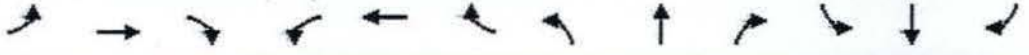


	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↘	↑↑	↘↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.95	0.97	
Frpb, ped/bikes	0.97		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.97		1.00	1.00	1.00	
Flt Protected	1.00		0.95	1.00	0.95	
Satd. Flow (prot)	4319		1593	3185	3086	
Flt Permitted	1.00		0.09	1.00	0.95	
Satd. Flow (perm)	4319		148	3185	3086	
Volume (vph)	1226	288	150	1320	513	8
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1277	300	156	1375	534	8
RTOR Reduction (vph)	32	0	0	0	1	0
Lane Group Flow (vph)	1545	0	156	1375	541	0
Confl. Peds. (#/hr)		63	63		64	63
Turn Type		pm+pt				
Protected Phases	8		7	4	2	
Permitted Phases			4			
Actuated Green, G (s)	61.0		77.0	77.0	33.0	
Effective Green, g (s)	63.0		79.0	79.0	35.0	
Actuated g/C Ratio	0.52		0.66	0.66	0.29	
Clearance Time (s)	5.0		4.0	5.0	5.0	
Lane Grp Cap (vph)	2267		254	2097	900	
v/s Ratio Prot	0.36		0.07	0.43	0.18	
v/s Ratio Perm			0.34			
v/c Ratio	0.68		0.61	0.66	0.60	
Uniform Delay, d1	21.1		17.0	12.3	36.5	
Progression Factor	1.00		2.15	0.36	1.00	
Incremental Delay, d2	1.7		8.6	1.3	3.0	
Delay (s)	22.8		45.1	5.8	39.5	
Level of Service	C		D	A	D	
Approach Delay (s)	22.8			9.8	39.5	
Approach LOS	C			A	D	
Intersection Summary						
HCM Average Control Delay			19.8		HCM Level of Service	B
HCM Volume to Capacity ratio			0.64			
Actuated Cycle Length (s)			120.0		Sum of lost time (s)	6.0
Intersection Capacity Utilization			70.2%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Washington Gateway
2: Florida Avenue & Eckington Place

Background PM
No Circle

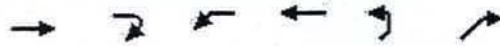
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔↔			↔↔	↗		↗		↗	↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0	3.0		3.0		3.0	3.0	
Lane Util. Factor		0.91			0.95	1.00		1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.87		0.99		1.00	0.86	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		0.99	1.00	
Frt		1.00			1.00	0.85		0.95		1.00	0.86	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		4564			3185	1240		1574		1577	1241	
Flt Permitted		0.92			0.95	1.00		0.99		0.68	1.00	
Satd. Flow (perm)		4209			3033	1240		1566		1136	1241	
Volume (vph)	8	1266	15	3	1160	448	1	19	11	439	11	133
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)	8	1319	16	3	1208	467	1	20	11	457	11	139
RTOR Reduction (vph)	0	1	0	0	0	210	0	9	0	0	28	0
Lane Group Flow (vph)	0	1342	0	0	1211	257	0	23	0	457	122	0
Confl. Peds. (#/hr)	41		50	50		41	67		8	8		67
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		8			4			2		1	6	
Permitted Phases	8			4		4	2			6		
Actuated Green, G (s)		42.0			64.0	64.0		17.0		46.0	46.0	
Effective Green, g (s)		66.0			66.0	66.0		19.0		48.0	48.0	
Actuated g/C Ratio		0.55			0.55	0.55		0.16		0.40	0.40	
Clearance Time (s)		27.0			5.0	5.0		5.0		4.0	5.0	
Lane Grp Cap (vph)		2315			1668	682		248		550	496	
v/s Ratio Prot										c0.18	0.10	
v/s Ratio Perm		0.32			c0.40	0.21		0.01		c0.15		
v/c Ratio		0.58			0.73	0.38		0.09		0.83	0.25	
Uniform Delay, d1		17.8			20.2	15.3		43.1		31.0	24.0	
Progression Factor		0.09			1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.8			2.8	1.6		0.7		13.6	1.2	
Delay (s)		2.4			23.0	16.9		43.9		44.6	25.2	
Level of Service		A			C	B		D		D	C	
Approach Delay (s)		2.4			21.3			43.9			39.8	
Approach LOS		A			C			D			D	
Intersection Summary												
HCM Average Control Delay		17.6					HCM Level of Service			B		
HCM Volume to Capacity ratio		0.77										
Actuated Cycle Length (s)		120.0					Sum of lost time (s)			6.0		
Intersection Capacity Utilization		85.4%					ICU Level of Service			E		
Analysis Period (min)		15										
c Critical Lane Group												

												
Movement	EBL2	EBL	EBR	EBR2	NBL2	NBL	NBT	NBR	SBL	SBT	SBR	SBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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		0.96					1.00	0.99		1.00	0.67	
Flpb, ped/bikes		0.94					1.00	1.00		1.00	1.00	
Frt		0.94					1.00	0.85		1.00	0.85	
Flt Protected		0.97					0.99	1.00		0.98	1.00	
Satd. Flow (prot)		1372					1653	1406		1638	954	
Flt Permitted		0.97					0.50	1.00		0.10	1.00	
Satd. Flow (perm)		1372					840	1406		164	954	
Volume (vph)	3	273	137	86	190	47	593	763	135	156	118	73
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)	3	284	143	90	198	49	618	795	141	162	123	76
RTOR Reduction (vph)	0	7	0	0	0	0	0	2	0	0	22	0
Lane Group Flow (vph)	0	513	0	0	0	0	865	793	0	303	177	0
Confl. Peds. (#/hr)	65		10	40	40	65		2	2		40	17
Turn Type	Perm				Perm	Perm	custom	Perm		Perm		Perm
Protected Phases		9					4			8		
Permitted Phases	9				4	4	14	8			8	
Actuated Green, G (s)		7.0					28.0	41.0		28.0	28.0	
Effective Green, g (s)		10.0					30.0	43.0		30.0	30.0	
Actuated g/C Ratio		0.10					0.30	0.43		0.30	0.30	
Clearance Time (s)		6.0					5.0			5.0	5.0	
Lane Grp Cap (vph)		137					252	605		49	286	
v/s Ratio Prot												
v/s Ratio Perm		0.37					1.03	c0.56		c1.85	0.19	
v/c Ratio		3.74					3.43	1.31		6.18	0.62	
Uniform Delay, d1		45.0					35.0	28.5		35.0	30.1	
Progression Factor		1.00					0.98	0.98		1.00	1.00	
Incremental Delay, d2		1252.1					1095.5	141.2		2375.7	9.6	
Delay (s)		1297.1					1129.9	169.1		2410.7	39.7	
Level of Service		F					F	F		F	D	
Approach Delay (s)		1297.1					669.8			1470.8		
Approach LOS		F					F			F		
Intersection Summary												
HCM Average Control Delay		477.2					HCM Level of Service			F		
HCM Volume to Capacity ratio		3.32										
Actuated Cycle Length (s)		100.0					Sum of lost time (s)			12.0		
Intersection Capacity Utilization		197.9%					ICU Level of Service			H		
Analysis Period (min)		15										
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												



Movement	NEL	NET	NER	SWL	SWT	SWR	SWR2
Lane Configurations		↑↑↑			↑↑↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		
Lane Util. Factor		0.91			0.91		
Frpb, ped/bikes		1.00			0.99		
Flpb, ped/bikes		1.00			1.00		
Frt		1.00			0.99		
Flt Protected		1.00			0.99		
Satd. Flow (prot)		4571			4478		
Flt Permitted		0.94			0.67		
Satd. Flow (perm)		4288			3010		
Volume (vph)	3	2291	14	199	1160	59	8
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	2386	15	207	1208	61	8
RTOR Reduction (vph)	0	1	0	0	0	0	0
Lane Group Flow (vph)	0	2403	0	0	1484	0	0
Confl. Peds. (#/hr)	67		10	10		65	67
Turn Type	Perm			pm+pt			
Protected Phases		2		1	6		
Permitted Phases	2			6			
Actuated Green, G (s)		36.0			49.0		
Effective Green, g (s)		38.0			51.0		
Actuated g/C Ratio		0.38			0.51		
Clearance Time (s)		5.0			5.0		
Lane Grp Cap (vph)		1629			1682		
v/s Ratio Prot					0.09		
v/s Ratio Perm		0.56			0.36		
v/c Ratio		1.48			0.91dl		
Uniform Delay, d1		31.0			21.8		
Progression Factor		1.00			0.23		
Incremental Delay, d2		217.3			3.9		
Delay (s)		248.3			9.0		
Level of Service		F			A		
Approach Delay (s)		248.3			9.0		
Approach LOS		F			A		
Intersection Summary							

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.91			0.91			0.91			0.91	
Frpb, ped/bikes		1.00			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Fr _t		1.00			0.98			1.00			0.96	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		4557			4452			4577			4339	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		4557			4452			4577			4339	
Volume (vph)	0	1639	40	0	1180	212	0	3745	0	0	1386	543
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)	0	1707	42	0	1229	221	0	3901	0	0	1444	566
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	1747	0	0	1450	0	0	3901	0	0	2004	0
Confl. Peds. (#/hr)	24		24	24		24	44		128	128		44
Turn Type												
Protected Phases		6			2			4			8	
Permitted Phases												
Actuated Green, G (s)		38.0			38.0			52.0			52.0	
Effective Green, g (s)		39.0			39.0			53.0			53.0	
Actuated g/C Ratio		0.39			0.39			0.53			0.53	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		1777			1736			2426			2300	
v/s Ratio Prot		c0.38			0.33			c0.85			0.46	
v/s Ratio Perm												
v/c Ratio		0.98			0.84			1.61			0.87	
Uniform Delay, d ₁		30.2			27.6			23.5			20.5	
Progression Factor		1.00			0.64			0.48			0.82	
Incremental Delay, d ₂		17.7			4.6			273.8			3.4	
Delay (s)		47.8			22.4			285.0			20.2	
Level of Service		D			C			F			C	
Approach Delay (s)		47.8			22.4			285.0			20.2	
Approach LOS		D			C			F			C	
Intersection Summary												
HCM Average Control Delay		139.2					HCM Level of Service		F			
HCM Volume to Capacity ratio		1.34										
Actuated Cycle Length (s)		100.0					Sum of lost time (s)		8.0			
Intersection Capacity Utilization		123.3%					ICU Level of Service		H			
Analysis Period (min)		15										
c Critical Lane Group												



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑↑↑			↑↑↑		↑
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1230	0	0	1392	0	142
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1281	0	0	1450	0	148
Pedestrians				165		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				14		
Right turn flare (veh)						
Median type				None		
Median storage veh						
Upstream signal (ft)	230			106		
pX, platoon unblocked			0.67		0.72	0.67
vC, conflicting volume			1281		1765	592
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			421		635	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	76
cM capacity (veh/h)			756		295	623

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NE 1
Volume Total	427	427	427	483	483	483	148
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	148
cSH	1700	1700	1700	1700	1700	1700	623
Volume to Capacity	0.25	0.25	0.25	0.28	0.28	0.28	0.24
Queue Length 95th (ft)	0	0	0	0	0	0	23
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	12.6
Lane LOS							B
Approach Delay (s)	0.0			0.0			12.6
Approach LOS							B

Intersection Summary							
Average Delay			0.6				
Intersection Capacity Utilization			50.2%		ICU Level of Service		A
Analysis Period (min)			15				

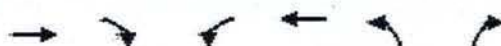
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.90		1.00	0.96		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		0.94	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.89		1.00	0.85		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1587	1342		1497	1369		1593	1668		1593	1632	
Flt Permitted	0.57	1.00		0.43	1.00		0.29	1.00		0.09	1.00	
Satd. Flow (perm)	951	1342		676	1369		488	1668		156	1632	
Volume (vph)	566	91	275	46	0	216	39	808	22	48	387	70
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)	590	95	286	48	0	225	41	842	23	50	403	73
RTOR Reduction (vph)	0	108	0	0	39	0	0	1	0	0	6	0
Lane Group Flow (vph)	590	273	0	48	186	0	41	864	0	50	470	0
Confl. Peds. (#/hr)	3		36	48		15	1		3	3		1
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases	4			8			2			6		
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	49.0	49.0		49.0	49.0		41.0	41.0		41.0	41.0	
Effective Green, g (s)	51.0	51.0		51.0	51.0		43.0	43.0		43.0	43.0	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.43	0.43		0.43	0.43	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	485	684		345	698		210	717		67	702	
v/s Ratio Prot		0.20			0.14			0.52			0.29	
v/s Ratio Perm	0.62			0.07			0.08			0.32		
v/c Ratio	1.22	0.40		0.14	0.27		0.20	1.20		0.75	0.67	
Uniform Delay, d1	24.5	15.1		12.9	13.9		17.7	28.5		23.9	22.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.13	1.17	
Incremental Delay, d2	115.1	1.7		0.8	0.9		2.1	105.1		6.7	0.5	
Delay (s)	139.6	16.8		13.8	14.8		19.8	133.6		33.8	27.2	
Level of Service	F	B		B	B		B	F		C	C	
Approach Delay (s)		91.4			14.6			128.5			27.8	
Approach LOS		F			B			F			C	
Intersection Summary												
HCM Average Control Delay	83.6			HCM Level of Service			F					
HCM Volume to Capacity ratio	1.21											
Actuated Cycle Length (s)	100.0			Sum of lost time (s)			6.0					
Intersection Capacity Utilization	109.9%			ICU Level of Service			H					
Analysis Period (min)	15											
c Critical Lane Group												

Washington Gateway
7: Florida Avenue & Burger King Entrance

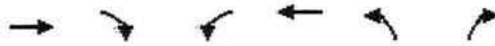
Background PM
No Circle

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		1.00			1.00			0.98			0.92	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		4519			4575			1560			1496	
Flt Permitted		0.93			0.93			0.77			0.90	
Satd. Flow (perm)		4210			4268			1250			1376	
Volume (vph)	10	1360	38	5	980	0	195	3	26	11	3	17
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)	10	1417	40	5	1021	0	203	3	27	11	3	18
RTOR Reduction (vph)	0	3	0	0	0	0	0	5	0	0	14	0
Lane Group Flow (vph)	0	1464	0	0	1026	0	0	228	0	0	18	0
Confl. Peds. (#/hr)	34		90	90		34	5		20	20		5
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		68.0			68.0			22.0			22.0	
Effective Green, g (s)		70.0			70.0			24.0			24.0	
Actuated g/C Ratio		0.70			0.70			0.24			0.24	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		2947			2988			300			330	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.24			c0.18			0.01	
v/c Ratio		0.50			0.34			0.76			0.06	
Uniform Delay, d1		6.9			5.9			35.3			29.3	
Progression Factor		0.09			0.60			1.00			1.00	
Incremental Delay, d2		0.6			0.3			16.6			0.3	
Delay (s)		1.2			3.8			51.9			29.6	
Level of Service		A			A			D			C	
Approach Delay (s)		1.2			3.8			51.9			29.6	
Approach LOS		A			A			D			C	
Intersection Summary												
HCM Average Control Delay			6.8			HCM Level of Service			A			
HCM Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			6.0			
Intersection Capacity Utilization			65.5%			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		↑↑↑			↑↑↑					↗	↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	3.0
Lane Util. Factor		0.91			0.91					1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00					1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00					0.96	1.00	1.00
Frt		0.99			1.00					1.00	1.00	0.85
Flt Protected		1.00			1.00					0.95	1.00	1.00
Satd. Flow (prot)		4513			4549					1534	1676	1353
Flt Permitted		0.80			0.81					0.95	1.00	1.00
Satd. Flow (perm)		3625			3674					1534	1676	1353
Volume (vph)	81	1313	64	53	995	14	0	0	0	20	62	68
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)	84	1368	67	55	1036	15	0	0	0	21	65	71
RTOR Reduction (vph)	0	5	0	0	1	0	0	0	0	0	0	53
Lane Group Flow (vph)	0	1514	0	0	1105	0	0	0	0	21	65	18
Confl. Peds. (#/hr)	23		22	22		23	17		16	16		17
Turn Type	pm+pt			pm+pt						Perm		Perm
Protected Phases	5	2		1	6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)		62.0			62.0					24.0	24.0	24.0
Effective Green, g (s)		65.0			65.0					26.0	26.0	26.0
Actuated g/C Ratio		0.65			0.65					0.26	0.26	0.26
Clearance Time (s)		5.0			5.0					5.0	5.0	5.0
Lane Grp Cap (vph)		2503			2532					399	436	352
v/s Ratio Prot		c0.10			0.07						c0.04	
v/s Ratio Perm		c0.29			0.21					0.01		0.01
v/c Ratio		0.60			0.44					0.05	0.15	0.05
Uniform Delay, d1		10.1			8.5					27.8	28.5	27.8
Progression Factor		0.22			1.00					1.00	1.00	1.00
Incremental Delay, d2		1.0			0.5					0.3	0.7	0.3
Delay (s)		3.2			9.1					28.0	29.2	28.0
Level of Service		A			A					C	C	C
Approach Delay (s)		3.2			9.1			0.0			28.5	
Approach LOS		A			A			A			C	
Intersection Summary												
HCM Average Control Delay		7.0				HCM Level of Service		A				
HCM Volume to Capacity ratio		0.47										
Actuated Cycle Length (s)		100.0				Sum of lost time (s)		9.0				
Intersection Capacity Utilization		75.5%				ICU Level of Service		D				
Analysis Period (min)		15										
c Critical Lane Group												



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	3.0
Lane Util. Factor	0.91			0.91	0.97	0.91
Frpb, ped/bikes	1.00			1.00	0.95	0.92
Flpb, ped/bikes	1.00			1.00	1.00	1.00
Frt	1.00			1.00	0.93	0.85
Flt Protected	1.00			1.00	0.97	1.00
Satd. Flow (prot)	5075			5074	3102	1330
Flt Permitted	1.00			0.66	0.97	1.00
Satd. Flow (perm)	5075			3346	3102	1330
Volume (vph)	3876	51	86	1883	47	87
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	4038	53	90	1961	49	91
RTOR Reduction (vph)	1	0	0	0	39	0
Lane Group Flow (vph)	4090	0	0	2051	54	47
Confl. Peds. (#/hr)					2	33
Turn Type		pm+pt			pm+ov	
Protected Phases	4		3	8	9	3
Permitted Phases			8			9
Actuated Green, G (s)	73.0			81.0	11.0	15.0
Effective Green, g (s)	74.0			82.0	12.0	17.0
Actuated g/C Ratio	0.74			0.82	0.12	0.17
Clearance Time (s)	4.0			4.0	4.0	4.0
Lane Grp Cap (vph)	3756			2830	372	266
v/s Ratio Prot	c0.81			c0.04	0.02	c0.01
v/s Ratio Perm				0.56		0.03
v/c Ratio	1.09			0.72	0.15	0.18
Uniform Delay, d1	13.0			4.0	39.4	35.5
Progression Factor	0.71			1.00	1.00	1.00
Incremental Delay, d2	40.5			1.7	0.8	1.4
Delay (s)	49.8			5.6	40.2	37.0
Level of Service	D			A	D	D
Approach Delay (s)	49.8			5.6	39.1	
Approach LOS	D			A	D	
Intersection Summary						
HCM Average Control Delay		35.1		HCM Level of Service		D
HCM Volume to Capacity ratio		0.91				
Actuated Cycle Length (s)		100.0		Sum of lost time (s)		3.0
Intersection Capacity Utilization		115.8%		ICU Level of Service		H
Analysis Period (min)		15				
c Critical Lane Group						



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	3.0
Lane Util. Factor	0.91			0.91	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	5079			5084	1770	1583
Flt Permitted	1.00			0.93	0.95	1.00
Satd. Flow (perm)	5079			4752	1770	1583
Volume (vph)	1306	12	5	1193	193	21
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1360	12	5	1243	201	22
RTOR Reduction (vph)	1	0	0	0	0	16
Lane Group Flow (vph)	1371	0	0	1248	201	6
Turn Type	Perm		Perm		Perm	
Protected Phases	4			8	2	
Permitted Phases			8			2
Actuated Green, G (s)	66.0			66.0	24.0	24.0
Effective Green, g (s)	68.0			68.0	26.0	26.0
Actuated g/C Ratio	0.68			0.68	0.26	0.26
Clearance Time (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	3454			3231	460	412
v/s Ratio Prot	c0.27				c0.11	
v/s Ratio Perm				0.26		0.00
v/c Ratio	0.40			0.39	0.44	0.01
Uniform Delay, d1	7.0			6.9	30.9	27.5
Progression Factor	0.08			0.66	1.00	1.00
Incremental Delay, d2	0.2			0.3	3.0	0.1
Delay (s)	0.7			4.9	33.9	27.5
Level of Service	A			A	C	C
Approach Delay (s)	0.7			4.9	33.3	
Approach LOS	A			A	C	

Intersection Summary

HCM Average Control Delay	5.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	43.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Appendix D

Background Future Intersection Capacity Analyses with NY/FLA Circle



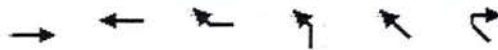
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱					↰↱↰↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0					3.0
Lane Util. Factor	0.97					0.91
Frt	1.00					1.00
Flt Protected	0.95					1.00
Satd. Flow (prot)	3090					4577
Flt Permitted	0.95					1.00
Satd. Flow (perm)	3090					4577
Volume (vph)	1391	0	0	0	0	1274
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1419	0	0	0	0	1300
RTOR Reduction (vph)	6	0	0	0	0	0
Lane Group Flow (vph)	1413	0	0	0	0	1300
Turn Type						
Protected Phases	6					8
Permitted Phases						
Actuated Green, G (s)	56.0					34.0
Effective Green, g (s)	58.0					36.0
Actuated g/C Ratio	0.58					0.36
Clearance Time (s)	5.0					5.0
Lane Grp Cap (vph)	1792					1648
v/s Ratio Prot	c0.46					c0.28
v/s Ratio Perm						
v/c Ratio	0.79					0.79
Uniform Delay, d1	16.3					28.6
Progression Factor	1.00					1.00
Incremental Delay, d2	3.6					3.9
Delay (s)	19.9					32.5
Level of Service	B					C
Approach Delay (s)	19.9		0.0			32.5
Approach LOS	B		A			C

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Movement												
Lane Configurations					↑↑↑	↑		↑			↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0	3.0		3.0			3.0	3.0
Lane Util. Factor					0.91	1.00		1.00			0.95	0.95
Frpb, ped/bikes					1.00	0.95		1.00			0.95	1.00
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frτ					1.00	0.85		1.00			0.86	0.85
Flτ Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					4577	1348		1676			1303	1354
Flτ Permitted					1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)					4577	1348		1676			1303	1354
Volume (vph)	0	0	0	1	2660	575	0	42	0	0	18	486
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	0	0	1	2714	587	0	43	0	0	18	496
RTOR Reduction (vph)	0	0	0	0	0	195	0	0	0	0	3	3
Lane Group Flow (vph)	0	0	0	0	2715	392	0	43	0	0	263	245
Confl. Peds. (#/hr)	11					11				38		15
Turn Type				Perm		Perm						custom
Protected Phases					6			4			4	8
Permitted Phases				6		6						8
Actuated Green, G (s)					78.0	78.0		32.0			32.0	32.0
Effective Green, g (s)					80.0	80.0		34.0			34.0	34.0
Actuated g/C Ratio					0.67	0.67		0.28			0.28	0.28
Clearance Time (s)					5.0	5.0		5.0			5.0	5.0
Lane Grp Cap (vph)					3051	899		475			369	384
v/s Ratio Prot								0.03			c0.20	0.18
v/s Ratio Perm					0.59	0.29						
v/c Ratio					0.89	0.44		0.09			0.71	0.64
Uniform Delay, d1					16.4	9.4		31.6			38.6	37.6
Progression Factor					0.81	0.13		1.00			1.00	1.00
Incremental Delay, d2					0.4	0.1		0.4			11.2	7.9
Delay (s)					13.7	1.3		32.0			49.8	45.5
Level of Service					B	A		C			D	D
Approach Delay (s)		0.0			11.5			32.0			47.7	
Approach LOS		A			B			C			D	
Intersection Summary												
HCM Average Control Delay		16.6										
HCM Volume to Capacity ratio		0.84										
Actuated Cycle Length (s)		120.0										
Intersection Capacity Utilization		87.6%										
Analysis Period (min)		15										
c Critical Lane Group												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑				↑↑	↑↑↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0				3.0	3.0	3.0	
Lane Util. Factor		0.91			0.91				0.88	0.94	0.95	
Frpb, ped/bikes		1.00			1.00				1.00	1.00	1.00	
Flpb, ped/bikes		1.00			1.00				1.00	1.00	1.00	
Frt		0.99			1.00				0.85	1.00	0.97	
Flt Protected		1.00			1.00				1.00	0.95	1.00	
Satd. Flow (prot)		4547			4577				2508	4491	3095	
Flt Permitted		1.00			1.00				1.00	0.95	1.00	
Satd. Flow (perm)		4547			4577				2508	4491	3095	
Volume (vph)	0	1073	44	0	2389	0	0	0	353	1180	1289	266
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	1095	45	0	2438	0	0	0	360	1204	1315	271
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	51	0	1	0
Lane Group Flow (vph)	0	1136	0	0	2438	0	0	0	309	1204	1585	0
Confl. Peds. (#/hr)	79		1	1		79	2		28	28		2
Turn Type									custom	Prot		
Protected Phases		2			6				4	3	8	
Permitted Phases									4			
Actuated Green, G (s)		56.0			56.0				17.0	30.0	53.0	
Effective Green, g (s)		58.0			58.0				20.0	33.0	56.0	
Actuated g/C Ratio		0.48			0.48				0.17	0.28	0.47	
Clearance Time (s)		5.0			5.0				6.0	6.0	6.0	
Lane Grp Cap (vph)		2198			2212				418	1235	1444	
v/s Ratio Prot		0.25			c0.53				0.12	0.27	c0.51	
v/s Ratio Perm												
v/c Ratio		0.52			1.10				0.74	0.97	1.10	
Uniform Delay, d1		21.4			31.0				47.5	43.1	32.0	
Progression Factor		1.00			0.57				0.80	1.00	1.00	
Incremental Delay, d2		0.9			46.8				10.9	20.3	55.2	
Delay (s)		22.2			64.4				48.9	63.4	87.2	
Level of Service		C			E				D	E	F	
Approach Delay (s)		22.2			64.4			48.9			76.9	
Approach LOS		C			E			D			E	
Intersection Summary												
HCM Average Control Delay		61.6			HCM Level of Service				E			
HCM Volume to Capacity ratio		1.10										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)				6.0			
Intersection Capacity Utilization		107.0%			ICU Level of Service				G			
Analysis Period (min)		15										
c Critical Lane Group												



Movement	EBT	WBT	WBR	NBL	NWT	NWR
Lane Configurations	↑↑↑	↑↑↑		↑↑	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	
Lane Util. Factor	0.91	0.91		0.97	0.91	
Frbp, ped/bikes	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	1.00	
Flt Protected	1.00	1.00		0.95	1.00	
Satd. Flow (prot)	4577	4288		3090	4556	
Flt Permitted	1.00	1.00		0.95	1.00	
Satd. Flow (perm)	4577	4288		3090	4556	
Volume (vph)	1497	2403	1455	255	1587	44
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1528	2452	1485	260	1619	45
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	1528	3937	0	260	1664	0
Confl. Peds. (#/hr)			3			2
Turn Type						
Protected Phases	2	6		9	4	
Permitted Phases						
Actuated Green, G (s)	70.0	70.0		6.0	29.0	
Effective Green, g (s)	72.0	72.0		8.0	31.0	
Actuated g/C Ratio	0.60	0.60		0.07	0.26	
Clearance Time (s)	5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)	2746	2573		206	1177	
v/s Ratio Prot	0.33	c0.92		c0.08	c0.37	
v/s Ratio Perm						
v/c Ratio	0.56	1.74dr		1.26	1.41	
Uniform Delay, d1	14.4	24.0		56.0	44.5	
Progression Factor	1.00	1.00		1.07	1.00	
Incremental Delay, d2	0.6	240.5		143.0	191.3	
Delay (s)	14.9	264.5		202.9	235.8	
Level of Service	B	F		F	F	
Approach Delay (s)	14.9	264.5		202.9	235.8	
Approach LOS	B	F		F	F	

Intersection Summary

HCM Average Control Delay	204.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	141.2%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		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		1.00	1.00	
Fr _t	1.00	0.96		1.00	0.85		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1593	1603		1593	1425		1593	1625		1593	1604	
Flt Permitted	0.63	1.00		0.20	1.00		0.05	1.00		0.51	1.00	
Satd. Flow (perm)	1063	1603		335	1425		92	1625		863	1604	
Volume (vph)	84	273	114	13	0	42	192	245	64	248	785	317
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)	86	279	116	13	0	43	196	250	65	253	801	323
RTOR Reduction (vph)	0	12	0	0	36	0	0	8	0	0	12	0
Lane Group Flow (vph)	86	383	0	13	7	0	196	307	0	253	1112	0
Turn Type	pm+pt			Perm			pm+pt			pm+pt		
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.0	27.0		18.0	18.0		79.0	71.0		79.0	71.0	
Effective Green, g (s)	29.0	29.0		20.0	20.0		82.0	73.0		82.0	73.0	
Actuated g/C Ratio	0.24	0.24		0.17	0.17		0.68	0.61		0.68	0.61	
Clearance Time (s)	4.0	5.0		5.0	5.0		4.0	5.0		4.0	5.0	
Lane Grp Cap (vph)	283	387		56	238		175	989		644	976	
v/s Ratio Prot	0.02	c0.24			0.01		c0.08	0.19		0.03	c0.69	
v/s Ratio Perm	0.06			0.04			0.68			0.24		
v/c Ratio	0.30	0.99		0.23	0.03		1.12	0.31		0.39	1.14	
Uniform Delay, d1	36.5	45.3		43.3	41.9		57.7	11.3		7.4	23.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.17	0.79	
Incremental Delay, d2	2.8	43.2		9.5	0.2		103.9	0.8		0.2	64.0	
Delay (s)	39.3	88.5		52.8	42.1		161.6	12.2		1.4	82.5	
Level of Service	D	F		D	D		F	B		A	F	
Approach Delay (s)		79.7			44.6			69.5			67.6	
Approach LOS		E			D			E			E	

Intersection Summary

HCM Average Control Delay	69.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	112.8%	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												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frt		0.98			1.00			0.99			0.92	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		4502			4574			1588			1517	
Flt Permitted		0.94			0.92			0.76			0.95	
Satd. Flow (perm)		4222			4228			1259			1456	
Volume (vph)	2	836	101	16	1442	1	87	2	7	8	3	17
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)	2	853	103	16	1471	1	89	2	7	8	3	17
RTOR Reduction (vph)	0	15	0	0	0	0	0	3	0	0	11	0
Lane Group Flow (vph)	0	943	0	0	1488	0	0	95	0	0	17	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		57.0			57.0			33.0			33.0	
Effective Green, g (s)		59.0			59.0			35.0			35.0	
Actuated g/C Ratio		0.59			0.59			0.35			0.35	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		2491			2495			441			510	
v/s Ratio Prot												
v/s Ratio Perm		0.22			0.35			0.08			0.01	
v/c Ratio		0.38			0.60			0.22			0.03	
Uniform Delay, d1		10.8			13.0			22.9			21.4	
Progression Factor		0.89			0.06			1.00			1.00	
Incremental Delay, d2		0.4			0.7			1.1			0.1	
Delay (s)		10.0			1.5			24.0			21.5	
Level of Service		B			A			C			C	
Approach Delay (s)		10.0			1.5			24.0			21.5	
Approach LOS		B			A			C			C	
Intersection Summary												
HCM Average Control Delay		5.7			HCM Level of Service			A				
HCM Volume to Capacity ratio		0.46										
Actuated Cycle Length (s)		100.0			Sum of lost time (s)			6.0				
Intersection Capacity Utilization		62.6%			ICU Level of Service			B				
Analysis Period (min)		15										

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	  			  			  			  		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.91			0.91						1.00	
Frt		0.99			1.00						0.94	
Flt Protected		0.99			1.00						1.00	
Satd. Flow (prot)		4504			4563						1571	
Flt Permitted		0.99			1.00						1.00	
Satd. Flow (perm)		4504			4563						1571	
Volume (vph)	101	678	55	85	1507	4	0	0	0	15	81	74
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)	103	692	56	87	1538	4	0	0	0	15	83	76
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	843	0	0	1629	0	0	0	0	0	146	0
Turn Type	custom			custom			Perm			Perm		
Protected Phases	1	1		5	5						6	
Permitted Phases	1			5							6	
Actuated Green, G (s)		24.0			44.0						17.0	
Effective Green, g (s)		26.0			46.0						19.0	
Actuated g/C Ratio		0.26			0.46						0.19	
Clearance Time (s)		5.0			5.0						5.0	
Lane Grp Cap (vph)		1171			2099						298	
v/s Ratio Prot		c0.19			c0.36							
v/s Ratio Perm											0.09	
v/c Ratio		0.72			0.78						0.49	
Uniform Delay, d1		33.7			22.7						36.2	
Progression Factor		1.03			1.00						1.00	
Incremental Delay, d2		3.6			2.9						5.7	
Delay (s)		38.3			25.6						41.9	
Level of Service		D			C						D	
Approach Delay (s)		38.3			25.6			0.0			41.9	
Approach LOS		D			C			A			D	
Intersection Summary												
HCM Average Control Delay			30.7			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)				9.0		
Intersection Capacity Utilization			73.2%			ICU Level of Service				D		
Analysis Period (min)			15									

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↵	↵
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	3.0
Lane Util. Factor	0.91			0.91	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	4622			4621	1608	1439
Flt Permitted	1.00			0.94	0.95	1.00
Satd. Flow (perm)	4622			4332	1608	1439
Volume (vph)	1024	0	5	1595	35	6
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1045	0	5	1628	36	6
RTOR Reduction (vph)	0	0	0	0	0	5
Lane Group Flow (vph)	1045	0	0	1633	36	1
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Perm			custom		
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)	74.0			74.0	16.0	16.0
Effective Green, g (s)	76.0			76.0	18.0	18.0
Actuated g/C Ratio	0.76			0.76	0.18	0.18
Clearance Time (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	3513			3292	289	259
v/s Ratio Prot	0.23					
v/s Ratio Perm				c0.38	c0.02	0.00
v/c Ratio	0.30			0.50	0.12	0.00
Uniform Delay, d1	3.7			4.6	34.4	33.6
Progression Factor	1.00			0.07	1.00	1.00
Incremental Delay, d2	0.2			0.5	0.9	0.0
Delay (s)	3.9			0.8	35.3	33.7
Level of Service	A			A	D	C
Approach Delay (s)	3.9			0.8	35.0	
Approach LOS	A			A	D	
Intersection Summary						
HCM Average Control Delay		2.5		HCM Level of Service		A
HCM Volume to Capacity ratio		0.42				
Actuated Cycle Length (s)		100.0		Sum of lost time (s)		6.0
Intersection Capacity Utilization		48.0%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	3.0
Lane Util. Factor	0.91			0.91	0.97	0.91
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	4534			4566	3090	1297
Flt Permitted	1.00			0.63	0.95	1.00
Satd. Flow (perm)	4534			2899	3090	1297
Volume (vph)	1462	96	193	3820	33	44
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1492	98	197	3898	34	45
RTOR Reduction (vph)	7	0	0	0	0	3
Lane Group Flow (vph)	1583	0	0	4095	34	42
Turn Type		pm+pt			pt+ov	
Protected Phases	4		3	8	9	9.3
Permitted Phases			8			
Actuated Green, G (s)	38.0			74.0	16.0	52.0
Effective Green, g (s)	40.0			76.0	18.0	54.0
Actuated g/C Ratio	0.40			0.76	0.18	0.54
Clearance Time (s)	5.0			5.0	5.0	
Lane Grp Cap (vph)	1814			2753	556	700
v/s Ratio Prot	0.35			c0.49	0.01	c0.03
v/s Ratio Perm				c0.64		
v/c Ratio	0.87			1.49	0.06	0.06
Uniform Delay, d1	27.7			12.0	34.0	10.9
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	6.1			221.3	0.2	0.2
Delay (s)	33.8			233.3	34.2	11.1
Level of Service	C			F	C	B
Approach Delay (s)	33.8			233.3	21.0	
Approach LOS	C			F	C	

Intersection Summary

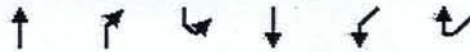
HCM Average Control Delay	175.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	133.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBR	SBL	SBR	SEL
Lane Configurations	TT			
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)	3.0			
Lane Util. Factor	0.88			
Frt	0.85			
Flt Protected	1.00			
Satd. Flow (prot)	2508			
Flt Permitted	1.00			
Satd. Flow (perm)	2508			
Volume (vph)	1864	0	0	0
Peak-hour factor, PHF	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1902	0	0	0
RTOR Reduction (vph)	0	0	0	0
Lane Group Flow (vph)	1902	0	0	0
Turn Type				
Protected Phases	6			
Permitted Phases				
Actuated Green, G (s)	101.0			
Effective Green, g (s)	103.0			
Actuated g/C Ratio	0.86			
Clearance Time (s)	5.0			
Lane Grp Cap (vph)	2153			
v/s Ratio Prot	c0.76			
v/s Ratio Perm				
v/c Ratio	0.88			
Uniform Delay, d1	5.0			
Progression Factor	0.68			
Incremental Delay, d2	3.2			
Delay (s)	6.6			
Level of Service	A			
Approach Delay (s)	6.6	0.0		0.0
Approach LOS	A	A		A

Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

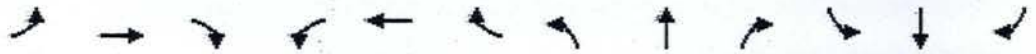


Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations				↑↑↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)				3.0	3.0	
Lane Util. Factor				0.91	0.97	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				5085	3433	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				5085	3433	
Volume (vph)	0	0	0	1504	840	0
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	0	0	1535	857	0
RTOR Reduction (vph)	0	0	0	0	16	0
Lane Group Flow (vph)	0	0	0	1535	841	0
Turn Type						
Protected Phases				8	6	
Permitted Phases						
Actuated Green, G (s)				47.0	43.0	
Effective Green, g (s)				49.0	45.0	
Actuated g/C Ratio				0.49	0.45	
Clearance Time (s)				5.0	5.0	
Lane Grp Cap (vph)				2492	1545	
v/s Ratio Prot				c0.30	c0.24	
v/s Ratio Perm						
v/c Ratio				0.62	0.54	
Uniform Delay, d1				18.6	20.0	
Progression Factor				1.00	1.00	
Incremental Delay, d2				1.2	1.4	
Delay (s)				19.8	21.4	
Level of Service				B	C	
Approach Delay (s)	0.0			19.8	21.4	
Approach LOS	A			B	C	

Intersection Summary			
HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑			↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					3.0	3.0		3.0			3.0	3.0
Lane Util. Factor					0.91	1.00		1.00			0.95	0.95
Frpb, ped/bikes					1.00	0.95		1.00			0.95	1.00
Flpb, ped/bikes					1.00	1.00		1.00			1.00	1.00
Frt					1.00	0.85		1.00			0.86	0.85
Flt Protected					1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)					5085	1498		1858			1437	1504
Flt Permitted					1.00	1.00		0.99			1.00	1.00
Satd. Flow (perm)					5085	1498		1846			1437	1504
Volume (vph)	0	0	0	3	2167	458	1	19	0	0	11	555
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	0	0	3	2211	467	1	19	0	0	11	566
RTOR Reduction (vph)	0	0	0	0	0	190	0	0	0	0	4	4
Lane Group Flow (vph)	0	0	0	0	2214	277	0	20	0	0	290	279
Confl. Peds. (#/hr)	11						11			38		15
Turn Type				Perm		Perm	Perm					custom
Protected Phases					6			4			4	8
Permitted Phases				6		6	4					8
Actuated Green, G (s)					69.0	69.0		41.0			41.0	41.0
Effective Green, g (s)					71.0	71.0		43.0			43.0	43.0
Actuated g/C Ratio					0.59	0.59		0.36			0.36	0.36
Clearance Time (s)					5.0	5.0		5.0			5.0	5.0
Lane Grp Cap (vph)					3009	886		661			515	539
v/s Ratio Prot											0.20	0.19
v/s Ratio Perm					0.44	0.19		0.01				
v/c Ratio					0.74	0.31		0.03			0.56	0.52
Uniform Delay, d1					17.7	12.3		25.0			31.0	30.3
Progression Factor					0.47	0.00		1.00			1.00	1.00
Incremental Delay, d2					0.1	0.1		0.1			4.4	3.5
Delay (s)					8.5	0.1		25.1			35.4	33.9
Level of Service					A	A		C			D	C
Approach Delay (s)		0.0			7.0			25.1			34.6	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM Average Control Delay			12.0				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			6.0		
Intersection Capacity Utilization			81.3%				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		↑↑↑			↑↑↑				↑↑	↑↑↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0				3.0	3.0	3.0	
Lane Util. Factor		0.91			0.91				0.88	0.94	0.95	
Frpb, ped/bikes		1.00			1.00				0.93	1.00	0.99	
Flpb, ped/bikes		1.00			1.00				1.00	1.00	1.00	
Frt		1.00			1.00				0.85	1.00	0.93	
Flt Protected		1.00			1.00				1.00	0.95	1.00	
Satd. Flow (prot)		5080			5085				2581	4990	3275	
Flt Permitted		1.00			1.00				1.00	0.95	1.00	
Satd. Flow (perm)		5080			5085				2581	4990	3275	
Volume (vph)	0	2301	14	0	1120	0	0	0	1566	1909	463	382
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	2348	14	0	1143	0	0	0	1598	1948	472	390
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	100	0
Lane Group Flow (vph)	0	2361	0	0	1143	0	0	0	1598	1948	762	0
Confl. Peds. (#/hr)	79		1	1		79	2		28	28		2
Turn Type									custom	Split		
Protected Phases		2			6					8	8	
Permitted Phases									4			
Actuated Green, G (s)		55.0			55.0				40.0	38.0	38.0	
Effective Green, g (s)		57.0			57.0				43.0	41.0	41.0	
Actuated g/C Ratio		0.38			0.38				0.29	0.27	0.27	
Clearance Time (s)		5.0			5.0				6.0	6.0	6.0	
Lane Grp Cap (vph)		1930			1932				740	1364	895	
v/s Ratio Prot		c0.46			0.22					c0.39	0.23	
v/s Ratio Perm									c0.62			
v/c Ratio		1.22			0.59				2.16	1.43	0.85	
Uniform Delay, d1		46.5			37.2				53.5	54.5	51.6	
Progression Factor		1.00			1.00				1.00	1.00	1.00	
Incremental Delay, d2		105.5			1.3				526.2	197.0	10.1	
Delay (s)		152.0			38.5				579.7	251.5	61.7	
Level of Service		F			D				F	F	E	
Approach Delay (s)		152.0			38.5			579.7			193.3	
Approach LOS		F			D			F			F	
Intersection Summary												
HCM Average Control Delay		236.6										
HCM Volume to Capacity ratio		1.57										
Actuated Cycle Length (s)		150.0							9.0			
Intersection Capacity Utilization		148.4%										
Analysis Period (min)		15										
c Critical Lane Group												



Movement	EBT	WBT	WBR	NBL	NWT	NWR
Lane Configurations	↑↑↑	↑↑↑		↑↑	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		3.0	3.0	
Lane Util. Factor	0.91	0.91		0.97	0.91	
Frpb, ped/bikes	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Fr _t	1.00	0.94		1.00	0.98	
Flt Protected	1.00	1.00		0.95	1.00	
Satd. Flow (prot)	5085	4735		3433	4995	
Flt Permitted	1.00	1.00		0.95	1.00	
Satd. Flow (perm)	5085	4735		3433	4995	
Volume (vph)	3778	1125	804	794	1142	136
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	3855	1148	820	810	1165	139
RTOR Reduction (vph)	0	1	0	0	12	0
Lane Group Flow (vph)	3855	1967	0	810	1292	0
Confl. Peds. (#/hr)			3			2
Turn Type						
Protected Phases	2	6		9	4	
Permitted Phases						
Actuated Green, G (s)	56.5	56.0		18.5	31.5	
Effective Green, g (s)	58.0	58.0		20.0	33.0	
Actuated g/C Ratio	0.48	0.48		0.17	0.28	
Clearance Time (s)	4.5	5.0		4.5	4.5	
Lane Grp Cap (vph)	2458	2289		572	1374	
v/s Ratio Prot	c0.76	0.42		c0.24	c0.26	
v/s Ratio Perm						
v/c Ratio	1.57	1.07dr		1.42	0.94	
Uniform Delay, d1	31.0	27.4		50.0	42.5	
Progression Factor	1.00	1.00		1.00	1.00	
Incremental Delay, d2	257.8	4.5		197.4	13.6	
Delay (s)	288.8	31.9		247.4	56.2	
Level of Service	F	C		F	E	
Approach Delay (s)	288.8	31.9		247.4	56.2	
Approach LOS	F	C		F	E	

Intersection Summary

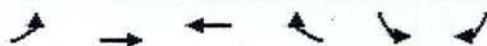
HCM Average Control Delay	182.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.35		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	130.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0		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		1.00	1.00	
Frt	1.00	0.88		1.00	0.85		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1593	1477		1593	1425		1593	1669		1593	1639	
Flt Permitted	0.16	1.00		0.55	1.00		0.31	1.00		0.07	1.00	
Satd. Flow (perm)	268	1477		920	1425		521	1669		122	1639	
Volume (vph)	561	73	275	46	0	319	39	756	22	67	395	70
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)	572	74	281	47	0	326	40	771	22	68	403	71
RTOR Reduction (vph)	0	114	0	0	91	0	0	1	0	0	5	0
Lane Group Flow (vph)	572	241	0	47	235	0	40	792	0	68	469	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	57.0	57.0		20.0	20.0		53.0	53.0		53.0	53.0	
Effective Green, g (s)	59.0	59.0		22.0	22.0		55.0	55.0		55.0	55.0	
Actuated g/C Ratio	0.49	0.49		0.18	0.18		0.46	0.46		0.46	0.46	
Clearance Time (s)	4.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	507	726		169	261		239	765		56	751	
v/s Ratio Prot	c0.32	0.16			0.17			0.47			0.29	
v/s Ratio Perm	c0.23			0.05			0.08			c0.56		
v/c Ratio	1.13	0.33		0.28	0.90		0.17	1.04		1.21	0.62	
Uniform Delay, d1	34.2	18.5		42.2	47.9		19.1	32.5		32.5	24.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	80.2	1.2		4.1	35.2		1.5	42.0		189.2	3.9	
Delay (s)	114.4	19.8		46.2	83.2		20.6	74.5		221.7	28.5	
Level of Service	F	B		D	F		C	E		F	C	
Approach Delay (s)		78.1			78.5			71.9			52.8	
Approach LOS		E			E			E			D	
Intersection Summary												
HCM Average Control Delay		71.1					HCM Level of Service		E			
HCM Volume to Capacity ratio		1.17										
Actuated Cycle Length (s)		120.0					Sum of lost time (s)		6.0			
Intersection Capacity Utilization		119.6%					ICU Level of Service		H			
Analysis Period (min)		15										
c Critical Lane Group												

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↑↑↑		↑↑		
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	0	1504	0	2058	0	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	1535	0	2100	0	0
Pedestrians	15			38	1	
Lane Width (ft)	12.0			12.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			3	0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				47		
pX, platoon unblocked					0.23	
vC, conflicting volume			1536		1066	39
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1536		0	39
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			429		232	992
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	
Volume Total	512	512	512	1050	1050	
Volume Left	0	0	0	0	0	
Volume Right	512	512	512	0	0	
cSH	1700	1700	1700	1700	1700	
Volume to Capacity	0.30	0.30	0.30	0.62	0.62	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	
Lane LOS						
Approach Delay (s)	0.0			0.0		
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			60.2%	ICU Level of Service		B
Analysis Period (min)			15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			
Lane Util. Factor			0.95			
Frt			1.00			
Flt Protected			1.00			
Satd. Flow (prot)			3539			
Flt Permitted			1.00			
Satd. Flow (perm)			3539			
Volume (vph)	0	0	2058	0	0	0
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	0	2100	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	2100	0	0	0
Turn Type						
Protected Phases			6			
Permitted Phases						
Actuated Green, G (s)			91.0			
Effective Green, g (s)			93.0			
Actuated g/C Ratio			0.78			
Clearance Time (s)			5.0			
Lane Grp Cap (vph)			2743			
v/s Ratio Prot			c0.59			
v/s Ratio Perm						
v/c Ratio			0.77			
Uniform Delay, d1			7.5			
Progression Factor			0.39			
Incremental Delay, d2			1.6			
Delay (s)			4.5			
Level of Service			A			
Approach Delay (s)		0.0	4.5		0.0	
Approach LOS		A	A		A	
Intersection Summary						
HCM Average Control Delay			4.5	HCM Level of Service		A
HCM Volume to Capacity ratio			0.77			
Actuated Cycle Length (s)			120.0	Sum of lost time (s)		27.0
Intersection Capacity Utilization			41.9%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↵	↵
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	3.0
Lane Util. Factor	0.91			0.91	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	4622			4621	1608	1439
Flt Permitted	1.00			0.93	0.95	1.00
Satd. Flow (perm)	4622			4313	1608	1439
Volume (vph)	1532	0	5	1189	90	21
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	1563	0	5	1213	92	21
RTOR Reduction (vph)	0	0	0	0	0	16
Lane Group Flow (vph)	1563	0	0	1218	92	5
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type		Perm			custom	
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)	70.0			70.0	20.0	20.0
Effective Green, g (s)	72.0			72.0	22.0	22.0
Actuated g/C Ratio	0.72			0.72	0.22	0.22
Clearance Time (s)	5.0			5.0	5.0	5.0
Lane Grp Cap (vph)	3328			3105	354	317
v/s Ratio Prot	c0.34					
v/s Ratio Perm				0.28	c0.06	0.00
v/c Ratio	0.47			0.39	0.26	0.01
Uniform Delay, d1	5.9			5.5	32.3	30.5
Progression Factor	1.00			0.04	1.00	1.00
Incremental Delay, d2	0.5			0.3	1.8	0.1
Delay (s)	6.4			0.6	34.0	30.6
Level of Service	A			A	C	C
Approach Delay (s)	6.4			0.6	33.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM Average Control Delay		5.0		HCM Level of Service	A	
HCM Volume to Capacity ratio		0.42				
Actuated Cycle Length (s)		100.0		Sum of lost time (s)	6.0	
Intersection Capacity Utilization		45.1%		ICU Level of Service	A	
Analysis Period (min)		15				
c Critical Lane Group						