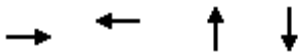
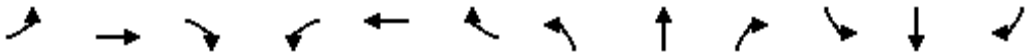


Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	115	3	455	688
v/c Ratio	0.63	0.01	0.55	0.59
Control Delay	40.6	31.7	3.5	6.2
Queue Delay	0.4	0.0	0.5	0.5
Total Delay	41.0	31.7	4.0	6.7
Queue Length 50th (ft)	43	1	10	96
Queue Length 95th (ft)	#121	9	34	118
Internal Link Dist (ft)	696	244	287	403
Turn Bay Length (ft)				
Base Capacity (vph)	183	233	832	1161
Starvation Cap Reductn	0	0	109	1
Spillback Cap Reductn	4	0	0	161
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.64	0.01	0.63	0.69

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	1	58	1	1	1	115	310	3	1	510	135
Future Volume (vph)	49	1	58	1	1	1	115	310	3	1	510	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-8%	
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.70			0.86			1.00			0.92	
Flpb, ped/bikes		0.76			0.88			0.98			1.00	
Frt		0.93			0.95			1.00			0.97	
Flt Protected		0.98			0.98			0.99			1.00	
Satd. Flow (prot)		811			1203			1541			1546	
Flt Permitted		0.88			0.95			0.71			1.00	
Satd. Flow (perm)		727			1164			1116			1545	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	52	1	62	1	1	1	122	330	3	1	543	144
RTOR Reduction (vph)	0	38	0	0	1	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	77	0	0	2	0	0	455	0	0	679	0
Confl. Peds. (#/hr)	158		191	191		158	81		112	112		81
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	10%	2%	3%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		20.0			20.0			80.0			80.0	
Effective Green, g (s)		22.0			22.0			82.0			82.0	
Actuated g/C Ratio		0.20			0.20			0.75			0.75	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		145			232			831			1151	
v/s Ratio Prot												
v/s Ratio Perm		c0.11			0.00			0.41			c0.44	
v/c Ratio		0.53			0.01			0.55			0.59	
Uniform Delay, d1		39.4			35.3			6.0			6.4	
Progression Factor		1.00			1.00			0.20			0.69	
Incremental Delay, d2		13.1			0.1			2.3			1.9	
Delay (s)		52.5			35.3			3.5			6.2	
Level of Service		D			D			A			A	
Approach Delay (s)		52.5			35.3			3.5			6.2	
Approach LOS		D			D			A			A	

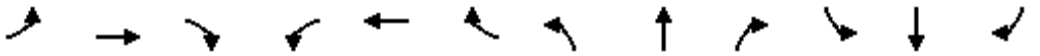
Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	25	76	695	188	245	995
v/c Ratio	0.09	0.24	0.82	0.26	0.64	0.90
Control Delay	26.2	27.1	32.3	14.0	15.3	21.4
Queue Delay	0.0	1.9	16.3	0.0	1.7	47.2
Total Delay	26.2	29.0	48.7	14.0	17.0	68.6
Queue Length 50th (ft)	9	20	474	72	89	418
Queue Length 95th (ft)	33	m40	629	117	m84	m409
Internal Link Dist (ft)	265	259	279			293
Turn Bay Length (ft)				100	125	
Base Capacity (vph)	283	320	852	732	385	1107
Starvation Cap Reductn	0	0	158	0	47	270
Spillback Cap Reductn	0	148	82	0	0	150
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.44	1.00	0.26	0.72	1.19

Intersection Summary

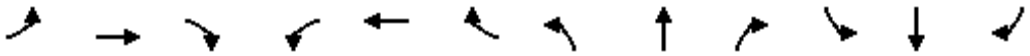
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	3	9	25	0	51	2	631	171	223	900	6
Future Volume (vph)	13	3	9	25	0	51	2	631	171	223	900	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			0%			2%			-3%	
Total Lost time (s)		3.5			3.5			3.5	3.5	3.0	3.5	
Lane Util. Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			0.85			1.00	1.00	1.00	1.00	
Flpb, ped/bikes		0.90			1.00			1.00	1.00	1.00	1.00	
Frt		0.95			0.91			1.00	0.85	1.00	1.00	
Flt Protected		0.97			0.98			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1400			1295			1491	1279	1480	1542	
Flt Permitted		0.88			0.92			1.00	1.00	0.22	1.00	
Satd. Flow (perm)		1267			1206			1488	1279	349	1542	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	1.00
Adj. Flow (vph)	13	3	9	25	0	51	2	693	188	245	989	6
RTOR Reduction (vph)	0	7	0	0	58	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	18	0	0	18	0	0	695	188	245	995	0
Confl. Peds. (#/hr)	93					93						
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	6%	5%	4%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		22.0			22.0			61.0	61.0	77.0	77.0	
Effective Green, g (s)		24.0			24.0			63.0	63.0	79.0	79.0	
Actuated g/C Ratio		0.22			0.22			0.57	0.57	0.72	0.72	
Clearance Time (s)		5.5			5.5			5.5	5.5	5.0	5.5	
Vehicle Extension (s)		1.0			1.0			1.0	1.0	1.0	1.0	
Lane Grp Cap (vph)		276			263			852	732	384	1107	
v/s Ratio Prot										0.08	c0.65	
v/s Ratio Perm		0.01			c0.02			0.47	0.15	0.38		
v/c Ratio		0.07			0.07			0.82	0.26	0.64	0.90	
Uniform Delay, d1		34.1			34.1			18.8	11.8	11.6	12.3	
Progression Factor		1.00			2.89			1.27	1.10	2.28	1.27	
Incremental Delay, d2		0.5			0.4			7.0	0.7	2.6	4.2	
Delay (s)		34.6			98.9			31.0	13.7	29.0	19.8	
Level of Service		C			F			C	B	C	B	
Approach Delay (s)		34.6			98.9			27.3			21.6	
Approach LOS		C			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	109.4%	ICU Level of Service	H
Analysis Period (min)	15		

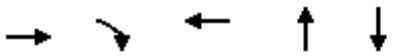
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	307	19	3	71	0	0	0	9	40	70	0
Future Volume (Veh/h)	0	307	19	3	71	0	0	0	9	40	70	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.85	0.85	1.00	1.00	0.90	1.00	0.90	0.85	0.85	0.85	0.90
Hourly flow rate (vph)	0	361	22	3	71	0	0	0	11	47	82	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		339			770							
pX, platoon unblocked												
vC, conflicting volume	71			383			490	449	372	460	460	71
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71			383			490	449	372	460	460	71
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	100			100			100	100	98	90	83	100
cM capacity (veh/h)	1529			1187			429	504	674	494	495	991

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	383	74	11	129
Volume Left	0	3	0	47
Volume Right	22	0	11	0
cSH	1700	1187	674	495
Volume to Capacity	0.23	0.00	0.02	0.26
Queue Length 95th (ft)	0	0	1	26
Control Delay (s)	0.0	0.3	10.4	14.8
Lane LOS		A	B	B
Approach Delay (s)	0.0	0.3	10.4	14.8
Approach LOS			B	B

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	39.1%	ICU Level of Service	A	
Analysis Period (min)	15			

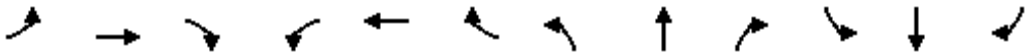


Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	230	60	202	311	630
v/c Ratio	0.59	0.16	0.56	0.45	0.83
Control Delay	51.9	20.0	25.2	19.3	26.9
Queue Delay	0.0	0.0	0.0	6.5	4.3
Total Delay	51.9	20.0	25.2	25.8	31.2
Queue Length 50th (ft)	170	7	79	229	388
Queue Length 95th (ft)	254	m45	160	317	#594
Internal Link Dist (ft)	690		359	289	287
Turn Bay Length (ft)		75			
Base Capacity (vph)	388	372	362	695	755
Starvation Cap Reductn	0	0	0	326	72
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.16	0.56	0.84	0.92

Intersection Summary

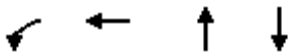
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	99	55	80	17	88	17	248	19	43	493	41
Future Volume (vph)	110	99	55	80	17	88	17	248	19	43	493	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	14	14	14	11	11	8	11	11	8
Grade (%)		0%			0%			5%			-8%	
Total Lost time (s)		3.0	3.0		3.0			3.0			3.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frpb, ped/bikes		1.00	0.64		0.72			0.96			0.98	
Flpb, ped/bikes		0.85	1.00		0.92			1.00			1.00	
Frt		1.00	0.85		0.94			0.99			0.99	
Flt Protected		0.97	1.00		0.98			1.00			1.00	
Satd. Flow (prot)		1240	823		1032			1497			1633	
Flt Permitted		0.75	1.00		0.77			0.96			0.95	
Satd. Flow (perm)		950	823		812			1438			1563	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	1.00	0.91	1.00	0.91	0.91	0.91	0.91	1.00
Adj. Flow (vph)	121	109	60	88	17	97	17	273	21	47	542	41
RTOR Reduction (vph)	0	0	35	0	30	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	230	25	0	172	0	0	308	0	0	628	0
Confl. Peds. (#/hr)	191		75	75		191	50		159	159		50
Heavy Vehicles (%)	10%	3%	6%	10%	0%	6%	0%	2%	5%	8%	2%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		43.0	43.0		43.0			51.0			51.0	
Effective Green, g (s)		45.0	45.0		45.0			53.0			53.0	
Actuated g/C Ratio		0.41	0.41		0.41			0.48			0.48	
Clearance Time (s)		5.0	5.0		5.0			5.0			5.0	
Lane Grp Cap (vph)		388	336		332			692			753	
v/s Ratio Prot												
v/s Ratio Perm		c0.24	0.03		0.21			0.21			c0.40	
v/c Ratio		0.59	0.07		0.52			0.45			0.83	
Uniform Delay, d1		25.4	19.8		24.4			18.8			24.7	
Progression Factor		1.73	3.50		1.00			0.93			0.69	
Incremental Delay, d2		6.1	0.4		5.7			1.6			8.9	
Delay (s)		49.9	69.7		30.0			19.1			25.9	
Level of Service		D	E		C			B			C	
Approach Delay (s)		54.0			30.0			19.1			25.9	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	30.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

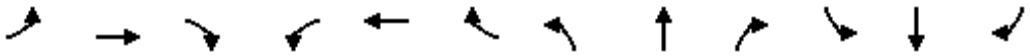


Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	218	253	668	967
v/c Ratio	0.80	0.52	0.65	0.91
Control Delay	62.6	11.8	10.7	21.0
Queue Delay	0.0	0.6	13.7	46.5
Total Delay	62.6	12.4	24.4	67.5
Queue Length 50th (ft)	146	32	201	354
Queue Length 95th (ft)	m#275	m84	m222	m#452
Internal Link Dist (ft)		302	370	279
Turn Bay Length (ft)				
Base Capacity (vph)	271	485	1030	1065
Starvation Cap Reductn	0	0	199	189
Spillback Cap Reductn	0	59	348	167
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.80	0.59	0.98	1.10

Intersection Summary

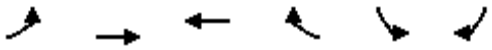
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	209	7	236	4	572	68	34	883	13
Future Volume (vph)	0	0	0	209	7	236	4	572	68	34	883	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			1%			1%			-2%	
Total Lost time (s)				3.0	3.0			3.5			3.5	
Lane Util. Factor				1.00	1.00			1.00			1.00	
Frpb, ped/bikes				1.00	0.93			0.98			1.00	
Flpb, ped/bikes				0.84	1.00			1.00			1.00	
Frt				1.00	0.85			0.99			1.00	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1193	1298			1444			1545	
Flt Permitted				0.95	1.00			1.00			0.96	
Satd. Flow (perm)				1193	1298			1439			1491	
Peak-hour factor, PHF	0.90	0.90	0.90	0.96	1.00	0.96	1.00	0.96	1.00	1.00	0.96	1.00
Adj. Flow (vph)	0	0	0	218	7	246	4	596	68	34	920	13
RTOR Reduction (vph)	0	0	0	0	190	0	0	4	0	0	1	0
Lane Group Flow (vph)	0	0	0	218	63	0	0	664	0	0	966	0
Confl. Peds. (#/hr)				50		17			39	39		
Heavy Vehicles (%)	2%	2%	2%	6%	0%	4%	0%	7%	0%	0%	4%	0%
Turn Type				Perm	NA		Perm	NA		Perm	NA	
Protected Phases					4			2			6	
Permitted Phases				4			2			6		
Actuated Green, G (s)				23.0	23.0			76.5			76.5	
Effective Green, g (s)				25.0	25.0			78.5			78.5	
Actuated g/C Ratio				0.23	0.23			0.71			0.71	
Clearance Time (s)				5.0	5.0			5.5			5.5	
Lane Grp Cap (vph)				271	295			1026			1064	
v/s Ratio Prot					0.05							
v/s Ratio Perm				c0.18				0.46			c0.65	
v/c Ratio				0.80	0.21			0.65			0.91	
Uniform Delay, d1				40.2	34.5			8.4			12.8	
Progression Factor				0.99	1.47			1.05			1.00	
Incremental Delay, d2				21.6	1.6			1.6			6.6	
Delay (s)				61.3	52.4			10.4			19.5	
Level of Service				E	D			B			B	
Approach Delay (s)		0.0			56.5			10.4			19.5	
Approach LOS		A			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	24.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.5
Intersection Capacity Utilization	103.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	98	331	3	0	90
Future Volume (Veh/h)	5	98	331	3	0	90
Sign Control		Free	Free		Stop	
Grade		0%	1%		0%	
Peak Hour Factor	1.00	1.00	0.87	1.00	0.90	0.87
Hourly flow rate (vph)	5	98	380	3	0	103
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		382	771			
pX, platoon unblocked						
vC, conflicting volume	383				490	382
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	383				490	382
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	84
cM capacity (veh/h)	1187				536	659

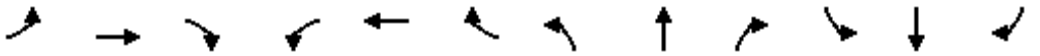
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	103	383	103
Volume Left	5	0	0
Volume Right	0	3	103
cSH	1187	1700	659
Volume to Capacity	0.00	0.23	0.16
Queue Length 95th (ft)	0	0	14
Control Delay (s)	0.4	0.0	11.5
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	11.5
Approach LOS			B

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	NBT	SBT	SBR
Lane Group Flow (vph)	59	312	412	247
v/c Ratio	0.22	0.70	0.59	0.35
Control Delay	7.1	44.5	13.9	2.4
Queue Delay	0.0	0.7	1.9	0.4
Total Delay	7.1	45.2	15.8	2.7
Queue Length 50th (ft)	1	195	69	1
Queue Length 95th (ft)	m6	299	m123	m10
Internal Link Dist (ft)	691	301	289	
Turn Bay Length (ft)				110
Base Capacity (vph)	266	444	704	710
Starvation Cap Reductn	0	0	157	160
Spillback Cap Reductn	4	23	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.74	0.75	0.45

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	0	21	0	0	0	36	252	9	16	375	235
Future Volume (vph)	38	0	21	0	0	0	36	252	9	16	375	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	10	10	8	10	10	10
Grade (%)		0%			0%			2%			-4%	
Total Lost time (s)		3.0						3.0			3.0	3.0
Lane Util. Factor		1.00						1.00			1.00	1.00
Frpb, ped/bikes		1.00						1.00			1.00	1.00
Flpb, ped/bikes		0.78						1.00			1.00	1.00
Frt		0.95						1.00			1.00	0.85
Flt Protected		0.97						0.99			1.00	1.00
Satd. Flow (prot)		1310						1527			1575	1331
Flt Permitted		0.97						0.99			0.98	1.00
Satd. Flow (perm)		1310						1527			1549	1331
Peak-hour factor, PHF	1.00	1.00	1.00	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	38	0	21	0	0	0	38	265	9	17	395	247
RTOR Reduction (vph)	0	50	0	0	0	0	0	1	0	0	0	106
Lane Group Flow (vph)	0	9	0	0	0	0	0	311	0	0	412	141
Confl. Peds. (#/hr)	75											
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	4%	2%	10%	6%	3%	4%
Turn Type	Perm	NA					Split	NA		Perm	NA	Perm
Protected Phases		3					2	2			4	
Permitted Phases	3									4		4
Actuated Green, G (s)		14.0						30.0			48.0	48.0
Effective Green, g (s)		16.0						32.0			50.0	50.0
Actuated g/C Ratio		0.15						0.29			0.45	0.45
Clearance Time (s)		5.0						5.0			5.0	5.0
Lane Grp Cap (vph)		190						444			704	605
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.01									c0.27	0.11
v/c Ratio		0.05						0.70			0.59	0.23
Uniform Delay, d1		40.4						34.7			22.3	18.3
Progression Factor		1.60						1.00			0.50	0.30
Incremental Delay, d2		0.3						8.9			2.3	0.6
Delay (s)		65.1						43.7			13.6	6.1
Level of Service		E						D			B	A
Approach Delay (s)		65.1			0.0			43.7			10.8	
Approach LOS		E			A			D			B	

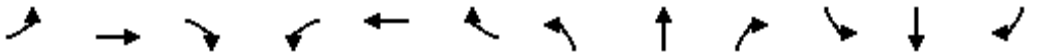
Intersection Summary			
HCM 2000 Control Delay	23.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	NBT	SBT	SBR
Lane Group Flow (vph)	142	687	993	191
v/c Ratio	0.64	0.88	0.88	0.20
Control Delay	45.5	29.7	16.6	0.8
Queue Delay	0.0	0.0	23.5	0.0
Total Delay	45.5	29.7	40.1	0.8
Queue Length 50th (ft)	72	336	432	3
Queue Length 95th (ft)	#153	m387	m666	m2
Internal Link Dist (ft)	191	200	370	
Turn Bay Length (ft)				150
Base Capacity (vph)	223	784	1130	934
Starvation Cap Reductn	0	0	173	0
Spillback Cap Reductn	0	0	17	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.64	0.88	1.04	0.20

Intersection Summary

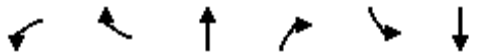
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	72	0	57	0	0	0	56	569	0	0	904	174
Future Volume (vph)	72	0	57	0	0	0	56	569	0	0	904	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		3%			-1%			1%			-2%	
Total Lost time (s)		3.5						4.0			4.0	4.0
Lane Util. Factor		1.00						1.00			1.00	1.00
Frpb, ped/bikes		0.97						1.00			1.00	0.92
Flpb, ped/bikes		0.91						1.00			1.00	1.00
Frt		0.94						1.00			1.00	0.85
Flt Protected		0.97						1.00			1.00	1.00
Satd. Flow (prot)		1181						1494			1535	1209
Flt Permitted		0.83						0.71			1.00	1.00
Satd. Flow (perm)		1012						1065			1535	1209
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	79	0	63	0	0	0	62	625	0	0	993	191
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	116	0	0	0	0	0	687	0	0	993	147
Confl. Peds. (#/hr)	50		13	13		50	22		46	46		22
Heavy Vehicles (%)	6%	0%	10%	0%	0%	0%	4%	6%	0%	0%	5%	4%
Turn Type	Perm	NA				Perm	Perm	NA	Perm		NA	Perm
Protected Phases		8			4			2			6	
Permitted Phases	8			4		4	2		2	6		6
Actuated Green, G (s)		19.5						79.0			79.0	79.0
Effective Green, g (s)		21.5						81.0			81.0	81.0
Actuated g/C Ratio		0.20						0.74			0.74	0.74
Clearance Time (s)		5.5						6.0			6.0	6.0
Lane Grp Cap (vph)		197						784			1130	890
v/s Ratio Prot											c0.65	
v/s Ratio Perm		c0.11						0.65				0.12
v/c Ratio		0.59						0.88			0.88	0.17
Uniform Delay, d1		40.2						10.8			10.8	4.4
Progression Factor		1.00						1.85			0.92	0.57
Incremental Delay, d2		12.3						7.5			5.2	0.2
Delay (s)		52.6						27.5			15.2	2.7
Level of Service		D						C			B	A
Approach Delay (s)		52.6			0.0			27.5			13.2	
Approach LOS		D			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	107.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	623	0	0	959
Future Volume (Veh/h)	0	0	623	0	0	959
Sign Control	Stop		Free			Free
Grade	0%		1%			-2%
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	656	0	0	1009
Pedestrians			13			13
Lane Width (ft)			12.0			12.0
Walking Speed (ft/s)			4.0			4.0
Percent Blockage			1			1
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			259			280
pX, platoon unblocked	0.61	0.76			0.76	
vC, conflicting volume	1678	669			656	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	912	409			392	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	183	484			897	

Direction, Lane #	NB 1	SB 1
Volume Total	656	1009
Volume Left	0	0
Volume Right	0	0
cSH	1700	897
Volume to Capacity	0.39	0.00
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

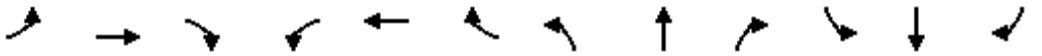
Lane Group	EBT	WBT	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	464	981	352	337	550	65
v/c Ratio	0.39	0.84	1.01	0.80	0.73	0.11
Control Delay	22.8	36.4	91.8	28.7	19.5	4.0
Queue Delay	0.0	0.2	6.8	0.0	1.4	0.0
Total Delay	22.8	36.6	98.6	28.7	20.9	4.0
Queue Length 50th (ft)	115	319	~252	112	193	2
Queue Length 95th (ft)	158	413	#444	m169	m300	m6
Internal Link Dist (ft)	189	477	172		179	
Turn Bay Length (ft)				100		160
Base Capacity (vph)	1198	1163	349	422	753	617
Starvation Cap Reductn	0	0	0	0	75	0
Spillback Cap Reductn	0	14	8	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.85	1.03	0.80	0.81	0.11

Intersection Summary

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

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

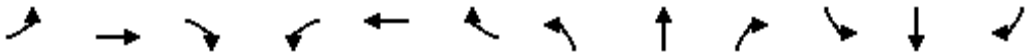
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	402	53	0	708	254	0	343	2	330	539	64
Future Volume (vph)	0	402	53	0	708	254	0	343	2	330	539	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	10	10	10	10	10	10
Grade (%)		1%			1%			2%			-2%	
Total Lost time (s)		4.0			4.0			4.0		3.0	4.0	4.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98			1.00		1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		0.98			0.96			1.00		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		2805			2725			1325		1501	1507	1177
Flt Permitted		1.00			1.00			1.00		0.23	1.00	1.00
Satd. Flow (perm)		2805			2725			1325		362	1507	1177
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	410	54	0	722	259	0	350	2	337	550	65
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	464	0	0	981	0	0	352	0	337	550	37
Confl. Peds. (#/hr)	13		26	26		13	64		251	251		64
Heavy Vehicles (%)	2%	8%	10%	2%	9%	7%	2%	7%	10%	2%	7%	3%
Parking (#/hr)								0	0			
Turn Type		NA			NA			NA		pm+pt	NA	Perm
Protected Phases		6			2			8		7	4	
Permitted Phases										4		4
Actuated Green, G (s)		45.0			45.0			27.0		53.0	53.0	53.0
Effective Green, g (s)		47.0			47.0			29.0		55.0	55.0	55.0
Actuated g/C Ratio		0.43			0.43			0.26		0.50	0.50	0.50
Clearance Time (s)		6.0			6.0			6.0		5.0	6.0	6.0
Lane Grp Cap (vph)		1198			1164			349		419	753	588
v/s Ratio Prot		0.17			c0.36			c0.27		c0.17	0.37	
v/s Ratio Perm										0.23		0.03
v/c Ratio		0.39			0.84			1.01		0.80	0.73	0.06
Uniform Delay, d1		21.6			28.2			40.5		20.3	21.7	14.2
Progression Factor		1.00			1.00			1.00		1.07	0.73	0.81
Incremental Delay, d2		0.9			7.5			50.4		7.7	3.0	0.1
Delay (s)		22.6			35.7			90.9		29.4	18.9	11.7
Level of Service		C			D			F		C	B	B
Approach Delay (s)		22.6			35.7			90.9			22.1	
Approach LOS		C			D			F			C	

Intersection Summary			
HCM 2000 Control Delay	35.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

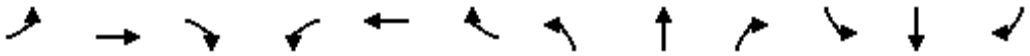
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	172	49	62	2	739	0	0	1237	13
Future Volume (Veh/h)	0	0	0	172	49	62	2	739	0	0	1237	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.94	0.94	0.90	0.90	0.94	0.94
Hourly flow rate (vph)	0	0	0	183	52	66	2	786	0	0	1316	14
Pedestrians											22	
Lane Width (ft)											12.0	
Walking Speed (ft/s)											4.0	
Percent Blockage											2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								557			210	
pX, platoon unblocked	0.74	0.74	0.70	0.74	0.74	0.92	0.70			0.92		
vC, conflicting volume	1834	2113	665	1448	2120	415	1330			786		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	941	1318	0	421	1327	190	620			593		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	52	54	91	100			100		
cM capacity (veh/h)	93	115	761	382	114	740	671			900		

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	301	264	524	877	453
Volume Left	183	2	0	0	0
Volume Right	66	0	0	0	14
cSH	294	671	1700	1700	1700
Volume to Capacity	1.02	0.00	0.31	0.52	0.27
Queue Length 95th (ft)	277	0	0	0	0
Control Delay (s)	98.0	0.1	0.0	0.0	0.0
Lane LOS	F	A			
Approach Delay (s)	98.0	0.0		0.0	
Approach LOS	F				

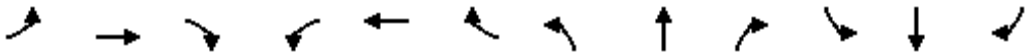
Intersection Summary				
Average Delay	12.2			
Intersection Capacity Utilization	63.2%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	14	33	4	10	47	158	5	161	8	108	192	11
Future Volume (vph)	14	33	4	10	47	158	5	161	8	108	192	11
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
Hourly flow rate (vph)	15	36	4	11	51	172	5	175	9	117	209	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	55	234	189	117	221
Volume Left (vph)	15	11	5	117	0
Volume Right (vph)	4	172	9	0	12
Hadj (s)	0.04	-0.35	0.08	0.53	0.12
Departure Headway (s)	5.7	5.0	5.4	6.1	5.6
Degree Utilization, x	0.09	0.32	0.28	0.20	0.35
Capacity (veh/h)	559	666	633	568	612
Control Delay (s)	9.3	10.4	10.4	9.3	10.4
Approach Delay (s)	9.3	10.4	10.4	10.0	
Approach LOS	A	B	B	B	

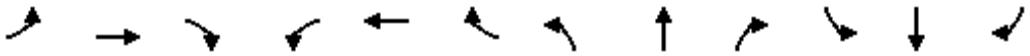
Intersection Summary				
Delay	10.2			
Level of Service	B			
Intersection Capacity Utilization	50.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	62	7	11	50	24	4	209	48	16	110	3
Future Volume (vph)	2	62	7	11	50	24	4	209	48	16	110	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	2	67	8	12	54	26	4	225	52	17	118	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	77	92	281	138
Volume Left (vph)	2	12	4	17
Volume Right (vph)	8	26	52	3
Hadj (s)	-0.01	-0.11	0.01	0.16
Departure Headway (s)	5.0	4.9	4.5	4.8
Degree Utilization, x	0.11	0.13	0.35	0.19
Capacity (veh/h)	648	666	767	703
Control Delay (s)	8.6	8.6	10.0	8.9
Approach Delay (s)	8.6	8.6	10.0	8.9
Approach LOS	A	A	A	A

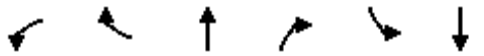
Intersection Summary				
Delay	9.3			
Level of Service	A			
Intersection Capacity Utilization	34.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	7	5	19	116	23	67	283	2	6	329	62
Future Volume (vph)	4	7	5	19	116	23	67	283	2	6	329	62
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	4	8	5	20	125	25	72	304	2	6	354	67

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	17	170	378	427
Volume Left (vph)	4	20	72	6
Volume Right (vph)	5	25	2	67
Hadj (s)	-0.03	-0.02	0.08	-0.01
Departure Headway (s)	6.3	5.9	5.1	5.0
Degree Utilization, x	0.03	0.28	0.54	0.59
Capacity (veh/h)	457	545	668	698
Control Delay (s)	9.5	11.2	14.0	15.0
Approach Delay (s)	9.5	11.2	14.0	15.0
Approach LOS	A	B	B	B

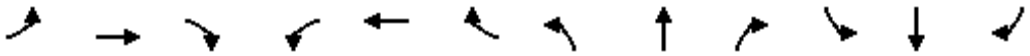
Intersection Summary				
Delay	13.9			
Level of Service	B			
Intersection Capacity Utilization	65.3%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	166	4	11	41
Future Volume (Veh/h)	0	0	166	4	11	41
Sign Control	Free		Stop			Stop
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	178	4	12	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		0	0	93	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		0	0	93	0
tC, single (s)	4.1		6.5	6.2	7.1	6.5
tC, 2 stage (s)						
tF (s)	2.2		4.0	3.3	3.5	4.0
p0 queue free %	100		80	100	98	95
cM capacity (veh/h)	1623		896	1085	752	896

Direction, Lane #	NB 1	SB 1
Volume Total	182	56
Volume Left	0	12
Volume Right	4	0
cSH	899	861
Volume to Capacity	0.20	0.07
Queue Length 95th (ft)	19	5
Control Delay (s)	10.0	9.5
Lane LOS	B	A
Approach Delay (s)	10.0	9.5
Approach LOS	B	A

Intersection Summary			
Average Delay	9.9		
Intersection Capacity Utilization	16.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	23	0	49	0	80	95	40	35	0
Future Volume (vph)	0	0	0	23	0	49	0	80	95	40	35	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	26	0	54	0	89	106	44	39	0

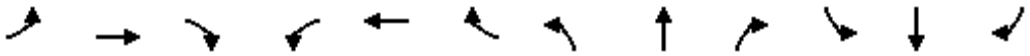
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	80	195	83
Volume Left (vph)	0	26	0	44
Volume Right (vph)	0	54	106	0
Hadj (s)	0.00	-0.26	-0.29	0.15
Departure Headway (s)	4.6	4.2	3.9	4.4
Degree Utilization, x	0.00	0.09	0.21	0.10
Capacity (veh/h)	745	791	901	782
Control Delay (s)	7.6	7.7	7.9	7.9
Approach Delay (s)	0.0	7.7	7.9	7.9
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.9			
Level of Service	A			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	NBT	SBT
Lane Group Flow (vph)	53	579	1343	805
v/c Ratio	0.09	0.48	0.80	0.91dl
Control Delay	20.2	24.3	22.4	25.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.2	24.3	22.4	25.8
Queue Length 50th (ft)	21	140	332	206
Queue Length 95th (ft)	47	191	431	297
Internal Link Dist (ft)		782	130	228
Turn Bay Length (ft)	60			
Base Capacity (vph)	613	1198	1672	1014
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.09	0.48	0.80	0.79

Intersection Summary

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

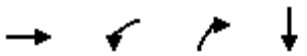


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	511	62	0	0	0	0	1011	319	84	713	0
Future Volume (vph)	52	511	62	0	0	0	0	1011	319	84	713	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						3.5			3.5	
Lane Util. Factor	1.00	0.95						0.95			0.95	
Frpb, ped/bikes	1.00	0.99						1.00			1.00	
Flpb, ped/bikes	1.00	1.00						1.00			1.00	
Frt	1.00	0.98						0.96			1.00	
Flt Protected	0.95	1.00						1.00			0.99	
Satd. Flow (prot)	1593	3088						3041			3114	
Flt Permitted	0.95	1.00						1.00			0.60	
Satd. Flow (perm)	1593	3088						3041			1877	
Peak-hour factor, PHF	0.99	0.99	0.99	0.90	0.90	0.90	0.90	0.99	0.99	0.99	0.99	0.90
Adj. Flow (vph)	53	516	63	0	0	0	0	1021	322	85	720	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	53	570	0	0	0	0	0	1313	0	0	805	0
Confl. Peds. (#/hr)			36									
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	3%	3%	2%	4%	2%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		8						2			6	
Permitted Phases	8									6		
Actuated Green, G (s)	36.5	36.5						52.0			52.0	
Effective Green, g (s)	38.5	38.5						54.0			54.0	
Actuated g/C Ratio	0.38	0.38						0.54			0.54	
Clearance Time (s)	6.0	6.0						5.5			5.5	
Lane Grp Cap (vph)	613	1188						1642			1013	
v/s Ratio Prot		c0.18						c0.43				
v/s Ratio Perm	0.03										0.43	
v/c Ratio	0.09	0.48						0.80			0.91dl	
Uniform Delay, d1	19.6	23.2						18.6			18.5	
Progression Factor	1.00	1.00						1.00			1.00	
Incremental Delay, d2	0.3	1.4						4.2			6.4	
Delay (s)	19.8	24.6						22.8			25.0	
Level of Service	B	C						C			C	
Approach Delay (s)		24.2			0.0			22.8			25.0	
Approach LOS		C			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

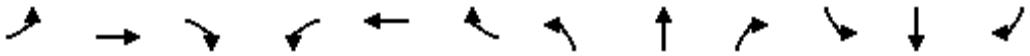
c Critical Lane Group



Lane Group	EBT	WBL	NBR	SBT
Lane Group Flow (vph)	941	368	570	2
v/c Ratio	0.90	0.45	0.63	0.02
Control Delay	48.6	20.8	17.0	54.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	48.6	20.8	17.0	54.0
Queue Length 50th (ft)	355	155	178	2
Queue Length 95th (ft)	#484	282	359	11
Internal Link Dist (ft)	649			121
Turn Bay Length (ft)				
Base Capacity (vph)	1041	816	910	110
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.90	0.45	0.63	0.02

Intersection Summary

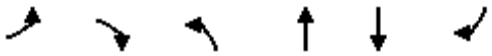
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	752	105	335	0	0	0	0	519	1	1	0
Future Volume (vph)	0	752	105	335	0	0	0	0	519	1	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	11	11	11	12	14	12	14	12	12	12
Total Lost time (s)		4.0		4.0					4.0		4.0	
Lane Util. Factor		0.95		1.00					1.00		1.00	
Frpb, ped/bikes		0.99		1.00					1.00		1.00	
Flpb, ped/bikes		1.00		1.00					1.00		1.00	
Frt		0.98		1.00					0.86		1.00	
Flt Protected		1.00		0.95					1.00		0.98	
Satd. Flow (prot)		2815		1540					1547		1472	
Flt Permitted		1.00		0.95					1.00		0.98	
Satd. Flow (perm)		2815		1540					1547		1472	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	826	115	368	0	0	0	0	570	1	1	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	97	0	0	0
Lane Group Flow (vph)	0	932	0	368	0	0	0	0	473	0	2	0
Confl. Peds. (#/hr)	1		13	13		1	16					16
Heavy Vehicles (%)	2%	3%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)	0	0									0	0
Turn Type		NA		Prot					Prot	Perm	NA	
Protected Phases		4		6					2		3	
Permitted Phases										3		
Actuated Green, G (s)		42.0		58.0					58.0		2.0	
Effective Green, g (s)		44.0		60.0					60.0		4.0	
Actuated g/C Ratio		0.37		0.50					0.50		0.03	
Clearance Time (s)		6.0		6.0					6.0		6.0	
Vehicle Extension (s)		1.0		1.0					1.0		1.0	
Lane Grp Cap (vph)		1032		770					773		49	
v/s Ratio Prot		c0.33		0.24					c0.31			
v/s Ratio Perm											0.00	
v/c Ratio		0.90		0.48					0.61		0.04	
Uniform Delay, d1		36.0		19.7					21.6		56.1	
Progression Factor		1.00		1.00					1.00		1.00	
Incremental Delay, d2		12.6		2.1					3.6		0.1	
Delay (s)		48.6		21.8					25.2		56.3	
Level of Service		D		C					C		E	
Approach Delay (s)		48.6			21.8			25.2			56.3	
Approach LOS		D			C			C			E	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

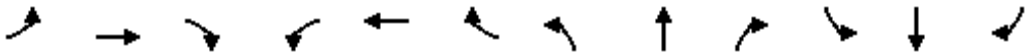
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	119	13	1153	806	31
Future Volume (Veh/h)	15	119	13	1153	806	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	16	127	14	1227	857	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				336	431	
pX, platoon unblocked	0.88	0.87	0.87			
vC, conflicting volume	1515	445	890			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	635	54	567			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	85	98			
cM capacity (veh/h)	356	869	868			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	143	423	818	571	319
Volume Left	16	14	0	0	0
Volume Right	127	0	0	0	33
cSH	748	868	1700	1700	1700
Volume to Capacity	0.19	0.02	0.48	0.34	0.19
Queue Length 95th (ft)	18	1	0	0	0
Control Delay (s)	10.9	0.5	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.9	0.2		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		



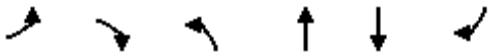
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	1	3	0	0	0	1	1151	22	7	920	1
Future Volume (Veh/h)	2	1	3	0	0	0	1	1151	22	7	920	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	1	3	0	0	0	1	1212	23	7	968	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								205			562	
pX, platoon unblocked	0.87	0.87	0.88	0.87	0.87	0.81	0.88			0.81		
vC, conflicting volume	1590	2220	484	1727	2208	618	969			1235		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	771	1496	152	929	1483	59	700			821		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	100	100	100	100			99		
cM capacity (veh/h)	249	104	766	189	106	806	788			651		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	6	607	629	491	485
Volume Left	2	1	0	7	0
Volume Right	3	0	23	0	1
cSH	279	788	1700	651	1700
Volume to Capacity	0.02	0.00	0.37	0.01	0.29
Queue Length 95th (ft)	2	0	0	1	0
Control Delay (s)	18.2	0.0	0.0	0.3	0.0
Lane LOS	C	A		A	
Approach Delay (s)	18.2	0.0		0.2	
Approach LOS	C				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	46.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	NBT	SBT
Lane Group Flow (vph)	1237	980
v/c Ratio	0.66	0.51
Control Delay	4.5	14.5
Queue Delay	0.0	0.0
Total Delay	4.5	14.5
Queue Length 50th (ft)	48	212
Queue Length 95th (ft)	38	264
Internal Link Dist (ft)	68	125
Turn Bay Length (ft)		
Base Capacity (vph)	1879	1907
Starvation Cap Reductn	2	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.66	0.51

Intersection Summary



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	57	1143	901	49
Future Volume (vph)	0	0	57	1143	901	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.5	3.5	
Lane Util. Factor				0.95	0.95	
Frt				1.00	0.99	
Flt Protected				1.00	1.00	
Satd. Flow (prot)				3147	3131	
Flt Permitted				0.84	1.00	
Satd. Flow (perm)				2642	3131	
Peak-hour factor, PHF	0.90	0.90	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	59	1178	929	51
RTOR Reduction (vph)	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	1237	977	0
Heavy Vehicles (%)	2%	2%	3%	3%	3%	2%
Turn Type			pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases			2			
Actuated Green, G (s)				82.0	71.0	
Effective Green, g (s)				84.0	73.0	
Actuated g/C Ratio				0.70	0.61	
Clearance Time (s)				5.5	5.5	
Lane Grp Cap (vph)				1880	1904	
v/s Ratio Prot				c0.04	0.31	
v/s Ratio Perm				c0.42		
v/c Ratio				0.66	0.51	
Uniform Delay, d1				10.0	13.4	
Progression Factor				0.28	1.00	
Incremental Delay, d2				1.6	1.0	
Delay (s)				4.4	14.4	
Level of Service				A	B	
Approach Delay (s)	0.0			4.4	14.4	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	NBT	SBT
Lane Group Flow (vph)	78	1180	911
v/c Ratio	0.21	0.55	0.41
Control Delay	20.6	7.8	0.5
Queue Delay	0.0	0.1	0.1
Total Delay	20.6	7.9	0.6
Queue Length 50th (ft)	22	87	1
Queue Length 95th (ft)	64	103	1
Internal Link Dist (ft)	247	132	68
Turn Bay Length (ft)			
Base Capacity (vph)	380	2165	2207
Starvation Cap Reductn	0	146	340
Spillback Cap Reductn	1	123	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.21	0.58	0.49

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	37	41	1168	0	0	902
Future Volume (vph)	37	41	1168	0	0	902
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.5			3.5
Lane Util. Factor	1.00		0.95			0.95
Frpb, ped/bikes	0.99		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	0.93		1.00			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1420		3094			3154
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1420		3094			3154
Peak-hour factor, PHF	0.99	0.99	0.99	0.90	0.90	0.99
Adj. Flow (vph)	37	41	1180	0	0	911
RTOR Reduction (vph)	31	0	0	0	0	0
Lane Group Flow (vph)	47	0	1180	0	0	911
Confl. Peds. (#/hr)		2				
Heavy Vehicles (%)	10%	7%	5%	2%	2%	3%
Turn Type	Prot		NA			NA
Protected Phases	4		2			2
Permitted Phases						
Actuated Green, G (s)	27.5		82.0			82.0
Effective Green, g (s)	29.5		84.0			84.0
Actuated g/C Ratio	0.25		0.70			0.70
Clearance Time (s)	5.0		5.5			5.5
Lane Grp Cap (vph)	349		2165			2207
v/s Ratio Prot	c0.03		c0.38			0.29
v/s Ratio Perm						
v/c Ratio	0.13		0.55			0.41
Uniform Delay, d1	35.3		8.7			7.6
Progression Factor	1.00		0.78			0.01
Incremental Delay, d2	0.8		0.9			0.5
Delay (s)	36.1		7.7			0.5
Level of Service	D		A			A
Approach Delay (s)	36.1		7.7			0.5
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

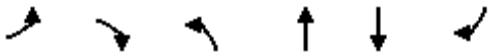
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	29	96	0
Future Volume (Veh/h)	0	0	0	29	96	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.90
Hourly flow rate (vph)	0	0	0	34	113	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	327					
pX, platoon unblocked						
vC, conflicting volume			0		34	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			0		34	0
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			100		88	100
cM capacity (veh/h)			1623		967	1085

Direction, Lane #	WB 1	NB 1
Volume Total	34	113
Volume Left	0	113
Volume Right	0	0
cSH	1700	967
Volume to Capacity	0.02	0.12
Queue Length 95th (ft)	0	10
Control Delay (s)	0.0	9.2
Lane LOS		A
Approach Delay (s)	0.0	9.2
Approach LOS		A

Intersection Summary			
Average Delay	7.1		
Intersection Capacity Utilization	15.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	203	41	1001	993
v/c Ratio	0.40	0.09	0.51	0.51
Control Delay	37.6	21.9	11.1	2.9
Queue Delay	0.0	0.0	0.1	0.1
Total Delay	37.6	21.9	11.2	3.0
Queue Length 50th (ft)	127	14	187	26
Queue Length 95th (ft)	198	42	235	33
Internal Link Dist (ft)	705		607	132
Turn Bay Length (ft)		25		
Base Capacity (vph)	511	439	1982	1944
Starvation Cap Reductn	0	0	0	149
Spillback Cap Reductn	0	0	129	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.40	0.09	0.54	0.55

Intersection Summary



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	191	39	0	941	933	0
Future Volume (vph)	191	39	0	941	933	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	16	16	10	10	10	10
Total Lost time (s)	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00		0.95	0.95	
Frpb, ped/bikes	1.00	0.93		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1805	1508		2973	2916	
Flt Permitted	0.95	1.00		1.00	1.00	
Satd. Flow (perm)	1805	1508		2973	2916	
Peak-hour factor, PHF	0.94	0.94	0.90	0.94	0.94	0.90
Adj. Flow (vph)	203	41	0	1001	993	0
RTOR Reduction (vph)	0	12	0	0	0	0
Lane Group Flow (vph)	203	29	0	1001	993	0
Confl. Peds. (#/hr)		34				
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Turn Type	Prot	Perm		NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8				
Actuated Green, G (s)	32.0	32.0		78.0	78.0	
Effective Green, g (s)	34.0	34.0		80.0	80.0	
Actuated g/C Ratio	0.28	0.28		0.67	0.67	
Clearance Time (s)	5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	511	427		1982	1944	
v/s Ratio Prot	c0.11			0.34	c0.34	
v/s Ratio Perm		0.02				
v/c Ratio	0.40	0.07		0.51	0.51	
Uniform Delay, d1	34.7	31.4		10.1	10.1	
Progression Factor	1.00	1.00		1.00	0.19	
Incremental Delay, d2	2.3	0.3		0.9	0.9	
Delay (s)	37.0	31.7		11.0	2.8	
Level of Service	D	C		B	A	
Approach Delay (s)	36.1			11.0	2.8	
Approach LOS	D			B	A	

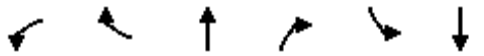
Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	NBT	SBT
Lane Group Flow (vph)	1030	1021
v/c Ratio	0.48	0.54
Control Delay	3.8	6.9
Queue Delay	0.3	0.1
Total Delay	4.2	7.1
Queue Length 50th (ft)	76	133
Queue Length 95th (ft)	m103	175
Internal Link Dist (ft)	410	607
Turn Bay Length (ft)		
Base Capacity (vph)	2155	1878
Starvation Cap Reductn	517	0
Spillback Cap Reductn	0	186
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.63	0.60

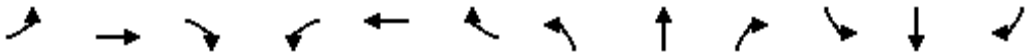
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	914	75	51	929
Future Volume (vph)	0	0	914	75	51	929
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10
Grade (%)	-10%		5%			-5%
Total Lost time (s)			3.0			3.0
Lane Util. Factor			0.95			0.95
Frt			0.99			1.00
Flt Protected			1.00			1.00
Satd. Flow (prot)			2849			2984
Flt Permitted			1.00			0.83
Satd. Flow (perm)			2849			2488
Peak-hour factor, PHF	0.90	0.90	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	952	78	53	968
RTOR Reduction (vph)	0	0	5	0	0	0
Lane Group Flow (vph)	0	0	1025	0	0	1021
Heavy Vehicles (%)	2%	2%	2%	10%	2%	4%
Turn Type			NA		Perm	NA
Protected Phases			2			6
Permitted Phases					6	
Actuated Green, G (s)			81.0			81.0
Effective Green, g (s)			83.0			83.0
Actuated g/C Ratio			0.75			0.75
Clearance Time (s)			5.0			5.0
Vehicle Extension (s)			1.0			1.0
Lane Grp Cap (vph)			2149			1877
v/s Ratio Prot			0.36			
v/s Ratio Perm						c0.41
v/c Ratio			0.48			0.54
Uniform Delay, d1			5.2			5.6
Progression Factor			0.66			1.00
Incremental Delay, d2			0.4			1.1
Delay (s)			3.9			6.8
Level of Service			A			A
Approach Delay (s)	0.0		3.9			6.8
Approach LOS	A		A			A

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	41	53	20	0	18	0	0	0	0	0	0
Future Volume (Veh/h)	62	41	53	20	0	18	0	0	0	0	0	0
Sign Control		Stop			Stop			Free			Free	
Grade		-13%			-10%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.90	0.93	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	67	44	57	22	0	19	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	19	0	0	79	0	0	0			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	19	0	0	79	0	0	0			0		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	93	95	95	97	100	98	100			100		
cM capacity (veh/h)	957	896	1073	829	896	1073	1623			1623		

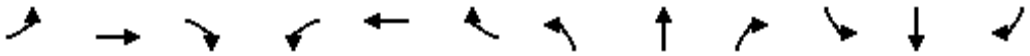
Direction, Lane #	EB 1	WB 1
Volume Total	168	41
Volume Left	67	22
Volume Right	57	19
cSH	976	927
Volume to Capacity	0.17	0.04
Queue Length 95th (ft)	16	3
Control Delay (s)	9.5	9.1
Lane LOS	A	A
Approach Delay (s)	9.5	9.1
Approach LOS	A	A

Intersection Summary				
Average Delay	9.4			
Intersection Capacity Utilization	14.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	24	105	743	388
v/c Ratio	0.16	0.58	0.65	0.31
Control Delay	27.3	41.5	5.3	6.7
Queue Delay	0.0	0.0	0.5	0.0
Total Delay	27.3	41.5	5.8	6.7
Queue Length 50th (ft)	6	43	72	89
Queue Length 95th (ft)	29	95	m135	121
Internal Link Dist (ft)	690	766	403	656
Turn Bay Length (ft)				
Base Capacity (vph)	152	181	1137	1266
Starvation Cap Reductn	0	0	113	0
Spillback Cap Reductn	0	0	0	8
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.58	0.73	0.31

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



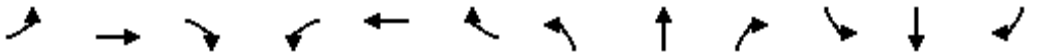
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	1	12	43	1	45	8	602	22	1	325	4
Future Volume (vph)	8	1	12	43	1	45	8	602	22	1	325	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	8	8	8	12	12	12	12	12	8	15	15	8
Grade (%)		-13%			6%			6%			0%	
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.73			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			0.79			1.00			1.00	
Frt		0.92			0.93			1.00			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1013			1124			1610			1788	
Flt Permitted		0.88			0.83			1.00			1.00	
Satd. Flow (perm)		912			960			1603			1787	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	9	1	14	51	1	53	9	708	26	1	382	5
RTOR Reduction (vph)	0	12	0	0	33	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	12	0	0	72	0	0	742	0	0	388	0
Confl. Peds. (#/hr)	4		108	108		4	2		14	14		2
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	9%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)		15.0			15.0			76.0			76.0	
Effective Green, g (s)		17.0			17.0			78.0			78.0	
Actuated g/C Ratio		0.15			0.15			0.71			0.71	
Clearance Time (s)		7.0			7.0			6.0			6.0	
Lane Grp Cap (vph)		140			148			1136			1267	
v/s Ratio Prot												
v/s Ratio Perm		0.01			c0.08			c0.46			0.22	
v/c Ratio		0.09			0.49			0.65			0.31	
Uniform Delay, d1		39.8			42.5			8.7			5.9	
Progression Factor		1.00			1.00			0.45			1.00	
Incremental Delay, d2		1.2			11.0			1.3			0.6	
Delay (s)		41.1			53.5			5.1			6.6	
Level of Service		D			D			A			A	
Approach Delay (s)		41.1			53.5			5.1			6.6	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	347	186	47	27	400	85	60	505
v/c Ratio	0.83	0.45	0.12	0.07	0.43	0.13	0.17	0.28
Control Delay	50.4	30.7	7.5	11.6	15.6	3.3	13.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	30.7	7.5	11.6	15.6	3.3	13.2	12.6
Queue Length 50th (ft)	220	98	0	8	154	2	19	90
Queue Length 95th (ft)	#386	167	25	22	227	24	43	121
Internal Link Dist (ft)	139	246			167			404
Turn Bay Length (ft)			100	110		100	95	
Base Capacity (vph)	417	413	396	387	935	654	356	1802
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.45	0.12	0.07	0.43	0.13	0.17	0.28

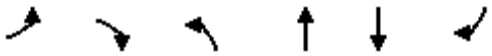
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	186	5	61	117	45	26	384	82	58	453	32
Future Volume (vph)	142	186	5	61	117	45	26	384	82	58	453	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	9	9	12	12	12	10	12	10
Grade (%)		-1%			3%			0%			-3%	
Total Lost time (s)		4.0			4.0	4.0	3.5	3.5	3.5	3.5	3.5	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes		1.00			1.00	0.84	1.00	1.00	0.83	1.00	1.00	
Flpb, ped/bikes		0.96			0.99	1.00	0.95	1.00	1.00	0.95	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected		0.98			0.98	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1575			1409	996	1517	1660	1099	1367	3190	
Flt Permitted		0.70			0.78	1.00	0.43	1.00	1.00	0.44	1.00	
Satd. Flow (perm)		1133			1124	996	687	1660	1099	633	3190	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	148	194	5	64	122	47	27	400	85	60	472	33
RTOR Reduction (vph)	0	1	0	0	0	30	0	0	35	0	5	0
Lane Group Flow (vph)	0	346	0	0	186	17	27	400	50	60	500	0
Confl. Peds. (#/hr)	51		59	59		51	26		33	33		26
Heavy Vehicles (%)	2%	2%	2%	3%	5%	9%	2%	3%	10%	7%	2%	3%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		38.5			38.5	38.5	60.0	60.0	60.0	60.0	60.0	
Effective Green, g (s)		40.5			40.5	40.5	62.0	62.0	62.0	62.0	62.0	
Actuated g/C Ratio		0.37			0.37	0.37	0.56	0.56	0.56	0.56	0.56	
Clearance Time (s)		6.0			6.0	6.0	5.5	5.5	5.5	5.5	5.5	
Lane Grp Cap (vph)		417			413	366	387	935	619	356	1798	
v/s Ratio Prot								c0.24			0.16	
v/s Ratio Perm		c0.31			0.17	0.02	0.04		0.05	0.09		
v/c Ratio		0.83			0.45	0.05	0.07	0.43	0.08	0.17	0.28	
Uniform Delay, d1		31.6			26.3	22.3	10.9	13.8	11.0	11.6	12.4	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		17.3			3.5	0.2	0.3	1.4	0.3	1.0	0.4	
Delay (s)		48.9			29.8	22.6	11.2	15.2	11.2	12.6	12.8	
Level of Service		D			C	C	B	B	B	B	B	
Approach Delay (s)		48.9			28.4			14.4			12.8	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



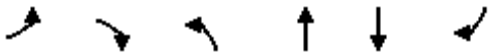
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	152	62	83	888	882	155
v/c Ratio	0.47	0.36	0.38	0.87	1.04	0.41
Control Delay	42.2	15.2	13.3	10.9	60.5	4.7
Queue Delay	0.0	0.0	0.0	2.1	0.0	0.0
Total Delay	42.2	15.2	13.3	13.0	60.5	4.7
Queue Length 50th (ft)	93	0	9	106	~674	4
Queue Length 95th (ft)	159	39	m13	m143	#917	24
Internal Link Dist (ft)	494			293	410	
Turn Bay Length (ft)		100	125			
Base Capacity (vph)	326	174	221	1022	851	374
Starvation Cap Reductn	0	0	0	54	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.36	0.38	0.92	1.04	0.41

Intersection Summary

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

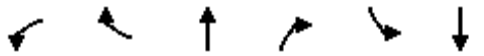
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	141	58	77	826	820	144
Future Volume (vph)	141	58	77	826	820	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	10	10	10
Grade (%)	4%			3%	-5%	
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.41	1.00	1.00	1.00	0.43
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1438	558	1464	1541	1588	581
Flt Permitted	0.95	1.00	0.09	1.00	1.00	1.00
Satd. Flow (perm)	1438	558	134	1541	1588	581
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	152	62	83	888	882	155
RTOR Reduction (vph)	0	48	0	0	0	63
Lane Group Flow (vph)	152	14	83	888	882	92
Confl. Peds. (#/hr)		259	128			128
Heavy Vehicles (%)	7%	2%	2%	2%	3%	4%
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	8		5	2	6	
Permitted Phases		8	2			6
Actuated Green, G (s)	23.0	23.0	71.0	71.0	57.0	57.0
Effective Green, g (s)	25.0	25.0	73.0	73.0	59.0	59.0
Actuated g/C Ratio	0.23	0.23	0.66	0.66	0.54	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Grp Cap (vph)	326	126	221	1022	851	311
v/s Ratio Prot	c0.11		0.04	c0.58	c0.56	
v/s Ratio Perm		0.03	0.21			0.16
v/c Ratio	0.47	0.11	0.38	0.87	1.04	0.30
Uniform Delay, d1	36.7	33.7	37.3	14.7	25.5	14.1
Progression Factor	1.00	1.00	0.51	0.33	0.78	0.51
Incremental Delay, d2	4.7	1.8	2.2	4.8	38.7	2.1
Delay (s)	41.5	35.5	21.1	9.7	58.6	9.3
Level of Service	D	D	C	A	E	A
Approach Delay (s)	39.7			10.6	51.2	
Approach LOS	D			B	D	

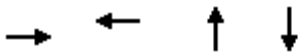
Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	35	0	0	0	27	70
Future Volume (vph)	35	0	0	0	27	70
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.92
Hourly flow rate (vph)	38	0	0	0	29	76

Direction, Lane #	WB 1	SB 1
Volume Total (vph)	38	105
Volume Left (vph)	38	29
Volume Right (vph)	0	0
Hadj (s)	0.23	0.11
Departure Headway (s)	4.4	4.1
Degree Utilization, x	0.05	0.12
Capacity (veh/h)	801	859
Control Delay (s)	7.6	7.7
Approach Delay (s)	7.6	7.7
Approach LOS	A	A

Intersection Summary			
Delay	7.6		
Level of Service	A		
Intersection Capacity Utilization	15.8%	ICU Level of Service	A
Analysis Period (min)	15		

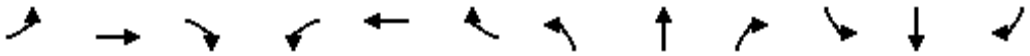


Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	306	7	673	484
v/c Ratio	1.00	0.01	0.89	0.59
Control Delay	77.8	14.2	27.0	17.2
Queue Delay	0.0	0.0	0.1	0.4
Total Delay	77.8	14.2	27.1	17.6
Queue Length 50th (ft)	180	1	184	148
Queue Length 95th (ft)	#337	9	m#386	187
Internal Link Dist (ft)	696	244	287	403
Turn Bay Length (ft)				
Base Capacity (vph)	307	522	760	815
Starvation Cap Reductn	0	0	1	76
Spillback Cap Reductn	0	0	0	9
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.00	0.01	0.89	0.65

Intersection Summary

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	1	139	2	1	3	68	502	2	1	353	58
Future Volume (vph)	120	1	139	2	1	3	68	502	2	1	353	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-8%	
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.61			0.92			1.00			0.92	
Flpb, ped/bikes		0.81			0.92			1.00			1.00	
Frt		0.93			0.92			1.00			0.98	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		735			1290			1613			1538	
Flt Permitted		0.86			0.95			0.89			1.00	
Satd. Flow (perm)		644			1245			1442			1538	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	141	1	164	2	1	4	80	591	2	1	415	68
RTOR Reduction (vph)	0	38	0	0	2	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	268	0	0	5	0	0	673	0	0	479	0
Confl. Peds. (#/hr)	108		422	422		108	158		195	195		158
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	3%	2%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			6			2	
Permitted Phases	4			8			6			2		
Actuated Green, G (s)		44.0			44.0			56.0			56.0	
Effective Green, g (s)		46.0			46.0			58.0			58.0	
Actuated g/C Ratio		0.42			0.42			0.53			0.53	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		269			520			760			810	
v/s Ratio Prot												
v/s Ratio Perm		c0.42			0.00			c0.47			0.31	
v/c Ratio		1.00			0.01			0.89			0.59	
Uniform Delay, d1		31.9			18.7			23.1			17.9	
Progression Factor		1.00			1.00			0.61			0.78	
Incremental Delay, d2		54.1			0.0			11.4			3.1	
Delay (s)		86.0			18.7			25.5			17.0	
Level of Service		F			B			C			B	
Approach Delay (s)		86.0			18.7			25.5			17.0	
Approach LOS		F			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	98.0%	ICU Level of Service	F
Analysis Period (min)	15		

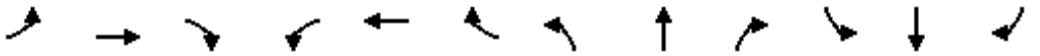
c Critical Lane Group

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	42	225	832	209	215	637
v/c Ratio	0.14	0.75	0.92	0.27	0.85	0.60
Control Delay	23.2	42.0	28.1	9.9	33.9	1.6
Queue Delay	0.0	0.0	19.9	0.0	0.0	1.0
Total Delay	23.2	42.0	48.0	9.9	33.9	2.5
Queue Length 50th (ft)	14	97	478	48	61	17
Queue Length 95th (ft)	43	m#205	#796	m80	m61	m24
Internal Link Dist (ft)	190	259	279			293
Turn Bay Length (ft)				100	125	
Base Capacity (vph)	305	299	902	768	253	1056
Starvation Cap Reductn	0	0	95	0	0	193
Spillback Cap Reductn	0	0	14	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.75	1.03	0.27	0.85	0.74

Intersection Summary

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

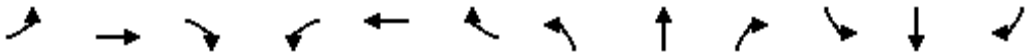
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	5	17	107	0	118	5	794	201	206	593	19
Future Volume (vph)	20	5	17	107	0	118	5	794	201	206	593	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			0%			2%			-3%	
Total Lost time (s)		3.5			3.5			3.5	3.5	3.0	3.5	
Lane Util. Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			0.73			1.00	1.00	1.00	1.00	
Flpb, ped/bikes		0.87			1.00			1.00	1.00	1.00	1.00	
Frt		0.95			0.93			1.00	0.85	1.00	1.00	
Flt Protected		0.98			0.98			1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1342			1134			1519	1291	1509	1537	
Flt Permitted		0.85			0.84			1.00	1.00	0.16	1.00	
Satd. Flow (perm)		1172			974			1515	1291	251	1537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96	0.96	1.00
Adj. Flow (vph)	20	5	17	107	0	118	5	827	209	215	618	19
RTOR Reduction (vph)	0	13	0	0	56	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	29	0	0	170	0	0	832	209	215	636	0
Confl. Peds. (#/hr)	259					259						
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	4%	4%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)		25.5			25.5			63.5	63.5	73.5	73.5	
Effective Green, g (s)		27.5			27.5			65.5	65.5	75.5	75.5	
Actuated g/C Ratio		0.25			0.25			0.60	0.60	0.69	0.69	
Clearance Time (s)		5.5			5.5			5.5	5.5	5.0	5.5	
Vehicle Extension (s)		1.0			1.0			1.0	1.0	1.0	1.0	
Lane Grp Cap (vph)		293			243			902	768	252	1054	
v/s Ratio Prot										c0.05	0.41	
v/s Ratio Perm		0.02			c0.17			c0.55	0.16	0.53		
v/c Ratio		0.10			0.70			0.92	0.27	0.85	0.60	
Uniform Delay, d1		31.7			37.5			20.0	10.7	16.8	9.2	
Progression Factor		1.00			0.99			0.76	0.85	3.57	0.10	
Incremental Delay, d2		0.7			15.2			11.4	0.6	8.9	0.6	
Delay (s)		32.4			52.1			26.5	9.7	69.0	1.5	
Level of Service		C			D			C	A	E	A	
Approach Delay (s)		32.4			52.1			23.2			18.6	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	115.5%	ICU Level of Service	H
Analysis Period (min)	15		

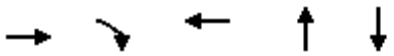
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	384	29	5	154	0	0	0	38	43	47	0
Future Volume (Veh/h)	0	384	29	5	154	0	0	0	38	43	47	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.85	0.85	1.00	1.00	0.90	1.00	0.90	0.85	0.85	0.85	0.90
Hourly flow rate (vph)	0	452	34	5	154	0	0	0	45	51	55	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		339			770							
pX, platoon unblocked				0.99			0.99	0.99	0.99	0.99	0.99	
vC, conflicting volume	154			486			660	633	469	678	650	154
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	154			480			655	628	463	673	645	154
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	92	85	86	100
cM capacity (veh/h)	1426			1086			337	396	596	338	387	892

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	486	159	45	106
Volume Left	0	5	0	51
Volume Right	34	0	45	0
cSH	1700	1086	596	362
Volume to Capacity	0.29	0.00	0.08	0.29
Queue Length 95th (ft)	0	0	6	30
Control Delay (s)	0.0	0.3	11.5	19.0
Lane LOS		A	B	C
Approach Delay (s)	0.0	0.3	11.5	19.0
Approach LOS			B	C

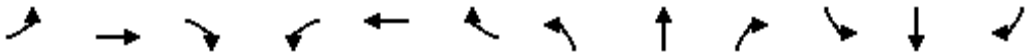
Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	365	48	168	459	541
v/c Ratio	0.93	0.20	0.78	0.56	0.77
Control Delay	58.1	7.9	46.0	2.3	18.3
Queue Delay	0.0	0.0	0.6	0.5	1.1
Total Delay	58.1	7.9	46.6	2.8	19.4
Queue Length 50th (ft)	244	0	70	4	143
Queue Length 95th (ft)	m#407	m20	#196	5	m226
Internal Link Dist (ft)	690		359	289	287
Turn Bay Length (ft)		75			
Base Capacity (vph)	391	244	216	815	700
Starvation Cap Reductn	0	0	0	51	11
Spillback Cap Reductn	0	2	3	98	42
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.20	0.79	0.64	0.82

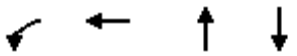
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	217	43	69	0	82	0	393	20	66	366	61
Future Volume (vph)	112	217	43	69	0	82	0	393	20	66	366	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	14	14	14	11	11	8	11	11	8
Grade (%)		0%			0%			5%			-8%	
Total Lost time (s)		3.0	3.0		3.0			3.0			3.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frpb, ped/bikes		1.00	0.45		0.57			0.97			0.96	
Flpb, ped/bikes		0.86	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.93			0.99			0.98	
Flt Protected		0.98	1.00		0.98			1.00			0.99	
Satd. Flow (prot)		1314	580		876			1516			1551	
Flt Permitted		0.83	1.00		0.56			1.00			0.83	
Satd. Flow (perm)		1103	580		502			1516			1298	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	1.00	0.90	1.00	0.90	0.90	0.90	0.90	1.00
Adj. Flow (vph)	124	241	48	77	0	91	0	437	22	73	407	61
RTOR Reduction (vph)	0	0	31	0	39	0	0	2	0	0	4	0
Lane Group Flow (vph)	0	365	17	0	129	0	0	457	0	0	537	0
Confl. Peds. (#/hr)	422		150	150		422	74		253	253		74
Heavy Vehicles (%)	3%	2%	6%	10%	0%	6%	0%	2%	2%	8%	4%	0%
Turn Type	Perm	NA	Perm	Perm	NA			NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		37.0	37.0		37.0			57.0			57.0	
Effective Green, g (s)		39.0	39.0		39.0			59.0			59.0	
Actuated g/C Ratio		0.35	0.35		0.35			0.54			0.54	
Clearance Time (s)		5.0	5.0		5.0			5.0			5.0	
Lane Grp Cap (vph)		391	205		177			813			696	
v/s Ratio Prot								0.30				
v/s Ratio Perm		c0.33	0.03		0.26						c0.41	
v/c Ratio		0.93	0.08		0.73			0.56			0.77	
Uniform Delay, d1		34.2	23.6		30.9			16.9			20.2	
Progression Factor		0.75	1.28		1.00			0.02			0.59	
Incremental Delay, d2		30.0	0.7		23.1			2.0			5.7	
Delay (s)		55.8	31.0		54.1			2.3			17.7	
Level of Service		E	C		D			A			B	
Approach Delay (s)		52.9			54.1			2.3			17.7	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

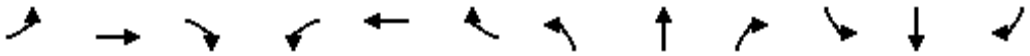


Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	220	272	837	731
v/c Ratio	0.72	0.64	0.79	0.68
Control Delay	48.7	20.9	9.5	6.0
Queue Delay	0.0	1.8	13.8	0.2
Total Delay	48.7	22.7	23.3	6.2
Queue Length 50th (ft)	119	47	229	89
Queue Length 95th (ft)	m#241	130	m230	129
Internal Link Dist (ft)		302	370	279
Turn Bay Length (ft)				
Base Capacity (vph)	306	424	1062	1078
Starvation Cap Reductn	0	0	220	44
Spillback Cap Reductn	0	57	164	25
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.72	0.74	0.99	0.71

Intersection Summary

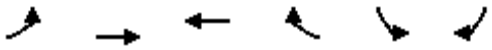
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	209	16	243	13	783	0	0	671	25
Future Volume (vph)	0	0	0	209	16	243	13	783	0	0	671	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	10	12	10	12	10	10	10	10	12
Grade (%)		0%			1%			1%			-2%	
Total Lost time (s)				3.0	3.0			3.5			3.5	
Lane Util. Factor				1.00	1.00			1.00			1.00	
Frpb, ped/bikes				1.00	0.92			1.00			1.00	
Flpb, ped/bikes				0.88	1.00			1.00			1.00	
Frt				1.00	0.86			1.00			1.00	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1297	1316			1526			1530	
Flt Permitted				0.95	1.00			0.99			1.00	
Satd. Flow (perm)				1297	1316			1508			1530	
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Adj. Flow (vph)	0	0	0	220	16	256	13	824	0	0	706	25
RTOR Reduction (vph)	0	0	0	0	114	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	220	158	0	0	837	0	0	730	0
Confl. Peds. (#/hr)				38		21			118	118		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	0%	0%	5%	2%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					4			2			6	
Permitted Phases				4			2			6		
Actuated Green, G (s)				24.0	24.0			75.5			75.5	
Effective Green, g (s)				26.0	26.0			77.5			77.5	
Actuated g/C Ratio				0.24	0.24			0.70			0.70	
Clearance Time (s)				5.0	5.0			5.5			5.5	
Lane Grp Cap (vph)				306	311			1062			1077	
v/s Ratio Prot					0.12						0.48	
v/s Ratio Perm				c0.17				c0.55				
v/c Ratio				0.72	0.51			0.79			0.68	
Uniform Delay, d1				38.6	36.5			10.8			9.2	
Progression Factor				0.88	0.80			0.68			0.33	
Incremental Delay, d2				13.4	5.8			1.5			2.7	
Delay (s)				47.5	34.8			8.9			5.8	
Level of Service				D	C			A			A	
Approach Delay (s)		0.0			40.5			8.9			5.8	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.5
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	4	327	22	0	86
Future Volume (Veh/h)	0	4	327	22	0	86
Sign Control		Free	Free		Stop	
Grade		0%	1%		0%	
Peak Hour Factor	1.00	1.00	0.85	1.00	0.90	0.85
Hourly flow rate (vph)	0	4	385	22	0	101
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		382	771			
pX, platoon unblocked						
vC, conflicting volume	407				400	396
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	407				400	396
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	85
cM capacity (veh/h)	1163				606	653

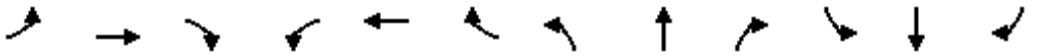
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	4	407	101
Volume Left	0	0	0
Volume Right	0	22	101
cSH	1163	1700	653
Volume to Capacity	0.00	0.24	0.15
Queue Length 95th (ft)	0	0	14
Control Delay (s)	0.0	0.0	11.5
Lane LOS			B
Approach Delay (s)	0.0	0.0	11.5
Approach LOS			B

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	NBT	SBT	SBR
Lane Group Flow (vph)	50	484	310	236
v/c Ratio	0.18	0.69	0.71	0.46
Control Delay	3.5	30.2	33.2	7.9
Queue Delay	0.0	0.0	4.2	0.2
Total Delay	3.5	30.2	37.5	8.1
Queue Length 50th (ft)	0	264	200	38
Queue Length 95th (ft)	10	376	m296	m74
Internal Link Dist (ft)	691	301	289	
Turn Bay Length (ft)				110
Base Capacity (vph)	280	698	439	518
Starvation Cap Reductn	0	0	71	30
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.69	0.84	0.48

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	0	38	0	0	0	7	399	20	9	264	208
Future Volume (vph)	12	0	38	0	0	0	7	399	20	9	264	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	10	10	8	10	10	10
Grade (%)		0%			0%			2%			-4%	
Total Lost time (s)		3.0						3.0			3.0	3.0
Lane Util. Factor		1.00						1.00			1.00	1.00
Frpb, ped/bikes		1.00						1.00			1.00	1.00
Flpb, ped/bikes		0.87						1.00			1.00	1.00
Frt		0.90						0.99			1.00	0.85
Flt Protected		0.99						1.00			1.00	1.00
Satd. Flow (prot)		1409						1532			1535	1318
Flt Permitted		0.99						1.00			0.98	1.00
Satd. Flow (perm)		1409						1532			1509	1318
Peak-hour factor, PHF	1.00	1.00	1.00	0.90	0.90	0.90	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	12	0	38	0	0	0	8	453	23	10	300	236
RTOR Reduction (vph)	0	43	0	0	0	0	0	2	0	0	0	135
Lane Group Flow (vph)	0	7	0	0	0	0	0	482	0	0	310	101
Confl. Peds. (#/hr)	150											
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	10%	2%	6%	5%
Turn Type	Perm	NA					Split	NA		Perm	NA	Perm
Protected Phases		3					2	2			4	
Permitted Phases	3									4		4
Actuated Green, G (s)		14.0						48.0			30.0	30.0
Effective Green, g (s)		16.0						50.0			32.0	32.0
Actuated g/C Ratio		0.15						0.45			0.29	0.29
Clearance Time (s)		5.0						5.0			5.0	5.0
Lane Grp Cap (vph)		204						696			438	383
v/s Ratio Prot								c0.31				
v/s Ratio Perm		0.01									c0.21	0.08
v/c Ratio		0.04						0.69			0.71	0.26
Uniform Delay, d1		40.4						23.9			34.8	30.0
Progression Factor		1.00						1.00			0.75	0.76
Incremental Delay, d2		0.3						5.6			6.6	1.2
Delay (s)		40.7						29.5			32.6	23.9
Level of Service		D						C			C	C
Approach Delay (s)		40.7			0.0			29.5			28.9	
Approach LOS		D			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

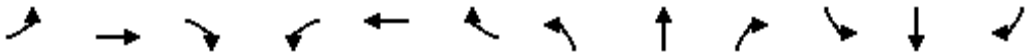
Lane Group	EBT	NBT	SBT	SBR
Lane Group Flow (vph)	263	769	716	216
v/c Ratio	1.02	1.00	0.65	0.26
Control Delay	98.8	23.8	10.6	1.4
Queue Delay	0.0	28.7	1.0	0.0
Total Delay	98.8	52.5	11.6	1.4
Queue Length 50th (ft)	~173	194	226	3
Queue Length 95th (ft)	#345	m194	287	m12
Internal Link Dist (ft)	191	200	370	
Turn Bay Length (ft)				150
Base Capacity (vph)	259	770	1099	845
Starvation Cap Reductn	0	61	169	0
Spillback Cap Reductn	0	32	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.02	1.08	0.77	0.26

Intersection Summary

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

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	0	91	0	0	0	104	635	0	0	687	207
Future Volume (vph)	161	0	91	0	0	0	104	635	0	0	687	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		3%			-1%			1%			-2%	
Total Lost time (s)		3.5						4.0			4.0	4.0
Lane Util. Factor		1.00						1.00			1.00	1.00
Frpb, ped/bikes		0.97						1.00			1.00	0.84
Flpb, ped/bikes		0.92						1.00			1.00	1.00
Frt		0.95						1.00			1.00	0.85
Flt Protected		0.97						0.99			1.00	1.00
Satd. Flow (prot)		1276						1486			1550	1104
Flt Permitted		0.81						0.73			1.00	1.00
Satd. Flow (perm)		1061						1087			1550	1104
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	168	0	95	0	0	0	108	661	0	0	716	216
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	0	0	0	63
Lane Group Flow (vph)	0	240	0	0	0	0	0	769	0	0	716	153
Confl. Peds. (#/hr)	38		16	16		38	50		157	157		50
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	10%	5%	0%	0%	4%	4%
Turn Type	Perm	NA				Perm	Perm	NA	Perm		NA	Perm
Protected Phases		8			4			2			6	
Permitted Phases	8			4		4	2		2	6		6
Actuated Green, G (s)		22.5						76.0			76.0	76.0
Effective Green, g (s)		24.5						78.0			78.0	78.0
Actuated g/C Ratio		0.22						0.71			0.71	0.71
Clearance Time (s)		5.5						6.0			6.0	6.0
Lane Grp Cap (vph)		236						770			1099	782
v/s Ratio Prot											0.46	
v/s Ratio Perm		c0.23						c0.71				0.14
v/c Ratio		1.02						1.00			0.65	0.20
Uniform Delay, d1		42.8						15.9			8.7	5.4
Progression Factor		1.00						0.75			0.92	1.16
Incremental Delay, d2		62.7						9.4			2.2	0.4
Delay (s)		105.4						21.4			10.1	6.7
Level of Service		F						C			B	A
Approach Delay (s)		105.4			0.0			21.4			9.3	
Approach LOS		F			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	7.5
Intersection Capacity Utilization	117.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			