4.6	1.6	2.0	0.2	12.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	2.0	5.2	2.2	3.0	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.3	20.4	16.8	6.0	34.0	6.2
LnGrp LOS	C	C	B	A	C	A
Approach Vol, veh/h	479		814			736
Approach Delay, s/veh	22.8		13.1			13.8
Approach LOS	C		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.4	24.4				36.8	16.0
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	9.0	30.0				44.0	16.0
Max Q Clear Time (g_c+I1), s	7.8	15.4				10.4	10.1
Green Ext Time (p_c), s	0.1	4.0				3.9	0.9

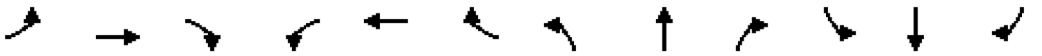
Intersection Summary							
HCM 7th Control Delay, s/veh			15.6				
HCM 7th LOS			B				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	30	230	0	0	0	220	510	0	10	420	270
Future Volume (veh/h)	290	30	230	0	0	0	220	510	0	10	420	270
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	0.92	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	334	35	265				253	587	0	12	483	311
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				2	2	2	2	2	2
Cap, veh/h	397	46	346				460	1206	0	53	909	785
Arrive On Green	0.24	0.24	0.24				0.09	0.65	0.00	0.50	0.50	0.50
Sat Flow, veh/h	1639	188	1425				1781	1870	0	15	1837	1585
Grp Volume(v), veh/h	334	0	300				253	587	0	495	0	311
Grp Sat Flow(s),veh/h/ln	1639	0	1614				1781	1870	0	1852	0	1585
Q Serve(g_s), s	15.5	0.0	13.8				5.2	13.0	0.0	0.0	0.0	9.9
Cycle Q Clear(g_c), s	15.5	0.0	13.8				5.2	13.0	0.0	14.5	0.0	9.9
Prop In Lane	1.00		0.88				1.00		0.00	0.02		1.00
Lane Grp Cap(c), veh/h	397	0	391				460	1206	0	963	0	785
V/C Ratio(X)	0.84	0.00	0.77				0.55	0.49	0.00	0.51	0.00	0.40
Avail Cap(c_a), veh/h	512	0	504				460	1206	0	963	0	785
HCM Platoon Ratio	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	1.00	0.00	0.79	0.00	0.79
Uniform Delay (d), s/veh	28.8	0.0	28.2				9.9	7.3	0.0	13.9	0.0	12.7
Incr Delay (d2), s/veh	9.6	0.0	5.3				1.4	1.4	0.0	1.6	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	5.7				1.9	4.7	0.0	6.0	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.4	0.0	33.4				11.3	8.8	0.0	15.4	0.0	13.9
LnGrp LOS	D		C				B	A		B		B
Approach Vol, veh/h		634						840			806	
Approach Delay, s/veh		36.1						9.5			14.8	
Approach LOS		D						A			B	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		56.6		23.4	12.0	44.6						
Change Period (Y+Rc), s		5.0		4.0	5.0	5.0						
Max Green Setting (Gmax), s		46.0		25.0	7.0	34.0						
Max Q Clear Time (g_c+I1), s		15.0		17.5	7.2	16.5						
Green Ext Time (p_c), s		4.4		1.9	0.0	4.1						

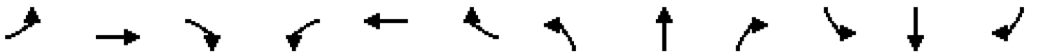
Intersection Summary												
HCM 7th Control Delay, s/veh			18.8									
HCM 7th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	270	340	160	290	80	330	340	190	80	350	10
Future Volume (veh/h)	20	270	340	160	290	80	330	340	190	80	350	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	304	383	180	327	90	372	383	214	90	394	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	337	306	303	523	144	437	636	539	118	517	14
Arrive On Green	0.19	0.19	0.19	0.10	0.37	0.37	0.25	0.34	0.34	0.07	0.15	0.15
Sat Flow, veh/h	66	1743	1585	1781	1412	389	1781	1870	1585	1781	3531	98
Grp Volume(v), veh/h	327	0	383	180	0	417	372	383	214	90	198	207
Grp Sat Flow(s),veh/h/ln	1809	0	1585	1781	0	1800	1781	1870	1585	1781	1777	1853
Q Serve(g_s), s	5.9	0.0	13.0	5.1	0.0	12.8	13.4	11.4	6.9	3.3	7.2	7.2
Cycle Q Clear(g_c), s	11.9	0.0	13.0	5.1	0.0	12.8	13.4	11.4	6.9	3.3	7.2	7.2
Prop In Lane	0.07		1.00	1.00		0.22	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	407	0	306	303	0	667	437	636	539	118	260	271
V/C Ratio(X)	0.80	0.00	1.25	0.59	0.00	0.62	0.85	0.60	0.40	0.76	0.76	0.76
Avail Cap(c_a), veh/h	407	0	306	357	0	722	927	834	707	477	317	330
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	26.6	0.0	27.1	18.6	0.0	17.3	24.2	18.4	16.9	30.9	27.6	27.6
Incr Delay (d2), s/veh	11.2	0.0	137.0	1.9	0.0	1.5	4.8	0.9	0.5	9.6	8.4	8.2
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	6.1	0.0	16.3	2.1	0.0	5.1	5.9	4.7	2.4	1.7	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.8	0.0	164.1	20.6	0.0	18.8	29.0	19.3	17.4	40.5	36.0	35.8
LnGrp LOS	D		F	C		B	C	B	B	D	D	D
Approach Vol, veh/h		710			597			969			495	
Approach Delay, s/veh		105.9			19.4			22.6			36.7	
Approach LOS		F			B			C			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	27.9	11.9	18.0	22.5	14.9		29.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	6.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	30.0	9.0	13.0	35.0	12.0		27.0				
Max Q Clear Time (g_c+I1), s	5.3	13.4	7.1	15.0	15.4	9.2		14.8				
Green Ext Time (p_c), s	0.1	2.9	0.1	0.0	1.1	0.6		2.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	45.8
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	0	20	0	0	0	20	820	0	0	860	60
Future Volume (veh/h)	60	0	20	0	0	0	20	820	0	0	860	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	0	22	0	0	0	22	895	0	0	939	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	0	132	0	117	0	37	1424	0	0	1127	79
Arrive On Green	0.06	0.00	0.06	0.00	0.00	0.00	0.02	0.76	0.00	0.00	0.65	0.65
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1870	0	0	1727	121
Grp Volume(v), veh/h	66	0	22	0	0	0	22	895	0	0	0	1005
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1870	0	0	0	1849
Q Serve(g_s), s	2.6	0.0	0.7	0.0	0.0	0.0	0.7	12.4	0.0	0.0	0.0	23.5
Cycle Q Clear(g_c), s	2.6	0.0	0.7	0.0	0.0	0.0	0.7	12.4	0.0	0.0	0.0	23.5
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	215	0	132	0	117	0	37	1424	0	0	0	1206
V/C Ratio(X)	0.31	0.00	0.17	0.00	0.00	0.00	0.60	0.63	0.00	0.00	0.00	0.83
Avail Cap(c_a), veh/h	377	0	312	0	330	0	220	2801	0	0	0	2377
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	24.2	0.0	0.0	0.0	27.6	3.1	0.0	0.0	0.0	7.5
Incr Delay (d2), s/veh	0.8	0.0	0.6	0.0	0.0	0.0	14.5	0.5	0.0	0.0	0.0	1.6
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	0.9	0.0	0.3	0.0	0.0	0.0	0.4	1.7	0.0	0.0	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	0.0	24.8	0.0	0.0	0.0	42.1	3.6	0.0	0.0	0.0	9.1
LnGrp LOS	C		C				D	A				A
Approach Vol, veh/h		88			0			917			1005	
Approach Delay, s/veh		26.4			0.0			4.5			9.1	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		48.2		8.5	6.2	42.0		8.5				
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		85.0		10.0	7.0	73.0		10.0				
Max Q Clear Time (g_c+I1), s		14.4		4.6	2.7	25.5		0.0				
Green Ext Time (p_c), s		9.3		0.1	0.0	11.6		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			7.7									
HCM 7th LOS			A									

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	80	70	730	90	70	770
Future Volume (veh/h)	80	70	730	90	70	770
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	78	814	100	78	858
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	182	162	1116	137	397	1278
Arrive On Green	0.10	0.10	0.68	0.68	0.68	0.68
Sat Flow, veh/h	1781	1585	1634	201	611	1870
Grp Volume(v), veh/h	89	78	0	914	78	858
Grp Sat Flow(s),veh/h/ln	1781	1585	0	1834	611	1870
Q Serve(g_s), s	2.0	1.9	0.0	13.2	3.9	11.3
Cycle Q Clear(g_c), s	2.0	1.9	0.0	13.2	17.1	11.3
Prop In Lane	1.00	1.00		0.11	1.00	
Lane Grp Cap(c), veh/h	182	162	0	1253	397	1278
V/C Ratio(X)	0.49	0.48	0.00	0.73	0.20	0.67
Avail Cap(c_a), veh/h	658	586	0	2864	933	2921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	17.8	0.0	4.2	9.6	3.9
Incr Delay (d2), s/veh	2.0	2.2	0.0	0.8	0.2	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.7	0.0	1.7	0.4	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.8	20.0	0.0	5.0	9.8	4.5
LnGrp LOS	B	B		A	A	A
Approach Vol, veh/h	167		914			936
Approach Delay, s/veh	19.9		5.0			4.9
Approach LOS	B		A			A

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	33.2				33.2	8.8
Change Period (Y+Rc), s	4.5				4.5	4.5
Max Green Setting (Gmax), s	65.5				65.5	15.5
Max Q Clear Time (g_c+I1), s	15.2				19.1	4.0
Green Ext Time (p_c), s	9.7				9.6	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	6.2
HCM 7th LOS	A

Notes

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

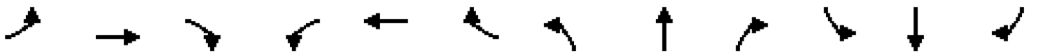
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	0	60	0	0	0	70	520	0	0	530	0
Future Volume (veh/h)	200	0	60	0	0	0	70	520	0	0	530	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	0	1856	1856	1856	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	225	0	68	0	0	0	79	586	0	0	597	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	3	3	3	0	3	3	3	3	3	3	3	0
Cap, veh/h	471	0	279	0	330	0	146	762	0	0	978	0
Arrive On Green	0.18	0.00	0.18	0.00	0.00	0.00	0.53	0.53	0.00	0.00	0.53	0.00
Sat Flow, veh/h	1767	0	1572	0	1856	0	110	1445	0	0	1856	0
Grp Volume(v), veh/h	225	0	68	0	0	0	665	0	0	0	597	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572	0	1856	0	1555	0	0	0	1856	0
Q Serve(g_s), s	5.5	0.0	1.7	0.0	0.0	0.0	6.4	0.0	0.0	0.0	10.3	0.0
Cycle Q Clear(g_c), s	5.5	0.0	1.7	0.0	0.0	0.0	16.6	0.0	0.0	0.0	10.3	0.0
Prop In Lane	1.00		1.00	0.00		0.00	0.12		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	471	0	279	0	330	0	908	0	0	0	978	0
V/C Ratio(X)	0.48	0.00	0.24	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.61	0.00
Avail Cap(c_a), veh/h	968	0	722	0	872	0	1661	0	0	0	1845	0
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	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	16.2	0.0	0.0	0.0	8.7	0.0	0.0	0.0	7.5	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.6	0.0	0.0	0.0	3.5	0.0	0.0	0.0	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.5	0.0	16.6	0.0	0.0	0.0	9.8	0.0	0.0	0.0	8.2	0.0
LnGrp LOS	B		B				A				A	
Approach Vol, veh/h		293			0			665			597	
Approach Delay, s/veh		18.0			0.0			9.8			8.2	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.6		14.1		31.6		14.1				
Change Period (Y+Rc), s		7.5		6.0		7.5		* 6				
Max Green Setting (Gmax), s		45.5		21.0		45.5		* 22				
Max Q Clear Time (g_c+I1), s		18.6		7.5		12.3		0.0				
Green Ext Time (p_c), s		5.5		0.8		4.5		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	10.7
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	1	0	0	5	550	0	0	550	5
Future Volume (veh/h)	5	0	5	1	0	0	5	550	0	0	550	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	6	0	6	1	0	0	6	613	0	0	613	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	0	20	216	0	0	91	1348	0	0	1339	13
Arrive On Green	0.03	0.00	0.03	0.03	0.00	0.00	0.73	0.73	0.00	0.00	0.73	0.73
Sat Flow, veh/h	746	0	746	1506	0	0	4	1847	0	0	1834	18
Grp Volume(v), veh/h	12	0	0	1	0	0	619	0	0	0	0	619
Grp Sat Flow(s),veh/h/ln	1491	0	0	1506	0	0	1851	0	0	0	0	1852
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	5.6
Prop In Lane	0.50		0.50	1.00		0.00	0.01		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	171	0	0	216	0	0	1439	0	0	0	0	1352
V/C Ratio(X)	0.07	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.46
Avail Cap(c_a), veh/h	565	0	0	586	0	0	1439	0	0	0	0	1352
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	0.0	19.5	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2
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	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.8	0.0	0.0	19.5	0.0	0.0	2.5	0.0	0.0	0.0	0.0	2.5
LnGrp LOS	B			B			A					A
Approach Vol, veh/h		12			1			619			619	
Approach Delay, s/veh		19.8			19.5			2.5			2.5	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		36.0		5.1		36.0		5.1				
Change Period (Y+Rc), s		6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s		30.0		12.0		30.0		12.0				
Max Q Clear Time (g_c+I1), s		7.6		2.3		7.6		2.0				
Green Ext Time (p_c), s		4.4		0.0		4.4		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			2.7									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	660	5	20	740	5	20
Future Vol, veh/h	660	5	20	740	5	20
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	768	6	23	861	6	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	773	0	1678	771
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	907	-
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	-	-	842	-	104	400
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	394	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	842	-	99	400
Mov Cap-2 Maneuver	-	-	-	-	99	-
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	373	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.25	21.38
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	249	47	-	-	-
HCM Lane V/C Ratio	0.117	0.028	-	-	-
HCM Control Delay (s/veh)	21.4	9.4	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	0.4	0.1	-	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	20	700	650	50	30	40
Future Vol, veh/h	20	700	650	50	30	40
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	23	814	756	58	35	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	814	0	-	0	1646	785
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	861	-
Critical Hdwy	4.12	-	-	-	6	6
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3	3
Pot Cap-1 Maneuver	813	-	-	-	142	442
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	460	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	813	-	-	-	135	442
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	460	-

Approach	SE	NW	SW
HCM Control Delay, s/v	0.27	0	30.09
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	50	-	223
HCM Lane V/C Ratio	-	-	0.029	-	0.365
HCM Control Delay (s/veh)	-	-	9.6	0	30.1
HCM Lane LOS	-	-	A	A	D
HCM 95th %tile Q(veh)	-	-	0.1	-	1.6

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	5	10	10	5	40	5	750	10	20	760	60
Future Vol, veh/h	10	5	10	10	5	40	5	750	10	20	760	60
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	6	12	12	6	47	6	872	12	23	884	70

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1852	1861	919	1823	1890	878	954	0	0	884	0	0
Stage 1	965	965	-	890	890	-	-	-	-	-	-	-
Stage 2	887	896	-	933	1000	-	-	-	-	-	-	-
Critical Hdwy	6	6	6.22	6	6	6	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.52	-	5.5	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3	3	3.318	3	3	3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	108	106	329	112	102	392	721	-	-	765	-	-
Stage 1	400	398	-	436	434	-	-	-	-	-	-	-
Stage 2	438	431	-	415	382	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	82	98	329	94	94	392	721	-	-	765	-	-
Mov Cap-2 Maneuver	82	98	-	94	94	-	-	-	-	-	-	-
Stage 1	373	371	-	430	427	-	-	-	-	-	-	-
Stage 2	375	425	-	368	357	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	43.13	29.5	0.07	0.23
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	12	-	-	123	210	42	-	-
HCM Lane V/C Ratio	0.008	-	-	0.237	0.305	0.03	-	-
HCM Control Delay (s/veh)	10	0	-	43.1	29.5	9.9	0	-
HCM Lane LOS	B	A	-	E	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	1.2	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
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, %	4	4	4	4	4	4
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	1017	1078	1608	-	-	0
Stage 1	1017	-	-	-	-	0
Stage 2	-	-	-	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1017	1078	1608	-	-	-
Mov Cap-2 Maneuver	1017	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT
Capacity (veh/h)	1608	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s/veh)	0	-	0	-
HCM Lane LOS	A	-	A	-
HCM 95th %tile Q(veh)	0	-	-	-

Part 10: Traffic Signal Warrant Analysis

HCS Warrants Report

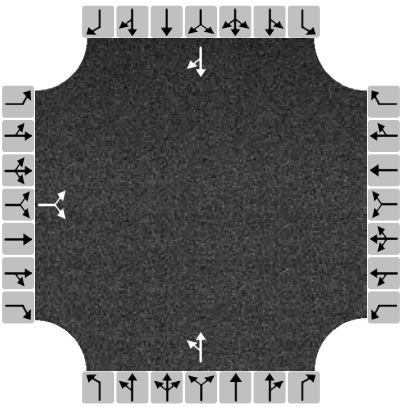
Project Information

Analyst	Seth	Date	1/23/2024
Agency	CTPS	Analysis Year	2024
Jurisdiction	MassDOT District 6	Time Period Analyzed	
Project Description	Route 37 Priority Corridor Study: Franklin Street and JW Leroy Way		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	6	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	3
Major Street Speed (mi/h)	30	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	1900		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	0	0	0	0	0	0	1	0	0	1	0
Lane Usage		LR						LT			TR	
Vehicle Volumes Averages (veh/h)	17	0	69	0	0	0	17	584	0	0	37	497
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	10.7			0.0			3.1			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	1

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	10

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
07 - 08	786	49	835	0	0	No	No	No	No	No	No	No	No	No
08 - 09	1230	290	1520	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
09 - 10	1302	40	1342	0	0	No	No	No	No	No	No	No	No	No
10 - 11	942	25	967	0	0	No	No	No	No	No	No	No	No	No
11 - 12	875	42	917	0	0	No	No	No	No	No	No	No	No	No
12 - 13	981	49	1030	0	0	No	No	No	No	No	No	No	No	No
13 - 14	974	26	1000	0	0	No	No	No	No	No	No	No	No	No
14 - 15	1106	100	1206	0	0	No	No	Yes	Yes	Yes	No	No	No	No
15 - 16	1258	158	1416	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
16 - 17	1448	75	1523	0	0	No	No	Yes	Yes	No	No	No	No	No
17 - 18	1450	100	1550	0	0	No	No	Yes	Yes	Yes	No	No	No	No
18 - 19	1300	88	1388	0	0	No	No	Yes	Yes	Yes	No	No	No	No
Total	13652	1042	14694	0	0	2	2	6	6	5	0	2	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	✔
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	✓
Warrant 3: Peak Hour	✔
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

HCS Warrants Report

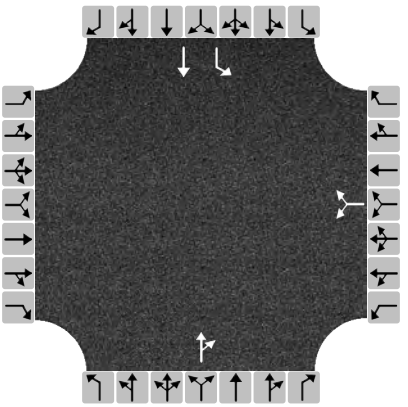
Project Information

Analyst	Seth Asante	Date	12/15/2023
Agency	CTPS	Analysis Year	2023
Jurisdiction	MassDOT District 6	Time Period Analyzed	Hour
Project Description	Route 37 Priority Corridor Study: Washington Street at Peach Street Intersection		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	6	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	2
Major Street Speed (mi/h)	30	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	0	0	0	0	0	0	1	0	1	1	0
Lane Usage					LR			TR		L	T	
Vehicle Volumes Averages (veh/h)	0	0	0	186	0	0	0	0	748	0	629	0
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			64.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	2

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	10

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
06 - 07	713	116	829	0	0	No	No	No	No	No	No	No	No	No
07 - 08	1194	220	1414	0	0	Yes	Yes	Yes	Yes	Yes	No	No	No	No
08 - 09	1666	204	1870	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
09 - 10	1611	124	1735	0	0	No	Yes	Yes	Yes	Yes	No	No	No	No
10 - 11	1196	119	1315	0	0	No	No	Yes	Yes	Yes	No	No	No	No
11 - 12	1133	136	1269	0	0	No	Yes	Yes	Yes	Yes	No	No	No	No
12 - 13	1189	131	1320	0	0	No	Yes	Yes	Yes	Yes	No	No	No	No
13 - 14	1287	230	1517	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
14 - 15	1311	228	1539	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
15 - 16	1628	257	1885	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
16 - 17	1765	271	2036	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
17 - 18	1837	206	2043	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Total	16530	2242	18772	0	0	7	10	11	11	11	0	6	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	✔
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	✓
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 2: Four-Hour Vehicular Volume	✔
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	✓
Warrant 3: Peak Hour	✔
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	