Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	7	163	30	18	150	27	7	6	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	177	33	20	163	29	8	7	23

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	192	0	0	210	0	0	341	441	105
Stage 1	-	-	-	-	-	-	209	209	-
Stage 2	-	-	-	-	-	-	132	232	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1379	-	-	1358	-	-	589	509	929
Stage 1	-	-	-	-	-	-	774	728	-
Stage 2	-	-	-	-	-	-	858	711	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1379	-	-	1358	-	-	556	499	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	499	-
Stage 1	-	-	-	-	-	-	770	724	-
Stage 2	-	-	-	-	-	-	813	701	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0.7	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1379	-	-	1358	-	-	569
HCM Lane V/C Ratio	0.051	0.006	-	-	0.014	-	-	0.157
HCM Control Delay (s)	10.3	7.6	-	-	7.7	-	-	12.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	55	21	6
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	60	23	7

Major/Minor	Minor2		
Conflicting Flow All	324	442	96
Stage 1	217	217	-
Stage 2	107	225	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	605	508	942
Stage 1	765	722	-
Stage 2	887	716	-
Platoon blocked, %			
Mov Cap-1 Maneuver	575	498	942
Mov Cap-2 Maneuver	575	498	-
Stage 1	761	711	-
Stage 2	852	712	-

Approach	SB
HCM Control Delay, s	12.5
HCM LOS	B

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	5	182	11	20	175	62	19	17	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	198	12	22	190	67	21	18	40

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	258	0	0	210	0	0	364	516	105
Stage 1	-	-	-	-	-	-	215	215	-
Stage 2	-	-	-	-	-	-	149	301	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1304	-	-	1358	-	-	567	461	929
Stage 1	-	-	-	-	-	-	767	724	-
Stage 2	-	-	-	-	-	-	838	664	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1304	-	-	1358	-	-	537	452	929
Mov Cap-2 Maneuver	-	-	-	-	-	-	537	452	-
Stage 1	-	-	-	-	-	-	764	721	-
Stage 2	-	-	-	-	-	-	795	653	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0.6	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	647	1304	-	-	1358	-	-	499
HCM Lane V/C Ratio	0.123	0.004	-	-	0.016	-	-	0.183
HCM Control Delay (s)	11.3	7.8	-	-	7.7	-	-	13.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.7

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	61	20	3
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	66	22	3

Major/Minor	Minor2		
Conflicting Flow All	386	488	129
Stage 1	267	267	-
Stage 2	119	221	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	547	479	897
Stage 1	715	687	-
Stage 2	873	719	-
Platoon blocked, %			
Mov Cap-1 Maneuver	499	469	897
Mov Cap-2 Maneuver	499	469	-
Stage 1	712	676	-
Stage 2	811	716	-

Approach	SB
HCM Control Delay, s	13.8
HCM LOS	B

Minor Lane/Major Mvmt

Existing Conditions AM Peak Hour
2: Plaza Drive & Goshen Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	38	152	78	66	135	53	80	235	67	124	256	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	41	165	85	72	147	58	87	255	73	135	278	42
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	410	183	91	471	211	112	1001	448	200	1228	549
Arrive On Green	0.03	0.12	0.12	0.05	0.13	0.13	0.06	0.28	0.28	0.11	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	41	165	85	72	147	58	87	255	73	135	278	42
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.3	2.4	2.7	2.2	2.1	1.8	2.6	3.1	1.9	4.0	3.1	1.0
Cycle Q Clear(g_c), s	1.3	2.4	2.7	2.2	2.1	1.8	2.6	3.1	1.9	4.0	3.1	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	410	183	91	471	211	112	1001	448	200	1228	549
V/C Ratio(X)	0.68	0.40	0.46	0.79	0.31	0.28	0.78	0.25	0.16	0.68	0.23	0.08
Avail Cap(c_a), veh/h	162	1033	462	165	1039	465	291	1001	448	304	1228	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	22.5	22.6	25.7	21.5	21.4	25.3	15.2	14.8	23.4	12.7	12.0
Incr Delay (d2), s/veh	12.7	0.6	1.8	14.2	0.4	0.7	11.0	0.6	0.8	4.0	0.4	0.3
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	0.8	1.2	1.3	1.4	1.0	0.8	1.6	1.6	0.9	2.2	1.5	0.5
LnGrp Delay(d),s/veh	38.9	23.1	24.5	39.9	21.9	22.1	36.3	15.8	15.6	27.3	13.1	12.3
LnGrp LOS	D	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		291			277			415			455	
Approach Delay, s/veh		25.7			26.6			20.1			17.3	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	37.1	8.4	11.9	9.1	40.6	7.5	12.9
Change Period (Y+Rc), s	6.4	* 6.4	5.6	5.6	5.6	6.4	5.6	5.6
Max Green Setting (Gmax), s	9.4	* 15	5.1	16.0	9.0	16.7	5.0	16.1
Max Q Clear Time (g_c+I1), s	7.0	5.1	4.2	4.7	4.6	6.1	3.3	4.1
Green Ext Time (p_c), s	0.1	2.6	0.0	1.6	0.1	2.6	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Existing Conditions PM Peak Hour
2: Plaza Drive & Goshen Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	51	177	101	72	122	63	80	235	43	92	336	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	55	192	110	78	133	68	87	255	47	100	365	30
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	470	210	99	520	232	112	1007	451	153	1142	511
Arrive On Green	0.04	0.13	0.13	0.06	0.15	0.15	0.06	0.28	0.28	0.09	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	55	192	110	78	133	68	87	255	47	100	365	30
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.7	2.7	3.5	2.4	1.8	2.1	2.6	3.0	1.2	3.0	4.2	0.7
Cycle Q Clear(g_c), s	1.7	2.7	3.5	2.4	1.8	2.1	2.6	3.0	1.2	3.0	4.2	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	470	210	99	520	232	112	1007	451	153	1142	511
V/C Ratio(X)	0.75	0.41	0.52	0.79	0.26	0.29	0.78	0.25	0.10	0.65	0.32	0.06
Avail Cap(c_a), veh/h	163	1040	465	166	1046	468	293	1007	451	306	1142	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	21.7	22.0	25.4	20.6	20.7	25.1	15.0	14.4	24.1	13.9	12.7
Incr Delay (d2), s/veh	13.9	0.6	2.0	12.7	0.3	0.7	11.0	0.6	0.5	4.6	0.7	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	1.1	1.3	1.7	1.5	0.9	1.0	1.6	1.5	0.6	1.6	2.2	0.3
LnGrp Delay(d),s/veh	39.7	22.2	24.0	38.1	20.8	21.4	36.1	15.6	14.8	28.7	14.7	13.0
LnGrp LOS	D	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		357			279			389			495	
Approach Delay, s/veh		25.5			25.8			20.1			17.4	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	37.4	8.6	12.8	9.0	39.5	7.9	13.6
Change Period (Y+Rc), s	6.4	* 6.4	5.6	5.6	5.6	6.4	5.6	5.6
Max Green Setting (Gmax), s	9.4	* 15	5.1	16.0	9.0	16.7	5.0	16.1
Max Q Clear Time (g_c+I1), s	6.0	5.0	4.4	5.5	4.6	7.2	3.7	4.1
Green Ext Time (p_c), s	0.1	2.9	0.0	1.7	0.1	2.7	0.0	1.8

Intersection Summary

HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Existing Conditions AM Peak Hour
3: Kelsey Street & Goshen Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	180	69	79	137	8	55	36	45	8	56	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	38	196	75	86	149	9	60	39	49	9	61	24
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	362	134	111	606	271	321	212	205	117	497	178
Arrive On Green	0.03	0.14	0.14	0.06	0.17	0.17	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1774	2530	937	1774	3539	1583	508	533	515	59	1251	449
Grp Volume(v), veh/h	38	135	136	86	149	9	148	0	0	94	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1697	1774	1770	1583	1556	0	0	1758	0	0
Q Serve(g_s), s	0.9	3.0	3.2	2.0	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	3.0	3.2	2.0	1.5	0.2	2.3	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		0.55	1.00		1.00	0.41		0.33	0.10		0.26
Lane Grp Cap(c), veh/h	60	253	243	111	606	271	738	0	0	792	0	0
V/C Ratio(X)	0.63	0.53	0.56	0.78	0.25	0.03	0.20	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	227	670	642	227	1339	599	738	0	0	792	0	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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.2	16.8	16.9	19.5	15.2	14.6	8.4	0.0	0.0	8.1	0.0	0.0
Incr Delay (d2), s/veh	9.7	1.6	1.9	11.0	0.2	0.0	0.6	0.0	0.0	0.3	0.0	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	0.6	1.6	1.6	1.3	0.8	0.1	1.2	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	29.8	18.5	18.8	30.5	15.4	14.7	9.0	0.0	0.0	8.4	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h		309			244			148			94	
Approach Delay, s/veh		20.0			20.7			9.0			8.4	
Approach LOS		B			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		35.1	8.2	11.6		35.1	7.0	12.8
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6	5.6	5.6
Max Green Setting (Gmax), s		16.8	5.4	16.0		16.8	5.4	16.0
Max Q Clear Time (g_c+I1), s		4.3	4.0	5.2		3.4	2.9	3.5
Green Ext Time (p_c), s		1.0	0.1	0.9		1.1	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Existing Conditions PM Peak Hour
3: Kelsey Street & Goshen Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	243	8	18	147	4	11	15	22	71	52	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	40	264	9	20	160	4	12	16	24	77	57	76
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	497	17	35	447	200	208	267	313	313	235	242
Arrive On Green	0.04	0.14	0.14	0.02	0.13	0.13	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1774	3493	119	1774	3539	1583	233	638	746	455	562	577
Grp Volume(v), veh/h	40	133	140	20	160	4	52	0	0	210	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1842	1774	1770	1583	1617	0	0	1593	0	0
Q Serve(g_s), s	0.9	2.8	2.8	0.4	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	2.8	2.8	0.4	1.7	0.1	0.7	0.0	0.0	3.2	0.0	0.0
Prop In Lane	1.00		0.06	1.00		1.00	0.23		0.46	0.37		0.36
Lane Grp Cap(c), veh/h	64	252	262	35	447	200	788	0	0	790	0	0
V/C Ratio(X)	0.63	0.53	0.53	0.57	0.36	0.02	0.07	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	239	706	735	239	1412	632	788	0	0	790	0	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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.1	16.0	16.0	19.5	16.0	15.3	7.0	0.0	0.0	7.7	0.0	0.0
Incr Delay (d2), s/veh	9.2	1.6	1.6	13.4	0.5	0.0	0.2	0.0	0.0	0.8	0.0	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	0.6	1.5	1.5	0.3	0.8	0.0	0.4	0.0	0.0	1.7	0.0	0.0
LnGrp Delay(d),s/veh	28.2	17.6	17.5	32.9	16.5	15.4	7.1	0.0	0.0	8.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h		313			184			52			210	
Approach Delay, s/veh		18.9			18.3			7.1			8.5	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		37.3	6.4	11.3		37.3	7.0	10.7
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6	5.6	5.6
Max Green Setting (Gmax), s		16.8	5.4	16.0		16.8	5.4	16.0
Max Q Clear Time (g_c+I1), s		2.7	2.4	4.8		5.2	2.9	3.7
Green Ext Time (p_c), s		1.2	0.2	0.9		1.1	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Existing Conditions AM Peak Hour
4: Plaza Drive & Hurley Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	0	0	16	0	5	4	540	58	7	484	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	3	0	0	17	0	5	4	587	63	8	526	14
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	3	2	246	106	86	159	1406	621	407	2731	842
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.06	0.18	0.79	0.79	0.23	0.54	0.54
Sat Flow, veh/h	1774	1863	1583	1774	1863	1500	1774	3539	1563	1774	5085	1569
Grp Volume(v), veh/h	3	0	0	17	0	5	4	587	63	8	526	14
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1500	1774	1770	1563	1774	1695	1569
Q Serve(g_s), s	0.1	0.0	0.0	0.6	0.0	0.1	0.1	3.7	0.6	0.2	3.8	0.2
Cycle Q Clear(g_c), s	0.1	0.0	0.0	0.6	0.0	0.1	0.1	3.7	0.6	0.2	3.8	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	3	2	246	106	86	159	1406	621	407	2731	842
V/C Ratio(X)	0.52	0.00	0.00	0.07	0.00	0.06	0.03	0.42	0.10	0.02	0.19	0.02
Avail Cap(c_a), veh/h	159	464	394	246	427	344	159	1406	621	407	2731	842
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	0.0	26.8	0.0	11.1	26.8	4.8	4.5	21.3	8.5	3.3
Incr Delay (d2), s/veh	58.3	0.0	0.0	0.1	0.0	0.3	0.1	0.9	0.3	0.1	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	0.2	0.0	0.0	0.3	0.0	0.1	0.1	1.8	0.3	0.1	1.8	0.1
LnGrp Delay(d),s/veh	93.9	0.0	0.0	26.9	0.0	11.4	26.8	5.7	4.8	21.4	8.7	3.4
LnGrp LOS	F			C		B	C	A	A	C	A	A
Approach Vol, veh/h		3			22			654			548	
Approach Delay, s/veh		93.9			23.4			5.7			8.8	
Approach LOS		F			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.5	34.0	15.5	0.0	30.5	44.0	5.8	9.7
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	16.4	28.4	5.0	17.8	6.4	38.4	6.4	16.4
Max Q Clear Time (g_c+I1), s	2.2	5.7	2.6	0.0	2.1	5.8	2.1	2.1
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	3.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Existing Conditions PM Peak Hour
4: Plaza Drive & Hurley Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	2	0	31	2	3	10	448	16	5	652	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	10	2	0	34	2	3	11	487	17	5	709	20
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	99	84	47	121	98	167	1461	646	393	2748	848
Arrive On Green	0.02	0.05	0.00	0.03	0.06	0.06	0.19	0.83	0.83	0.22	0.54	0.54
Sat Flow, veh/h	1774	1863	1583	1774	1863	1510	1774	3539	1564	1774	5085	1569
Grp Volume(v), veh/h	10	2	0	34	2	3	11	487	17	5	709	20
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1510	1774	1770	1564	1774	1695	1569
Q Serve(g_s), s	0.4	0.1	0.0	1.5	0.1	0.1	0.4	2.6	0.2	0.2	5.8	0.5
Cycle Q Clear(g_c), s	0.4	0.1	0.0	1.5	0.1	0.1	0.4	2.6	0.2	0.2	5.8	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	27	99	84	47	121	98	167	1461	646	393	2748	848
V/C Ratio(X)	0.37	0.02	0.00	0.72	0.02	0.03	0.07	0.33	0.03	0.01	0.26	0.02
Avail Cap(c_a), veh/h	167	413	351	235	484	393	167	1461	646	393	2748	848
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	1.00	0.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	35.2	0.0	37.9	34.4	34.4	29.0	4.2	4.0	23.8	9.6	8.4
Incr Delay (d2), s/veh	8.3	0.1	0.0	18.3	0.1	0.1	0.2	0.6	0.1	0.1	0.2	0.1
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	0.3	0.0	0.0	1.0	0.0	0.1	0.2	1.3	0.1	0.1	2.7	0.2
LnGrp Delay(d),s/veh	46.5	35.3	0.0	56.2	34.4	34.5	29.2	4.8	4.1	23.9	9.9	8.5
LnGrp LOS	D	D		E	C	C	C	A	A	C	A	A
Approach Vol, veh/h		12			39			515			734	
Approach Delay, s/veh		44.7			53.4			5.3			9.9	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	44.5	38.0	7.7	9.8	34.5	48.0	6.8	10.7
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	17.4	32.4	10.4	17.4	7.4	42.4	7.4	20.4
Max Q Clear Time (g_c+I1), s	2.2	4.6	3.5	2.1	2.4	7.8	2.4	2.1
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	5.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	10	92	2	5	45	595	299	20	501	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	0	0	11	100	2	5	49	647	325	22	545	0
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	3	104	85	131	410	343	93	1659	767	36	2325	724
Arrive On Green	0.00	0.00	0.06	0.07	0.22	0.22	0.11	0.98	0.98	0.04	0.91	0.00
Sat Flow, veh/h	1774	1863	1510	1774	1863	1562	1774	3390	1567	1774	5085	1583
Grp Volume(v), veh/h	0	0	11	100	2	5	49	647	325	22	545	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1510	1774	1863	1562	1774	1695	1567	1774	1695	1583
Q Serve(g_s), s	0.0	0.0	0.4	3.4	0.1	0.1	1.6	0.4	0.5	0.8	0.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.4	3.4	0.1	0.1	1.6	0.4	0.5	0.8	0.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	3	104	85	131	410	343	93	1659	767	36	2325	724
V/C Ratio(X)	0.00	0.00	0.13	0.76	0.00	0.01	0.53	0.39	0.42	0.61	0.23	0.00
Avail Cap(c_a), veh/h	143	492	398	411	774	649	240	1659	767	183	2325	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	27.9	28.2	18.9	10.5	27.1	0.3	0.3	29.6	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	8.9	0.0	0.0	4.1	0.6	1.6	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	0.0	0.0	0.2	2.0	0.0	0.1	0.9	0.3	0.5	0.5	0.3	0.0
LnGrp Delay(d),s/veh	0.0	0.0	28.6	37.1	18.9	10.5	31.2	1.0	1.9	45.0	1.7	0.0
LnGrp LOS			C	D	B	B	C	A	A	D	A	
Approach Vol, veh/h		11			107			1021			567	
Approach Delay, s/veh		28.6			35.5			2.7			3.4	
Approach LOS		C			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.7	36.0	10.2	9.1	36.7	34.0	0.0	19.3
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	6.4	30.4	14.4	16.4	8.4	28.4	5.0	25.8
Max Q Clear Time (g_c+I1), s	2.8	2.5	5.4	2.4	3.6	2.7	0.0	2.1
Green Ext Time (p_c), s	0.0	6.7	0.1	0.0	0.0	3.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	5.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	6	57	233	12	14	84	456	130	27	619	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	8	7	62	253	13	15	91	496	141	29	673	2
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	15	166	137	307	474	398	190	1601	441	43	1638	502
Arrive On Green	0.01	0.09	0.09	0.17	0.25	0.25	0.21	0.81	0.81	0.05	0.64	0.64
Sat Flow, veh/h	1774	1863	1530	1774	1863	1565	1774	3955	1090	1774	5085	1559
Grp Volume(v), veh/h	8	7	62	253	13	15	91	423	214	29	673	2
Grp Sat Flow(s),veh/h/ln	1774	1863	1530	1774	1863	1565	1774	1695	1654	1774	1695	1559
Q Serve(g_s), s	0.3	0.2	2.8	10.0	0.4	0.4	3.3	2.3	2.4	1.2	4.6	0.0
Cycle Q Clear(g_c), s	0.3	0.2	2.8	10.0	0.4	0.4	3.3	2.3	2.4	1.2	4.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	15	166	137	307	474	398	190	1372	670	43	1638	502
V/C Ratio(X)	0.55	0.04	0.45	0.82	0.03	0.04	0.48	0.31	0.32	0.67	0.41	0.00
Avail Cap(c_a), veh/h	122	421	345	620	944	793	303	1372	670	156	1638	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	0.99	0.99	0.99
Uniform Delay (d), s/veh	35.9	30.2	31.4	29.0	20.3	11.8	26.8	4.3	4.3	34.3	9.6	5.1
Incr Delay (d2), s/veh	28.5	0.1	2.3	5.5	0.0	0.0	1.7	0.5	1.2	16.3	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	0.3	0.1	1.3	5.3	0.2	0.2	1.7	1.1	1.2	0.8	2.2	0.0
LnGrp Delay(d),s/veh	64.4	30.3	33.7	34.5	20.4	11.8	28.5	4.9	5.5	50.6	10.3	5.1
LnGrp LOS	E	C	C	C	C	B	C	A	A	D	B	A
Approach Vol, veh/h		77			281			728			704	
Approach Delay, s/veh		36.6			32.6			8.0			12.0	
Approach LOS		D			C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.7	35.0	18.2	12.1	40.7	29.0	6.2	24.1
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	6.4	29.4	25.4	16.4	12.4	23.4	5.0	36.8
Max Q Clear Time (g_c+I1), s	3.2	4.4	12.0	4.8	5.3	6.6	2.3	2.4
Green Ext Time (p_c), s	0.1	3.9	0.7	0.1	0.1	3.9	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	74	1	516	33	423	0	0	380	223
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				80	1	561	36	460	0	0	413	242
Adj No. of Lanes				0	1	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				425	5	667	49	3129	0	0	2626	813
Arrive On Green				0.24	0.24	0.24	0.06	1.00	0.00	0.00	0.52	0.52
Sat Flow, veh/h				1753	22	2752	1774	5253	0	0	5253	1574
Grp Volume(v), veh/h				81	0	561	36	460	0	0	413	242
Grp Sat Flow(s),veh/h/ln				1775	0	1376	1774	1695	0	0	1695	1574
Q Serve(g_s), s				2.8	0.0	15.3	1.6	0.0	0.0	0.0	3.4	6.9
Cycle Q Clear(g_c), s				2.8	0.0	15.3	1.6	0.0	0.0	0.0	3.4	6.9
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				430	0	667	49	3129	0	0	2626	813
V/C Ratio(X)				0.19	0.00	0.84	0.73	0.15	0.00	0.00	0.16	0.30
Avail Cap(c_a), veh/h				686	0	1064	235	3129	0	0	2626	813
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				23.7	0.0	28.4	36.9	0.0	0.0	0.0	10.0	10.9
Incr Delay (d2), s/veh				0.2	0.0	3.5	15.8	0.1	0.0	0.0	0.1	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
%ile BackOfQ(50%),veh/ln				1.4	0.0	6.1	1.0	0.0	0.0	0.0	1.6	3.2
LnGrp Delay(d),s/veh				23.9	0.0	31.9	52.6	0.1	0.0	0.0	10.1	11.8
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					642			496			655	
Approach Delay, s/veh					30.9			3.9			10.7	
Approach LOS					C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		65.3			7.8	57.6		24.7
Change Period (Y+Rc), s		5.6			5.6	5.6		5.6
Max Green Setting (Gmax), s		48.4			10.4	32.4		30.4
Max Q Clear Time (g_c+I1), s		2.0			3.6	8.9		17.3
Green Ext Time (p_c), s		7.5			0.0	6.6		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	98	1	387	58	283	0	0	604	305
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				107	1	421	63	308	0	0	657	332
Adj No. of Lanes				0	1	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				322	3	501	82	3523	0	0	2972	921
Arrive On Green				0.18	0.18	0.18	0.02	0.23	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1758	16	2741	1774	5253	0	0	5253	1575
Grp Volume(v), veh/h				108	0	421	63	308	0	0	657	332
Grp Sat Flow(s),veh/h/ln				1775	0	1370	1774	1695	0	0	1695	1575
Q Serve(g_s), s				4.8	0.0	13.4	3.2	4.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				4.8	0.0	13.4	3.2	4.3	0.0	0.0	0.0	0.0
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				325	0	501	82	3523	0	0	2972	921
V/C Ratio(X)				0.33	0.00	0.84	0.77	0.09	0.00	0.00	0.22	0.36
Avail Cap(c_a), veh/h				520	0	803	284	3523	0	0	2972	921
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.92	0.92	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				32.0	0.0	35.5	43.9	12.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.6	0.0	4.5	12.8	0.0	0.0	0.0	0.2	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				2.4	0.0	5.3	1.9	2.0	0.0	0.0	0.0	0.3
LnGrp Delay(d),s/veh				32.6	0.0	40.0	56.7	12.4	0.0	0.0	0.2	1.0
LnGrp LOS				C		D	E	B			A	A
Approach Vol, veh/h					529			371			989	
Approach Delay, s/veh					38.5			19.9			0.4	
Approach LOS					D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		77.9			9.8	68.2		22.1
Change Period (Y+Rc), s		5.6			5.6	5.6		5.6
Max Green Setting (Gmax), s		62.4			14.4	42.4		26.4
Max Q Clear Time (g_c+I1), s		6.3			5.2	2.0		15.4
Green Ext Time (p_c), s		9.1			0.1	8.8		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	366	1	28	0	0	0	0	90	47	333	121	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	398	1	30				0	98	51	362	132	0
Adj No. of Lanes	2	1	0				0	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	551	8	242				0	1016	450	1127	2441	0
Arrive On Green	0.16	0.16	0.16				0.00	0.29	0.29	0.55	1.00	0.00
Sat Flow, veh/h	3442	50	1512				0	3632	1567	3442	3632	0
Grp Volume(v), veh/h	398	0	31				0	98	51	362	132	0
Grp Sat Flow(s),veh/h/ln	1721	0	1562				0	1770	1567	1721	1770	0
Q Serve(g_s), s	8.2	0.0	1.3				0.0	1.5	1.8	4.3	0.0	0.0
Cycle Q Clear(g_c), s	8.2	0.0	1.3				0.0	1.5	1.8	4.3	0.0	0.0
Prop In Lane	1.00		0.97				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	551	0	250				0	1016	450	1127	2441	0
V/C Ratio(X)	0.72	0.00	0.12				0.00	0.10	0.11	0.32	0.05	0.00
Avail Cap(c_a), veh/h	1265	0	574				0	1016	450	1127	2441	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	26.8				0.0	19.5	19.6	12.3	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.2				0.0	0.2	0.5	0.2	0.0	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	4.0	0.0	0.6				0.0	0.8	0.8	2.0	0.0	0.0
LnGrp Delay(d),s/veh	31.5	0.0	27.0				0.0	19.7	20.1	12.5	0.0	0.0
LnGrp LOS	C		C					B	C	B	A	
Approach Vol, veh/h		429						149			494	
Approach Delay, s/veh		31.2						19.8			9.2	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	45.5	27.0		17.5		72.5		
Change Period (Y+Rc), s	5.6	5.6		5.6		5.6		
Max Green Setting (Gmax), s	24.4	21.4		27.4		51.4		
Max Q Clear Time (g_c+I1), s	6.3	3.8		10.2		2.0		
Green Ext Time (p_c), s	1.8	0.5		1.3		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	221	1	88	0	0	0	0	120	111	492	210	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	240	1	96				0	130	121	535	228	0
Adj No. of Lanes	2	1	0				0	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	381	2	169				0	1003	444	1415	2688	0
Arrive On Green	0.11	0.11	0.11				0.00	0.28	0.28	0.69	1.00	0.00
Sat Flow, veh/h	3442	16	1527				0	3632	1567	3442	3632	0
Grp Volume(v), veh/h	240	0	97				0	130	121	535	228	0
Grp Sat Flow(s),veh/h/ln	1721	0	1543				0	1770	1567	1721	1770	0
Q Serve(g_s), s	5.7	0.0	5.1				0.0	2.4	5.2	5.7	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	5.1				0.0	2.4	5.2	5.7	0.0	0.0
Prop In Lane	1.00		0.99				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	171				0	1003	444	1415	2688	0
V/C Ratio(X)	0.63	0.00	0.57				0.00	0.13	0.27	0.38	0.08	0.00
Avail Cap(c_a), veh/h	935	0	419				0	1003	444	1415	2688	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.99	0.99	0.00
Uniform Delay (d), s/veh	36.6	0.0	36.3				0.0	23.0	24.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	3.0				0.0	0.3	1.5	0.2	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
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.3				0.0	1.2	2.4	2.7	0.0	0.0
LnGrp Delay(d),s/veh	38.3	0.0	39.3				0.0	23.2	25.5	9.0	0.1	0.0
LnGrp LOS	D		D					C	C	A	A	
Approach Vol, veh/h		337						251			763	
Approach Delay, s/veh		38.6						24.3			6.3	
Approach LOS		D						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	54.9	30.0		15.1		84.9		
Change Period (Y+Rc), s	5.6	5.6		5.6		5.6		
Max Green Setting (Gmax), s	35.4	24.4		23.4		65.4		
Max Q Clear Time (g_c+I1), s	7.7	7.2		7.7		2.0		
Green Ext Time (p_c), s	3.3	0.9		0.9		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	97	2	3	0	0	2	35	0	1	5	2
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	105	2	3	0	0	2	38	0	1	5	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8.3	7.1	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	95%	0%	100%	0%
Vol Thru, %	62%	2%	5%	0%	9%
Vol Right, %	25%	3%	95%	0%	91%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	102	37	57	92
LT Vol	5	2	2	0	8
Through Vol	2	3	35	0	84
RT Vol	1	97	0	57	0
Lane Flow Rate	9	111	40	62	100
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.011	0.14	0.043	0.091	0.116
Departure Headway (Hd)	4.434	4.544	3.889	5.304	4.162
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	810	794	925	668	847
Service Time	2.444	2.547	1.894	3.099	1.957
HCM Lane V/C Ratio	0.011	0.14	0.043	0.093	0.118
HCM Control Delay	7.5	8.3	7.1	8.6	7.5
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.5	0.1	0.3	0.4

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	57	8	84
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	62	9	91
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	138	7	4	0	4	12	72	0	2	21	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	150	8	4	0	4	13	78	0	2	23	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	9.5	8.1	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	7%	93%	5%	100%	0%
Vol Thru, %	78%	5%	14%	0%	6%
Vol Right, %	15%	3%	82%	0%	94%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	149	88	126	172
LT Vol	21	7	12	0	10
Through Vol	4	4	72	0	162
RT Vol	2	138	4	126	0
Lane Flow Rate	29	162	96	137	187
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.04	0.226	0.119	0.216	0.235
Departure Headway (Hd)	4.966	5.032	4.484	5.689	4.523
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	717	713	797	630	791
Service Time	3.023	3.071	2.527	3.43	2.264
HCM Lane V/C Ratio	0.04	0.227	0.12	0.217	0.236
HCM Control Delay	8.2	9.5	8.1	10	8.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.9	0.4	0.8	0.9

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	126	10	162
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	137	11	176
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	2	14	0	19	35	0	0	1	7
Conflicting Peds, #/hr	0	0	0	10	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	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	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	15	0	21	38	0	0	1	8

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	44	29	18	32	29	25	12	0	0
Stage 1	10	10	-	15	15	-	-	-	-
Stage 2	34	19	-	17	14	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	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	-	-
Pot Cap-1 Maneuver	958	864	1061	976	864	1051	1607	-	-
Stage 1	1011	887	-	1005	883	-	-	-	-
Stage 2	982	880	-	1002	884	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	917	856	1052	946	856	1034	1594	-	-
Mov Cap-2 Maneuver	917	856	-	946	856	-	-	-	-
Stage 1	1011	886	-	997	876	-	-	-	-
Stage 2	932	873	-	976	883	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.3	9.2	0
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1594	-	-	863	946	856	1584	-	-
HCM Lane V/C Ratio	-	-	-	0.02	0.022	0.044	0.001	-	-
HCM Control Delay (s)	0	-	-	9.3	8.9	9.4	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	1	3	8
Conflicting Peds, #/hr	10	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	1	3	9

Major/Minor	Major2		
Conflicting Flow All	19	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1597	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1584	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	0.6
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	6	33	2	13	15	0	3	6	27
Conflicting Peds, #/hr	0	0	0	10	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	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	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	36	2	14	16	0	3	7	29

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	61	67	18	72	55	41	11	0	0
Stage 1	15	15	-	38	38	-	-	-	-
Stage 2	46	52	-	34	17	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	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	-	-
Pot Cap-1 Maneuver	934	824	1061	919	836	1030	1608	-	-
Stage 1	1005	883	-	977	863	-	-	-	-
Stage 2	968	852	-	982	881	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	909	814	1052	869	826	1013	1595	-	-
Mov Cap-2 Maneuver	909	814	-	869	826	-	-	-	-
Stage 1	1003	881	-	967	854	-	-	-	-
Stage 2	940	843	-	930	879	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.5	9.3	0.6
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1595	-	-	836	869	826	1549	-	-
HCM Lane V/C Ratio	0.002	-	-	0.053	0.016	0.02	0.002	-	-
HCM Control Delay (s)	7.3	0	-	9.5	9.2	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	3	5	5
Conflicting Peds, #/hr	10	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	3	5	5

Major/Minor	Major2		
Conflicting Flow All	46	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1562	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1549	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	1.7
HCM LOS	

Minor Lane/Major Mvmt

APPENDIX C

TRAFFIC SIGNAL WARRANT ANALYSIS

WARRANT 1 - Eight-Hour Vehicular Volume

Goshen Ave @ American St
Plaza Square
Existing

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R	15:00	17:00	16:00	12:00	13:00	14:00	7:00	9:00	HOUR
APPROACH LANES	1		**2 or more**										
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	**420 (336)**	448	424	411	430	419	382	358	377	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	97	83	82	74	83	76	81	65	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R	15:00	17:00	16:00	12:00	13:00	14:00	7:00	9:00	HOUR
APPROACH LANES	1		**2 or more**										
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	**630 (504)**	448	424	411	430	419	382	358	377	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	97	83	82	74	83	76	81	65	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES **NO**

WARRANT 1 - Eight-Hour Vehicular Volume

Goshen Ave @ American St
Plaza Square
2016 No Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)											
	U	R	U	R								
APPROACH LANES	1		**2 or more**		15:00	17:00	16:00	12:00	13:00	14:00	7:00	9:00 HOUR
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	**420 (336)**	565	515	502	498	491	468	444	435
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	110	92	98	97	96	91	95	85

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)											
	U	R	U	R								
APPROACH LANES	1		**2 or more**		15:00	17:00	16:00	12:00	13:00	14:00	7:00	9:00 HOUR
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	**630 (504)**	565	515	502	498	491	468	444	435
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	110	92	98	97	96	91	95	85

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC	√	
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Goshen Ave @ American St
Plaza Square
2016 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		15:00	17:00	16:00	12:00	13:00	14:00	7:00	11:00	HOUR
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	**420 (336)**	587	553	532	531	525	491	472	459	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	110	92	98	97	96	91	95	84	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		15:00	17:00	16:00	12:00	13:00	14:00	7:00	11:00	HOUR
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	**630 (504)**	587	553	532	531	525	491	472	459	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	110	92	98	97	96	91	95	84	

Combination of Conditions A & B

Satisfied YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC	√	
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Goshen Ave @ American St
Plaza Square
2021 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** **YES** NO

Condition A - Minimum Vehicle Volume

100% Satisfied **YES** NO
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		15:00	17:00	16:00	12:00	13:00	14:00	7:00	11:00	HOUR
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	**420 (336)**	747	704	674	673	664	623	592	582	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	140	110	125	124	122	116	128	108	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		15:00	17:00	16:00	12:00	13:00	14:00	7:00	11:00	HOUR
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	**630 (504)**	747	704	674	673	664	623	592	582	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	140	110	125	124	122	116	128	108	

Combination of Conditions A & B **Satisfied** **YES** NO

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME	√	**YES** NO
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC	√	
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Plaza Dr @ Airport Dr
Plaza Square
Existing

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	17:00	15:00	14:00	12:00	18:00	13:00	8:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	291	277	253	213	203	211	179	146	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	177	141	124	89	92	140	84	105	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	17:00	15:00	14:00	12:00	18:00	13:00	8:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	291	277	253	213	203	211	179	146	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	177	141	124	89	92	140	84	105	

Combination of Conditions A & B

Satisfied YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES **NO**

WARRANT 1 - Eight-Hour Vehicular Volume

Plaza Dr @ Airport Dr
Plaza Square
2016 No Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	17:00	15:00	14:00	12:00	18:00	13:00	8:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	385	359	330	272	269	264	244	202	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	186	153	159	131	130	128	118	98	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	17:00	15:00	14:00	12:00	18:00	13:00	8:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	385	359	330	272	269	264	244	202	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	186	153	159	131	130	128	118	98	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Plaza Dr @ Airport Dr
Plaza Square
2016 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	17:00	15:00	12:00	14:00	18:00	13:00	8:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	399	379	341	285	283	280	260	213	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	192	160	164	137	136	135	125	103	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	17:00	15:00	12:00	14:00	18:00	13:00	8:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	399	379	341	285	283	280	260	213	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	192	160	164	137	136	135	125	103	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Plaza Dr @ Airport Dr
Plaza Square
2021 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	15:00	17:00	12:00	14:00	18:00	13:00	7:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	506	431	446	366	359	361	335	343	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	456	391	200	318	322	313	289	213	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	15:00	17:00	12:00	14:00	18:00	13:00	7:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	506	431	446	366	359	361	335	343	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	456	391	200	318	322	313	289	213	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Plaza Dr @ Airport Dr
Plaza Square
2026 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** **YES** NO

Condition A - Minimum Vehicle Volume

100% Satisfied **YES** NO
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	15:00	17:00	12:00	14:00	18:00	13:00	7:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	653	556	532	468	462	462	429	469	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	551	472	267	384	389	379	349	260	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES NO
80% Satisfied **YES** NO

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		16:00	15:00	17:00	12:00	14:00	18:00	13:00	7:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	653	556	532	468	462	462	429	469	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	551	472	267	384	389	379	349	260	

Combination of Conditions A & B

Satisfied **YES** NO

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME	√	**YES** NO
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC	√	
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
Existing

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) U	R	U	R	17:00	15:00	16:00	8:00	12:00	14:00	13:00	11:00	HOUR
	1		2 or more										
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	73	66	57	69	54	40	50	46	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	29	22	34	9	26	30	22	18	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS) U	R	U	R	17:00	15:00	16:00	8:00	12:00	14:00	13:00	11:00	HOUR
	1		2 or more										
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	73	66	57	69	54	40	50	46	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	29	22	34	9	26	30	22	18	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES **NO**

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
2016 No Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	15:00	16:00	8:00	12:00	14:00	13:00	7:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	83	90	90	78	78	75	75	82	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	38	26	26	23	23	22	22	16	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	15:00	16:00	8:00	12:00	14:00	13:00	7:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	83	90	90	78	78	75	75	82	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	38	26	26	23	23	22	22	16	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
2016 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	15:00	7:00	18:00	11:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	227	216	211	207	192	200	177	175	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	108	85	87	86	72	79	78	71	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	15:00	7:00	18:00	11:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	227	216	211	207	192	200	177	175	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	108	85	87	86	72	79	78	71	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
2021 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	7:00	15:00	18:00	11:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	227	230	223	219	226	206	185	185	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	108	85	87	86	79	72	78	71	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	7:00	15:00	18:00	11:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	227	230	223	219	226	206	185	185	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	108	85	87	86	79	72	78	71	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
2026 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	15:00	7:00	18:00	8:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	260	249	240	235	226	228	196	206	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	114	99	99	98	86	88	86	80	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	15:00	7:00	18:00	8:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	260	249	240	235	226	228	196	206	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	114	99	99	98	86	88	86	80	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
2036 No Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	15:00	8:00	12:00	14:00	13:00	7:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	214	222	222	194	192	185	185	195	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	88	76	76	67	66	64	64	53	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	15:00	8:00	12:00	14:00	13:00	7:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	214	222	222	194	192	185	185	195	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	88	76	76	67	66	64	64	53	

Combination of Conditions A & B

Satisfied YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

WARRANT 1 - Eight-Hour Vehicular Volume

Crowley Ave @ Neeley St
Plaza Square
2036 Plus Project

(Condition A or B or Combination of A & B must be met) **WARRANT SATISFIED** YES **NO**

Condition A - Minimum Vehicle Volume

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	15:00	7:00	8:00	14:00	HOUR
Both Approaches Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	326	316	298	291	292	285	264	255	
Highest Approaches Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	145	128	124	122	115	107	106	102	

Condition B - Interruption of Continuous Traffic

100% Satisfied YES **NO**
80% Satisfied YES **NO**

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
APPROACH LANES	1		2 or more		17:00	16:00	12:00	13:00	15:00	7:00	8:00	14:00	HOUR
Both Approaches Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	326	316	298	291	292	285	264	255	
Highest Approaches Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	145	128	124	122	115	107	106	102	

Combination of Conditions A & B **Satisfied** YES **NO**

REQUIREMENT	WARRANT	√	FULFILLED
TWO WARRANTS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		YES **NO**
	AND B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS.			YES NO

APPENDIX D

2016 NO PROJECT CONDITIONS LOS CALCULATIONS

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	9	166	30	27	181	31	8	6	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	180	33	29	197	34	9	7	23

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	230	0	0	213	0	0	386	505	107
Stage 1	-	-	-	-	-	-	216	216	-
Stage 2	-	-	-	-	-	-	170	289	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1335	-	-	1355	-	-	547	468	926
Stage 1	-	-	-	-	-	-	766	723	-
Stage 2	-	-	-	-	-	-	815	672	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1335	-	-	1355	-	-	507	455	926
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	455	-
Stage 1	-	-	-	-	-	-	760	718	-
Stage 2	-	-	-	-	-	-	759	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0.9	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	678	1335	-	-	1355	-	-	524
HCM Lane V/C Ratio	0.056	0.007	-	-	0.022	-	-	0.197
HCM Control Delay (s)	10.6	7.7	-	-	7.7	-	-	13.5
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.7

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	62	23	10
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	67	25	11

Major/Minor	Minor2		
Conflicting Flow All	385	505	115
Stage 1	272	272	-
Stage 2	113	233	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	548	468	916
Stage 1	711	683	-
Stage 2	880	711	-
Platoon blocked, %			
Mov Cap-1 Maneuver	517	455	916
Mov Cap-2 Maneuver	517	455	-
Stage 1	706	668	-
Stage 2	844	706	-

Approach	SB
HCM Control Delay, s	13.5
HCM LOS	B

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	9	204	12	22	193	75	21	21	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	222	13	24	210	82	23	23	40

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	291	0	0	235	0	0	413	587	117
Stage 1	-	-	-	-	-	-	248	248	-
Stage 2	-	-	-	-	-	-	165	339	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1268	-	-	1329	-	-	523	420	913
Stage 1	-	-	-	-	-	-	734	700	-
Stage 2	-	-	-	-	-	-	821	638	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1268	-	-	1329	-	-	489	409	913
Mov Cap-2 Maneuver	-	-	-	-	-	-	489	409	-
Stage 1	-	-	-	-	-	-	728	694	-
Stage 2	-	-	-	-	-	-	773	626	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0.6	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	586	1268	-	-	1329	-	-	454
HCM Lane V/C Ratio	0.147	0.008	-	-	0.018	-	-	0.22
HCM Control Delay (s)	12.2	7.9	-	-	7.8	-	-	15.2
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.8

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	66	22	4
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	72	24	4

Major/Minor	Minor2		
Conflicting Flow All	440	552	146
Stage 1	298	298	-
Stage 2	142	254	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	501	440	875
Stage 1	686	666	-
Stage 2	846	696	-
Platoon blocked, %			
Mov Cap-1 Maneuver	450	429	875
Mov Cap-2 Maneuver	450	429	-
Stage 1	681	654	-
Stage 2	776	691	-

Approach	SB
HCM Control Delay, s	15.2
HCM LOS	C

Minor Lane/Major Mvmt

2016 Plus Project Conditions AM Peak Hour
2: Plaza Drive & Goshen Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	38	152	85	75	151	53	107	256	78	129	298	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	41	165	92	82	164	58	116	278	85	140	324	48
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	425	190	104	514	230	149	980	439	205	1142	511
Arrive On Green	0.03	0.12	0.12	0.06	0.15	0.15	0.08	0.28	0.28	0.12	0.32	0.32
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	41	165	92	82	164	58	116	278	85	140	324	48
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.3	2.4	3.0	2.6	2.3	1.8	3.6	3.4	2.3	4.2	3.8	1.2
Cycle Q Clear(g_c), s	1.3	2.4	3.0	2.6	2.3	1.8	3.6	3.4	2.3	4.2	3.8	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	425	190	104	514	230	149	980	439	205	1142	511
V/C Ratio(X)	0.69	0.39	0.48	0.79	0.32	0.25	0.78	0.28	0.19	0.68	0.28	0.09
Avail Cap(c_a), veh/h	187	1012	453	187	1012	453	235	980	439	273	1142	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	22.7	23.0	26.0	21.4	21.2	25.1	15.9	15.5	23.8	14.1	13.2
Incr Delay (d2), s/veh	13.0	0.6	1.9	12.0	0.4	0.6	8.5	0.7	1.0	4.4	0.6	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	0.8	1.2	1.4	1.6	1.2	0.8	2.1	1.8	1.1	2.3	1.9	0.6
LnGrp Delay(d),s/veh	39.8	23.3	24.9	38.0	21.8	21.8	33.6	16.6	16.4	28.2	14.8	13.6
LnGrp LOS	D	C	C	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		298			304			479			512	
Approach Delay, s/veh		26.1			26.2			20.7			18.3	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	35.9	8.9	12.3	10.3	38.5	7.5	13.7
Change Period (Y+Rc), s	6.4	* 6.4	5.6	5.6	5.6	6.4	5.6	5.6
Max Green Setting (Gmax), s	8.6	* 15	5.9	16.0	7.4	17.5	5.9	16.0
Max Q Clear Time (g_c+I1), s	7.2	5.4	4.6	5.0	5.6	6.8	3.3	4.3
Green Ext Time (p_c), s	0.0	2.9	0.0	1.7	0.0	3.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.0
HCM 2010 LOS	C

Notes

* HCM 2010 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												
Volume (veh/h)	57	194	112	81	141	71	97	277	49	100	370	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	62	211	122	88	153	77	105	301	53	109	402	35
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	495	222	113	564	252	135	997	446	164	1105	494
Arrive On Green	0.04	0.14	0.14	0.06	0.16	0.16	0.08	0.28	0.28	0.09	0.31	0.31
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	62	211	122	88	153	77	105	301	53	109	402	35
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.0	3.1	4.1	2.8	2.2	2.4	3.3	3.8	1.4	3.4	5.0	0.9
Cycle Q Clear(g_c), s	2.0	3.1	4.1	2.8	2.2	2.4	3.3	3.8	1.4	3.4	5.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	495	222	113	564	252	135	997	446	164	1105	494
V/C Ratio(X)	0.80	0.43	0.55	0.78	0.27	0.30	0.78	0.30	0.12	0.66	0.36	0.07
Avail Cap(c_a), veh/h	169	997	446	200	1059	474	231	997	446	237	1105	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	22.3	22.8	26.2	21.0	21.1	25.8	16.0	15.2	24.9	15.2	13.7
Incr Delay (d2), s/veh	16.4	0.6	2.1	10.9	0.2	0.7	9.2	0.8	0.5	4.6	0.9	0.3
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	1.3	1.5	1.9	1.7	1.1	1.1	2.0	1.9	0.7	1.8	2.5	0.4
LnGrp Delay(d),s/veh	43.4	22.9	24.9	37.1	21.2	21.7	35.0	16.8	15.7	29.5	16.1	14.0
LnGrp LOS	D	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		395			318			459			546	
Approach Delay, s/veh		26.7			25.7			20.8			18.6	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	35.6	9.2	13.6	9.9	37.3	8.1	14.7
Change Period (Y+Rc), s	6.4	* 6.4	5.6	5.6	5.6	6.4	5.6	5.6
Max Green Setting (Gmax), s	7.6	* 16	6.4	16.0	7.4	17.0	5.4	17.0
Max Q Clear Time (g_c+I1), s	6.4	5.8	4.8	6.1	5.3	8.0	4.0	4.4
Green Ext Time (p_c), s	0.0	3.2	0.0	1.9	0.0	3.0	0.0	2.1

Intersection Summary

HCM 2010 Ctrl Delay	22.4	
HCM 2010 LOS	C	

Notes

* HCM 2010 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												
Volume (veh/h)	36	196	69	90	160	10	55	37	50	11	62	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	39	213	75	98	174	11	60	40	54	12	67	27
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	382	131	127	653	292	304	207	213	124	478	174
Arrive On Green	0.03	0.15	0.15	0.07	0.18	0.18	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1774	2590	886	1774	3539	1583	481	530	546	78	1226	446
Grp Volume(v), veh/h	39	144	144	98	174	11	154	0	0	106	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1706	1774	1770	1583	1556	0	0	1750	0	0
Q Serve(g_s), s	0.9	3.2	3.4	2.3	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	3.2	3.4	2.3	1.8	0.2	2.5	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.52	1.00		1.00	0.39		0.35	0.11		0.25
Lane Grp Cap(c), veh/h	61	261	252	127	653	292	724	0	0	776	0	0
V/C Ratio(X)	0.63	0.55	0.57	0.77	0.27	0.04	0.21	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	214	658	634	223	1332	596	724	0	0	776	0	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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.5	17.0	17.1	19.6	15.0	14.4	8.8	0.0	0.0	8.5	0.0	0.0
Incr Delay (d2), s/veh	9.7	1.7	1.9	9.4	0.2	0.1	0.7	0.0	0.0	0.4	0.0	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	0.6	1.7	1.7	1.5	0.9	0.1	1.3	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	30.2	18.7	19.0	29.1	15.3	14.5	9.4	0.0	0.0	8.9	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h		327			283			154			106	
Approach Delay, s/veh		20.2			20.0			9.4			8.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.4	8.7	11.9		34.4	7.1	13.5
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6	5.6	5.6
Max Green Setting (Gmax), s		16.8	5.4	16.0		16.8	5.2	16.2
Max Q Clear Time (g_c+I1), s		4.5	4.3	5.4		3.7	2.9	3.8
Green Ext Time (p_c), s		1.1	0.1	1.0		1.1	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	253	11	33	170	6	16	35	33	71	61	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	49	275	12	36	185	7	17	38	36	77	66	76
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	509	22	58	489	219	174	338	266	292	249	224
Arrive On Green	0.04	0.15	0.15	0.03	0.14	0.14	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1774	3456	150	1774	3539	1583	169	835	657	425	614	552
Grp Volume(v), veh/h	49	140	147	36	185	7	91	0	0	219	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1836	1774	1770	1583	1662	0	0	1591	0	0
Q Serve(g_s), s	1.1	3.0	3.0	0.8	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	3.0	3.0	0.8	1.9	0.2	1.3	0.0	0.0	3.4	0.0	0.0
Prop In Lane	1.00		0.08	1.00		1.00	0.19		0.40	0.35		0.35
Lane Grp Cap(c), veh/h	74	260	270	58	489	219	779	0	0	765	0	0
V/C Ratio(X)	0.66	0.54	0.54	0.62	0.38	0.03	0.12	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	254	717	744	237	1399	626	779	0	0	765	0	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)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.1	16.0	16.0	19.3	15.9	15.1	7.6	0.0	0.0	8.2	0.0	0.0
Incr Delay (d2), s/veh	8.9	1.6	1.6	10.1	0.5	0.1	0.3	0.0	0.0	0.9	0.0	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	0.7	1.6	1.6	0.6	1.0	0.1	0.7	0.0	0.0	1.8	0.0	0.0
LnGrp Delay(d),s/veh	28.0	17.6	17.6	29.5	16.3	15.2	7.9	0.0	0.0	9.1	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h		336			228			91			219	
Approach Delay, s/veh		19.1			18.4			7.9			9.1	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		36.5	6.9	11.6		36.5	7.3	11.2
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6	5.6	5.6
Max Green Setting (Gmax), s		16.4	5.4	16.4		16.4	5.8	16.0
Max Q Clear Time (g_c+I1), s		3.3	2.8	5.0		5.4	3.1	3.9
Green Ext Time (p_c), s		1.4	0.2	1.0		1.3	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	0	6	24	0	5	14	607	66	7	544	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	4	0	7	26	0	5	15	660	72	8	591	15
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	99	80	40	121	98	156	1382	611	400	2686	828
Arrive On Green	0.01	0.00	0.05	0.02	0.00	0.06	0.18	0.78	0.78	0.23	0.53	0.53
Sat Flow, veh/h	1774	1863	1497	1774	1863	1510	1774	3539	1563	1774	5085	1568
Grp Volume(v), veh/h	4	0	7	26	0	5	15	660	72	8	591	15
Grp Sat Flow(s),veh/h/ln	1774	1863	1497	1774	1863	1510	1774	1770	1563	1774	1695	1568
Q Serve(g_s), s	0.2	0.0	0.2	1.1	0.0	0.2	0.5	4.7	0.6	0.3	4.5	0.3
Cycle Q Clear(g_c), s	0.2	0.0	0.2	1.1	0.0	0.2	0.5	4.7	0.6	0.3	4.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	19	99	80	40	121	98	156	1382	611	400	2686	828
V/C Ratio(X)	0.21	0.00	0.09	0.65	0.00	0.05	0.10	0.48	0.12	0.02	0.22	0.02
Avail Cap(c_a), veh/h	156	456	366	122	420	341	156	1382	611	400	2686	828
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	1.00	0.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	0.0	18.1	35.3	0.0	31.9	27.5	5.4	2.5	21.9	9.2	8.2
Incr Delay (d2), s/veh	5.2	0.0	0.5	16.5	0.0	0.2	0.3	1.1	0.4	0.1	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	0.1	0.0	0.1	0.7	0.0	0.1	0.3	2.3	0.4	0.1	2.1	0.2
LnGrp Delay(d),s/veh	40.9	0.0	18.6	51.8	0.0	32.1	27.8	6.5	2.9	22.0	9.3	8.2
LnGrp LOS	D		B	D		C	C	A	A	C	A	A
Approach Vol, veh/h		11			31			747			614	
Approach Delay, s/veh		26.7			48.6			6.6			9.5	
Approach LOS		C			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.3	34.0	7.2	9.5	29.3	44.0	6.4	10.3
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	16.4	28.4	5.0	17.8	6.4	38.4	6.4	16.4
Max Q Clear Time (g_c+I1), s	2.3	6.7	3.1	2.2	2.5	6.5	2.2	2.2
Green Ext Time (p_c), s	0.0	4.3	0.0	0.0	0.0	4.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	5	7	44	2	3	19	518	23	5	710	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	16	5	8	48	2	3	21	563	25	5	772	20
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	117	95	60	137	111	153	1351	596	391	2625	809
Arrive On Green	0.02	0.06	0.06	0.03	0.07	0.07	0.17	0.76	0.76	0.22	0.52	0.52
Sat Flow, veh/h	1774	1863	1508	1774	1863	1519	1774	3539	1563	1774	5085	1568
Grp Volume(v), veh/h	16	5	8	48	2	3	21	563	25	5	772	20
Grp Sat Flow(s),veh/h/ln	1774	1863	1508	1774	1863	1519	1774	1770	1563	1774	1695	1568
Q Serve(g_s), s	0.7	0.2	0.4	2.0	0.1	0.1	0.7	4.1	0.2	0.2	6.4	0.5
Cycle Q Clear(g_c), s	0.7	0.2	0.4	2.0	0.1	0.1	0.7	4.1	0.2	0.2	6.4	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	42	117	95	60	137	111	153	1351	596	391	2625	809
V/C Ratio(X)	0.38	0.04	0.08	0.80	0.01	0.03	0.14	0.42	0.04	0.01	0.29	0.02
Avail Cap(c_a), veh/h	153	446	361	119	411	335	153	1351	596	391	2625	809
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	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	32.8	32.8	35.7	32.0	11.5	28.5	5.9	2.7	22.7	10.3	8.8
Incr Delay (d2), s/veh	5.7	0.1	0.4	20.8	0.0	0.1	0.4	0.9	0.1	0.1	0.3	0.1
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	0.4	0.1	0.2	1.3	0.0	0.1	0.4	2.0	0.1	0.1	3.1	0.2
LnGrp Delay(d),s/veh	41.5	32.9	33.2	56.5	32.0	11.6	28.9	6.8	2.8	22.7	10.6	8.9
LnGrp LOS	D	C	C	E	C	B	C	A	A	C	B	A
Approach Vol, veh/h		29			53			609			797	
Approach Delay, s/veh		37.7			53.1			7.4			10.6	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	49.6	8.1	10.3	27.6	44.0	7.3	11.1
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	16.4	28.4	5.0	17.8	6.4	38.4	6.4	16.4
Max Q Clear Time (g_c+I1), s	2.2	6.1	4.0	2.4	2.7	8.4	2.7	2.1
Green Ext Time (p_c), s	0.0	3.6	0.0	0.0	1.2	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	5	16	98	10	10	61	676	320	42	552	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	5	17	107	11	11	66	735	348	46	600	5
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	8	133	108	141	272	227	116	1590	735	62	2229	686
Arrive On Green	0.00	0.07	0.07	0.08	0.15	0.15	0.13	0.94	0.94	0.07	0.88	0.88
Sat Flow, veh/h	1774	1863	1517	1774	1863	1551	1774	3390	1566	1774	5085	1565
Grp Volume(v), veh/h	4	5	17	107	11	11	66	735	348	46	600	5
Grp Sat Flow(s),veh/h/ln	1774	1863	1517	1774	1863	1551	1774	1695	1566	1774	1695	1565
Q Serve(g_s), s	0.1	0.2	0.7	3.8	0.3	0.3	2.3	1.5	1.6	1.6	1.2	0.0
Cycle Q Clear(g_c), s	0.1	0.2	0.7	3.8	0.3	0.3	2.3	1.5	1.6	1.6	1.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	8	133	108	141	272	227	116	1590	735	62	2229	686
V/C Ratio(X)	0.53	0.04	0.16	0.76	0.04	0.05	0.57	0.46	0.47	0.75	0.27	0.01
Avail Cap(c_a), veh/h	137	471	384	394	742	617	230	1590	735	175	2229	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	28.0	28.3	29.2	23.8	13.6	27.3	1.1	1.1	29.9	2.3	1.1
Incr Delay (d2), s/veh	46.5	0.1	0.7	8.2	0.1	0.1	3.8	0.9	1.9	16.2	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	0.2	0.1	0.3	2.2	0.2	0.2	1.2	0.7	0.9	1.1	0.6	0.0
LnGrp Delay(d),s/veh	78.7	28.1	28.9	37.4	23.8	13.7	31.1	2.0	3.1	46.0	2.6	1.1
LnGrp LOS	E	C	C	D	C	B	C	A	A	D	A	A
Approach Vol, veh/h		26			129			1149			651	
Approach Delay, s/veh		36.5			34.2			4.0			5.7	
Approach LOS		D			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.0	36.0	10.7	10.2	35.0	34.0	5.9	15.1
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	6.4	30.4	14.4	16.4	8.4	28.4	5.0	25.8
Max Q Clear Time (g_c+I1), s	3.6	3.6	5.8	2.7	4.3	3.2	2.1	2.3
Green Ext Time (p_c), s	0.1	7.6	0.2	0.0	0.1	3.9	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	13	67	250	21	20	97	530	149	36	695	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	15	14	73	272	23	22	105	576	162	39	755	3
Adj No. of Lanes	1	1	1	1	1	1	1	3	0	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	166	136	312	154	126	133	1564	430	87	1877	577
Arrive On Green	0.18	0.09	0.09	0.18	0.08	0.08	0.15	0.79	0.79	0.10	0.74	0.74
Sat Flow, veh/h	1774	1863	1530	1774	1863	1526	1774	3958	1087	1774	5085	1562
Grp Volume(v), veh/h	15	14	73	272	23	22	105	491	247	39	755	3
Grp Sat Flow(s),veh/h/ln	1774	1863	1530	1774	1863	1526	1774	1695	1655	1774	1695	1562
Q Serve(g_s), s	0.5	0.5	2.7	11.5	0.9	1.0	4.4	3.3	3.4	1.6	4.3	0.0
Cycle Q Clear(g_c), s	0.5	0.5	2.7	11.5	0.9	1.0	4.4	3.3	3.4	1.6	4.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	323	166	136	312	154	126	133	1340	654	87	1877	577
V/C Ratio(X)	0.05	0.08	0.54	0.87	0.15	0.17	0.79	0.37	0.38	0.45	0.40	0.01
Avail Cap(c_a), veh/h	323	397	326	332	625	512	194	1340	654	148	1877	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	0.99	0.99	0.99
Uniform Delay (d), s/veh	25.9	32.2	19.3	30.9	32.8	32.9	32.1	5.2	5.2	33.7	6.9	6.4
Incr Delay (d2), s/veh	0.1	0.2	3.3	20.8	0.4	0.7	11.9	0.7	1.5	3.6	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	1.5	7.4	0.5	0.5	2.6	1.6	1.7	0.9	2.0	0.0
LnGrp Delay(d),s/veh	26.0	32.4	22.5	51.6	33.2	33.5	44.0	5.9	6.8	37.3	7.5	6.4
LnGrp LOS	C	C	C	D	C	C	D	A	A	D	A	A
Approach Vol, veh/h		102			317			843			797	
Approach Delay, s/veh		24.4			49.0			10.9			9.0	
Approach LOS		C			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	36.0	19.1	12.4	24.4	34.0	19.6	11.9
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	6.4	30.4	14.4	16.4	8.4	28.4	5.0	25.8
Max Q Clear Time (g_c+I1), s	3.6	5.4	13.5	4.7	6.4	6.3	2.5	3.0
Green Ext Time (p_c), s	0.1	4.6	0.1	0.2	0.1	4.8	0.1	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	74	1	544	34	513	0	0	419	246
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				80	1	591	37	558	0	0	455	267
Adj No. of Lanes				0	1	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				443	6	696	50	3086	0	0	2586	801
Arrive On Green				0.25	0.25	0.25	0.06	1.00	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1753	22	2754	1774	5253	0	0	5253	1574
Grp Volume(v), veh/h				81	0	591	37	558	0	0	455	267
Grp Sat Flow(s),veh/h/ln				1775	0	1377	1774	1695	0	0	1695	1574
Q Serve(g_s), s				2.8	0.0	16.3	1.6	0.0	0.0	0.0	5.0	10.1
Cycle Q Clear(g_c), s				2.8	0.0	16.3	1.6	0.0	0.0	0.0	5.0	10.1
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				449	0	696	50	3086	0	0	2586	801
V/C Ratio(X)				0.18	0.00	0.85	0.74	0.18	0.00	0.00	0.18	0.33
Avail Cap(c_a), veh/h				677	0	1050	231	3086	0	0	2586	801
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.67	0.67
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh				23.3	0.0	28.4	37.4	0.0	0.0	0.0	14.6	16.2
Incr Delay (d2), s/veh				0.2	0.0	4.3	16.3	0.1	0.0	0.0	0.1	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
%ile BackOfQ(50%),veh/ln				1.4	0.0	6.6	1.0	0.0	0.0	0.0	2.4	4.6
LnGrp Delay(d),s/veh				23.5	0.0	32.7	53.6	0.1	0.0	0.0	14.7	17.3
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					672			595			722	
Approach Delay, s/veh					31.6			3.4			15.7	
Approach LOS					C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		64.2			7.8	56.4		25.8
Change Period (Y+Rc), s		5.6			5.6	5.6		5.6
Max Green Setting (Gmax), s		48.4			10.4	32.4		30.4
Max Q Clear Time (g_c+I1), s		2.0			3.6	12.1		18.3
Green Ext Time (p_c), s		9.0			0.0	7.4		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	98	1	422	59	355	0	0	671	342
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				107	1	459	64	386	0	0	729	372
Adj No. of Lanes				0	1	2	1	3	0	0	3	1
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				362	3	565	83	3280	0	0	2664	825
Arrive On Green				0.21	0.21	0.21	0.02	0.21	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1758	16	2746	1774	5253	0	0	5253	1574
Grp Volume(v), veh/h				108	0	459	64	386	0	0	729	372
Grp Sat Flow(s),veh/h/ln				1775	0	1373	1774	1695	0	0	1695	1574
Q Serve(g_s), s				3.9	0.0	12.0	2.7	4.6	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				3.9	0.0	12.0	2.7	4.6	0.0	0.0	0.0	0.0
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				365	0	565	83	3280	0	0	2664	825
V/C Ratio(X)				0.30	0.00	0.81	0.78	0.12	0.00	0.00	0.27	0.45
Avail Cap(c_a), veh/h				719	0	1113	246	3280	0	0	2664	825
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.92	0.92	0.00	0.00	0.89	0.89
Uniform Delay (d), s/veh				25.2	0.0	28.4	36.6	12.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.4	0.0	2.9	13.1	0.1	0.0	0.0	0.2	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				1.9	0.0	4.8	1.6	2.2	0.0	0.0	0.1	0.4
LnGrp Delay(d),s/veh				25.6	0.0	31.3	49.7	12.4	0.0	0.0	0.2	1.6
LnGrp LOS				C		C	D	B			A	A
Approach Vol, veh/h					567			450			1101	
Approach Delay, s/veh					30.2			17.7			0.7	
Approach LOS					C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		69.0			9.1	59.9		21.0
Change Period (Y+Rc), s		5.6			5.6	5.6		5.6
Max Green Setting (Gmax), s		48.4			10.4	32.4		30.4
Max Q Clear Time (g_c+I1), s		6.6			4.7	2.0		14.0
Green Ext Time (p_c), s		10.8			0.0	10.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	410	1	28	0	0	0	0	137	48	354	139	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	446	1	30				0	149	52	385	151	0
Adj No. of Lanes	2	1	0				0	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	595	9	262				0	1001	443	1109	2403	0
Arrive On Green	0.17	0.17	0.17				0.00	0.28	0.28	0.54	1.00	0.00
Sat Flow, veh/h	3442	50	1514				0	3632	1567	3442	3632	0
Grp Volume(v), veh/h	446	0	31				0	149	52	385	151	0
Grp Sat Flow(s),veh/h/ln	1721	0	1564				0	1770	1567	1721	1770	0
Q Serve(g_s), s	9.3	0.0	1.3				0.0	2.4	1.9	4.8	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	1.3				0.0	2.4	1.9	4.8	0.0	0.0
Prop In Lane	1.00		0.97				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	595	0	271				0	1001	443	1109	2403	0
V/C Ratio(X)	0.75	0.00	0.11				0.00	0.15	0.12	0.35	0.06	0.00
Avail Cap(c_a), veh/h	1246	0	566				0	1001	443	1109	2403	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.7	0.0	26.4				0.0	20.3	20.1	12.9	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.2				0.0	0.3	0.5	0.2	0.0	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	4.6	0.0	0.6				0.0	1.2	0.9	2.2	0.0	0.0
LnGrp Delay(d),s/veh	31.7	0.0	26.6				0.0	20.6	20.7	13.1	0.0	0.0
LnGrp LOS	C		C					C	C	B	A	
Approach Vol, veh/h		477						201			536	
Approach Delay, s/veh		31.3						20.7			9.4	
Approach LOS		C						C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	44.3	27.0		18.7		71.3		
Change Period (Y+Rc), s	5.6	5.6		5.6		5.6		
Max Green Setting (Gmax), s	24.4	21.4		27.4		51.4		
Max Q Clear Time (g_c+I1), s	6.8	4.4		11.3		2.0		
Green Ext Time (p_c), s	2.0	0.8		1.4		2.3		

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	263	1	90	0	0	0	0	151	111	526	243	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.99	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
Adj Sat Flow, veh/h/ln	1863	1863	1900				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	286	1	98				0	164	121	572	264	0
Adj No. of Lanes	2	1	0				0	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	455	2	203				0	1050	465	1164	2522	0
Arrive On Green	0.13	0.13	0.13				0.00	0.30	0.30	0.56	1.00	0.00
Sat Flow, veh/h	3442	16	1534				0	3632	1567	3442	3632	0
Grp Volume(v), veh/h	286	0	99				0	164	121	572	264	0
Grp Sat Flow(s),veh/h/ln	1721	0	1550				0	1770	1567	1721	1770	0
Q Serve(g_s), s	5.7	0.0	4.3				0.0	2.5	4.2	7.2	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	4.3				0.0	2.5	4.2	7.2	0.0	0.0
Prop In Lane	1.00		0.99				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	455	0	205				0	1050	465	1164	2522	0
V/C Ratio(X)	0.63	0.00	0.48				0.00	0.16	0.26	0.49	0.10	0.00
Avail Cap(c_a), veh/h	1307	0	589				0	1050	465	1164	2522	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	29.6	0.0	29.0				0.0	18.7	19.3	12.0	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	1.8				0.0	0.3	1.4	0.3	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
%ile BackOfQ(50%),veh/ln	2.8	0.0	1.9				0.0	1.3	2.0	3.4	0.0	0.0
LnGrp Delay(d),s/veh	31.1	0.0	30.8				0.0	19.0	20.7	12.3	0.1	0.0
LnGrp LOS	C		C					B	C	B	A	
Approach Vol, veh/h		385						285			836	
Approach Delay, s/veh		31.0						19.7			8.4	
Approach LOS		C						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	47.9	27.0		15.1		74.9		
Change Period (Y+Rc), s	5.6	5.6		5.6		5.6		
Max Green Setting (Gmax), s	24.4	21.4		27.4		51.4		
Max Q Clear Time (g_c+I1), s	9.2	6.2		7.7		2.0		
Green Ext Time (p_c), s	3.2	1.1		1.2		3.9		

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	100	2	3	0	0	4	80	0	1	5	2
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	109	2	3	0	0	4	87	0	1	5	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8.5	7.4	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	95%	0%	100%	0%
Vol Thru, %	62%	2%	5%	0%	8%
Vol Right, %	25%	3%	95%	0%	92%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	105	84	70	97
LT Vol	5	2	4	0	8
Through Vol	2	3	80	0	89
RT Vol	1	100	0	70	0
Lane Flow Rate	9	114	91	76	105
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.011	0.147	0.1	0.116	0.128
Departure Headway (Hd)	4.582	4.652	3.948	5.505	4.358
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	782	774	910	653	824
Service Time	2.603	2.666	1.962	3.221	2.073
HCM Lane V/C Ratio	0.012	0.147	0.1	0.116	0.127
HCM Control Delay	7.7	8.5	7.4	8.9	7.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.5	0.3	0.4	0.4

Intersection

Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	70	8	89
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	76	9	97
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.2
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	142	7	4	0	4	12	98	0	2	21	4
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	154	8	4	0	4	13	107	0	2	23	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	9.8	8.5	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	7%	93%	4%	100%	0%
Vol Thru, %	78%	5%	11%	0%	6%
Vol Right, %	15%	3%	86%	0%	94%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	153	114	157	175
LT Vol	21	7	12	0	10
Through Vol	4	4	98	0	165
RT Vol	2	142	4	157	0
Lane Flow Rate	29	166	124	171	190
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.042	0.239	0.157	0.274	0.243
Departure Headway (Hd)	5.103	5.163	4.563	5.77	4.602
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	695	693	782	621	776
Service Time	3.182	3.215	2.618	3.527	2.359
HCM Lane V/C Ratio	0.042	0.24	0.159	0.275	0.245
HCM Control Delay	8.4	9.8	8.5	10.7	8.8
HCM Lane LOS	A	A	A	B	A
HCM 95th-tile Q	0.1	0.9	0.6	1.1	1

Intersection

Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	157	10	165
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	171	11	179
Number of Lanes	0	1	1	0

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

Lane

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	2	14	0	23	35	8	0	1	9
Conflicting Peds, #/hr	0	0	0	10	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	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	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	15	0	25	38	9	0	1	10

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	57	39	18	42	39	26	12	0	0
Stage 1	18	18	-	16	16	-	-	-	-
Stage 2	39	21	-	26	23	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	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	-	-
Pot Cap-1 Maneuver	940	853	1061	961	853	1050	1607	-	-
Stage 1	1001	880	-	1004	882	-	-	-	-
Stage 2	976	878	-	992	876	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	890	843	1052	930	843	1033	1594	-	-
Mov Cap-2 Maneuver	890	843	-	930	843	-	-	-	-
Stage 1	1001	877	-	996	875	-	-	-	-
Stage 2	918	871	-	964	873	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.3	9.3	0
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1594	-	-	849	930	873	1582	-	-
HCM Lane V/C Ratio	-	-	-	0.02	0.027	0.054	0.003	-	-
HCM Control Delay (s)	0	-	-	9.3	9	9.4	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.2	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	5	3	8
Conflicting Peds, #/hr	10	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	5	3	9

Major/Minor	Major2		
Conflicting Flow All	21	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1595	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1582	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	2.3
HCM LOS	

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	6	33	2	18	15	9	3	6	29
Conflicting Peds, #/hr	0	0	0	10	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	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	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	36	2	20	16	10	3	7	32

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	82	85	18	88	72	42	11	0	0
Stage 1	30	30	-	39	39	-	-	-	-
Stage 2	52	55	-	49	33	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	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	-	-
Pot Cap-1 Maneuver	905	805	1061	897	818	1029	1608	-	-
Stage 1	987	870	-	976	862	-	-	-	-
Stage 2	961	849	-	964	868	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	869	791	1052	844	804	1012	1595	-	-
Mov Cap-2 Maneuver	869	791	-	844	804	-	-	-	-
Stage 1	985	864	-	966	853	-	-	-	-
Stage 2	924	840	-	908	862	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.7	9.3	0.6
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1595	-	-	811	844	871	1546	-	-
HCM Lane V/C Ratio	0.002	-	-	0.055	0.023	0.03	0.007	-	-
HCM Control Delay (s)	7.3	0	-	9.7	9.4	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	0	-	-

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	10	5	5
Conflicting Peds, #/hr	10	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	11	5	5

Major/Minor	Major2		
Conflicting Flow All	48	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1559	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1546	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SB
HCM Control Delay, s	3.7
HCM LOS	

Minor Lane/Major Mvmt

APPENDIX E

2016 PLUS PROJECT CONDITIONS LOS CALCULATIONS

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	9	183	30	27	192	31	8	6	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	199	33	29	209	34	9	7	23

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	242	0	0	232	0	0	411	536	116
Stage 1	-	-	-	-	-	-	235	235	-
Stage 2	-	-	-	-	-	-	176	301	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1322	-	-	1333	-	-	525	449	914
Stage 1	-	-	-	-	-	-	747	709	-
Stage 2	-	-	-	-	-	-	809	664	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1322	-	-	1333	-	-	485	436	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	485	436	-
Stage 1	-	-	-	-	-	-	741	704	-
Stage 2	-	-	-	-	-	-	752	650	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0.8	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	657	1322	-	-	1333	-	-	506
HCM Lane V/C Ratio	0.058	0.007	-	-	0.022	-	-	0.204
HCM Control Delay (s)	10.8	7.7	-	-	7.8	-	-	13.9
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.8

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	62	23	10
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	67	25	11

Major/Minor	Minor2		
Conflicting Flow All	406	535	121
Stage 1	284	284	-
Stage 2	122	251	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	529	450	908
Stage 1	699	675	-
Stage 2	869	698	-
Platoon blocked, %			
Mov Cap-1 Maneuver	499	437	908
Mov Cap-2 Maneuver	499	437	-
Stage 1	694	660	-
Stage 2	833	693	-

Approach	SB
HCM Control Delay, s	13.9
HCM LOS	B

Minor Lane/Major Mvmt

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	9	222	12	22	213	75	21	21	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	175	-	-	200	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	241	13	24	232	82	23	23	40

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	313	0	0	254	0	0	443	628	127
Stage 1	-	-	-	-	-	-	267	267	-
Stage 2	-	-	-	-	-	-	176	361	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32
Pot Cap-1 Maneuver	1244	-	-	1308	-	-	498	398	900
Stage 1	-	-	-	-	-	-	715	687	-
Stage 2	-	-	-	-	-	-	809	624	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1244	-	-	1308	-	-	464	388	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	464	388	-
Stage 1	-	-	-	-	-	-	709	681	-
Stage 2	-	-	-	-	-	-	761	613	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0.6	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	562	1244	-	-	1308	-	-	429
HCM Lane V/C Ratio	0.153	0.008	-	-	0.018	-	-	0.233
HCM Control Delay (s)	12.6	7.9	-	-	7.8	-	-	15.9
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.9

Intersection

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	66	22	4
Conflicting Peds, #/hr	0	0	0
Sign Control	Stop	Stop	Stop
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	72	24	4

Major/Minor	Minor2		
Conflicting Flow All	472	594	157
Stage 1	320	320	-
Stage 2	152	274	-
Critical Hdwy	7.54	6.54	6.94
Critical Hdwy Stg 1	6.54	5.54	-
Critical Hdwy Stg 2	6.54	5.54	-
Follow-up Hdwy	3.52	4.02	3.32
Pot Cap-1 Maneuver	475	416	861
Stage 1	666	651	-
Stage 2	835	682	-
Platoon blocked, %			
Mov Cap-1 Maneuver	425	405	861
Mov Cap-2 Maneuver	425	405	-
Stage 1	661	639	-
Stage 2	765	677	-

Approach	SB
HCM Control Delay, s	15.9
HCM LOS	C

Minor Lane/Major Mvmt

2016 Plus Project AM Peak Hour
2: Plaza Drive & Goshen Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	38	152	102	109	151	53	118	278	100	129	332	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	41	165	111	118	164	58	128	302	109	140	361	48
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	434	194	154	628	281	167	1133	507	204	1250	559
Arrive On Green	0.03	0.12	0.12	0.09	0.18	0.18	0.09	0.32	0.32	0.11	0.35	0.35
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	41	165	111	118	164	58	128	302	109	140	361	48
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.5	2.9	4.5	4.4	2.7	2.1	4.8	4.3	3.4	5.1	5.0	1.4
Cycle Q Clear(g_c), s	1.5	2.9	4.5	4.4	2.7	2.1	4.8	4.3	3.4	5.1	5.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	434	194	154	628	281	167	1133	507	204	1250	559
V/C Ratio(X)	0.73	0.38	0.57	0.77	0.26	0.21	0.77	0.27	0.21	0.69	0.29	0.09
Avail Cap(c_a), veh/h	221	965	432	431	1385	620	484	1133	507	515	1250	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	27.2	27.9	30.1	23.9	23.7	29.8	17.0	16.7	28.7	15.7	14.6
Incr Delay (d2), s/veh	16.2	0.5	2.6	7.7	0.2	0.4	7.2	0.6	1.0	4.1	0.6	0.3
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	1.0	1.5	2.1	2.5	1.3	1.0	2.6	2.2	1.6	2.7	2.5	0.6
LnGrp Delay(d),s/veh	48.6	27.8	30.6	37.9	24.2	24.1	37.1	17.6	17.7	32.8	16.3	14.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		317			340			539			549	
Approach Delay, s/veh		31.5			28.9			22.3			20.4	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	60.5	11.4	13.9	11.9	62.8	7.7	17.6
Change Period (Y+Rc), s	6.4	* 6.4	5.6	5.6	5.6	6.4	5.6	5.6
Max Green Setting (Gmax), s	19.6	* 22	16.4	18.4	18.4	23.6	8.4	26.4
Max Q Clear Time (g_c+I1), s	8.1	6.3	6.4	6.5	6.8	8.0	3.5	4.7
Green Ext Time (p_c), s	0.2	4.0	0.2	1.8	0.2	4.0	0.0	2.2

Intersection Summary

HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Notes

* HCM 2010 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												
Volume (veh/h)	57	194	130	117	141	71	117	317	89	100	406	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	62	211	141	127	153	77	127	345	97	109	441	35
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	496	222	164	666	298	164	1132	507	163	1172	524
Arrive On Green	0.04	0.14	0.14	0.09	0.19	0.19	0.09	0.32	0.32	0.09	0.33	0.33
Sat Flow, veh/h	1774	3539	1583	1774	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	62	211	141	127	153	77	127	345	97	109	441	35
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1774	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.3	3.7	5.7	4.7	2.5	2.8	4.7	5.0	3.0	4.0	6.4	1.0
Cycle Q Clear(g_c), s	2.3	3.7	5.7	4.7	2.5	2.8	4.7	5.0	3.0	4.0	6.4	1.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	496	222	164	666	298	164	1132	507	163	1172	524
V/C Ratio(X)	0.78	0.43	0.63	0.77	0.23	0.26	0.77	0.30	0.19	0.67	0.38	0.07
Avail Cap(c_a), veh/h	247	860	385	378	1122	502	378	1132	507	357	1172	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	26.5	27.4	29.9	23.3	23.4	29.9	17.3	16.6	29.7	17.3	15.4
Incr Delay (d2), s/veh	15.5	0.6	3.0	7.2	0.2	0.4	7.5	0.7	0.8	4.7	0.9	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	1.5	1.8	2.7	2.6	1.2	1.3	2.6	2.5	1.4	2.2	3.3	0.5
LnGrp Delay(d),s/veh	47.4	27.1	30.4	37.1	23.4	23.8	37.5	18.0	17.5	34.3	18.2	15.7
LnGrp LOS	D	C	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		414			357			569			585	
Approach Delay, s/veh		31.3			28.4			22.3			21.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	50.5	11.8	15.1	11.8	51.2	8.6	18.3
Change Period (Y+Rc), s	6.4	* 6.4	5.6	5.6	5.6	6.4	5.6	5.6
Max Green Setting (Gmax), s	13.6	* 22	14.4	16.4	14.4	21.6	9.4	21.4
Max Q Clear Time (g_c+I1), s	7.0	7.0	6.7	7.7	6.7	9.4	4.3	4.8
Green Ext Time (p_c), s	0.1	4.5	0.2	1.8	0.2	4.1	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Notes

* HCM 2010 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												
Volume (veh/h)	36	218	69	97	194	10	55	37	54	11	62	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	39	237	75	105	211	11	60	40	59	12	67	27
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	408	126	150	719	322	291	200	224	120	474	173
Arrive On Green	0.03	0.15	0.15	0.08	0.20	0.20	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1774	2664	823	1774	3539	1583	465	515	578	80	1223	445
Grp Volume(v), veh/h	39	155	157	105	211	11	159	0	0	106	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1718	1774	1770	1583	1558	0	0	1749	0	0
Q Serve(g_s), s	1.0	3.7	3.8	2.6	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	3.7	3.8	2.6	2.3	0.3	2.7	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.48	1.00		1.00	0.38		0.37	0.11		0.25
Lane Grp Cap(c), veh/h	61	271	263	150	719	322	715	0	0	768	0	0
V/C Ratio(X)	0.64	0.57	0.59	0.70	0.29	0.03	0.22	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	221	647	628	372	1594	713	715	0	0	768	0	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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.4	17.6	17.7	20.0	15.1	14.3	9.2	0.0	0.0	8.9	0.0	0.0
Incr Delay (d2), s/veh	9.7	1.7	1.9	5.8	0.2	0.0	0.7	0.0	0.0	0.4	0.0	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	0.6	1.9	1.9	1.5	1.1	0.1	1.5	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	31.1	19.4	19.6	25.8	15.4	14.4	10.0	0.0	0.0	9.3	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	A			A		
Approach Vol, veh/h		351			327			159			106	
Approach Delay, s/veh		20.8			18.7			10.0			9.3	
Approach LOS		C			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		38.1	9.4	12.5		38.1	7.1	14.7
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6	5.6	5.6
Max Green Setting (Gmax), s		17.4	9.4	16.4		17.4	5.6	20.2
Max Q Clear Time (g_c+I1), s		4.7	4.6	5.8		3.7	3.0	4.3
Green Ext Time (p_c), s		1.2	0.6	1.1		1.2	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	293	11	40	206	6	16	35	41	71	61	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	49	318	12	43	224	7	17	38	45	77	66	76
Adj No. of Lanes	1	2	0	1	2	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	528	20	64	525	235	165	342	344	311	267	254
Arrive On Green	0.04	0.15	0.15	0.04	0.15	0.15	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1774	3478	131	1774	3539	1583	168	738	741	453	575	547
Grp Volume(v), veh/h	49	161	169	43	224	7	100	0	0	219	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1840	1774	1770	1583	1648	0	0	1575	0	0
Q Serve(g_s), s	1.3	4.1	4.1	1.2	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	4.1	4.1	1.2	2.8	0.2	1.6	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.07	1.00		1.00	0.17		0.45	0.35		0.35
Lane Grp Cap(c), veh/h	71	269	279	64	525	235	852	0	0	831	0	0
V/C Ratio(X)	0.69	0.60	0.60	0.67	0.43	0.03	0.12	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	272	674	701	272	1349	603	852	0	0	831	0	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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.9	19.1	19.1	23.0	18.7	17.6	7.4	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	10.5	2.0	1.9	11.3	0.6	0.1	0.3	0.0	0.0	0.8	0.0	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	0.8	2.2	2.3	0.8	1.4	0.1	0.8	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	33.4	21.1	21.0	34.3	19.2	17.6	7.6	0.0	0.0	8.7	0.0	0.0
LnGrp LOS	C	C	C	C	B	B	A			A		
Approach Vol, veh/h		379			274			100			219	
Approach Delay, s/veh		22.6			21.6			7.6			8.7	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		44.7	7.4	12.9		44.7	7.5	12.8
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6	5.6	5.6
Max Green Setting (Gmax), s		22.4	7.4	18.4		22.4	7.4	18.4
Max Q Clear Time (g_c+I1), s		3.6	3.2	6.1		5.7	3.3	4.8
Green Ext Time (p_c), s		1.7	0.5	1.2		1.7	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B