Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	227	183	72	286	329	151	77	878	196	74	270	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.5	6.0	6.0	4.5	6.0	6.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1577	3154	1411	1577	3154	1411	1577	3154	1411	1577	3154	1411
Flt Permitted	0.17	1.00	1.00	0.32	1.00	1.00	0.12	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)	288	3154	1411	524	3154	1411	195	3154	1411	214	3154	1411
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor (vph)	281%	246%	217%	246%	246%	246%	217%	217%	217%	281%	281%	281%
Adj. Flow (vph)	725	512	178	800	920	422	190	2165	483	236	862	163
RTOR Reduction (vph)	0	0	98	0	0	84	0	0	97	0	0	83
Lane Group Flow (vph)	725	512	80	800	920	338	190	2165	386	236	862	80
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	42.5	32.5	32.5	52.5	38.5	38.5	44.0	34.0	34.0	38.0	31.0	31.0
Effective Green, g (s)	42.5	32.5	32.5	52.5	38.5	38.5	44.0	34.0	34.0	38.0	31.0	31.0
Actuated g/C Ratio	0.39	0.30	0.30	0.48	0.35	0.35	0.40	0.31	0.31	0.35	0.28	0.28
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.5	6.0	6.0	4.5	6.0	6.0
Vehicle Extension (s)	4.0	4.0	4.0	5.0	4.0	4.0	3.0	0.2	0.2	3.0	0.2	0.2
Lane Grp Cap (vph)	228	932	417	403	1104	494	204	975	436	161	889	398
v/s Ratio Prot	c0.29	0.16		c0.29	0.29		0.08	c0.69		c0.09	0.27	
v/s Ratio Perm	c0.94		0.06	0.66		0.24	0.29		0.27	0.41		0.06
v/c Ratio	3.18	0.55	0.19	1.99	0.83	0.68	0.93	2.22	0.88	1.47	0.97	0.20
Uniform Delay, d1	28.0	32.6	28.9	24.3	32.8	30.6	26.1	38.0	36.1	53.7	39.0	30.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	992.3	0.8	0.3	452.1	5.8	4.2	43.9	552.6	22.1	240.3	23.7	1.1
Delay (s)	1020.3	33.4	29.3	476.4	38.6	34.8	70.0	590.6	58.3	294.0	62.7	31.2
Level of Service	F	C	C	F	D	C	E	F	E	F	E	C
Approach Delay (s)		538.6			201.4			465.1			101.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	345.1	HCM Level of Service	F
HCM Volume to Capacity ratio	2.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	152.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
42: US 6 & Car Wash

10/23/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	419	20	34	718	2	19	1	30	1	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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)	23	1145	38	64	1963	4	36	2	57	2	0	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		572										
pX, platoon unblocked				0.90			0.90	0.90	0.90	0.90	0.90	
vC, conflicting volume	1966			1145			3297	3285	573	2712	3283	1964
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1966			928			3331	3319	288	2678	3317	1964
tC, single (s)	4.2			4.2			7.5	6.5	6.9	7.5	6.5	6.9
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 %	92			90			0	69	91	67	100	72
cM capacity (veh/h)	288			650			2	6	634	6	6	53

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	NB 1	SB 1
Volume Total	23	573	573	38	64	1966	94	17
Volume Left	23	0	0	0	64	0	36	2
Volume Right	0	0	0	38	0	4	57	15
cSH	288	1700	1700	1700	650	1700	5	28
Volume to Capacity	0.08	0.34	0.34	0.02	0.10	1.16	20.33	0.61
Queue Length 95th (ft)	6	0	0	0	8	0	Err	49
Control Delay (s)	18.6	0.0	0.0	0.0	11.1	0.0	Err	255.8
Lane LOS	C				B		F	F
Approach Delay (s)	0.3				0.4		Err	255.8
Approach LOS							F	F

Intersection Summary			
Average Delay	283.7		
Intersection Capacity Utilization	111.5%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			✥	
Volume (veh/h)	15	433	0	0	736	8	0	0	0	4	1	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	29	1197	0	0	2034	15	0	0	0	8	2	46
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		916										
pX, platoon unblocked				0.73			0.73	0.73	0.73	0.73	0.73	
vC, conflicting volume	2050			1197			3335	3304	1197	3296	3296	2042
vC1, stage 1 conf vol							1254	1254		2042	2042	
vC2, stage 2 conf vol							2081	2050		1254	1254	
vCu, unblocked vol	2050			1087			3999	3956	1087	3945	3945	2042
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			100			100	100	100	88	98	35
cM capacity (veh/h)	272			469			0	62	193	62	81	71

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	29	1197	0	0	2050	0	55
Volume Left	29	0	0	0	0	0	8
Volume Right	0	0	0	0	15	0	46
cSH	272	1700	1700	1700	1700	1700	70
Volume to Capacity	0.11	0.70	0.00	0.00	1.21	0.00	0.79
Queue Length 95th (ft)	9	0	0	0	0	0	94
Control Delay (s)	19.8	0.0	0.0	0.0	0.0	0.0	153.7
Lane LOS	C					A	F
Approach Delay (s)	0.5			0.0		0.0	153.7
Approach LOS						A	F

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱		↰	↑	Y	
Volume (veh/h)	389	44	30	663	69	33
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1063	67	46	2048	106	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	1147			1196		
pX, platoon unblocked			0.77		0.77	0.77
vC, conflicting volume			1131		3237	1097
vC1, stage 1 conf vol					1097	
vC2, stage 2 conf vol					2140	
vCu, unblocked vol			1023		3743	980
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			91		0	78
cM capacity (veh/h)			522		81	235

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1131	46	2048	156
Volume Left	0	46	0	106
Volume Right	67	0	0	51
cSH	1700	522	1700	103
Volume to Capacity	0.67	0.09	1.20	1.52
Queue Length 95th (ft)	0	7	0	293
Control Delay (s)	0.0	12.6	0.0	351.0
Lane LOS		B		F
Approach Delay (s)	0.0	0.3		351.0
Approach LOS				F

Intersection Summary			
Average Delay	16.4		
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	416	0	0	699	1	0	0	0	1	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	1257	0	0	2112	2	0	0	0	2	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					984							
pX, platoon unblocked	0.29						0.29	0.29		0.29	0.29	0.29
vC, conflicting volume	2114			1257			3404	3397	1257	3396	3396	2113
vC1, stage 1 conf vol							1283	1283		2113	2113	
vC2, stage 2 conf vol							2121	2114		1283	1283	
vCu, unblocked vol	3616			1257			8063	8038	1257	8035	8035	3613
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	30			100			0	100	100	18	100	0
cM capacity (veh/h)	19			550			0	0	209	2	4	2

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	13	1257	0	2114	0	11
Volume Left	13	0	0	0	0	2
Volume Right	0	0	0	2	0	9
cSH	19	1700	1700	1700	1700	2
Volume to Capacity	0.70	0.74	0.00	1.24	0.00	5.19
Queue Length 95th (ft)	47	0	0	0	0	Err
Control Delay (s)	387.2	0.0	0.0	0.0	0.0	Err
Lane LOS	F				A	F
Approach Delay (s)	3.9		0.0		0.0	Err
Approach LOS					A	F

Intersection Summary			
Average Delay	34.1		
Intersection Capacity Utilization	112.4%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	390	21	1	710	7	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1232	41	2	2243	14	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				852		
pX, platoon unblocked					0.29	
vC, conflicting volume			1273		3499	1252
vC1, stage 1 conf vol					1252	
vC2, stage 2 conf vol					2247	
vCu, unblocked vol			1273		8420	1252
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		0	98
cM capacity (veh/h)			542		2	210

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1273	2	2243	17
Volume Left	0	2	0	14
Volume Right	41	0	0	4
cSH	1700	542	1700	3
Volume to Capacity	0.75	0.00	1.32	5.44
Queue Length 95th (ft)	0	0	0	Err
Control Delay (s)	0.0	11.7	0.0	Err
Lane LOS		B		F
Approach Delay (s)	0.0	0.0		Err
Approach LOS				F

Intersection Summary			
Average Delay	49.2		
Intersection Capacity Utilization	113.9%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	354	0	0	631	11	0	0	0	10	0	88
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	34	1106	0	0	1971	21	0	0	0	19	0	168
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					716							
pX, platoon unblocked	0.29						0.29	0.29		0.29	0.29	0.29
vC, conflicting volume	1992			1106			3314	3167	1106	3156	3156	1981
vC1, stage 1 conf vol							1175	1175		1981	1981	
vC2, stage 2 conf vol							2139	1992		1175	1175	
vCu, unblocked vol	3211			1106			7807	7295	1106	7259	7259	3174
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	0			100			0	0	100	0	0	0
cM capacity (veh/h)	27			628			0	0	256	0	0	4

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	34	1106	0	1992	0	187
Volume Left	34	0	0	0	0	19
Volume Right	0	0	0	21	0	168
cSH	27	1700	1700	1700	1700	0
Volume to Capacity	1.28	0.65	0.00	1.17	0.00	Err
Queue Length 95th (ft)	102	0	0	0	0	Err
Control Delay (s)	485.9	0.0	0.0	0.0	0.0	Err
Lane LOS	F				A	F
Approach Delay (s)	14.7		0.0		0.0	Err
Approach LOS					A	F

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	110.3%	ICU Level of Service	H
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
14: US 6 & 4th St

10/23/2008

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	355	5	0	616	10	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1073	9	0	1861	18	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				509		
pX, platoon unblocked					0.29	
vC, conflicting volume			1082		2939	1077
vC1, stage 1 conf vol					1077	
vC2, stage 2 conf vol					1861	
vCu, unblocked vol			1082		6538	1077
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		0	99
cM capacity (veh/h)			641		13	266

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1082	0	1861	20
Volume Left	0	0	0	18
Volume Right	9	0	0	2
cSH	1700	1700	1700	14
Volume to Capacity	0.64	0.00	1.09	1.45
Queue Length 95th (ft)	0	0	0	80
Control Delay (s)	0.0	0.0	0.0	782.4
Lane LOS				F
Approach Delay (s)	0.0	0.0		782.4
Approach LOS				F

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	100.1%	ICU Level of Service	G
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
16: US 6 & Holland St

10/23/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	360	0	0	601	2	0	0	0	1	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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)	9	1112	0	0	1856	4	0	0	0	2	0	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					374							
pX, platoon unblocked	0.28						0.28	0.28		0.28	0.28	0.28
vC, conflicting volume	1860			1112			3008	2991	1112	2989	2989	1858
vC1, stage 1 conf vol							1131	1131		1858	1858	
vC2, stage 2 conf vol							1877	1860		1131	1131	
vCu, unblocked vol	2767			1112			6805	6745	1112	6739	6739	2760
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	76			100			0	100	100	75	100	0
cM capacity (veh/h)	40			624			0	2	254	8	12	7

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	9	1112	0	1860	0	23
Volume Left	9	0	0	0	0	2
Volume Right	0	0	0	4	0	21
cSH	40	1700	1700	1700	1700	7
Volume to Capacity	0.24	0.65	0.00	1.09	0.00	3.13
Queue Length 95th (ft)	19	0	0	0	0	Err
Control Delay (s)	120.4	0.0	0.0	0.0	0.0	Err
Lane LOS	F				A	F
Approach Delay (s)	1.0		0.0		0.0	Err
Approach LOS					A	F

Intersection Summary			
Average Delay	75.8		
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	325	2	1	572	4	1	0	1	0	7	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	982	4	2	1728	7	2	0	2	0	13	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					169							
pX, platoon unblocked	0.28						0.28	0.28		0.28	0.28	0.28
vC, conflicting volume	1736			986			2830	2820	984	2816	2818	1732
vC1, stage 1 conf vol							1080	1080		1736	1736	
vC2, stage 2 conf vol							1750	1740		1080	1082	
vCu, unblocked vol	2336			986			6211	6175	984	6162	6168	2322
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	19			100			0	100	99	100	26	17
cM capacity (veh/h)	59			697			0	0	301	13	18	13

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	48	986	2	1736	4	24
Volume Left	48	0	2	0	2	0
Volume Right	0	4	0	7	2	11
cSH	59	1700	697	1700	0	15
Volume to Capacity	0.81	0.58	0.00	1.02	8718.81	1.56
Queue Length 95th (ft)	90	0	0	0	Err	90
Control Delay (s)	178.4	0.0	10.2	0.0	Err	790.7
Lane LOS	F		B		F	F
Approach Delay (s)	8.3		0.0		Err	790.7
Approach LOS					F	F

Intersection Summary			
Average Delay	23.1		
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	317	0	0	594	1	0	0	0	0	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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)	25	979	0	0	1835	2	0	0	0	0	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		156			1152							
pX, platoon unblocked	0.63			0.69			0.78	0.78	0.69	0.78	0.78	0.63
vC, conflicting volume	1837			979			2867	2865	979	2864	2864	1836
vC1, stage 1 conf vol							1028	1028		1836	1836	
vC2, stage 2 conf vol							1839	1837		1028	1028	
vCu, unblocked vol	2038			742			2349	2346	742	2345	2345	2037
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			100			100	100	100	100	100	92
cM capacity (veh/h)	172			591			17	37	286	45	60	45

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	25	979	0	1837	0	4
Volume Left	25	0	0	0	0	0
Volume Right	0	0	0	2	0	4
cSH	172	1700	1700	1700	1700	45
Volume to Capacity	0.14	0.58	0.00	1.08	0.00	0.08
Queue Length 95th (ft)	12	0	0	0	0	7
Control Delay (s)	29.4	0.0	0.0	0.0	0.0	93.1
Lane LOS	D				A	F
Approach Delay (s)	0.7		0.0		0.0	93.1
Approach LOS					A	F

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	281	167	139	380	4	715	55	215	7	2	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.9	5.9		5.9	5.9	5.9		6.1			6.1	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Frt	1.00	0.96		1.00	1.00	0.85		0.97			0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.96			1.00	
Satd. Flow (prot)	1752	1780		1752	1845	1568		1728			1607	
Flt Permitted	0.16	1.00		0.16	1.00	1.00		0.43			0.99	
Satd. Flow (perm)	294	1780		294	1845	1568		767			1592	
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
Growth Factor (vph)	300%	195%	100%	100%	195%	300%	100%	100%	100%	300%	300%	300%
Adj. Flow (vph)	123	609	186	154	823	13	794	61	239	23	7	457
RTOR Reduction (vph)	0	19	0	0	0	7	0	18	0	0	59	0
Lane Group Flow (vph)	123	776	0	154	823	6	0	1076	0	0	428	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6		6	4			8		
Actuated Green, G (s)	25.1	25.1		25.1	25.1	25.1		19.9			19.9	
Effective Green, g (s)	25.1	25.1		25.1	25.1	25.1		19.9			19.9	
Actuated g/C Ratio	0.44	0.44		0.44	0.44	0.44		0.35			0.35	
Clearance Time (s)	5.9	5.9		5.9	5.9	5.9		6.1			6.1	
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2		3.0			3.0	
Lane Grp Cap (vph)	129	784		129	812	690		268			556	
v/s Ratio Prot		0.44			0.45							
v/s Ratio Perm	0.42			c0.52		0.00		c1.40			0.27	
v/c Ratio	0.95	0.99		1.19	1.01	0.01		4.02			0.77	
Uniform Delay, d1	15.4	15.8		15.9	15.9	9.0		18.6			16.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	67.6	29.8		140.5	35.0	0.0		1366.3			6.4	
Delay (s)	83.0	45.6		156.5	50.9	9.0		1384.9			22.9	
Level of Service	F	D		F	D	A		F			C	
Approach Delay (s)		50.6			66.8			1384.9			22.9	
Approach LOS		D			E			F			C	

Intersection Summary			
HCM Average Control Delay	469.7	HCM Level of Service	F
HCM Volume to Capacity ratio	2.44		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	161.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	310	422	1	1	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	687	935	2	2	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		901				
pX, platoon unblocked					0.89	
vC, conflicting volume	937				1623	936
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	937				1638	936
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				98	99
cM capacity (veh/h)	727				99	321

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	687	937	7
Volume Left	0	0	2
Volume Right	0	2	4
cSH	727	1700	183
Volume to Capacity	0.00	0.55	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.0	25.4
Lane LOS			D
Approach Delay (s)	0.0	0.0	25.4
Approach LOS			D

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	162	330	174	247	290	114	179	285	411	159	618	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.5	6.0	6.0	4.5	6.0	6.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1577	3154	1411	1577	3154	1411	1577	3154	1411	1577	3154	1411
Flt Permitted	0.34	1.00	1.00	0.11	1.00	1.00	0.11	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)	572	3154	1411	175	3154	1411	179	3154	1411	443	3154	1411
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
Growth Factor (vph)	281%	246%	217%	246%	246%	246%	217%	217%	217%	281%	281%	281%
Adj. Flow (vph)	484	864	402	646	759	298	413	658	949	475	1847	670
RTOR Reduction (vph)	0	0	127	0	0	153	0	0	203	0	0	124
Lane Group Flow (vph)	484	864	275	646	759	145	413	658	746	475	1847	546
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	40.0	34.0	34.0	57.0	47.0	47.0	48.5	37.0	37.0	44.5	35.0	35.0
Effective Green, g (s)	40.0	34.0	34.0	57.0	47.0	47.0	48.5	37.0	37.0	44.5	35.0	35.0
Actuated g/C Ratio	0.33	0.28	0.28	0.48	0.39	0.39	0.40	0.31	0.31	0.37	0.29	0.29
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.5	6.0	6.0	4.5	6.0	6.0
Vehicle Extension (s)	4.0	4.0	4.0	5.0	4.0	4.0	3.0	0.2	0.2	3.0	0.2	0.2
Lane Grp Cap (vph)	241	894	400	305	1235	553	206	972	435	254	920	412
v/s Ratio Prot	0.10	0.27		c0.34	0.24		c0.19	0.21		0.15	0.59	
v/s Ratio Perm	0.57		0.19	c0.67		0.10	c0.62		0.53	0.55		0.39
v/c Ratio	2.01	0.97	0.69	2.12	0.61	0.26	2.00	0.68	1.72	1.87	2.01	1.33
Uniform Delay, d1	37.1	42.4	38.3	36.4	29.2	24.8	56.4	36.3	41.5	34.6	42.5	42.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	468.2	22.2	5.3	514.1	1.0	0.3	469.0	3.8	331.7	406.2	457.3	162.4
Delay (s)	505.2	64.6	43.6	550.4	30.3	25.1	525.4	40.1	373.2	440.8	499.8	204.9
Level of Service	F	E	D	F	C	C	F	D	F	F	F	F
Approach Delay (s)		181.6			226.7			295.8			424.4	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	303.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	156.7%	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												
Volume (veh/h)	27	760	115	192	521	7	61	2	271	2	1	39
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	47	1908	199	333	1308	12	106	3	470	3	2	68
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		572										
pX, platoon unblocked				0.77			0.77	0.77	0.77	0.77	0.77	
vC, conflicting volume	1320			1908			3390	3988	954	3029	3981	660
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1320			1585			3505	4279	350	3038	4271	660
tC, single (s)	4.2			4.2			7.5	6.5	6.9	7.5	6.5	6.9
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 %	91			0			0	0	6	0	0	83
cM capacity (veh/h)	514			313			0	0	499	0	0	406

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	47	954	954	199	333	872	448	579	73
Volume Left	47	0	0	0	333	0	0	106	3
Volume Right	0	0	0	199	0	0	12	470	68
cSH	514	1700	1700	1700	313	1700	1700	0	0
Volume to Capacity	0.09	0.56	0.56	0.12	1.06	0.51	0.26	Err	Err
Queue Length 95th (ft)	7	0	0	0	312	0	0	Err	Err
Control Delay (s)	12.7	0.0	0.0	0.0	106.1	0.0	0.0	Err	Err
Lane LOS	B				F			F	F
Approach Delay (s)	0.3				21.4			Err	Err
Approach LOS								F	F

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	120.8%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	67	995	1	0	621	17	0	0	0	21	0	108
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	117	2523	2	0	1575	30	0	0	0	37	0	189
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		916										
pX, platoon unblocked				0.48			0.48	0.48	0.48	0.48	0.48	
vC, conflicting volume	1605			2525			4522	4363	2523	4348	4350	1590
vC1, stage 1 conf vol							2758	2758		1590	1590	
vC2, stage 2 conf vol							1764	1605		2758	2760	
vCu, unblocked vol	1605			3646			7828	7494	3643	7463	7467	1590
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	71			100			0	100	100	0	100	0
cM capacity (veh/h)	405			30			0	2	3	1	2	133

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	117	2523	2	0	1605	0	226
Volume Left	117	0	0	0	0	0	37
Volume Right	0	0	2	0	30	0	189
cSH	405	1700	1700	1700	1700	1700	7
Volume to Capacity	0.29	1.48	0.00	0.00	0.94	0.00	31.26
Queue Length 95th (ft)	30	0	0	0	0	0	Err
Control Delay (s)	17.5	0.0	0.0	0.0	0.0	0.0	Err
Lane LOS	C					A	F
Approach Delay (s)	0.8			0.0		0.0	9999.0
Approach LOS						A	F

Intersection Summary			
Average Delay	505.8		
Intersection Capacity Utilization	148.8%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	790	205	38	534	65	14
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	1983	289	54	1515	92	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)	1147			1196		
pX, platoon unblocked			0.55		0.55	0.55
vC, conflicting volume			2272		3749	2127
vC1, stage 1 conf vol					2127	
vC2, stage 2 conf vol					1622	
vCu, unblocked vol			2910		5609	2646
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			21		0	0
cM capacity (veh/h)			68		21	16

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	2272	54	1515	111
Volume Left	0	54	0	92
Volume Right	289	0	0	20
cSH	1700	68	1700	20
Volume to Capacity	1.34	0.79	0.89	5.52
Queue Length 95th (ft)	0	92	0	Err
Control Delay (s)	0.0	156.2	0.0	Err
Lane LOS		F		F
Approach Delay (s)	0.0	5.3		Err
Approach LOS				F

Intersection Summary			
Average Delay	283.6		
Intersection Capacity Utilization	132.3%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	731	16	6	581	4	4	1	20	1	1	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	19	2117	28	11	1682	7	7	2	35	2	2	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					984							
pX, platoon unblocked	0.29						0.29	0.29		0.29	0.29	0.29
vC, conflicting volume	1690			2145			3905	3881	2131	3899	3891	1686
vC1, stage 1 conf vol							2170	2170		1707	1707	
vC2, stage 2 conf vol							1735	1711		2192	2184	
vCu, unblocked vol	2153			2145			9788	9705	2131	9769	9742	2141
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			96			0	33	43	73	91	0
cM capacity (veh/h)	72			249			0	3	62	6	19	18

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	19	2145	11	1690	44	34
Volume Left	19	0	11	0	7	2
Volume Right	0	28	0	7	35	30
cSH	72	1700	249	1700	0	16
Volume to Capacity	0.27	1.26	0.04	0.99	Err	2.05
Queue Length 95th (ft)	24	0	3	0	Err	120
Control Delay (s)	72.9	0.0	20.1	0.0	Err	969.1
Lane LOS	F		C		F	F
Approach Delay (s)	0.7		0.1		Err	969.1
Approach LOS					F	F

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	120.2%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	742	19	2	586	10	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2171	34	4	1715	18	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				852		
pX, platoon unblocked					0.29	
vC, conflicting volume			2205		3910	2188
vC1, stage 1 conf vol					2188	
vC2, stage 2 conf vol					1722	
vCu, unblocked vol			2205		9844	2188
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			98		19	94
cM capacity (veh/h)			236		22	58

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	2205	4	1715	21
Volume Left	0	4	0	18
Volume Right	34	0	0	4
cSH	1700	236	1700	25
Volume to Capacity	1.30	0.02	1.01	0.87
Queue Length 95th (ft)	0	1	0	66
Control Delay (s)	0.0	20.5	0.0	364.3
Lane LOS		C		F
Approach Delay (s)	0.0	0.0		364.3
Approach LOS				F

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	120.5%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	677	1	0	520	4	0	0	0	9	0	47
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	92	2068	2	0	1589	7	0	0	0	17	0	88
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					659							
pX, platoon unblocked	0.29						0.29	0.29		0.29	0.29	0.29
vC, conflicting volume	1596			2070			3929	3848	2069	3844	3845	1592
vC1, stage 1 conf vol							2252	2252		1592	1592	
vC2, stage 2 conf vol							1676	1596		2251	2253	
vCu, unblocked vol	1835			2070			9961	9681	2069	9665	9672	1822
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	3			100			0	100	100	0	100	0
cM capacity (veh/h)	95			267			0	0	68	2	2	28

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	92	2070	0	1596	0	105
Volume Left	92	0	0	0	0	17
Volume Right	0	2	0	7	0	88
cSH	95	1700	1700	1700	1700	8
Volume to Capacity	0.97	1.22	0.00	0.94	0.00	12.92
Queue Length 95th (ft)	142	0	0	0	0	Err
Control Delay (s)	164.8	0.0	0.0	0.0	0.0	Err
Lane LOS	F				A	F
Approach Delay (s)	7.0		0.0		0.0	Err
Approach LOS					A	F

Intersection Summary			
Average Delay	274.7		
Intersection Capacity Utilization	111.6%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	657	12	4	525	9	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	1964	22	7	1569	16	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				509		
pX, platoon unblocked					0.29	
vC, conflicting volume			1986		3559	1975
vC1, stage 1 conf vol					1975	
vC2, stage 2 conf vol					1584	
vCu, unblocked vol			1986		8709	1975
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			97		55	91
cM capacity (veh/h)			288		36	78

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1986	7	1569	24
Volume Left	0	7	0	16
Volume Right	22	0	0	7
cSH	1700	288	1700	44
Volume to Capacity	1.17	0.03	0.92	0.55
Queue Length 95th (ft)	0	2	0	50
Control Delay (s)	0.0	17.8	0.0	161.0
Lane LOS		C		F
Approach Delay (s)	0.0	0.1		161.0
Approach LOS				F

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	107.4%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	623	1	0	500	0	1	0	0	1	0	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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)	26	1924	2	0	1544	0	2	0	0	2	0	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					374							
pX, platoon unblocked	0.28						0.28	0.28		0.28	0.28	0.28
vC, conflicting volume	1544			1926			3545	3523	1925	3522	3524	1544
vC1, stage 1 conf vol							1978	1978		1544	1544	
vC2, stage 2 conf vol							1567	1544		1977	1979	
vCu, unblocked vol	1656			1926			8695	8615	1925	8612	8619	1656
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	76			100			0	100	100	93	100	34
cM capacity (veh/h)	110			304			0	17	83	28	36	34

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	26	1926	0	1544	2	25
Volume Left	26	0	0	0	2	2
Volume Right	0	2	0	0	0	23
cSH	110	1700	1700	1700	0	34
Volume to Capacity	0.24	1.13	0.00	0.91	Err	0.73
Queue Length 95th (ft)	22	0	0	0	Err	63
Control Delay (s)	47.9	0.0	0.0	0.0	Err	246.1
Lane LOS	E				F	F
Approach Delay (s)	0.6		0.0		Err	246.1
Approach LOS					F	F

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	628	4	2	475	11	2	0	1	4	3	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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)	31	1877	7	4	1420	20	4	0	2	7	5	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)					169							
pX, platoon unblocked	0.28						0.28	0.28		0.28	0.28	0.28
vC, conflicting volume	1440			1885			3410	3390	1881	3378	3384	1430
vC1, stage 1 conf vol							1943	1943		1437	1437	
vC2, stage 2 conf vol							1467	1447		1941	1947	
vCu, unblocked vol	1287			1885			8265	8197	1881	8155	8175	1252
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	79			99			0	100	98	81	89	38
cM capacity (veh/h)	151			315			0	29	89	39	48	59

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	31	1885	4	1440	5	49
Volume Left	31	0	4	0	4	7
Volume Right	0	7	0	20	2	37
cSH	151	1700	315	1700	0	54
Volume to Capacity	0.21	1.11	0.01	0.85	Err	0.92
Queue Length 95th (ft)	19	0	1	0	Err	101
Control Delay (s)	34.9	0.0	16.6	0.0	Err	221.5
Lane LOS	D		C		F	F
Approach Delay (s)	0.6		0.0		Err	221.5
Approach LOS					F	F

Intersection Summary			
Average Delay	19.6		
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	621	1	0	472	0	0	0	0	1	0	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	2	1837	2	0	1396	0	0	0	0	2	0	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage veh)		2			2							
Upstream signal (ft)		156			1152							
pX, platoon unblocked	0.65			0.28			0.46	0.46	0.28	0.46	0.46	0.65
vC, conflicting volume	1396			1838			3253	3237	1837	3236	3238	1396
vC1, stage 1 conf vol							1841	1841		1396	1396	
vC2, stage 2 conf vol							1412	1396		1840	1842	
vCu, unblocked vol	1339			2699			3594	3559	2696	3557	3560	1339
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	77	100	87
cM capacity (veh/h)	331			42			8	12	8	8	12	121

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	2	1838	0	1396	0	18
Volume Left	2	0	0	0	0	2
Volume Right	0	2	0	0	0	16
cSH	331	1700	1700	1700	1700	50
Volume to Capacity	0.01	1.08	0.00	0.82	0.00	0.36
Queue Length 95th (ft)	0	0	0	0	0	32
Control Delay (s)	15.9	0.0	0.0	0.0	0.0	112.8
Lane LOS	C				A	F
Approach Delay (s)	0.0		0.0		0.0	112.8
Approach LOS					A	F

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱		✥			✥	
Volume (vph)	144	379	660	139	327	2	360	76	118	4	8	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.9	5.9		5.9	5.9	5.9		6.1			6.1	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Frt	1.00	0.93		1.00	1.00	0.85		0.97			0.88	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.97			1.00	
Satd. Flow (prot)	1752	1714		1752	1845	1568		1735			1621	
Flt Permitted	0.16	1.00		0.16	1.00	1.00		0.58			0.98	
Satd. Flow (perm)	300	1714		294	1845	1568		1037			1584	
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
Growth Factor (vph)	300%	195%	100%	100%	195%	300%	100%	100%	100%	300%	300%	300%
Adj. Flow (vph)	480	821	733	154	708	7	400	84	131	13	27	307
RTOR Reduction (vph)	0	57	0	0	0	4	0	17	0	0	85	0
Lane Group Flow (vph)	480	1497	0	154	708	3	0	598	0	0	262	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6		6	4			8		
Actuated Green, G (s)	25.1	25.1		25.1	25.1	25.1		19.9			19.9	
Effective Green, g (s)	25.1	25.1		25.1	25.1	25.1		19.9			19.9	
Actuated g/C Ratio	0.44	0.44		0.44	0.44	0.44		0.35			0.35	
Clearance Time (s)	5.9	5.9		5.9	5.9	5.9		6.1			6.1	
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2		3.0			3.0	
Lane Grp Cap (vph)	132	755		129	812	690		362			553	
v/s Ratio Prot		0.87			0.38							
v/s Ratio Perm	c1.60			0.52		0.00		c0.58			0.17	
v/c Ratio	3.64	1.98		1.19	0.87	0.00		1.65			0.47	
Uniform Delay, d1	15.9	15.9		15.9	14.5	8.9		18.6			14.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	1204.9	447.3		140.5	9.9	0.0		305.6			0.6	
Delay (s)	1220.8	463.2		156.5	24.4	8.9		324.1			15.1	
Level of Service	F	F		F	C	A		F			B	
Approach Delay (s)		642.0			47.7			324.1			15.1	
Approach LOS		F			D			F			B	

Intersection Summary			
HCM Average Control Delay	401.5	HCM Level of Service	F
HCM Volume to Capacity ratio	2.76		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	169.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	1	393	346	0	0	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	2	912	803	0	0	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		901				
pX, platoon unblocked					0.61	
vC, conflicting volume	803				1720	803
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	803				1859	803
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	99
cM capacity (veh/h)	816				49	383

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	914	803	4
Volume Left	2	0	0
Volume Right	0	0	4
cSH	816	1700	383
Volume to Capacity	0.00	0.47	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	14.5
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	14.5
Approach LOS			B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		