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		3.0	
Lane Util. Factor	1.00	1.00	1.00	*0.60	1.00		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85		0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00		0.99	
Satd. Flow (prot)	1770	1863	1583	2124	1858		1681	1691	1583		1763	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.60	1.00		0.99	
Satd. Flow (perm)	1770	1863	1583	2124	1858		1681	1061	1583		1763	
Volume (vph)	13	334	322	701	382	6	489	19	618	6	28	19
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	14	371	358	779	424	7	543	21	687	7	31	21
Lane Group Flow (vph)	14	371	358	779	431	0	272	292	687	0	59	0
Turn Type	Prot		pm+ov	Prot			Prot		pm+ov	Prot		
Protected Phases	3	8	1	7	4		1	6	7	5	2	
Permitted Phases			8						6		2	
Actuated Green, G (s)	1.6	18.0	33.0	36.4	52.8		15.0	33.6	70.0		14.6	
Effective Green, g (s)	2.6	19.0	35.0	37.4	53.8		16.0	34.6	72.0		15.6	
Actuated g/C Ratio	0.03	0.19	0.35	0.37	0.54		0.16	0.35	0.72		0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	46	354	554	794	1000		269	468	1187		275	
v/s Ratio Prot	0.01	c0.20	0.10	c0.37	0.23		c0.16	0.10	0.22		0.03	
v/s Ratio Perm			0.12					c0.12	0.22			
v/c Ratio	0.30	1.05	0.65	0.98	0.43		1.01	0.62	0.58		0.21	
Uniform Delay, d1	47.8	40.5	27.3	31.0	13.9		42.0	27.3	6.7		36.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	3.7	61.0	2.6	27.2	0.3		57.7	2.6	0.7		1.8	
Delay (s)	51.5	101.5	29.9	58.1	14.2		99.7	29.9	7.4		38.6	
Level of Service	D	F	C	E	B		F	C	A		D	
Approach Delay (s)		66.0			42.5			32.7			38.6	
Approach LOS		E			D			C			D	

Intersection Summary			
HCM Average Control Delay	44.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	C
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	1.00		1.00					0.95	1.00		0.95	
Frt	1.00		0.85					1.00	0.85		0.97	
Flt Protected	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1770		1583					3539	1583		3444	
Flt Permitted	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1770		1583					3539	1583		3444	
Volume (vph)	428	0	452	0	0	0	0	1187	368	0	1019	223
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	476	0	502	0	0	0	0	1319	409	0	1132	248
Lane Group Flow (vph)	476	0	502	0	0	0	0	1319	409	0	1380	0
Turn Type	custom		custom						Perm			
Protected Phases	8		1					6			2	
Permitted Phases	8		8 1					6	6		2	
Actuated Green, G (s)	35.0		49.0					77.0	77.0		59.0	
Effective Green, g (s)	36.0		51.0					78.0	78.0		60.0	
Actuated g/C Ratio	0.30		0.42					0.65	0.65		0.50	
Clearance Time (s)	4.0		4.0					4.0	4.0		4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0		3.0	
Lane Grp Cap (vph)	531		712					2300	1029		1722	
v/s Ratio Prot	c0.27		c0.09					0.37			c0.40	
v/s Ratio Perm			0.23						0.26			
v/c Ratio	0.90		0.71					0.57	0.40		0.80	
Uniform Delay, d1	40.2		28.3					11.7	9.9		25.0	
Progression Factor	1.00		1.00					1.00	1.00		1.00	
Incremental Delay, d2	17.6		3.2					1.0	1.1		4.0	
Delay (s)	57.8		31.5					12.8	11.1		29.1	
Level of Service	E		C					B	B		C	
Approach Delay (s)		44.3			0.0			12.4			29.1	
Approach LOS		D			A			B			C	

Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	C
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	3.0	3.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95		0.97	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1681	1705	1583		1788	1583	1770	3513		3433	3539	1583
Flt Permitted	0.95	0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1681	1705	1583		1788	1583	1770	3513		3433	3539	1583
Volume (vph)	475	67	47	391	74	466	101	630	33	506	753	228
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	528	74	52	434	82	518	112	700	37	562	837	253
Lane Group Flow (vph)	293	309	52	0	516	518	112	737	0	562	837	253
Turn Type	Split		pm+ov	Split		pm+ov	Prot			Prot		pm+ov
Protected Phases	8	8	1	4	4	5	1	6		5	2	8
Permitted Phases			8			4						2
Actuated Green, G (s)	15.6	15.6	21.6		20.0	31.0	6.0	17.4		11.0	22.4	38.0
Effective Green, g (s)	16.6	16.6	23.6		21.0	33.0	7.0	18.4		12.0	23.4	40.0
Actuated g/C Ratio	0.21	0.21	0.30		0.26	0.41	0.09	0.23		0.15	0.29	0.50
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	349	354	467		469	712	155	808		515	1035	851
v/s Ratio Prot	0.17	c0.18	0.01		c0.29	0.11	0.06	c0.21		c0.16	c0.24	0.06
v/s Ratio Perm			0.02			0.22						0.10
v/c Ratio	0.84	0.87	0.11		1.10	0.73	0.72	0.91		1.09	0.81	0.30
Uniform Delay, d1	30.4	30.7	20.6		29.5	19.7	35.6	30.0		34.0	26.2	11.7
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	16.1	20.4	0.1		71.6	3.7	15.3	16.4		66.8	6.8	0.2
Delay (s)	46.5	51.1	20.7		101.1	23.4	50.9	46.4		100.8	33.0	11.9
Level of Service	D	D	C		F	C	D	D		F	C	B
Approach Delay (s)		46.6			62.2			47.0			52.9	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM Average Control Delay	53.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL2	WBT	WBR	NBL	NBT	NBR	SBT	SBR	SBR2
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	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.91	0.91	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00	0.85	0.97	0.85	
Flt Protected	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1770		1583	3433	1863	1583	1770	3539	1583	3297	1441	
Flt Permitted	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	
Satd. Flow (perm)	1770		1583	3433	1863	1583	1770	3539	1583	3297	1441	
Volume (vph)	56	0	379	450	190	221	386	801	515	595	400	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	0	412	489	207	240	420	871	560	647	435	54
Lane Group Flow (vph)	61	0	412	489	207	240	420	871	560	792	344	0
Turn Type	Prot		custom	custom		Perm	Prot		Free		Perm	
Protected Phases	7		5	3	8		5	2		6		
Permitted Phases			5	3		8			Free		6	
Actuated Green, G (s)	4.0		22.0	24.0	16.0	16.0	22.0	48.0	80.0	22.0	22.0	
Effective Green, g (s)	4.0		22.0	24.0	16.0	16.0	22.0	48.0	80.0	22.0	22.0	
Actuated g/C Ratio	0.05		0.28	0.30	0.20	0.20	0.28	0.60	1.00	0.28	0.28	
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	89		435	1030	373	317	487	2123	1583	907	396	
v/s Ratio Prot	0.03		c0.26	0.14	0.11		0.24	0.25		c0.24		
v/s Ratio Perm						c0.15			c0.35		0.24	
v/c Ratio	0.69		0.95	0.47	0.55	0.76	0.86	0.41	0.35	0.87	0.87	
Uniform Delay, d1	37.4		28.4	22.9	28.8	30.2	27.6	8.5	0.0	27.7	27.6	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	35.3		31.8	1.6	5.8	15.5	18.0	0.6	0.6	11.4	21.9	
Delay (s)	72.7		60.2	24.4	34.6	45.7	45.5	9.1	0.6	39.1	49.6	
Level of Service	E		E	C	C	D	D	A	A	D	D	
Approach Delay (s)		61.8			32.1			14.8		42.2		
Approach LOS		E			C			B		D		

Intersection Summary			
HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	C

c Critical Lane Group

Movement	NEL
Lane Configurations	
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	0.0
Approach LOS	A

Intersection Summary

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		3.0	3.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.91		0.98		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1673		1835		1770	1863
Flt Permitted	0.98		1.00		0.32	1.00
Satd. Flow (perm)	1673		1835		596	1863
Volume (vph)	132	229	544	68	309	483
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	147	254	604	76	343	537
Lane Group Flow (vph)	401	0	680	0	343	537
Turn Type					Perm	
Protected Phases			2			6
Permitted Phases	8				6	
Actuated Green, G (s)	14.8		47.2		47.2	47.2
Effective Green, g (s)	15.8		48.2		48.2	48.2
Actuated g/C Ratio	0.23		0.69		0.69	0.69
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	378		1264		410	1283
v/s Ratio Prot			0.37			0.29
v/s Ratio Perm	c0.24				c0.58	
v/c Ratio	1.06		0.54		0.84	0.42
Uniform Delay, d1	27.1		5.4		8.0	4.8
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	63.3		1.6		18.0	1.0
Delay (s)	90.4		7.0		26.1	5.8
Level of Service	F		A		C	A
Approach Delay (s)	90.4		7.0			13.7
Approach LOS	F		A			B

Intersection Summary			
HCM Average Control Delay	27.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	89.2%	ICU Level of Service	D
c Critical Lane Group			