APPENDIX A

Worksheets

2: Emigrant Ave & SW 17th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	45	1020	60	25	40	0	0	60	200
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)	0	0	0	49	1109	65	27	43	0	0	65	217
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)		1026										
pX, platoon unblocked												
vC, conflicting volume	1174			0			902	1272	0	1261	1239	587
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1174			0			902	1272	0	1261	1239	587
tC, single (s)	4.1			4.1			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 %	100			97			67	73	100	100	61	52
cM capacity (veh/h)	591			1622			83	161	1084	98	169	453

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	603	620	71	283
Volume Left	49	0	27	0
Volume Right	0	65	0	217
cSH	1622	1700	118	326
Volume to Capacity	0.03	0.36	0.60	0.87
Queue Length (ft)	2	0	74	198
Control Delay (s)	0.9	0.0	72.9	58.1
Lane LOS	A		F	F
Approach Delay (s)	0.4		72.9	58.1
Approach LOS			F	F

Intersection Summary			
Average Delay	14.0		
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

3: Court Ave & SW 17th St

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↰	↑	↰	↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	520	180	80	450	15	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	565	196	87	489	16	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			761		1326	663
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			761		1326	663
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		89	85
cM capacity (veh/h)			851		154	461

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	761	87	489	16	71
Volume Left	0	87	0	16	0
Volume Right	196	0	0	0	71
cSH	1700	851	1700	154	461
Volume to Capacity	0.45	0.10	0.29	0.11	0.15
Queue Length (ft)	0	9	0	9	13
Control Delay (s)	0.0	9.7	0.0	31.1	14.2
Lane LOS		A		D	B
Approach Delay (s)	0.0	1.5		17.4	
Approach LOS				C	

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

4: Frazer Ave & SW 17th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	50	520	5	0	0	0	0	25	5	80	20	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)	54	565	5	0	0	0	0	27	5	87	22	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			571			688	677	285	410	679	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			571			688	677	285	410	679	0
tC, single (s)	4.1			4.1			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 %	97			100			100	92	99	82	94	100
cM capacity (veh/h)	1622			998			309	361	711	479	359	1084

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	337	288	33	109
Volume Left	54	0	0	87
Volume Right	0	5	5	0
cSH	1622	1700	393	449
Volume to Capacity	0.03	0.17	0.08	0.24
Queue Length (ft)	3	0	7	23
Control Delay (s)	1.4	0.0	15.0	15.6
Lane LOS	A		B	C
Approach Delay (s)	0.8		15.0	15.6
Approach LOS			B	C

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

11: Emigrant Ave & SW 10th St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↳			↱
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	900	105	0	155
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	978	114	0	168
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1092				1035	546
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1092				1035	546
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	65
cM capacity (veh/h)	635				227	482

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	652	440	168
Volume Left	0	0	0
Volume Right	0	114	168
cSH	1700	1700	482
Volume to Capacity	0.38	0.26	0.35
Queue Length (ft)	0	0	39
Control Delay (s)	0.0	0.0	16.4
Lane LOS			C
Approach Delay (s)	0.0		16.4
Approach LOS			C

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		

13: Emigrant Ave & SW 4th

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	20	820	20	60	65	0	0	40	65
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)	0	0	0	22	891	22	65	71	0	0	43	71
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					273							
pX, platoon unblocked												
vC, conflicting volume	913			0			582	957	0	981	946	457
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	913			0			582	957	0	981	946	457
tC, single (s)	4.1			4.1			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 %	100			99			78	72	100	100	83	87
cM capacity (veh/h)	742			1622			298	253	1084	158	257	551

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	467	467	136	114
Volume Left	22	0	65	0
Volume Right	0	22	0	71
cSH	1622	1700	273	384
Volume to Capacity	0.01	0.27	0.50	0.30
Queue Length (ft)	1	0	65	31
Control Delay (s)	0.5	0.0	30.6	18.3
Lane LOS	A		D	C
Approach Delay (s)	0.2		30.6	18.3
Approach LOS			D	C

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

20: Frazer Ave & SW 4th

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑			↰	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	45	505	45	0	0	0	0	65	20	15	60	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)	49	549	49	0	0	0	0	71	22	16	65	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			598			704	671	299	429	696	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			598			704	671	299	429	696	0
tC, single (s)	4.1			4.1			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 %	97			100			100	81	97	96	82	100
cM capacity (veh/h)	1622			975			272	365	697	411	353	1084

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	323	323	92	82
Volume Left	49	0	0	16
Volume Right	0	49	22	0
cSH	1622	1700	411	363
Volume to Capacity	0.03	0.19	0.22	0.22
Queue Length (ft)	2	0	21	21
Control Delay (s)	1.3	0.0	16.3	17.8
Lane LOS	A		C	C
Approach Delay (s)	0.7		16.3	17.8
Approach LOS			C	C

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

24: I-84 EB Off Ramp & Hwy 395

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	225	0	0	0	0	950	115	70	1615	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)	0	0	245	0	0	0	0	1033	125	76	1755	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								438			1009	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	2424	3065	878	2370	3003	579	1755			1158		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2495	3245	688	2432	3172	579	1714			1158		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	25	100	100	100	100			87		
cM capacity (veh/h)	11	6	327	3	7	451	302			582		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	245	688	469	76	878	878
Volume Left	0	0	0	76	0	0
Volume Right	245	0	125	0	0	0
cSH	327	1700	1700	582	1700	1700
Volume to Capacity	0.75	0.40	0.28	0.13	0.52	0.52
Queue Length (ft)	143	0	0	11	0	0
Control Delay (s)	42.6	0.0	0.0	12.1	0.0	0.0
Lane LOS	E			B		
Approach Delay (s)	42.6	0.0		0.5		
Approach LOS	E					

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		

28: I-84 WB On Ramp & Hwy 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	40	0	45	90	230	0	0	200	130
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)	0	0	0	43	0	49	98	250	0	0	217	141
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	783	734	288	663	804	250	359			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	783	734	288	663	804	250	359			250		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	87	100	94	92			100		
cM capacity (veh/h)	270	315	744	347	287	781	1184			1298		

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	92	98	250	0	359
Volume Left	43	98	0	0	0
Volume Right	49	0	0	0	141
cSH	492	1184	1700	1700	1700
Volume to Capacity	0.19	0.08	0.15	0.00	0.21
Queue Length (ft)	17	7	0	0	0
Control Delay (s)	14.0	8.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	14.0	2.3		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

29: I-84 EB Off Ramp & Hwy 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	200	0	115	0	0	0	0	115	20	40	200	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)	217	0	125	0	0	0	0	125	22	43	217	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	440	451	217	565	440	136	217			147		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	440	451	217	565	440	136	217			147		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	57	100	85	100	100	100	100			97		
cM capacity (veh/h)	510	484	815	356	491	905	1335			1417		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	342	147	43	217
Volume Left	217	0	43	0
Volume Right	125	22	0	0
cSH	591	1700	1417	1700
Volume to Capacity	0.58	0.09	0.03	0.13
Queue Length (ft)	92	0	2	0
Control Delay (s)	19.2	0.0	7.6	0.0
Lane LOS	C		A	
Approach Delay (s)	19.2	0.0	1.3	
Approach LOS	C			

Intersection Summary			
Average Delay	9.2		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑↑↱		↰	↑↑↱	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	5	25	20	25	130	45	175	5	25	280	85
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)	16	5	27	22	27	141	49	190	5	27	304	92
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											312	
pX, platoon unblocked												
vC, conflicting volume	753	698	198	527	742	98	397			196		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	753	698	198	527	742	98	397			196		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	98	97	94	92	85	96			98		
cM capacity (veh/h)	226	340	809	395	321	939	1158			1375		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	49	190	49	127	69	27	203	194
Volume Left	16	22	49	0	0	27	0	0
Volume Right	27	141	0	0	5	0	0	92
cSH	402	656	1158	1700	1700	1375	1700	1700
Volume to Capacity	0.12	0.29	0.04	0.07	0.04	0.02	0.12	0.11
Queue Length (ft)	10	30	3	0	0	2	0	0
Control Delay (s)	15.2	12.7	8.2	0.0	0.0	7.7	0.0	0.0
Lane LOS	C	B	A			A		
Approach Delay (s)	15.2	12.7	1.6			0.5		
Approach LOS	C	B						

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	36.1%	ICU Level of Service	A	
Analysis Period (min)	15			

33: Carden Ave & North Gate Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	65	5	50	90	70	20	115	50	60	70	15
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)	5	71	5	54	98	76	22	125	54	65	76	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								422				
pX, platoon unblocked												
vC, conflicting volume	446	438	46	405	418	90	92			179		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	446	438	46	405	418	90	92			179		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	85	99	88	80	92	99			95		
cM capacity (veh/h)	369	480	1013	447	492	950	1500			1394		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	76	5	152	76	84	117	103	54
Volume Left	5	0	54	0	22	0	65	0
Volume Right	0	5	0	76	0	54	0	16
cSH	470	1013	475	950	1500	1700	1394	1700
Volume to Capacity	0.16	0.01	0.32	0.08	0.01	0.07	0.05	0.03
Queue Length (ft)	14	0	34	7	1	0	4	0
Control Delay (s)	14.1	8.6	16.1	9.1	2.0	0.0	5.0	0.0
Lane LOS	B	A	C	A	A		A	
Approach Delay (s)	13.8		13.8		0.8		3.3	
Approach LOS	B		B					

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	220	0	0	255	85	40	20	45	145	0	85
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)	43	239	0	0	277	92	43	22	49	158	0	92
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	370			239			696	696	239	663	603	277
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	370			239			696	696	239	663	603	277
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			100			86	94	94	51	100	88
cM capacity (veh/h)	1173			1310			300	348	792	322	394	754

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	43	239	277	92	114	158	92
Volume Left	43	0	0	0	43	158	0
Volume Right	0	0	0	92	49	0	92
cSH	1173	1700	1700	1700	425	322	754
Volume to Capacity	0.04	0.14	0.16	0.05	0.27	0.49	0.12
Queue Length (ft)	3	0	0	0	27	64	10
Control Delay (s)	8.2	0.0	0.0	0.0	16.6	26.5	10.4
Lane LOS	A				C	D	B
Approach Delay (s)	1.3		0.0		16.6	20.5	
Approach LOS					C	C	

Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		

40: Court Ave & Westgate

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑						↑	
Sign Control		Yield			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	520	0	0	0	0	0	620	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)	0	0	0	0	565	0	0	0	0	0	674	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	957	674	674	674	674	0	674			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	957	674	674	674	674	0	674			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	100	100	0	100	100			100		
cM capacity (veh/h)	0	376	455	368	376	1085	917			1623		

Direction, Lane #	WB 1	SB 1
Volume Total	565	674
Volume Left	0	0
Volume Right	0	0
cSH	376	1700
Volume to Capacity	1.50	0.40
Queue Length (ft)	764	0
Control Delay (s)	266.4	0.0
Lane LOS	F	
Approach Delay (s)	266.4	0.0
Approach LOS	F	

Intersection Summary			
Average Delay	121.5		
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	130	0	25	0	0	0	0	130	125	0	215	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)	141	0	27	0	0	0	0	141	136	0	234	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											1242	
pX, platoon unblocked												
vC, conflicting volume	375	511	234	402	375	141	234			277		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	375	511	234	402	375	141	234			277		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	75	100	97	100	100	100	100			100		
cM capacity (veh/h)	577	462	798	534	551	899	1316			1269		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	141	27	141	136	234
Volume Left	141	0	0	0	0
Volume Right	0	27	0	136	0
cSH	577	798	1700	1700	1700
Volume to Capacity	0.25	0.03	0.08	0.08	0.14
Queue Length (ft)	24	3	0	0	0
Control Delay (s)	13.3	9.7	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.7		0.0		0.0
Approach LOS	B				

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

42: Carden Ave & SW 10th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	45	65	60	5	5	60	280	35	0	115	15
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)	38	49	71	65	5	5	65	304	38	0	125	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	158	76	408	141
Volume Left (vph)	38	65	65	0
Volume Right (vph)	71	5	38	16
Hadj (s)	-0.2	0.2	0.0	0.0
Departure Headway (s)	5.1	5.4	4.7	4.9
Degree Utilization, x	0.22	0.11	0.53	0.19
Capacity (veh/h)	645	499	745	689
Control Delay (s)	8.4	8.6	9.0	8.2
Approach Delay (s)	8.4	8.6	9.0	8.2
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.7		
HCM Level of Service	A		
Intersection Capacity Utilization	49.4%	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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0				4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00				1.00	0.95			0.91	
Frt		1.00	0.85				1.00	0.92			0.99	
Flt Protected		0.96	1.00				0.95	1.00			1.00	
Satd. Flow (prot)		1642	1457				1629	2993			4627	
Flt Permitted		0.96	1.00				0.95	1.00			0.81	
Satd. Flow (perm)		1642	1457				1629	2993			3752	
Volume (vph)	35	5	135	0	0	0	80	400	470	80	1550	105
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)	38	5	147	0	0	0	87	435	511	87	1685	114
RTOR Reduction (vph)	0	0	136	0	0	0	0	161	0	0	6	0
Lane Group Flow (vph)	0	43	11	0	0	0	87	785	0	0	1880	0
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Perm		Perm				Split			Perm		
Protected Phases		4					2	2			6	
Permitted Phases	4		4							6		
Actuated Green, G (s)		8.7	8.7				39.3	39.3			60.0	
Effective Green, g (s)		8.7	8.7				39.3	39.3			60.0	
Actuated g/C Ratio		0.07	0.07				0.33	0.33			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)		119	106				533	980			1876	
v/s Ratio Prot							0.05	c0.32				
v/s Ratio Perm		0.03	0.10								c0.50	
v/c Ratio		0.36	0.10				0.16	0.80			1.00	
Uniform Delay, d1		53.0	52.0				28.7	36.8			30.0	
Progression Factor		1.00	1.00				1.00	1.00			1.00	
Incremental Delay, d2		1.9	0.4				0.7	6.9			21.3	
Delay (s)		54.9	52.4				29.3	43.6			51.3	
Level of Service		D	D				C	D			D	
Approach Delay (s)		53.0			0.0			42.4			51.3	
Approach LOS		D			A			D			D	

Intersection Summary			
HCM Average Control Delay	48.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

1: Emigrant Ave & SW 20th St

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	0.97	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3252	1500	3353			3353
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3252	1500	3353			3353
Volume (vph)	1000	265	435	0	0	735
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1087	288	473	0	0	799
RTOR Reduction (vph)	0	183	0	0	0	0
Lane Group Flow (vph)	1087	105	473	0	0	799
Turn Type		Perm				
Protected Phases	6					
Permitted Phases		6	2			4
Actuated Green, G (s)	29.2	29.2	18.1			20.7
Effective Green, g (s)	29.2	29.2	18.1			20.7
Actuated g/C Ratio	0.36	0.36	0.23			0.26
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)	1187	548	759			868
v/s Ratio Prot	c0.33					
v/s Ratio Perm		0.19	0.14			0.24
v/c Ratio	0.92	0.19	0.62			0.92
Uniform Delay, d1	24.2	17.3	27.9			28.8
Progression Factor	1.00	1.00	1.18			1.00
Incremental Delay, d2	10.9	0.2	3.0			14.8
Delay (s)	35.2	17.5	35.9			43.7
Level of Service	D	B	D			D
Approach Delay (s)	31.5		35.9			43.7
Approach LOS	C		D			D

Intersection Summary			
HCM Average Control Delay	36.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

5: Dorian Ave & SW 10th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		1.00						0.95		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3310						1675		1676	1765	
Flt Permitted		0.99						1.00		0.68	1.00	
Satd. Flow (perm)		3310						1675		1206	1765	
Volume (vph)	210	960	35	0	0	0	0	65	40	100	105	0
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)	228	1043	38	0	0	0	0	71	43	109	114	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	1306	0	0	0	0	0	87	0	109	114	0
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		48.0						24.0		24.0	24.0	
Effective Green, g (s)		48.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.60						0.30		0.30	0.30	
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)		1986						503		362	530	
v/s Ratio Prot								0.07			0.06	
v/s Ratio Perm		0.40								c0.09		
v/c Ratio		0.66						0.17		0.30	0.22	
Uniform Delay, d1		10.6						20.7		21.5	21.0	
Progression Factor		1.00						1.00		0.50	0.51	
Incremental Delay, d2		1.7						0.7		2.0	0.9	
Delay (s)		12.3						21.4		12.7	11.6	
Level of Service		B						C		B	B	
Approach Delay (s)		12.3			0.0			21.4			12.1	
Approach LOS		B			A			C			B	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.7%	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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.95		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			1.00	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					3285		1676	1765			1765	1500
Flt Permitted					1.00		0.59	1.00			1.00	1.00
Satd. Flow (perm)					3285		1034	1765			1765	1500
Volume (vph)	0	0	0	40	700	100	50	295	0	0	195	90
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)	0	0	0	43	761	109	54	321	0	0	212	98
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	0	0	0	56
Lane Group Flow (vph)	0	0	0	0	900	0	54	321	0	0	212	42
Turn Type				Perm			Perm					Perm
Protected Phases					6			8			4	
Permitted Phases				6			8					4
Actuated Green, G (s)					38.0		34.0	34.0			34.0	34.0
Effective Green, g (s)					38.0		34.0	34.0			34.0	34.0
Actuated g/C Ratio					0.48		0.42	0.42			0.42	0.42
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)					1560		439	750			750	638
v/s Ratio Prot								c0.18			0.12	
v/s Ratio Perm					0.28		0.05					0.07
v/c Ratio					0.58		0.12	0.43			0.28	0.07
Uniform Delay, d1					15.2		14.0	16.2			15.0	13.6
Progression Factor					0.30		1.12	1.17			1.00	1.00
Incremental Delay, d2					1.4		0.5	1.6			0.9	0.2
Delay (s)					5.9		16.1	20.6			16.0	13.8
Level of Service					A		B	C			B	B
Approach Delay (s)		0.0			5.9			19.9			15.3	
Approach LOS		A			A			B			B	

Intersection Summary

HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)				4.0	4.0	
Lane Util. Factor				0.95	1.00	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3341	1676	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3341	1676	
Volume (vph)	0	0	65	845	40	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	71	918	43	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	989	43	0
Turn Type			Perm			
Protected Phases				8	2	
Permitted Phases			8			
Actuated Green, G (s)				42.8	29.2	
Effective Green, g (s)				42.8	29.2	
Actuated g/C Ratio				0.53	0.36	
Clearance Time (s)				4.0	4.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				1787	612	
v/s Ratio Prot					c0.03	
v/s Ratio Perm				0.30		
v/c Ratio				0.55	0.07	
Uniform Delay, d1				12.3	16.6	
Progression Factor				0.49	0.99	
Incremental Delay, d2				0.3	0.2	
Delay (s)				6.4	16.5	
Level of Service				A	B	
Approach Delay (s)	0.0			6.4	16.5	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frt					0.99			1.00			0.97	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					3301			3299			3248	
Flt Permitted					1.00			0.79			1.00	
Satd. Flow (perm)					3301			2660			3248	
Volume (vph)	0	0	0	80	780	70	85	175	0	0	150	40
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)	0	0	0	87	848	76	92	190	0	0	163	43
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	0	0	0	1003	0	0	282	0	0	178	0
Turn Type				Perm			Perm					
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					44.0			28.0			28.0	
Effective Green, g (s)					44.0			28.0			28.0	
Actuated g/C Ratio					0.55			0.35			0.35	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1816			931			1137	
v/s Ratio Prot											0.06	
v/s Ratio Perm					0.31			c0.11				
v/c Ratio					0.55			0.30			0.16	
Uniform Delay, d1					11.6			18.9			17.9	
Progression Factor					1.00			0.53			0.80	
Incremental Delay, d2					1.2			0.8			0.3	
Delay (s)					12.9			10.8			14.5	
Level of Service					B			B			B	
Approach Delay (s)		0.0			12.9			10.8			14.5	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.94			0.96			0.97	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		1670			1644			3202			3206	
Flt Permitted		0.73			0.96			0.91			0.83	
Satd. Flow (perm)		1236			1584			2943			2690	
Volume (vph)	25	35	25	25	70	80	25	155	65	60	125	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)	27	38	27	27	76	87	27	168	71	65	136	54
RTOR Reduction (vph)	0	23	0	0	62	0	0	17	0	0	13	0
Lane Group Flow (vph)	0	69	0	0	128	0	0	249	0	0	242	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.6			10.6			61.4			61.4	
Effective Green, g (s)		10.6			10.6			61.4			61.4	
Actuated g/C Ratio		0.13			0.13			0.77			0.77	
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)		164			210			2259			2065	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.12			0.09			c0.09	
v/c Ratio		0.42			0.61			0.11			0.12	
Uniform Delay, d1		31.9			32.8			2.4			2.4	
Progression Factor		1.00			1.00			0.08			1.00	
Incremental Delay, d2		1.7			5.2			0.1			0.1	
Delay (s)		33.6			37.9			0.3			2.5	
Level of Service		C			D			A			A	
Approach Delay (s)		33.6			37.9			0.3			2.5	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						1.00			1.00	
Frt		0.99						0.92			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		3322						1631			1749	
Flt Permitted		1.00						1.00			0.96	
Satd. Flow (perm)		3322						1631			1686	
Volume (vph)	15	1075	65	0	0	0	0	35	45	15	65	0
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)	16	1168	71	0	0	0	0	38	49	16	71	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	1250	0	0	0	0	0	53	0	0	87	0
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		47.0						25.0			25.0	
Effective Green, g (s)		47.0						25.0			25.0	
Actuated g/C Ratio		0.59						0.31			0.31	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1952						510			527	
v/s Ratio Prot								c0.05				
v/s Ratio Perm		0.38									0.05	
v/c Ratio		0.64						0.10			0.17	
Uniform Delay, d1		10.9						19.5			19.9	
Progression Factor		0.52						1.00			0.45	
Incremental Delay, d2		1.3						0.4			0.1	
Delay (s)		7.0						20.0			9.0	
Level of Service		A						B			A	
Approach Delay (s)		7.0			0.0			20.0			9.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0					4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95			0.95	
Frt	1.00	1.00	0.85					0.97			1.00	
Flt Protected	0.95	1.00	1.00					1.00			0.98	
Satd. Flow (prot)	1676	3353	1500					3253			3296	
Flt Permitted	0.95	1.00	1.00					1.00			0.77	
Satd. Flow (perm)	1676	3353	1500					3253			2574	
Volume (vph)	90	910	90	0	0	0	0	200	50	85	160	0
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)	98	989	98	0	0	0	0	217	54	92	174	0
RTOR Reduction (vph)	0	0	45	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	98	989	53	0	0	0	0	244	0	0	266	0
Turn Type	Perm		Perm							Perm		
Protected Phases		2						8			4	
Permitted Phases	2		2							4		
Actuated Green, G (s)	43.0	43.0	43.0					29.0			29.0	
Effective Green, g (s)	43.0	43.0	43.0					29.0			29.0	
Actuated g/C Ratio	0.54	0.54	0.54					0.36			0.36	
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)	901	1802	806					1179			933	
v/s Ratio Prot		c0.29						0.08				
v/s Ratio Perm	0.06		0.07								c0.10	
v/c Ratio	0.11	0.55	0.07					0.21			0.29	
Uniform Delay, d1	9.1	12.1	8.9					17.6			18.1	
Progression Factor	0.32	0.25	0.02					0.36			0.85	
Incremental Delay, d2	0.2	1.0	0.1					0.4			0.7	
Delay (s)	3.1	4.0	0.3					6.7			16.1	
Level of Service	A	A	A					A			B	
Approach Delay (s)		3.6			0.0			6.7			16.1	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	6.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frt					0.99			1.00			0.94	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					3308			3283			3153	
Flt Permitted					1.00			0.70			1.00	
Satd. Flow (perm)					3308			2338			3153	
Volume (vph)	0	0	0	35	500	40	170	230	0	0	175	115
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)	0	0	0	38	543	43	185	250	0	0	190	125
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	67	0
Lane Group Flow (vph)	0	0	0	0	617	0	0	435	0	0	248	0
Turn Type				Perm			Perm					
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					35.0			37.0			37.0	
Effective Green, g (s)					35.0			37.0			37.0	
Actuated g/C Ratio					0.44			0.46			0.46	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1447			1081			1458	
v/s Ratio Prot											0.10	
v/s Ratio Perm					0.19			c0.19				
v/c Ratio					0.43			0.40			0.17	
Uniform Delay, d1					15.6			14.2			12.5	
Progression Factor					1.00			0.80			0.35	
Incremental Delay, d2					0.9			1.1			0.3	
Delay (s)					16.5			12.5			4.6	
Level of Service					B			B			A	
Approach Delay (s)		0.0			16.5			12.5			4.6	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.98						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		3255						3321			3338	
Flt Permitted		0.99						1.00			0.91	
Satd. Flow (perm)		3255						3321			3065	
Volume (vph)	90	330	65	0	0	0	0	300	20	20	200	0
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)	98	359	71	0	0	0	0	326	22	22	217	0
RTOR Reduction (vph)	0	24	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	504	0	0	0	0	0	345	0	0	239	0
Turn Type	Perm									Perm		
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		16.2						55.8			55.8	
Effective Green, g (s)		16.2						55.8			55.8	
Actuated g/C Ratio		0.20						0.70			0.70	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		659						2316			2138	
v/s Ratio Prot								c0.10				
v/s Ratio Perm		0.16									0.08	
v/c Ratio		0.76						0.15			0.11	
Uniform Delay, d1		30.1						4.1			4.0	
Progression Factor		1.00						1.00			0.63	
Incremental Delay, d2		5.3						0.1			0.1	
Delay (s)		35.4						4.2			2.6	
Level of Service		D						A			A	
Approach Delay (s)		35.4			0.0			4.2			2.6	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected		0.96			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1685			1703	1500	1676	3316		1676	3353	1500
Flt Permitted		0.68			0.75	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1189			1321	1500	1676	3316		1676	3353	1500
Volume (vph)	310	25	5	65	25	130	15	625	50	215	1260	365
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)	337	27	5	71	27	141	16	679	54	234	1370	397
RTOR Reduction (vph)	0	1	0	0	0	94	0	8	0	0	0	199
Lane Group Flow (vph)	0	368	0	0	98	47	16	725	0	234	1370	198
Turn Type	custom			Perm		Perm	Prot			Prot		Perm
Protected Phases					8		5	2		1	6	
Permitted Phases	4	4		8		8						6
Actuated Green, G (s)		26.6			26.6	26.6	1.6	24.0		17.4	39.8	39.8
Effective Green, g (s)		26.6			26.6	26.6	1.6	24.0		17.4	39.8	39.8
Actuated g/C Ratio		0.33			0.33	0.33	0.02	0.30		0.22	0.50	0.50
Clearance Time (s)		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
Lane Grp Cap (vph)		395			439	499	34	995		365	1668	746
v/s Ratio Prot							0.01	c0.22		0.14	c0.41	
v/s Ratio Perm		c0.31			0.07	0.09						0.26
v/c Ratio		0.93			0.22	0.09	0.47	0.73		0.64	0.82	0.26
Uniform Delay, d1		25.8			19.3	18.4	38.8	25.1		28.5	17.1	11.6
Progression Factor		1.00			1.00	1.00	0.97	0.50		0.71	0.51	0.59
Incremental Delay, d2		28.7			0.3	0.1	9.6	4.5		2.6	3.2	0.6
Delay (s)		54.6			19.5	18.5	47.1	17.1		22.8	11.9	7.5
Level of Service		D			B	B	D	B		C	B	A
Approach Delay (s)		54.6			18.9			17.7			12.3	
Approach LOS		D			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

26: 30th St & Hwy 395

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.95	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1676	1500		1711	1500	1676	3340		1676	3331	
Flt Permitted		0.73	1.00		0.79	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1286	1500		1388	1500	1676	3340		1676	3331	
Volume (vph)	35	0	5	25	15	110	5	545	15	180	1100	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)	38	0	5	27	16	120	5	592	16	196	1196	54
RTOR Reduction (vph)	0	0	5	0	0	110	0	2	0	0	2	0
Lane Group Flow (vph)	0	38	0	0	43	10	5	606	0	196	1248	0
Turn Type	Perm		Perm	Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)		6.7	6.7		6.7	6.7	1.3	38.1		23.2	60.0	
Effective Green, g (s)		6.7	6.7		6.7	6.7	1.3	38.1		23.2	60.0	
Actuated g/C Ratio		0.08	0.08		0.08	0.08	0.02	0.48		0.29	0.75	
Clearance Time (s)		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	
Lane Grp Cap (vph)		108	126		116	126	27	1591		486	2498	
v/s Ratio Prot							0.00	c0.18		0.12	c0.38	
v/s Ratio Perm		0.03	0.00		0.03	0.08						
v/c Ratio		0.35	0.00		0.37	0.08	0.19	0.38		0.40	0.50	
Uniform Delay, d1		34.6	33.6		34.7	33.8	38.8	13.4		22.8	4.0	
Progression Factor		1.00	1.00		1.00	1.00	0.87	0.82		0.44	0.13	
Incremental Delay, d2		2.0	0.0		2.0	0.3	3.3	0.7		0.4	0.5	
Delay (s)		36.6	33.6		36.7	34.1	37.0	11.7		10.3	1.0	
Level of Service		D	C		D	C	D	B		B	A	
Approach Delay (s)		36.2			34.8			11.9			2.2	
Approach LOS		D			C			B			A	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

27: South Gate Ave & Hwy 395

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	0.95			1.00	1.00	1.00
Satd. Flow (prot)	1677			1765	1765	1500
Flt Permitted	0.95			1.00	1.00	1.00
Satd. Flow (perm)	1677			1765	1765	1500
Volume (vph)	200	5	0	235	600	415
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	5	0	255	652	451
RTOR Reduction (vph)	2	0	0	0	0	131
Lane Group Flow (vph)	220	0	0	255	652	320
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	15.2			56.8	56.8	56.8
Effective Green, g (s)	15.2			56.8	56.8	56.8
Actuated g/C Ratio	0.19			0.71	0.71	0.71
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)	319			1253	1253	1065
v/s Ratio Prot	c0.13			0.14	c0.37	
v/s Ratio Perm						0.30
v/c Ratio	0.69			0.20	0.52	0.30
Uniform Delay, d1	30.2			3.9	5.3	4.3
Progression Factor	0.52			1.50	0.23	0.07
Incremental Delay, d2	5.5			0.3	0.4	0.1
Delay (s)	21.2			6.2	1.6	0.5
Level of Service	C			A	A	A
Approach Delay (s)	21.2			6.2	1.1	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1676	1765	1500	1676	3348		1676	1765	1500	1676	1613	
Flt Permitted	0.48	1.00	1.00	0.95	1.00		0.55	1.00	1.00	0.74	1.00	
Satd. Flow (perm)	845	1765	1500	1676	3348		965	1765	1500	1305	1613	
Volume (vph)	65	715	65	215	435	5	80	25	215	15	60	80
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)	71	777	71	234	473	5	87	27	234	16	65	87
RTOR Reduction (vph)	0	0	34	0	1	0	0	0	199	0	64	0
Lane Group Flow (vph)	71	777	37	234	477	0	87	27	35	16	88	0
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2				8		8	4		
Actuated Green, G (s)	39.1	39.1	39.1	13.0	56.1		11.1	11.1	11.1	11.1	11.1	
Effective Green, g (s)	39.1	39.1	39.1	13.0	56.1		11.1	11.1	11.1	11.1	11.1	
Actuated g/C Ratio	0.52	0.52	0.52	0.17	0.75		0.15	0.15	0.15	0.15	0.15	
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)	439	918	780	290	2498		142	261	221	193	238	
v/s Ratio Prot		c0.44		c0.14	0.14			0.02			0.09	
v/s Ratio Perm	0.08		0.05				0.09		0.16	0.01		
v/c Ratio	0.16	0.85	0.05	0.81	0.19		0.61	0.10	0.16	0.08	0.37	
Uniform Delay, d1	9.5	15.5	8.9	29.9	2.8		30.0	27.7	28.0	27.7	28.9	
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	0.8	9.5	0.1	15.0	0.2		7.6	0.2	0.3	0.2	1.0	
Delay (s)	10.2	25.0	9.0	44.9	3.0		37.6	27.9	28.3	27.8	29.9	
Level of Service	B	C	A	D	A		D	C	C	C	C	
Approach Delay (s)		22.6			16.8			30.6			29.7	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	22.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	75.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

34: West Gate Ave & North Gate Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	1.00
Frt	1.00	1.00	0.94		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1676	1765	3148		1676	1500
Flt Permitted	0.48	1.00	1.00		0.95	1.00
Satd. Flow (perm)	854	1765	3148		1676	1500
Volume (vph)	15	750	255	175	115	5
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	815	277	190	125	5
RTOR Reduction (vph)	0	0	50	0	0	4
Lane Group Flow (vph)	16	815	417	0	125	1
Turn Type	pm+pt					Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Actuated Green, G (s)	72.4	72.4	67.0		10.7	10.7
Effective Green, g (s)	72.4	72.4	67.0		10.7	10.7
Actuated g/C Ratio	0.79	0.79	0.74		0.12	0.12
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)	691	1403	2315		197	176
v/s Ratio Prot	0.00	c0.46	0.15		c0.07	
v/s Ratio Perm	0.02					0.00
v/c Ratio	0.02	0.58	0.18		0.63	0.00
Uniform Delay, d1	2.0	3.6	3.7		38.3	35.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	1.8	0.2		6.5	0.0
Delay (s)	2.0	5.3	3.8		44.9	35.5
Level of Service	A	A	A		D	D
Approach Delay (s)		5.3	3.8		44.5	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	91.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

2: Emigrant Ave & SW 17th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	35	840	45	20	35	0	0	50	90
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)	0	0	0	38	913	49	22	38	0	0	54	98
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)		791										
pX, platoon unblocked												
vC, conflicting volume	962			0			658	1038	0	1033	1014	481
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	962			0			658	1038	0	1033	1014	481
tC, single (s)	4.1			4.1			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 %	100			98			91	83	100	100	77	82
cM capacity (veh/h)	711			1622			230	224	1084	160	232	531

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	495	505	60	152
Volume Left	38	0	22	0
Volume Right	0	49	0	98
cSH	1622	1700	226	363
Volume to Capacity	0.02	0.30	0.26	0.42
Queue Length (ft)	2	0	26	50
Control Delay (s)	0.8	0.0	26.5	21.9
Lane LOS	A		D	C
Approach Delay (s)	0.4		26.5	21.9
Approach LOS			D	C

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

3: Court Ave & SW 17th St

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↰	↑	↰	↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	460	30	95	440	15	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	500	33	103	478	16	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			533		1201	516
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			533		1201	516
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		91	85
cM capacity (veh/h)			1035		184	559

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	533	103	478	16	82
Volume Left	0	103	0	16	0
Volume Right	33	0	0	0	82
cSH	1700	1035	1700	184	559
Volume to Capacity	0.31	0.10	0.28	0.09	0.15
Queue Length (ft)	0	8	0	7	13
Control Delay (s)	0.0	8.9	0.0	26.5	12.5
Lane LOS		A		D	B
Approach Delay (s)	0.0	1.6		14.9	
Approach LOS				B	

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

4: Frazer Ave & SW 17th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	465	5	0	0	0	0	20	5	45	15	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)	43	505	5	0	0	0	0	22	5	49	16	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)		770										
pX, platoon unblocked												
vC, conflicting volume	0			511			603	595	255	356	598	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			511			603	595	255	356	598	0
tC, single (s)	4.1			4.1			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 %	97			100			100	95	99	91	96	100
cM capacity (veh/h)	1622			1051			363	405	744	536	403	1084

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	296	258	27	65
Volume Left	43	0	0	49
Volume Right	0	5	5	0
cSH	1622	1700	445	495
Volume to Capacity	0.03	0.15	0.06	0.13
Queue Length (ft)	2	0	5	11
Control Delay (s)	1.3	0.0	13.6	13.4
Lane LOS	A		B	B
Approach Delay (s)	0.7		13.6	13.4
Approach LOS			B	B

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

11: Emigrant Ave & SW 10th St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↳			↱
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	680	85	0	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	739	92	0	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	832				785	416
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	832				785	416
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	75
cM capacity (veh/h)	797				330	586

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	493	339	147
Volume Left	0	0	0
Volume Right	0	92	147
cSH	1700	1700	586
Volume to Capacity	0.29	0.20	0.25
Queue Length (ft)	0	0	25
Control Delay (s)	0.0	0.0	13.2
Lane LOS			B
Approach Delay (s)	0.0		13.2
Approach LOS			B

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	15	620	15	50	55	0	0	35	55
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)	0	0	0	16	674	16	54	60	0	0	38	60
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					273							
pX, platoon unblocked												
vC, conflicting volume	690			0			448	723	0	745	715	345
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	690			0			448	723	0	745	715	345
tC, single (s)	4.1			4.1			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 %	100			99			87	83	100	100	89	91
cM capacity (veh/h)	900			1622			408	347	1084	261	351	651

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	353	353	114	98
Volume Left	16	0	54	0
Volume Right	0	16	0	60
cSH	1622	1700	374	489
Volume to Capacity	0.01	0.21	0.31	0.20
Queue Length (ft)	1	0	32	18
Control Delay (s)	0.4	0.0	18.8	14.2
Lane LOS	A		C	B
Approach Delay (s)	0.2		18.8	14.2
Approach LOS			C	B

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

20: Frazer Ave & SW 4th

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	35	400	35	0	0	0	0	55	15	15	50	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)	38	435	38	0	0	0	0	60	16	16	54	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			473			557	530	236	340	549	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			473			557	530	236	340	549	0
tC, single (s)	4.1			4.1			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 %	98			100			100	86	98	97	87	100
cM capacity (veh/h)	1622			1085			367	442	765	509	432	1084

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	255	255	76	71
Volume Left	38	0	0	16
Volume Right	0	38	16	0
cSH	1622	1700	486	447
Volume to Capacity	0.02	0.15	0.16	0.16
Queue Length (ft)	2	0	14	14
Control Delay (s)	1.2	0.0	13.8	14.6
Lane LOS	A		B	B
Approach Delay (s)	0.6		13.8	14.6
Approach LOS			B	B

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

23: I-84 WB Ramps & Hwy 395

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	30	5	115	0	0	0	70	290	410	70	1165	90
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)	33	5	125	0	0	0	76	315	446	76	1266	98
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								1041			421	
pX, platoon unblocked	0.79	0.79	0.79	0.79	0.79		0.79					
vC, conflicting volume	1935	2380	682	1380	1984	315	1364			761		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1918	2479	340	1220	1979	315	1199			761		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	68	76	100	100	100	83			91		
cM capacity (veh/h)	25	17	514	49	35	672	446			828		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	38	125	76	315	446	709	731
Volume Left	33	0	76	0	0	76	0
Volume Right	0	125	0	0	446	0	98
cSH	24	514	446	1700	1700	828	1700
Volume to Capacity	1.61	0.24	0.17	0.19	0.26	0.09	0.43
Queue Length (ft)	120	24	15	0	0	8	0
Control Delay (s)	655.4	14.2	14.7	0.0	0.0	2.3	0.0
Lane LOS	F	B	B			A	
Approach Delay (s)	163.8		1.3			1.1	
Approach LOS	F						

Intersection Summary			
Average Delay	12.1		
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		

24: I-84 EB Off Ramp & Hwy 395

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑↕		↰	↑↑	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	5	150	0	0	0	0	700	100	60	1215	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)	43	5	163	0	0	0	0	761	109	65	1321	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								438			1024	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1832	2321	660	1772	2266	435	1321			870		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1825	2333	608	1763	2277	435	1294			870		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	82	61	100	100	100	100			91		
cM capacity (veh/h)	42	31	415	24	33	561	496			752		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	212	507	362	65	660	660
Volume Left	43	0	0	65	0	0
Volume Right	163	0	109	0	0	0
cSH	131	1700	1700	752	1700	1700
Volume to Capacity	1.61	0.30	0.21	0.09	0.39	0.39
Queue Length (ft)	382	0	0	7	0	0
Control Delay (s)	367.4	0.0	0.0	10.2	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	367.4	0.0		0.5		
Approach LOS	F					

Intersection Summary				
Average Delay	31.8			
Intersection Capacity Utilization	54.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	35	0	40	80	180	0	0	135	115
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)	0	0	0	38	0	43	87	196	0	0	147	125
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	622	579	209	516	641	196	272			196		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	622	579	209	516	641	196	272			196		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	91	100	95	93			100		
cM capacity (veh/h)	355	393	824	440	362	838	1274			1359		

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	82	87	196	0	272
Volume Left	38	87	0	0	0
Volume Right	43	0	0	0	125
cSH	590	1274	1700	1700	1700
Volume to Capacity	0.14	0.07	0.12	0.00	0.16
Queue Length (ft)	12	5	0	0	0
Control Delay (s)	12.1	8.0	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.1	2.5		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	34.2%	ICU Level of Service	A	
Analysis Period (min)	15			

29: I-84 EB Off Ramp & Hwy 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	175	0	85	0	0	0	0	90	15	35	135	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)	190	0	92	0	0	0	0	98	16	38	147	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	329	337	147	421	329	106	147			114		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	329	337	147	421	329	106	147			114		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	69	100	90	100	100	100	100			97		
cM capacity (veh/h)	606	564	892	472	570	940	1417			1457		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	283	114	38	147
Volume Left	190	0	38	0
Volume Right	92	16	0	0
cSH	677	1700	1457	1700
Volume to Capacity	0.42	0.07	0.03	0.09
Queue Length (ft)	52	0	2	0
Control Delay (s)	14.1	0.0	7.5	0.0
Lane LOS	B		A	
Approach Delay (s)	14.1	0.0	1.6	
Approach LOS	B			

Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	31.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	5	20	15	20	115	40	140	5	20	220	75
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)	16	5	22	16	22	125	43	152	5	22	239	82
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											312	
pX, platoon unblocked												
vC, conflicting volume	622	568	160	429	606	79	321			158		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	622	568	160	429	606	79	321			158		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	99	97	97	94	87	96			98		
cM capacity (veh/h)	297	409	856	473	389	966	1236			1420		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	43	163	43	101	56	22	159	161
Volume Left	16	16	43	0	0	22	0	0
Volume Right	22	125	0	0	5	0	0	82
cSH	465	742	1236	1700	1700	1420	1700	1700
Volume to Capacity	0.09	0.22	0.04	0.06	0.03	0.02	0.09	0.09
Queue Length (ft)	8	21	3	0	0	1	0	0
Control Delay (s)	13.5	11.2	8.0	0.0	0.0	7.6	0.0	0.0
Lane LOS	B	B	A			A		
Approach Delay (s)	13.5	11.2	1.7			0.5		
Approach LOS	B	B						

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		

33: Carden Ave & North Gate Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	65	10	50	90	75	20	115	50	60	75	15
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)	11	71	11	54	98	82	22	125	54	65	82	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								422				
pX, platoon unblocked												
vC, conflicting volume	457	443	49	413	424	90	98			179		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	457	443	49	413	424	90	98			179		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	85	99	88	80	91	99			95		
cM capacity (veh/h)	360	477	1009	438	489	950	1493			1394		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	82	11	152	82	84	117	106	57
Volume Left	11	0	54	0	22	0	65	0
Volume Right	0	11	0	82	0	54	0	16
cSH	457	1009	469	950	1493	1700	1394	1700
Volume to Capacity	0.18	0.01	0.32	0.09	0.01	0.07	0.05	0.03
Queue Length (ft)	16	1	35	7	1	0	4	0
Control Delay (s)	14.6	8.6	16.3	9.1	2.0	0.0	4.9	0.0
Lane LOS	B	A	C	A	A		A	
Approach Delay (s)	13.9		13.8		0.8		3.2	
Approach LOS	B		B					

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	5	20	15	20	115	40	140	5	20	220	75
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)	16	5	22	16	22	125	43	152	5	22	239	82
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											312	
pX, platoon unblocked												
vC, conflicting volume	622	568	160	429	606	79	321			158		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	622	568	160	429	606	79	321			158		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	99	97	97	94	87	96			98		
cM capacity (veh/h)	297	409	856	473	389	966	1236			1420		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	43	163	43	101	56	22	159	161
Volume Left	16	16	43	0	0	22	0	0
Volume Right	22	125	0	0	5	0	0	82
cSH	465	742	1236	1700	1700	1420	1700	1700
Volume to Capacity	0.09	0.22	0.04	0.06	0.03	0.02	0.09	0.09
Queue Length (ft)	8	21	3	0	0	1	0	0
Control Delay (s)	13.5	11.2	8.0	0.0	0.0	7.6	0.0	0.0
Lane LOS	B	B	A			A		
Approach Delay (s)	13.5	11.2	1.7			0.5		
Approach LOS	B	B						

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		

33: Carden Ave & North Gate Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	65	10	50	90	75	20	115	50	60	75	15
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)	11	71	11	54	98	82	22	125	54	65	82	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								422				
pX, platoon unblocked												
vC, conflicting volume	457	443	49	413	424	90	98			179		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	457	443	49	413	424	90	98			179		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	85	99	88	80	91	99			95		
cM capacity (veh/h)	360	477	1009	438	489	950	1493			1394		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	82	11	152	82	84	117	106	57
Volume Left	11	0	54	0	22	0	65	0
Volume Right	0	11	0	82	0	54	0	16
cSH	457	1009	469	950	1493	1700	1394	1700
Volume to Capacity	0.18	0.01	0.32	0.09	0.01	0.07	0.05	0.03
Queue Length (ft)	16	1	35	7	1	0	4	0
Control Delay (s)	14.6	8.6	16.3	9.1	2.0	0.0	4.9	0.0
Lane LOS	B	A	C	A	A		A	
Approach Delay (s)	13.9		13.8		0.8		3.2	
Approach LOS	B		B					

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

36: Hwy 30 & Airport Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	35	200	0	0	235	80	40	20	50	145	0	85
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)	38	217	0	0	255	87	43	22	54	158	0	92
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	342			217			641	636	217	614	549	255
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	342			217			641	636	217	614	549	255
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			87	94	93	55	100	88
cM capacity (veh/h)	1200			1335			329	379	815	348	425	776

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	38	217	255	87	120	158	92
Volume Left	38	0	0	0	43	158	0
Volume Right	0	0	0	87	54	0	92
cSH	1200	1700	1700	1700	467	348	776
Volume to Capacity	0.03	0.13	0.15	0.05	0.26	0.45	0.12
Queue Length (ft)	2	0	0	0	25	57	10
Control Delay (s)	8.1	0.0	0.0	0.0	15.3	23.6	10.3
Lane LOS	A				C	C	B
Approach Delay (s)	1.2		0.0		15.3	18.7	
Approach LOS					C	C	

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

39: I-84 EB On Ramp & River Rd

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	200	200	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	217	217	207
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)					779	
pX, platoon unblocked						
vC, conflicting volume	538	321	424			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	538	321	424			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	499	713	1119			

Direction, Lane #	NB 1	SB 1
Volume Total	217	424
Volume Left	0	0
Volume Right	0	207
cSH	1700	1700
Volume to Capacity	0.13	0.25
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	430	20	410	235	0	0	0	0	440	45
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)	0	0	467	22	446	255	0	0	0	0	478	49
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	701	478	478	478	478	0	478			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	701	478	478	478	478	0	478			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	20	79	8	76	100			100		
cM capacity (veh/h)	54	486	587	101	486	1085	1084			1623		

Direction, Lane #	EB 1	WB 1	WB 2	WB 3	WB 4	SB 1	SB 2
Volume Total	467	22	446	128	128	478	49
Volume Left	0	22	0	0	0	0	0
Volume Right	467	0	0	128	128	0	49
cSH	587	101	486	1085	1085	1700	1700
Volume to Capacity	0.80	0.21	0.92	0.12	0.12	0.28	0.03
Queue Length (ft)	193	19	266	10	10	0	0
Control Delay (s)	30.8	49.9	52.0	8.8	8.8	0.0	0.0
Lane LOS	D	E	F	A	A		
Approach Delay (s)	30.8	36.6				0.0	
Approach LOS	D	E					

Intersection Summary			
Average Delay	23.8		
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

41: I-84 EB Off Ramp & River Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	130	0	25	0	0	0	0	120	125	0	200	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)	141	0	27	0	0	0	0	130	136	0	217	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											1242	
pX, platoon unblocked												
vC, conflicting volume	348	484	217	375	348	130	217			266		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	348	484	217	375	348	130	217			266		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	76	100	97	100	100	100	100			100		
cM capacity (veh/h)	601	478	815	557	571	911	1335			1280		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	141	27	130	136	217
Volume Left	141	0	0	0	0
Volume Right	0	27	0	136	0
cSH	601	815	1700	1700	1700
Volume to Capacity	0.24	0.03	0.08	0.08	0.13
Queue Length (ft)	23	3	0	0	0
Control Delay (s)	12.8	9.6	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.3		0.0		0.0
Approach LOS	B				

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

42: Carden Ave & SW 10th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	30	40	55	50	5	5	50	245	30	0	100	15
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)	33	43	60	54	5	5	54	266	33	0	109	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	136	65	353	125
Volume Left (vph)	33	54	54	0
Volume Right (vph)	60	5	33	16
Hadj (s)	-0.2	0.2	0.0	0.0
Departure Headway (s)	4.9	5.2	4.6	4.7
Degree Utilization, x	0.18	0.09	0.45	0.16
Capacity (veh/h)	677	517	765	720
Control Delay (s)	8.2	8.3	8.5	8.0
Approach Delay (s)	8.2	8.3	8.5	8.0
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.3		
HCM Level of Service	A		
Intersection Capacity Utilization	41.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0		4.0		4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00		1.00		0.95	1.00		1.00			1.00	0.88
Frt	1.00		0.85		1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95		1.00		1.00	1.00		0.99			1.00	1.00
Satd. Flow (prot)	1676		1500		3352	1500		1744			1765	2640
Flt Permitted	0.25		1.00		1.00	1.00		0.93			1.00	1.00
Satd. Flow (perm)	438		1500		3352	1500		1649			1765	2640
Volume (vph)	345	0	5	5	730	210	5	15	0	0	105	580
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)	375	0	5	5	793	228	5	16	0	0	114	630
RTOR Reduction (vph)	0	0	3	0	0	162	0	0	0	0	0	515
Lane Group Flow (vph)	375	0	2	0	798	66	0	21	0	0	114	115
Turn Type	custom		custom	Split		Perm	Perm					Perm
Protected Phases				6	6			8			4	
Permitted Phases	2		2			6	8					4
Actuated Green, G (s)	16.1		16.1		15.4	15.4		9.7			9.7	9.7
Effective Green, g (s)	16.1		16.1		15.4	15.4		9.7			9.7	9.7
Actuated g/C Ratio	0.30		0.30		0.29	0.29		0.18			0.18	0.18
Clearance Time (s)	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
Lane Grp Cap (vph)	133		454		970	434		301			322	481
v/s Ratio Prot					c0.24						0.06	
v/s Ratio Perm	c0.86		0.00			0.15		0.01				0.24
v/c Ratio	2.82		0.00		0.82	0.15		0.07			0.35	0.24
Uniform Delay, d1	18.6		12.9		17.6	14.0		18.0			19.0	18.6
Progression Factor	1.00		1.00		1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	839.3		0.0		5.7	0.2		0.1			0.7	0.3
Delay (s)	857.8		13.0		23.3	14.2		18.1			19.7	18.9
Level of Service	F		B		C	B		B			B	B
Approach Delay (s)		846.7			21.3			18.1			19.0	
Approach LOS		F			C			B			B	

Intersection Summary			
HCM Average Control Delay	165.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	53.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.5%	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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		1.00						0.95		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3308						1672		1676	1765	
Flt Permitted		0.99						1.00		0.69	1.00	
Satd. Flow (perm)		3308						1672		1224	1765	
Volume (vph)	165	760	30	0	0	0	0	55	35	85	90	0
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)	179	826	33	0	0	0	0	60	38	92	98	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	1035	0	0	0	0	0	72	0	92	98	0
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		37.0						20.0		20.0	20.0	
Effective Green, g (s)		37.0						20.0		20.0	20.0	
Actuated g/C Ratio		0.57						0.31		0.31	0.31	
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)		1883						514		377	543	
v/s Ratio Prot								0.06			0.06	
v/s Ratio Perm		0.31								c0.08		
v/c Ratio		0.55						0.14		0.24	0.18	
Uniform Delay, d1		8.8						16.3		16.8	16.5	
Progression Factor		1.00						1.00		1.02	1.01	
Incremental Delay, d2		1.2						0.6		1.5	0.7	
Delay (s)		9.9						16.8		18.7	17.4	
Level of Service		A						B		B	B	
Approach Delay (s)		9.9			0.0			16.8			18.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.95		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			1.00	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					3285		1676	1765			1765	1500
Flt Permitted					1.00		0.63	1.00			1.00	1.00
Satd. Flow (perm)					3285		1116	1765			1765	1500
Volume (vph)	0	0	0	30	555	80	45	255	0	0	170	80
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)	0	0	0	33	603	87	49	277	0	0	185	87
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	0	51
Lane Group Flow (vph)	0	0	0	0	707	0	49	277	0	0	185	36
Turn Type				Perm			Perm					Perm
Protected Phases					6			8			4	
Permitted Phases				6			8					4
Actuated Green, G (s)					30.0		27.0	27.0			27.0	27.0
Effective Green, g (s)					30.0		27.0	27.0			27.0	27.0
Actuated g/C Ratio					0.46		0.42	0.42			0.42	0.42
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)					1516		464	733			733	623
v/s Ratio Prot								c0.16			0.10	
v/s Ratio Perm					0.22		0.04					0.06
v/c Ratio					0.47		0.11	0.38			0.25	0.06
Uniform Delay, d1					12.0		11.6	13.2			12.4	11.4
Progression Factor					0.27		0.79	0.76			1.00	1.00
Incremental Delay, d2					1.0		0.4	1.4			0.8	0.2
Delay (s)					4.2		9.6	11.4			13.2	11.6
Level of Service					A		A	B			B	B
Approach Delay (s)		0.0			4.2			11.2			12.7	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.5%	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)	1800	1800	1800	1800	1800	1800
Total Lost time (s)				4.0	4.0	
Lane Util. Factor				0.95	1.00	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3341	1676	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3341	1676	
Volume (vph)	0	0	50	670	35	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	728	38	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	782	38	0
Turn Type			Perm			
Protected Phases				8	2	
Permitted Phases			8			
Actuated Green, G (s)				31.5	25.5	
Effective Green, g (s)				31.5	25.5	
Actuated g/C Ratio				0.48	0.39	
Clearance Time (s)				4.0	4.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				1619	658	
v/s Ratio Prot					c0.02	
v/s Ratio Perm				0.23		
v/c Ratio				0.48	0.06	
Uniform Delay, d1				11.3	12.3	
Progression Factor				0.54	1.03	
Incremental Delay, d2				0.2	0.2	
Delay (s)				6.3	12.8	
Level of Service				A	B	
Approach Delay (s)	0.0			6.3	12.8	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	31.1%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frt					0.99			1.00			0.97	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					3301			3300			3251	
Flt Permitted					1.00			0.83			1.00	
Satd. Flow (perm)					3301			2775			3251	
Volume (vph)	0	0	0	65	615	55	65	140	0	0	120	30
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)	0	0	0	71	668	60	71	152	0	0	130	33
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	21	0
Lane Group Flow (vph)	0	0	0	0	790	0	0	223	0	0	142	0
Turn Type				Perm			Perm					
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					34.0			23.0			23.0	
Effective Green, g (s)					34.0			23.0			23.0	
Actuated g/C Ratio					0.52			0.35			0.35	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1727			982			1150	
v/s Ratio Prot											0.05	
v/s Ratio Perm					0.24			c0.08				
v/c Ratio					0.46			0.23			0.12	
Uniform Delay, d1					9.7			14.8			14.2	
Progression Factor					1.00			0.85			0.78	
Incremental Delay, d2					0.9			0.5			0.2	
Delay (s)					10.6			13.0			11.2	
Level of Service					B			B			B	
Approach Delay (s)		0.0			10.6			13.0			11.2	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

9: Byers Ave & Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.94			0.96			0.97	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		1673			1643			3204			3206	
Flt Permitted		0.78			0.96			0.92			0.87	
Satd. Flow (perm)		1323			1586			2976			2808	
Volume (vph)	20	30	20	20	60	70	20	120	50	45	100	40
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)	22	33	22	22	65	76	22	130	54	49	109	43
RTOR Reduction (vph)	0	19	0	0	67	0	0	13	0	0	10	0
Lane Group Flow (vph)	0	58	0	0	96	0	0	193	0	0	191	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.6			7.6			49.4			49.4	
Effective Green, g (s)		7.6			7.6			49.4			49.4	
Actuated g/C Ratio		0.12			0.12			0.76			0.76	
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)		155			185			2262			2134	
v/s Ratio Prot												
v/s Ratio Perm		0.06			c0.10			0.07			c0.07	
v/c Ratio		0.37			0.52			0.09			0.09	
Uniform Delay, d1		26.5			27.0			2.0			2.0	
Progression Factor		1.00			1.00			0.09			1.00	
Incremental Delay, d2		1.5			2.4			0.1			0.1	
Delay (s)		28.0			29.4			0.3			2.1	
Level of Service		C			C			A			A	
Approach Delay (s)		28.0			29.4			0.3			2.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						1.00			1.00	
Frt		0.99						0.92			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		3324						1630			1746	
Flt Permitted		1.00						1.00			0.95	
Satd. Flow (perm)		3324						1630			1679	
Volume (vph)	10	850	50	0	0	0	0	30	40	15	55	0
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)	11	924	54	0	0	0	0	33	43	16	60	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	29	0	0	0	0
Lane Group Flow (vph)	0	983	0	0	0	0	0	47	0	0	76	0
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		36.0						21.0			21.0	
Effective Green, g (s)		36.0						21.0			21.0	
Actuated g/C Ratio		0.55						0.32			0.32	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1841						527			542	
v/s Ratio Prot								c0.05				
v/s Ratio Perm		0.30									0.05	
v/c Ratio		0.53						0.09			0.14	
Uniform Delay, d1		9.2						15.3			15.6	
Progression Factor		0.44						1.00			0.77	
Incremental Delay, d2		1.0						0.3			0.1	
Delay (s)		5.0						15.7			12.1	
Level of Service		A						B			B	
Approach Delay (s)		5.0			0.0			15.7			12.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	6.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

15: Dorian Ave & Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0					4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95			0.95	
Frt	1.00	1.00	0.85					0.97			1.00	
Flt Protected	0.95	1.00	1.00					1.00			0.98	
Satd. Flow (prot)	1676	3353	1500					3250			3291	
Flt Permitted	0.95	1.00	1.00					1.00			0.78	
Satd. Flow (perm)	1676	3353	1500					3250			2626	
Volume (vph)	70	720	70	0	0	0	0	175	45	75	125	0
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)	76	783	76	0	0	0	0	190	49	82	136	0
RTOR Reduction (vph)	0	0	37	0	0	0	0	31	0	0	0	0
Lane Group Flow (vph)	76	783	39	0	0	0	0	208	0	0	218	0
Turn Type	Perm		Perm							Perm		
Protected Phases		2						8			4	
Permitted Phases	2		2							4		
Actuated Green, G (s)	33.0	33.0	33.0					24.0			24.0	
Effective Green, g (s)	33.0	33.0	33.0					24.0			24.0	
Actuated g/C Ratio	0.51	0.51	0.51					0.37			0.37	
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)	851	1702	762					1200			970	
v/s Ratio Prot		c0.23						0.07				
v/s Ratio Perm	0.05		0.05								c0.08	
v/c Ratio	0.09	0.46	0.05					0.17			0.22	
Uniform Delay, d1	8.3	10.3	8.1					13.8			14.1	
Progression Factor	0.28	0.24	0.02					0.34			0.81	
Incremental Delay, d2	0.2	0.8	0.1					0.3			0.5	
Delay (s)	2.5	3.2	0.2					5.0			12.0	
Level of Service	A	A	A					A			B	
Approach Delay (s)		2.9			0.0			5.0			12.0	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

16: Emigrant Ave & Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frt					0.99			1.00			0.94	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					3301			3289			3156	
Flt Permitted					1.00			0.76			1.00	
Satd. Flow (perm)					3301			2535			3156	
Volume (vph)	0	0	0	30	330	30	115	180	0	0	140	90
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)	0	0	0	33	359	33	125	196	0	0	152	98
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	53	0
Lane Group Flow (vph)	0	0	0	0	416	0	0	321	0	0	197	0
Turn Type				Perm			Perm					
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					27.0			30.0			30.0	
Effective Green, g (s)					27.0			30.0			30.0	
Actuated g/C Ratio					0.42			0.46			0.46	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1371			1170			1457	
v/s Ratio Prot											0.08	
v/s Ratio Perm					0.13			c0.13				
v/c Ratio					0.30			0.27			0.14	
Uniform Delay, d1					12.7			10.8			10.1	
Progression Factor					1.00			0.76			0.48	
Incremental Delay, d2					0.6			0.6			0.2	
Delay (s)					13.3			8.8			5.0	
Level of Service					B			A			A	
Approach Delay (s)		0.0			13.3			8.8			5.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM Average Control Delay	9.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.98						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		3257						3322			3340	
Flt Permitted		0.99						1.00			0.93	
Satd. Flow (perm)		3257						3322			3123	
Volume (vph)	70	260	50	0	0	0	0	225	15	15	175	0
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)	76	283	54	0	0	0	0	245	16	16	190	0
RTOR Reduction (vph)	0	27	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	386	0	0	0	0	0	257	0	0	206	0
Turn Type	Perm									Perm		
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		12.1						44.9			44.9	
Effective Green, g (s)		12.1						44.9			44.9	
Actuated g/C Ratio		0.19						0.69			0.69	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		606						2295			2157	
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.13									0.07	
v/c Ratio		0.64						0.11			0.10	
Uniform Delay, d1		24.4						3.4			3.3	
Progression Factor		1.00						1.00			0.60	
Incremental Delay, d2		2.2						0.1			0.1	
Delay (s)		26.6						3.5			2.1	
Level of Service		C						A			A	
Approach Delay (s)		26.6			0.0			3.5			2.1	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected		0.96			0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1684			1702	1500	1676	3315		1676	3353	1500
Flt Permitted		0.69			0.78	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1213			1374	1500	1676	3315		1676	3353	1500
Volume (vph)	225	20	5	55	20	115	10	480	40	170	900	290
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)	245	22	5	60	22	125	11	522	43	185	978	315
RTOR Reduction (vph)	0	1	0	0	0	92	0	6	0	0	0	128
Lane Group Flow (vph)	0	271	0	0	82	33	11	559	0	185	978	187
Turn Type	custom			Perm		Perm	Prot			Prot		Perm
Protected Phases					8		5	2		1	6	
Permitted Phases	4	4		8		8						6
Actuated Green, G (s)		23.9			23.9	23.9	0.8	32.9		21.2	53.3	53.3
Effective Green, g (s)		23.9			23.9	23.9	0.8	32.9		21.2	53.3	53.3
Actuated g/C Ratio		0.27			0.27	0.27	0.01	0.37		0.24	0.59	0.59
Clearance Time (s)		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
Lane Grp Cap (vph)		322			365	398	15	1212		395	1986	888
v/s Ratio Prot							0.01	c0.17		0.11	c0.29	
v/s Ratio Perm		c0.22			0.06	0.08						0.21
v/c Ratio		0.84			0.22	0.08	0.73	0.46		0.47	0.49	0.21
Uniform Delay, d1		31.3			25.8	24.8	44.5	21.8		29.6	10.6	8.5
Progression Factor		1.00			1.00	1.00	0.82	1.32		1.00	1.00	1.00
Incremental Delay, d2		17.8			0.3	0.1	102.4	1.2		0.9	0.9	0.5
Delay (s)		49.0			26.1	24.9	138.8	30.1		30.4	11.4	9.1
Level of Service		D			C	C	F	C		C	B	A
Approach Delay (s)		49.0			25.4			32.2			13.3	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.8%	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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		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		1.00	1.00	1.00	0.95		1.00	1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1676	1500		1715	1500	1676	3341		1676	1765	1500
Flt Permitted		0.73	1.00		0.80	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1292	1500		1416	1500	1676	3341		1676	1765	1500
Volume (vph)	30	0	5	20	15	95	5	430	10	65	825	30
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)	33	0	5	22	16	103	5	467	11	71	897	33
RTOR Reduction (vph)	0	0	5	0	0	95	0	1	0	0	0	7
Lane Group Flow (vph)	0	33	0	0	38	8	5	477	0	71	897	26
Turn Type	Perm		Perm	Perm		Perm	Prot			Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						6
Actuated Green, G (s)		6.7	6.7		6.7	6.7	1.3	60.9		10.4	70.0	70.0
Effective Green, g (s)		6.7	6.7		6.7	6.7	1.3	60.9		10.4	70.0	70.0
Actuated g/C Ratio		0.07	0.07		0.07	0.07	0.01	0.68		0.12	0.78	0.78
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)		96	112		105	112	24	2261		194	1373	1167
v/s Ratio Prot							0.00	c0.14		0.04	c0.51	
v/s Ratio Perm		0.03	0.00		0.03	0.07						0.02
v/c Ratio		0.34	0.00		0.36	0.07	0.21	0.21		0.37	0.65	0.02
Uniform Delay, d1		39.6	38.6		39.6	38.7	43.8	5.5		36.8	4.5	2.3
Progression Factor		1.00	1.00		1.00	1.00	1.21	0.75		0.96	2.51	2.98
Incremental Delay, d2		2.1	0.0		2.1	0.3	4.2	0.2		1.1	2.2	0.0
Delay (s)		41.7	38.6		41.7	39.0	57.4	4.3		36.3	13.6	6.8
Level of Service		D	D		D	D	E	A		D	B	A
Approach Delay (s)		41.3			39.7			4.9			15.0	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

27: South Gate Ave & Hwy 395

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	0.95			1.00	1.00	1.00
Satd. Flow (prot)	1677			1765	1765	1500
Flt Permitted	0.95			1.00	1.00	1.00
Satd. Flow (perm)	1677			1765	1765	1500
Volume (vph)	175	5	0	185	430	330
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	190	5	0	201	467	359
RTOR Reduction (vph)	2	0	0	0	0	94
Lane Group Flow (vph)	193	0	0	201	467	265
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	15.5			66.5	66.5	66.5
Effective Green, g (s)	15.5			66.5	66.5	66.5
Actuated g/C Ratio	0.17			0.74	0.74	0.74
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)	289			1304	1304	1108
v/s Ratio Prot	c0.12			0.11	c0.26	
v/s Ratio Perm						0.24
v/c Ratio	0.67			0.15	0.36	0.24
Uniform Delay, d1	34.9			3.5	4.2	3.7
Progression Factor	1.10			0.93	0.96	2.94
Incremental Delay, d2	5.5			0.2	0.1	0.1
Delay (s)	43.8			3.5	4.1	11.1
Level of Service	D			A	A	B
Approach Delay (s)	43.8			3.5	7.1	
Approach LOS	D			A	A	

Intersection Summary

HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1676	1765	1500	1676	3347		1676	1765	1500	1676	1610	
Flt Permitted	0.51	1.00	1.00	0.95	1.00		0.61	1.00	1.00	0.74	1.00	
Satd. Flow (perm)	896	1765	1500	1676	3347		1073	1765	1500	1311	1610	
Volume (vph)	55	620	55	185	380	5	70	20	185	15	50	70
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)	60	674	60	201	413	5	76	22	201	16	54	76
RTOR Reduction (vph)	0	0	28	0	1	0	0	0	173	0	66	0
Lane Group Flow (vph)	60	674	32	201	417	0	76	22	28	16	64	0
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2				8		8	4		
Actuated Green, G (s)	39.3	39.3	39.3	13.0	56.3		10.3	10.3	10.3	10.3	10.3	
Effective Green, g (s)	39.3	39.3	39.3	13.0	56.3		10.3	10.3	10.3	10.3	10.3	
Actuated g/C Ratio	0.53	0.53	0.53	0.17	0.75		0.14	0.14	0.14	0.14	0.14	
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)	472	930	790	292	2526		148	244	207	181	222	
v/s Ratio Prot		c0.38		c0.12	0.12			0.01			0.08	
v/s Ratio Perm	0.07		0.04				0.07		0.13	0.01		
v/c Ratio	0.13	0.72	0.04	0.69	0.17		0.51	0.09	0.13	0.09	0.29	
Uniform Delay, d1	9.0	13.5	8.5	28.9	2.6		29.8	28.1	28.2	28.1	28.9	
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	0.6	4.9	0.1	6.6	0.1		3.0	0.2	0.3	0.2	0.7	
Delay (s)	9.5	18.4	8.6	35.5	2.7		32.8	28.2	28.5	28.3	29.6	
Level of Service	A	B	A	D	A		C	C	C	C	C	
Approach Delay (s)		17.0			13.4			29.6			29.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	74.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

34: West Gate Ave & North Gate Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	1.00
Frt	1.00	1.00	0.94		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1676	1765	3149		1676	1500
Flt Permitted	0.50	1.00	1.00		0.95	1.00
Satd. Flow (perm)	886	1765	3149		1676	1500
Volume (vph)	10	685	235	160	115	10
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	745	255	174	125	11
RTOR Reduction (vph)	0	0	53	0	0	10
Lane Group Flow (vph)	11	745	376	0	125	1
Turn Type	pm+pt					Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Actuated Green, G (s)	57.3	57.3	52.3		10.2	10.2
Effective Green, g (s)	57.3	57.3	52.3		10.2	10.2
Actuated g/C Ratio	0.76	0.76	0.69		0.14	0.14
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)	683	1340	2181		226	203
v/s Ratio Prot	0.00	c0.42	0.14		c0.07	
v/s Ratio Perm	0.01					0.01
v/c Ratio	0.02	0.56	0.17		0.55	0.01
Uniform Delay, d1	2.2	3.8	4.0		30.5	28.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	1.7	0.2		2.9	0.0
Delay (s)	2.2	5.5	4.2		33.4	28.3
Level of Service	A	A	A		C	C
Approach Delay (s)		5.4	4.2		33.0	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑						↑	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	465	0	0	0	0	0	550	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)	0	0	0	0	505	0	0	0	0	0	598	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	851	598	598	598	598	0	598			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	851	598	598	598	598	0	598			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	100	100	0	100	100			100		
cM capacity (veh/h)	0	416	502	414	416	1085	979			1623		

Direction, Lane #	WB 1	SB 1
Volume Total	505	598
Volume Left	0	0
Volume Right	0	0
cSH	416	1700
Volume to Capacity	1.22	0.35
Queue Length (ft)	512	0
Control Delay (s)	146.3	0.0
Lane LOS	F	
Approach Delay (s)	146.3	0.0
Approach LOS	F	

Intersection Summary			
Average Delay	67.0		
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		

2: Emigrant Ave & SW 17th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	40	910	55	25	35	0	0	55	185
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)	0	0	0	43	989	60	27	38	0	0	60	201
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)		1026										
pX, platoon unblocked												
vC, conflicting volume	1049			0			812	1136	0	1125	1106	524
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1049			0			812	1136	0	1125	1106	524
tC, single (s)	4.1			4.1			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 %	100			97			78	81	100	100	71	60
cM capacity (veh/h)	659			1622			122	195	1084	133	204	498

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	538	554	65	261
Volume Left	43	0	27	0
Volume Right	0	60	0	201
cSH	1622	1700	156	374
Volume to Capacity	0.03	0.33	0.42	0.70
Queue Length (ft)	2	0	46	127
Control Delay (s)	0.8	0.0	43.6	34.1
Lane LOS	A		E	D
Approach Delay (s)	0.4		43.6	34.1
Approach LOS			E	D

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↰	↑	↰	↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	465	160	75	420	15	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	505	174	82	457	16	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			679		1212	592
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			679		1212	592
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		91	87
cM capacity (veh/h)			913		183	506

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2
Volume Total	679	82	457	16	65
Volume Left	0	82	0	16	0
Volume Right	174	0	0	0	65
cSH	1700	913	1700	183	506
Volume to Capacity	0.40	0.09	0.27	0.09	0.13
Queue Length (ft)	0	7	0	7	11
Control Delay (s)	0.0	9.3	0.0	26.6	13.2
Lane LOS		A		D	B
Approach Delay (s)	0.0	1.4		15.8	
Approach LOS				C	

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	45	465	5	0	0	0	0	25	5	75	20	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)	49	505	5	0	0	0	0	27	5	82	22	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			511			617	606	255	370	609	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			511			617	606	255	370	609	0
tC, single (s)	4.1			4.1			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 %	97			100			100	93	99	84	95	100
cM capacity (veh/h)	1622			1051			350	398	744	517	396	1084

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	302	258	33	103
Volume Left	49	0	0	82
Volume Right	0	5	5	0
cSH	1622	1700	431	486
Volume to Capacity	0.03	0.15	0.08	0.21
Queue Length (ft)	2	0	6	20
Control Delay (s)	1.4	0.0	14.0	14.4
Lane LOS	A		B	B
Approach Delay (s)	0.8		14.0	14.4
Approach LOS			B	B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

11: Emigrant Ave & SW 10th St

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↱			↱
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	800	95	0	145
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	870	103	0	158
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	973				921	486
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	973				921	486
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	70
cM capacity (veh/h)	704				270	527

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	580	393	158
Volume Left	0	0	0
Volume Right	0	103	158
cSH	1700	1700	527
Volume to Capacity	0.34	0.23	0.30
Queue Length (ft)	0	0	31
Control Delay (s)	0.0	0.0	14.7
Lane LOS			B
Approach Delay (s)	0.0		14.7
Approach LOS			B

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	20	730	20	55	60	0	0	35	60
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)	0	0	0	22	793	22	60	65	0	0	38	65
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					273							
pX, platoon unblocked												
vC, conflicting volume	815			0			524	859	0	880	848	408
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	815			0			524	859	0	880	848	408
tC, single (s)	4.1			4.1			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 %	100			99			83	77	100	100	87	89
cM capacity (veh/h)	808			1622			346	289	1084	197	293	593

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	418	418	125	103
Volume Left	22	0	60	0
Volume Right	0	22	0	65
cSH	1622	1700	313	430
Volume to Capacity	0.01	0.25	0.40	0.24
Queue Length (ft)	1	0	46	23
Control Delay (s)	0.5	0.0	23.9	16.0
Lane LOS	A		C	C
Approach Delay (s)	0.2		23.9	16.0
Approach LOS			C	C

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↑↱						↑↱			↰↑	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	450	40	0	0	0	0	60	20	15	55	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)	43	489	43	0	0	0	0	65	22	16	60	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			533			628	598	266	386	620	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			533			628	598	266	386	620	0
tC, single (s)	4.1			4.1			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 %	97			100			100	84	97	96	85	100
cM capacity (veh/h)	1622			1031			318	403	732	456	392	1084

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	288	288	87	76
Volume Left	43	0	0	16
Volume Right	0	43	22	0
cSH	1622	1700	454	404
Volume to Capacity	0.03	0.17	0.19	0.19
Queue Length (ft)	2	0	17	17
Control Delay (s)	1.3	0.0	14.8	16.0
Lane LOS	A		B	C
Approach Delay (s)	0.6		14.8	16.0
Approach LOS			B	C

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

23: I-84 WB Ramps & Hwy 395

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	35	5	125	0	0	0	75	355	435	75	1380	100
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)	38	5	136	0	0	0	82	386	473	82	1500	109
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								1041			406	
pX, platoon unblocked	0.89	0.89	0.89	0.89	0.89		0.89					
vC, conflicting volume	2073	2739	554	1587	2557	429	1609			859		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1961	2708	258	1416	2503	429	1440			859		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	57	79	100	100	100	80			89		
cM capacity (veh/h)	25	13	652	35	17	566	403			759		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	43	136	82	257	601	457	750	484
Volume Left	38	0	82	0	0	82	0	0
Volume Right	0	136	0	0	473	0	0	109
cSH	22	652	403	1700	1700	759	1700	1700
Volume to Capacity	1.93	0.21	0.20	0.15	0.35	0.11	0.44	0.28
Queue Length (ft)	139	19	19	0	0	9	0	0
Control Delay (s)	803.7	12.0	16.2	0.0	0.0	3.0	0.0	0.0
Lane LOS	F	B	C			A		
Approach Delay (s)	203.9		1.4			0.8		
Approach LOS	F							

Intersection Summary			
Average Delay	14.0		
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	210	0	0	0	0	845	105	65	1435	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)	0	0	228	0	0	0	0	918	114	71	1560	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								438			1009	
pX, platoon unblocked	0.89	0.89	0.89	0.89	0.89		0.89					
vC, conflicting volume	2160	2734	780	2125	2677	516	1560			1033		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2179	2821	635	2140	2757	516	1508			1033		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	38	100	100	100	100			89		
cM capacity (veh/h)	20	13	370	8	15	496	380			651		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	228	612	420	71	780	780
Volume Left	0	0	0	71	0	0
Volume Right	228	0	114	0	0	0
cSH	370	1700	1700	651	1700	1700
Volume to Capacity	0.62	0.36	0.25	0.11	0.46	0.46
Queue Length (ft)	99	0	0	9	0	0
Control Delay (s)	29.2	0.0	0.0	11.2	0.0	0.0
Lane LOS	D			B		
Approach Delay (s)	29.2	0.0		0.5		
Approach LOS	D					

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

28: I-84 WB On Ramp & Hwy 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	35	0	40	85	205	0	0	180	120
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)	0	0	0	38	0	43	92	223	0	0	196	130
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	712	668	261	603	734	223	326			223		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	712	668	261	603	734	223	326			223		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	90	100	95	92			100		
cM capacity (veh/h)	306	347	771	383	318	809	1217			1328		

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	82	92	223	0	326
Volume Left	38	92	0	0	0
Volume Right	43	0	0	0	130
cSH	532	1217	1700	1700	1700
Volume to Capacity	0.15	0.08	0.13	0.00	0.19
Queue Length (ft)	13	6	0	0	0
Control Delay (s)	13.0	8.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	13.0	2.4		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		

29: I-84 EB Off Ramp & Hwy 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	185	0	105	0	0	0	0	100	20	35	180	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)	201	0	114	0	0	0	0	109	22	38	196	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	391	402	196	505	391	120	196			130		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	391	402	196	505	391	120	196			130		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	64	100	86	100	100	100	100			97		
cM capacity (veh/h)	551	518	838	400	525	924	1359			1437		

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	315	130	38	196
Volume Left	201	0	38	0
Volume Right	114	22	0	0
cSH	629	1700	1437	1700
Volume to Capacity	0.50	0.08	0.03	0.12
Queue Length (ft)	70	0	2	0
Control Delay (s)	16.3	0.0	7.6	0.0
Lane LOS	C		A	
Approach Delay (s)	16.3	0.0	1.2	
Approach LOS	C			

Intersection Summary				
Average Delay	8.0			
Intersection Capacity Utilization	34.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	5	25	20	25	120	40	155	5	25	250	80
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)	16	5	27	22	27	130	43	168	5	27	272	87
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											312	
pX, platoon unblocked												
vC, conflicting volume	685	630	179	478	671	87	359			174		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	685	630	179	478	671	87	359			174		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	99	97	95	92	86	96			98		
cM capacity (veh/h)	260	375	833	431	355	954	1197			1400		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	49	179	43	112	62	27	181	178
Volume Left	16	22	43	0	0	27	0	0
Volume Right	27	130	0	0	5	0	0	87
cSH	446	680	1197	1700	1700	1400	1700	1700
Volume to Capacity	0.11	0.26	0.04	0.07	0.04	0.02	0.11	0.10
Queue Length (ft)	9	26	3	0	0	1	0	0
Control Delay (s)	14.1	12.2	8.1	0.0	0.0	7.6	0.0	0.0
Lane LOS	B	B	A			A		
Approach Delay (s)	14.1	12.2	1.6			0.5		
Approach LOS	B	B						

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	60	5	45	85	65	20	105	45	55	65	15
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)	5	65	5	49	92	71	22	114	49	60	71	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								422				
pX, platoon unblocked												
vC, conflicting volume	416	405	43	375	389	82	87			163		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	416	405	43	375	389	82	87			163		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	87	99	90	82	93	99			96		
cM capacity (veh/h)	399	504	1017	478	514	962	1507			1413		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	71	5	141	71	79	106	95	52
Volume Left	5	0	49	0	22	0	60	0
Volume Right	0	5	0	71	0	49	0	16
cSH	494	1017	501	962	1507	1700	1413	1700
Volume to Capacity	0.14	0.01	0.28	0.07	0.01	0.06	0.04	0.03
Queue Length (ft)	12	0	29	6	1	0	3	0
Control Delay (s)	13.5	8.6	15.0	9.0	2.1	0.0	4.9	0.0
Lane LOS	B	A	B	A	A		A	
Approach Delay (s)	13.2		13.0		0.9		3.2	
Approach LOS	B		B					

Intersection Summary				
Average Delay	7.1			
Intersection Capacity Utilization	33.3%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	35	195	0	0	225	75	35	20	40	135	0	80
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)	38	212	0	0	245	82	38	22	43	147	0	87
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	326			212			620	614	212	587	533	245
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	326			212			620	614	212	587	533	245
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			89	94	95	60	100	89
cM capacity (veh/h)	1217			1341			344	390	821	369	435	787

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	38	212	245	82	103	147	87
Volume Left	38	0	0	0	38	147	0
Volume Right	0	0	0	82	43	0	87
cSH	1217	1700	1700	1700	471	369	787
Volume to Capacity	0.03	0.12	0.14	0.05	0.22	0.40	0.11
Queue Length (ft)	2	0	0	0	21	46	9
Control Delay (s)	8.1	0.0	0.0	0.0	14.8	21.1	10.1
Lane LOS	A				B	C	B
Approach Delay (s)	1.2		0.0		14.8	17.0	
Approach LOS					B	C	

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	0	230	15	0	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	250	16	0	207
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						374
pX, platoon unblocked						
vC, conflicting volume	465	258			266	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	465	258			266	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	550	773			1280	

Direction, Lane #	NB 1	SB 1
Volume Total	266	207
Volume Left	0	0
Volume Right	16	0
cSH	1700	1700
Volume to Capacity	0.16	0.12
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	17.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	120	0	25	0	0	0	0	115	115	0	190	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)	130	0	27	0	0	0	0	125	125	0	207	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											1242	
pX, platoon unblocked												
vC, conflicting volume	332	457	207	359	332	125	207			250		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	332	457	207	359	332	125	207			250		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	100	97	100	100	100	100			100		
cM capacity (veh/h)	616	496	826	572	583	918	1347			1298		

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	130	27	125	125	207
Volume Left	130	0	0	0	0
Volume Right	0	27	0	125	0
cSH	616	826	1700	1700	1700
Volume to Capacity	0.21	0.03	0.07	0.07	0.12
Queue Length (ft)	20	3	0	0	0
Control Delay (s)	12.4	9.5	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.9		0.0		0.0
Approach LOS	B				

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

42: Carden Ave & SW 10th St

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	40	60	55	5	5	55	260	35	0	105	15
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)	38	43	65	60	5	5	60	283	38	0	114	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	147	71	380	130
Volume Left (vph)	38	60	60	0
Volume Right (vph)	65	5	38	16
Hadj (s)	-0.2	0.2	0.0	0.0
Departure Headway (s)	5.0	5.3	4.6	4.8
Degree Utilization, x	0.20	0.10	0.49	0.18
Capacity (veh/h)	662	508	756	705
Control Delay (s)	8.3	8.5	8.7	8.1
Approach Delay (s)	8.3	8.5	8.7	8.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.5		
HCM Level of Service	A		
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		

1: Emigrant Ave & SW 20th St

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↰	↱	↑↑			↑↑
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	0.97	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	3252	1500	3353			3353
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	3252	1500	3353			3353
Volume (vph)	890	235	405	0	0	655
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	967	255	440	0	0	712
RTOR Reduction (vph)	0	166	0	0	0	0
Lane Group Flow (vph)	967	89	440	0	0	712
Turn Type		Perm				
Protected Phases	6					
Permitted Phases		6	2			4
Actuated Green, G (s)	27.9	27.9	20.0			20.1
Effective Green, g (s)	27.9	27.9	20.0			20.1
Actuated g/C Ratio	0.35	0.35	0.25			0.25
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)	1134	523	838			842
v/s Ratio Prot	c0.30					
v/s Ratio Perm		0.17	0.13			0.21
v/c Ratio	0.85	0.17	0.53			0.85
Uniform Delay, d1	24.1	18.0	25.9			28.5
Progression Factor	1.00	1.00	1.13			1.00
Incremental Delay, d2	6.4	0.2	2.0			7.8
Delay (s)	30.5	18.2	31.2			36.3
Level of Service	C	B	C			D
Approach Delay (s)	27.9		31.2			36.3
Approach LOS	C		C			D

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		1.00						0.95		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		3310						1677		1676	1765	
Flt Permitted		0.99						1.00		0.69	1.00	
Satd. Flow (perm)		3310						1677		1218	1765	
Volume (vph)	185	855	30	0	0	0	0	60	35	95	100	0
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)	201	929	33	0	0	0	0	65	38	103	109	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	1161	0	0	0	0	0	76	0	103	109	0
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		48.0						24.0		24.0	24.0	
Effective Green, g (s)		48.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.60						0.30		0.30	0.30	
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)		1986						503		365	530	
v/s Ratio Prot								0.06			0.06	
v/s Ratio Perm		0.35								c0.08		
v/c Ratio		0.58						0.15		0.28	0.21	
Uniform Delay, d1		9.9						20.5		21.4	20.9	
Progression Factor		1.00						1.00		0.50	0.51	
Incremental Delay, d2		1.3						0.6		1.9	0.8	
Delay (s)		11.1						21.2		12.6	11.6	
Level of Service		B						C		B	B	
Approach Delay (s)		11.1			0.0			21.2			12.1	
Approach LOS		B			A			C			B	

Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0		4.0	4.0			4.0	4.0
Lane Util. Factor					0.95		1.00	1.00			1.00	1.00
Frt					0.98		1.00	1.00			1.00	0.85
Flt Protected					1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)					3285		1676	1765			1765	1500
Flt Permitted					1.00		0.60	1.00			1.00	1.00
Satd. Flow (perm)					3285		1066	1765			1765	1500
Volume (vph)	0	0	0	35	625	90	45	275	0	0	180	85
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)	0	0	0	38	679	98	49	299	0	0	196	92
RTOR Reduction (vph)	0	0	0	0	13	0	0	0	0	0	0	53
Lane Group Flow (vph)	0	0	0	0	802	0	49	299	0	0	196	39
Turn Type				Perm			Perm					Perm
Protected Phases					6			8			4	
Permitted Phases				6			8					4
Actuated Green, G (s)					38.0		34.0	34.0			34.0	34.0
Effective Green, g (s)					38.0		34.0	34.0			34.0	34.0
Actuated g/C Ratio					0.48		0.42	0.42			0.42	0.42
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)					1560		453	750			750	638
v/s Ratio Prot								c0.17			0.11	
v/s Ratio Perm					0.25		0.05					0.06
v/c Ratio					0.51		0.11	0.40			0.26	0.06
Uniform Delay, d1					14.6		13.9	15.9			14.9	13.6
Progression Factor					0.30		1.14	1.19			1.00	1.00
Incremental Delay, d2					1.1		0.5	1.5			0.8	0.2
Delay (s)					5.6		16.2	20.4			15.7	13.8
Level of Service					A		B	C			B	B
Approach Delay (s)		0.0			5.6			19.8			15.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.8%	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)	1800	1800	1800	1800	1800	1800
Total Lost time (s)				4.0	4.0	
Lane Util. Factor				0.95	1.00	
Frt				1.00	1.00	
Flt Protected				1.00	0.95	
Satd. Flow (prot)				3341	1676	
Flt Permitted				1.00	0.95	
Satd. Flow (perm)				3341	1676	
Volume (vph)	0	0	60	750	35	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	65	815	38	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	880	38	0
Turn Type			Perm			
Protected Phases				8	2	
Permitted Phases			8			
Actuated Green, G (s)				41.7	30.3	
Effective Green, g (s)				41.7	30.3	
Actuated g/C Ratio				0.52	0.38	
Clearance Time (s)				4.0	4.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				1741	635	
v/s Ratio Prot					c0.02	
v/s Ratio Perm				0.26		
v/c Ratio				0.51	0.06	
Uniform Delay, d1				12.4	15.8	
Progression Factor				0.54	1.00	
Incremental Delay, d2				0.2	0.2	
Delay (s)				7.0	16.0	
Level of Service				A	B	
Approach Delay (s)	0.0			7.0	16.0	
Approach LOS	A			A	B	

Intersection Summary			
HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frt					0.99			1.00			0.97	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					3302			3299			3250	
Flt Permitted					1.00			0.81			1.00	
Satd. Flow (perm)					3302			2700			3250	
Volume (vph)	0	0	0	70	695	60	75	155	0	0	135	35
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)	0	0	0	76	755	65	82	168	0	0	147	38
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	25	0
Lane Group Flow (vph)	0	0	0	0	889	0	0	250	0	0	160	0
Turn Type				Perm			Perm					
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					44.0			28.0			28.0	
Effective Green, g (s)					44.0			28.0			28.0	
Actuated g/C Ratio					0.55			0.35			0.35	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1816			945			1138	
v/s Ratio Prot											0.06	
v/s Ratio Perm					0.27			c0.09				
v/c Ratio					0.49			0.26			0.14	
Uniform Delay, d1					11.1			18.6			17.8	
Progression Factor					1.00			0.54			0.78	
Incremental Delay, d2					0.9			0.7			0.3	
Delay (s)					12.0			10.7			14.1	
Level of Service					B			B			B	
Approach Delay (s)		0.0			12.0			10.7			14.1	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.94			0.96			0.97	
Flt Protected		0.99			0.99			1.00			0.99	
Satd. Flow (prot)		1670			1644			3201			3203	
Flt Permitted		0.74			0.95			0.92			0.84	
Satd. Flow (perm)		1254			1579			2970			2715	
Volume (vph)	25	35	25	25	65	75	20	140	60	55	110	45
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)	27	38	27	27	71	82	22	152	65	60	120	49
RTOR Reduction (vph)	0	24	0	0	61	0	0	15	0	0	11	0
Lane Group Flow (vph)	0	68	0	0	119	0	0	224	0	0	218	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.3			10.3			61.7			61.7	
Effective Green, g (s)		10.3			10.3			61.7			61.7	
Actuated g/C Ratio		0.13			0.13			0.77			0.77	
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)		161			203			2291			2094	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.11			0.08			c0.08	
v/c Ratio		0.43			0.59			0.10			0.10	
Uniform Delay, d1		32.1			32.8			2.3			2.3	
Progression Factor		1.00			1.00			0.09			1.00	
Incremental Delay, d2		1.8			4.3			0.1			0.1	
Delay (s)		33.9			37.1			0.3			2.4	
Level of Service		C			D			A			A	
Approach Delay (s)		33.9			37.1			0.3			2.4	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

14: Dorian Ave & SW 4th

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑↱						↱			↰	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						1.00			1.00	
Frt		0.99						0.93			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		3321						1638			1747	
Flt Permitted		1.00						1.00			0.95	
Satd. Flow (perm)		3321						1638			1682	
Volume (vph)	15	955	60	0	0	0	0	35	40	15	60	0
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)	16	1038	65	0	0	0	0	38	43	16	65	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	0	1113	0	0	0	0	0	51	0	0	81	0
Turn Type	Perm									Perm		
Protected Phases		2						8			4	
Permitted Phases	2									4		
Actuated Green, G (s)		47.0						25.0			25.0	
Effective Green, g (s)		47.0						25.0			25.0	
Actuated g/C Ratio		0.59						0.31			0.31	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1951						512			526	
v/s Ratio Prot								c0.05				
v/s Ratio Perm		0.34									0.05	
v/c Ratio		0.57						0.10			0.15	
Uniform Delay, d1		10.2						19.5			19.9	
Progression Factor		0.55						1.00			0.51	
Incremental Delay, d2		1.1						0.4			0.1	
Delay (s)		6.6						19.9			10.3	
Level of Service		A						B			B	
Approach Delay (s)		6.6			0.0			19.9			10.3	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

15: Dorian Ave & Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0					4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00					0.95			0.95	
Frt	1.00	1.00	0.85					0.97			1.00	
Flt Protected	0.95	1.00	1.00					1.00			0.98	
Satd. Flow (prot)	1676	3353	1500					3254			3296	
Flt Permitted	0.95	1.00	1.00					1.00			0.78	
Satd. Flow (perm)	1676	3353	1500					3254			2604	
Volume (vph)	80	810	80	0	0	0	0	185	45	80	150	0
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)	87	880	87	0	0	0	0	201	49	87	163	0
RTOR Reduction (vph)	0	0	40	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	87	880	47	0	0	0	0	223	0	0	250	0
Turn Type	Perm		Perm							Perm		
Protected Phases		2						8			4	
Permitted Phases	2		2							4		
Actuated Green, G (s)	43.0	43.0	43.0					29.0			29.0	
Effective Green, g (s)	43.0	43.0	43.0					29.0			29.0	
Actuated g/C Ratio	0.54	0.54	0.54					0.36			0.36	
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)	901	1802	806					1180			944	
v/s Ratio Prot		c0.26						0.08				
v/s Ratio Perm	0.05		0.06								c0.10	
v/c Ratio	0.10	0.49	0.06					0.19			0.26	
Uniform Delay, d1	9.0	11.6	8.8					17.5			18.0	
Progression Factor	0.33	0.27	0.02					0.38			0.85	
Incremental Delay, d2	0.2	0.8	0.1					0.3			0.7	
Delay (s)	3.1	3.9	0.3					7.0			16.0	
Level of Service	A	A	A					A			B	
Approach Delay (s)		3.5			0.0			7.0			16.0	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	6.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

16: Emigrant Ave & Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frt					0.99			1.00			0.94	
Flt Protected					1.00			0.98			1.00	
Satd. Flow (prot)					3309			3284			3155	
Flt Permitted					1.00			0.71			1.00	
Satd. Flow (perm)					3309			2396			3155	
Volume (vph)	0	0	0	30	445	35	150	205	0	0	155	100
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)	0	0	0	33	484	38	163	223	0	0	168	109
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	59	0
Lane Group Flow (vph)	0	0	0	0	548	0	0	386	0	0	218	0
Turn Type				Perm			Perm					
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					35.0			37.0			37.0	
Effective Green, g (s)					35.0			37.0			37.0	
Actuated g/C Ratio					0.44			0.46			0.46	
Clearance Time (s)					4.0			4.0			4.0	
Vehicle Extension (s)					3.0			3.0			3.0	
Lane Grp Cap (vph)					1448			1108			1459	
v/s Ratio Prot											0.09	
v/s Ratio Perm					0.17			c0.16				
v/c Ratio					0.38			0.35			0.15	
Uniform Delay, d1					15.2			13.8			12.4	
Progression Factor					1.00			0.82			0.35	
Incremental Delay, d2					0.8			0.9			0.2	
Delay (s)					15.9			12.2			4.6	
Level of Service					B			B			A	
Approach Delay (s)		0.0			15.9			12.2			4.6	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

17: Frazer Ave & Main Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.98						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		3254						3319			3336	
Flt Permitted		0.99						1.00			0.91	
Satd. Flow (perm)		3254						3319			3063	
Volume (vph)	80	295	60	0	0	0	0	280	20	20	185	0
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)	87	321	65	0	0	0	0	304	22	22	201	0
RTOR Reduction (vph)	0	25	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	448	0	0	0	0	0	323	0	0	223	0
Turn Type	Perm									Perm		
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		14.7						57.3			57.3	
Effective Green, g (s)		14.7						57.3			57.3	
Actuated g/C Ratio		0.18						0.72			0.72	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		598						2377			2194	
v/s Ratio Prot								c0.10				
v/s Ratio Perm		0.15									0.07	
v/c Ratio		0.75						0.14			0.10	
Uniform Delay, d1		30.9						3.6			3.5	
Progression Factor		1.00						1.00			0.61	
Incremental Delay, d2		5.1						0.1			0.1	
Delay (s)		36.0						3.7			2.2	
Level of Service		D						A			A	
Approach Delay (s)		36.0			0.0			3.7			2.2	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

25: Hailey Ave & Hwy 395

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		1.00			1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected		0.96			0.97	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1685			1704	1500	1676	3315		1676	3353	1500
Flt Permitted		0.68			0.76	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1199			1342	1500	1676	3315		1676	3353	1500
Volume (vph)	290	25	5	60	25	120	15	555	45	190	1120	325
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)	315	27	5	65	27	130	16	603	49	207	1217	353
RTOR Reduction (vph)	0	1	0	0	0	89	0	8	0	0	0	172
Lane Group Flow (vph)	0	346	0	0	92	41	16	644	0	207	1217	181
Turn Type	custom			Perm		Perm	Prot			Prot		Perm
Protected Phases					8		5	2		1	6	
Permitted Phases	4	4		8		8						6
Actuated Green, G (s)		25.4			25.4	25.4	1.6	25.2		17.4	41.0	41.0
Effective Green, g (s)		25.4			25.4	25.4	1.6	25.2		17.4	41.0	41.0
Actuated g/C Ratio		0.32			0.32	0.32	0.02	0.31		0.22	0.51	0.51
Clearance Time (s)		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
Lane Grp Cap (vph)		381			426	476	34	1044		365	1718	769
v/s Ratio Prot							0.01	c0.20		0.12	c0.36	
v/s Ratio Perm		c0.29			0.07	0.09						0.24
v/c Ratio		0.91			0.22	0.09	0.47	0.62		0.57	0.71	0.24
Uniform Delay, d1		26.2			20.0	19.2	38.8	23.3		27.9	14.9	10.8
Progression Factor		1.00			1.00	1.00	0.90	0.48		0.72	0.49	0.59
Incremental Delay, d2		24.7			0.3	0.1	9.7	2.7		1.6	1.9	0.6
Delay (s)		50.9			20.3	19.2	44.5	13.7		21.5	9.2	6.9
Level of Service		D			C	B	D	B		C	A	A
Approach Delay (s)		50.9			19.7			14.5			10.2	
Approach LOS		D			B			B			B	

Intersection Summary

HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.3%	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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.95	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1676	1500		1711	1500	1676	3338		1676	3331	
Flt Permitted		0.73	1.00		0.79	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1286	1500		1388	1500	1676	3338		1676	3331	
Volume (vph)	35	0	5	25	15	100	5	485	15	160	980	45
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)	38	0	5	27	16	109	5	527	16	174	1065	49
RTOR Reduction (vph)	0	0	5	0	0	100	0	2	0	0	2	0
Lane Group Flow (vph)	0	38	0	0	43	9	5	541	0	174	1112	0
Turn Type	Perm		Perm	Perm		Perm	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)		6.7	6.7		6.7	6.7	1.3	38.1		23.2	60.0	
Effective Green, g (s)		6.7	6.7		6.7	6.7	1.3	38.1		23.2	60.0	
Actuated g/C Ratio		0.08	0.08		0.08	0.08	0.02	0.48		0.29	0.75	
Clearance Time (s)		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	
Lane Grp Cap (vph)		108	126		116	126	27	1590		486	2498	
v/s Ratio Prot							0.00	c0.16		0.10	c0.33	
v/s Ratio Perm		0.03	0.00		0.03	0.07						
v/c Ratio		0.35	0.00		0.37	0.07	0.19	0.34		0.36	0.45	
Uniform Delay, d1		34.6	33.6		34.7	33.8	38.8	13.1		22.5	3.8	
Progression Factor		1.00	1.00		1.00	1.00	0.84	0.85		0.47	0.14	
Incremental Delay, d2		2.0	0.0		2.0	0.2	3.3	0.6		0.3	0.4	
Delay (s)		36.6	33.6		36.7	34.0	35.9	11.8		10.8	1.0	
Level of Service		D	C		D	C	D	B		B	A	
Approach Delay (s)		36.2			34.8			12.0			2.3	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

27: South Gate Ave & Hwy 395

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	0.95			1.00	1.00	1.00
Satd. Flow (prot)	1677			1765	1765	1500
Flt Permitted	0.95			1.00	1.00	1.00
Satd. Flow (perm)	1677			1765	1765	1500
Volume (vph)	185	5	0	210	535	370
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	5	0	228	582	402
RTOR Reduction (vph)	2	0	0	0	0	112
Lane Group Flow (vph)	204	0	0	228	582	290
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	14.2			57.8	57.8	57.8
Effective Green, g (s)	14.2			57.8	57.8	57.8
Actuated g/C Ratio	0.18			0.72	0.72	0.72
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)	298			1275	1275	1084
v/s Ratio Prot	c0.12			0.13	c0.33	
v/s Ratio Perm						0.27
v/c Ratio	0.69			0.18	0.46	0.27
Uniform Delay, d1	30.8			3.5	4.6	3.8
Progression Factor	0.56			1.59	0.16	0.11
Incremental Delay, d2	5.8			0.3	0.2	0.1
Delay (s)	23.0			5.9	1.0	0.5
Level of Service	C			A	A	A
Approach Delay (s)	23.0			5.9	0.8	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
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	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1676	1765	1500	1676	3347		1676	1765	1500	1676	1612	
Flt Permitted	0.49	1.00	1.00	0.95	1.00		0.57	1.00	1.00	0.74	1.00	
Satd. Flow (perm)	872	1765	1500	1676	3347		1012	1765	1500	1305	1612	
Volume (vph)	60	665	60	200	405	5	75	25	200	15	55	75
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)	65	723	65	217	440	5	82	27	217	16	60	82
RTOR Reduction (vph)	0	0	31	0	1	0	0	0	186	0	66	0
Lane Group Flow (vph)	65	723	34	217	444	0	82	27	31	16	76	0
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2				8		8	4		
Actuated Green, G (s)	39.1	39.1	39.1	13.0	56.1		10.7	10.7	10.7	10.7	10.7	
Effective Green, g (s)	39.1	39.1	39.1	13.0	56.1		10.7	10.7	10.7	10.7	10.7	
Actuated g/C Ratio	0.52	0.52	0.52	0.17	0.75		0.14	0.14	0.14	0.14	0.14	
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)	456	923	784	291	2510		145	252	215	187	231	
v/s Ratio Prot		c0.41		c0.13	0.13			0.02			0.09	
v/s Ratio Perm	0.07		0.04				0.08		0.14	0.01		
v/c Ratio	0.14	0.78	0.04	0.75	0.18		0.57	0.11	0.14	0.09	0.33	
Uniform Delay, d1	9.2	14.4	8.7	29.3	2.7		29.9	27.9	28.0	27.8	28.8	
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	0.7	6.6	0.1	9.9	0.2		5.0	0.2	0.3	0.2	0.8	
Delay (s)	9.9	21.0	8.8	39.3	2.8		34.9	28.1	28.4	28.0	29.7	
Level of Service	A	C	A	D	A		C	C	C	C	C	
Approach Delay (s)		19.2			14.8			30.0			29.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

34: West Gate Ave & North Gate Ave

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	1.00
Frt	1.00	1.00	0.94		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1676	1765	3148		1676	1500
Flt Permitted	0.51	1.00	1.00		0.95	1.00
Satd. Flow (perm)	900	1765	3148		1676	1500
Volume (vph)	15	670	225	155	105	5
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	728	245	168	114	5
RTOR Reduction (vph)	0	0	43	0	0	4
Lane Group Flow (vph)	16	728	370	0	114	1
Turn Type	pm+pt					Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Actuated Green, G (s)	73.3	73.3	67.9		10.2	10.2
Effective Green, g (s)	73.3	73.3	67.9		10.2	10.2
Actuated g/C Ratio	0.80	0.80	0.74		0.11	0.11
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)	733	1414	2336		187	167
v/s Ratio Prot	0.00	c0.41	0.13		c0.07	
v/s Ratio Perm	0.02					0.00
v/c Ratio	0.02	0.51	0.16		0.61	0.00
Uniform Delay, d1	1.8	3.1	3.4		38.8	36.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	1.3	0.1		5.5	0.0
Delay (s)	1.9	4.4	3.6		44.3	36.1
Level of Service	A	A	A		D	D
Approach Delay (s)		4.4	3.6		43.9	
Approach LOS		A	A		D	

Intersection Summary

HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	91.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
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)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0				4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00				1.00	0.95			0.91	
Frt		1.00	0.85				1.00	0.92			0.99	
Flt Protected		0.96	1.00				0.95	1.00			1.00	
Satd. Flow (prot)		1642	1457				1629	2988			4624	
Flt Permitted		0.96	1.00				0.95	1.00			0.83	
Satd. Flow (perm)		1642	1457				1629	2988			3857	
Volume (vph)	35	5	125	0	0	0	75	355	435	75	1380	100
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)	38	5	136	0	0	0	82	386	473	82	1500	109
RTOR Reduction (vph)	0	0	124	0	0	0	0	218	0	0	9	0
Lane Group Flow (vph)	0	43	12	0	0	0	82	641	0	0	1682	0
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	Perm		Perm				Split			Perm		
Protected Phases		4					2	2			6	
Permitted Phases	4		4							6		
Actuated Green, G (s)		8.0	8.0				28.7	28.7			41.3	
Effective Green, g (s)		8.0	8.0				28.7	28.7			41.3	
Actuated g/C Ratio		0.09	0.09				0.32	0.32			0.46	
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)		146	130				519	953			1770	
v/s Ratio Prot							0.05	c0.29				
v/s Ratio Perm		0.03	0.09								c0.44	
v/c Ratio		0.29	0.09				0.16	0.67			0.95	
Uniform Delay, d1		38.4	37.7				22.0	26.6			23.4	
Progression Factor		1.00	1.00				1.00	1.00			1.00	
Incremental Delay, d2		1.1	0.3				0.6	3.8			11.8	
Delay (s)		39.5	38.0				22.6	30.4			35.1	
Level of Service		D	D				C	C			D	
Approach Delay (s)		38.3			0.0			29.7			35.1	
Approach LOS		D			A			C			D	

Intersection Summary			
HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group