APPENDIX H:
TRANSPORTATION AND TRAFFIC DATA

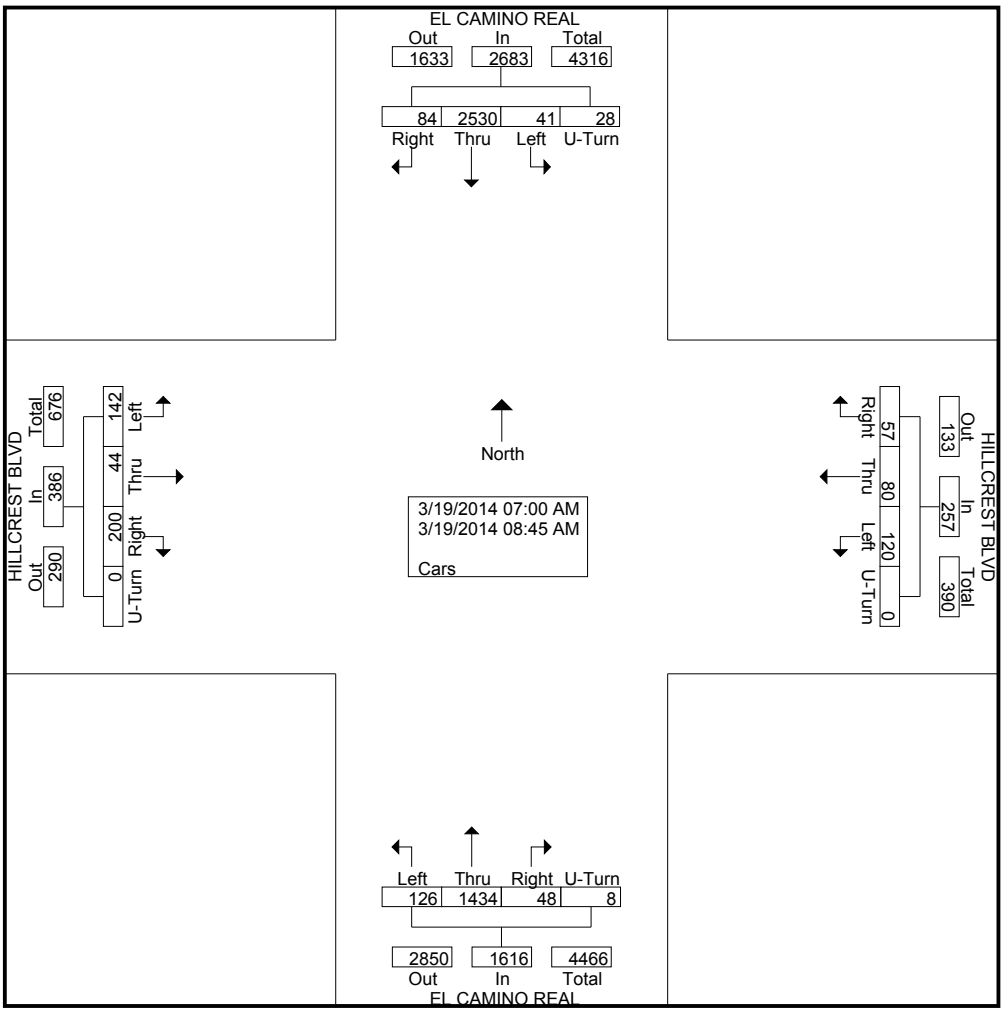
Intersection Turning Movement Counts

All Traffic Data Services
2187 Kingsbury Cir
Santa Clara, CA, 95054
www.Alltrafficdata.net

File Name : #5 ELCAMINOREAL&HILLCRESTAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				HILLCREST BLVD Westbound				EL CAMINO REAL Northbound				HILLCREST BLVD Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	4	191	4	1	7	7	12	0	5	131	13	1	18	1	18	0	413
07:15 AM	8	262	5	2	1	4	16	0	7	130	14	0	15	3	7	0	474
07:30 AM	16	315	1	3	10	9	12	0	5	158	12	2	22	3	16	0	584
07:45 AM	15	343	4	5	7	15	19	0	5	178	15	1	24	2	18	0	651
Total	43	1111	14	11	25	35	59	0	22	597	54	4	79	9	59	0	2122
08:00 AM	10	370	6	6	12	12	23	0	5	187	18	1	31	6	21	0	708
08:15 AM	11	358	10	2	9	14	18	0	9	210	19	0	26	15	30	0	731
08:30 AM	10	346	7	7	5	11	7	0	3	195	15	2	38	10	17	0	673
08:45 AM	10	345	4	2	6	8	13	0	9	245	20	1	26	4	15	0	708
Total	41	1419	27	17	32	45	61	0	26	837	72	4	121	35	83	0	2820
Grand Total	84	2530	41	28	57	80	120	0	48	1434	126	8	200	44	142	0	4942
Apprch %	3.1	94.3	1.5	1	22.2	31.1	46.7	0	3	88.7	7.8	0.5	51.8	11.4	36.8	0	
Total %	1.7	51.2	0.8	0.6	1.2	1.6	2.4	0	1	29	2.5	0.2	4	0.9	2.9	0	



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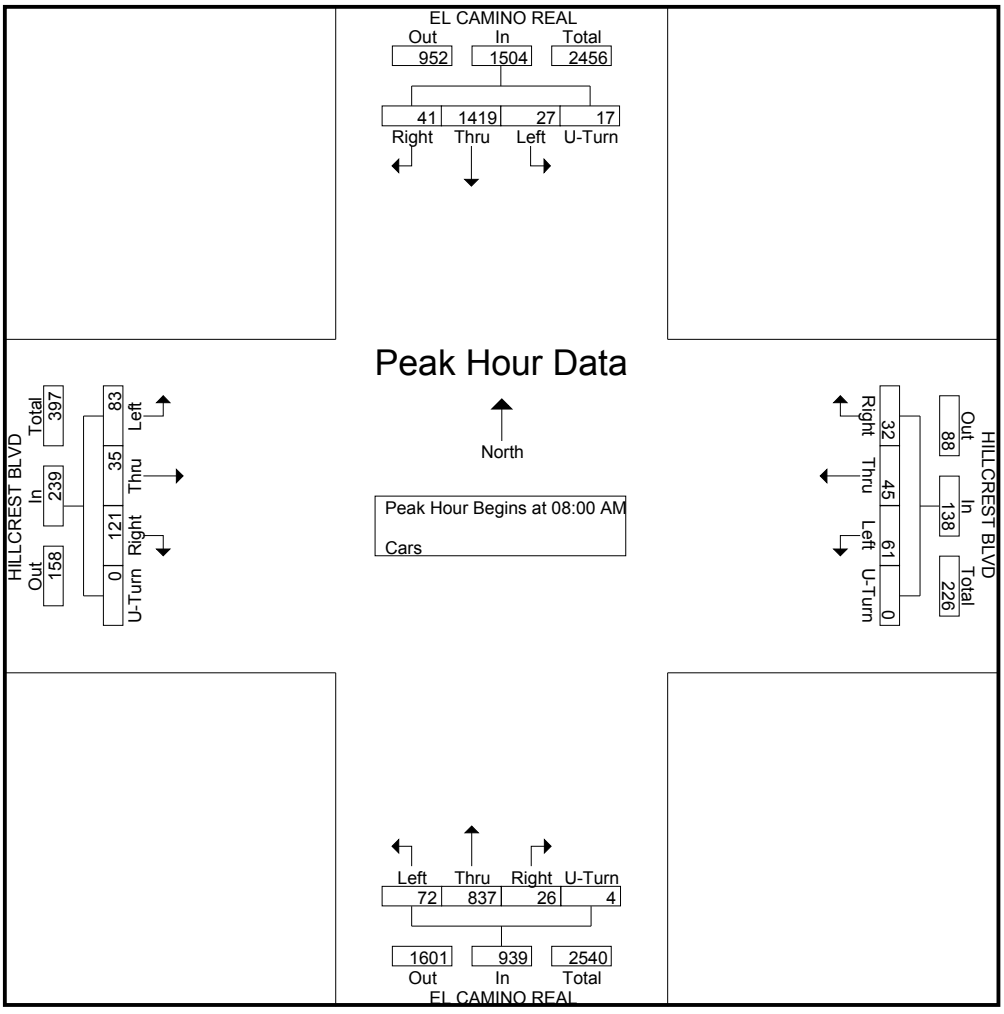
File Name : #5 ELCAMINOREAL&HILLCRESTAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	EL CAMINO REAL Southbound					HILLCREST BLVD Westbound					EL CAMINO REAL Northbound					HILLCREST BLVD Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	10	**370**	6	6	**392**	**12**	12	**23**	0	**47**	5	187	18	1	211	31	6	21	0	58	708
08:15 AM	**11**	358	**10**	2	381	9	**14**	18	0	41	**9**	210	19	0	238	26	**15**	**30**	0	**71**	**731**
08:30 AM	10	346	7	**7**	370	5	11	7	0	23	3	195	15	**2**	215	**38**	10	17	0	65	673
08:45 AM	10	345	4	2	361	6	8	13	0	27	9	**245**	**20**	1	**275**	26	4	15	0	45	708
Total Volume	41	1419	27	17	1504	32	45	61	0	138	26	837	72	4	939	121	35	83	0	239	2820
% App. Total	2.7	94.3	1.8	1.1		23.2	32.6	44.2	0		2.8	89.1	7.7	0.4		50.6	14.6	34.7	0		
PHF	.932	.959	.675	.607	.959	.667	.804	.663	.000	.734	.722	.854	.900	.500	.854	.796	.583	.692	.000	.842	.964



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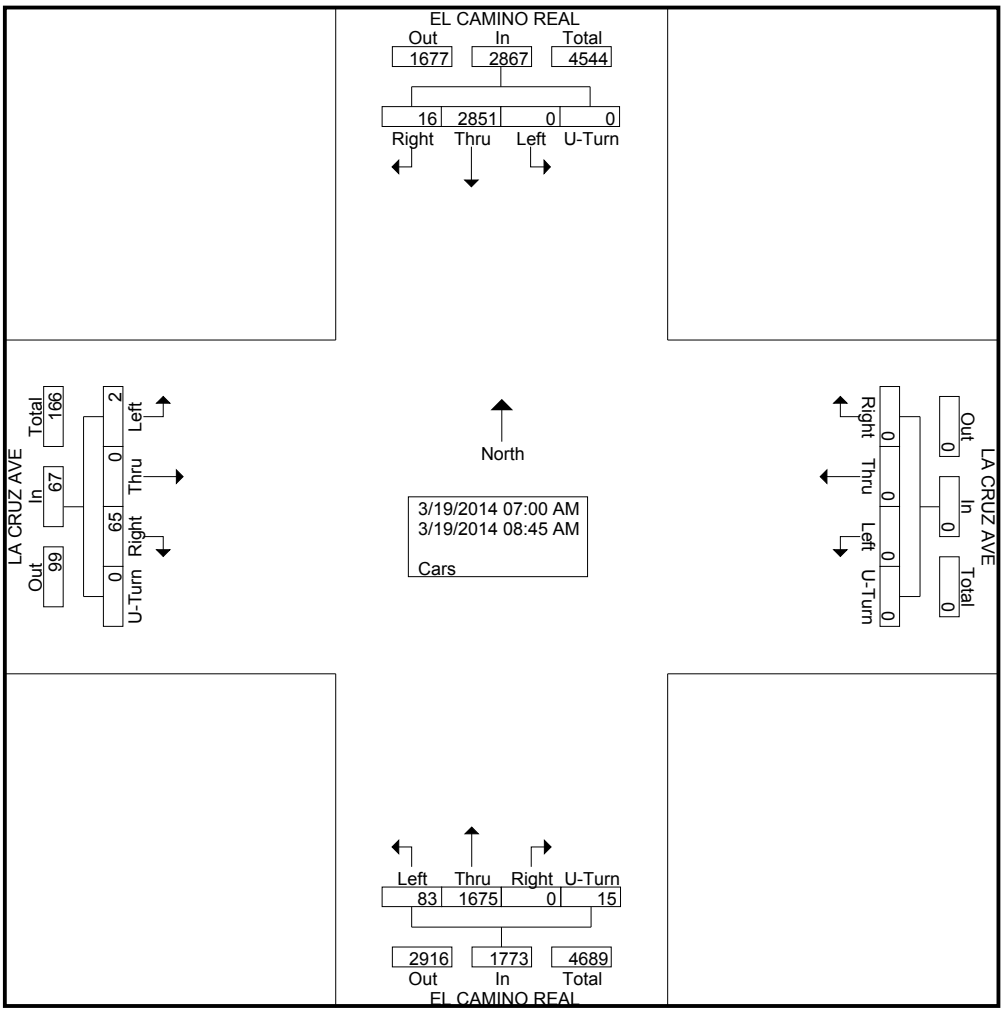
File Name : #6 ELCAMINOREAL&LACRUZAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				LA CRUZ AVE Westbound				EL CAMINO REAL Northbound				LA CRUZ AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	238	0	0	0	0	0	0	0	151	8	2	4	0	0	0	404
07:15 AM	0	279	0	0	0	0	0	0	0	168	11	2	2	0	0	0	462
07:30 AM	0	364	0	0	0	0	0	0	0	180	14	0	8	0	0	0	566
07:45 AM	4	397	0	0	0	0	0	0	0	228	9	4	12	0	0	0	654
Total	5	1278	0	0	0	0	0	0	0	727	42	8	26	0	0	0	2086
08:00 AM	5	418	0	0	0	0	0	0	0	208	8	4	2	0	0	0	645
08:15 AM	0	401	0	0	0	0	0	0	0	223	8	0	12	0	0	0	644
08:30 AM	3	380	0	0	0	0	0	0	0	252	14	1	12	0	0	0	662
08:45 AM	3	374	0	0	0	0	0	0	0	265	11	2	13	0	2	0	670
Total	11	1573	0	0	0	0	0	0	0	948	41	7	39	0	2	0	2621
Grand Total	16	2851	0	0	0	0	0	0	0	1675	83	15	65	0	2	0	4707
Apprch %	0.6	99.4	0	0	0	0	0	0	0	94.5	4.7	0.8	97	0	3	0	
Total %	0.3	60.6	0	0	0	0	0	0	0	35.6	1.8	0.3	1.4	0	0	0	



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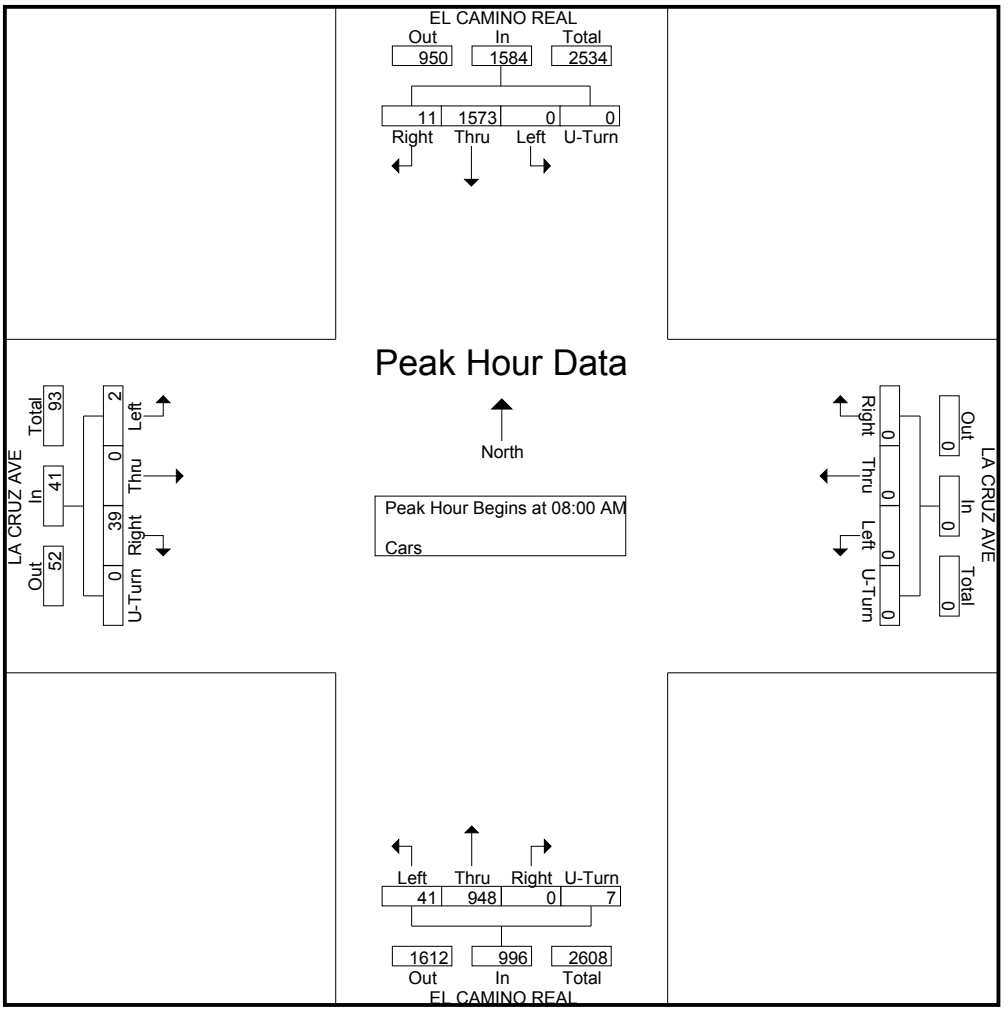
File Name : #6 ELCAMINOREAL&LACRUZAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	EL CAMINO REAL Southbound					LA CRUZ AVE Westbound					EL CAMINO REAL Northbound					LA CRUZ AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**5**	**418**	0	0	**423**	0	0	0	0	0	0	208	8	**4**	220	2	0	0	0	2	645
08:15 AM	0	401	0	0	401	0	0	0	0	0	0	223	8	0	231	12	0	0	0	12	644
08:30 AM	3	380	0	0	383	0	0	0	0	0	0	252	**14**	1	267	12	0	0	0	12	662
08:45 AM	3	374	0	0	377	0	0	0	0	0	0	**265**	11	2	**278**	**13**	0	**2**	0	**15**	**670**
Total Volume	11	1573	0	0	1584	0	0	0	0	0	0	948	41	7	996	39	0	2	0	41	2621
% App. Total	0.7	99.3	0	0		0	0	0	0		0	95.2	4.1	0.7		95.1	0	4.9	0		
PHF	.550	.941	.000	.000	.936	.000	.000	.000	.000	.000	.000	.894	.732	.438	.896	.750	.000	.250	.000	.683	.978



All Traffic Data Services
2187 Kingsbury Cir
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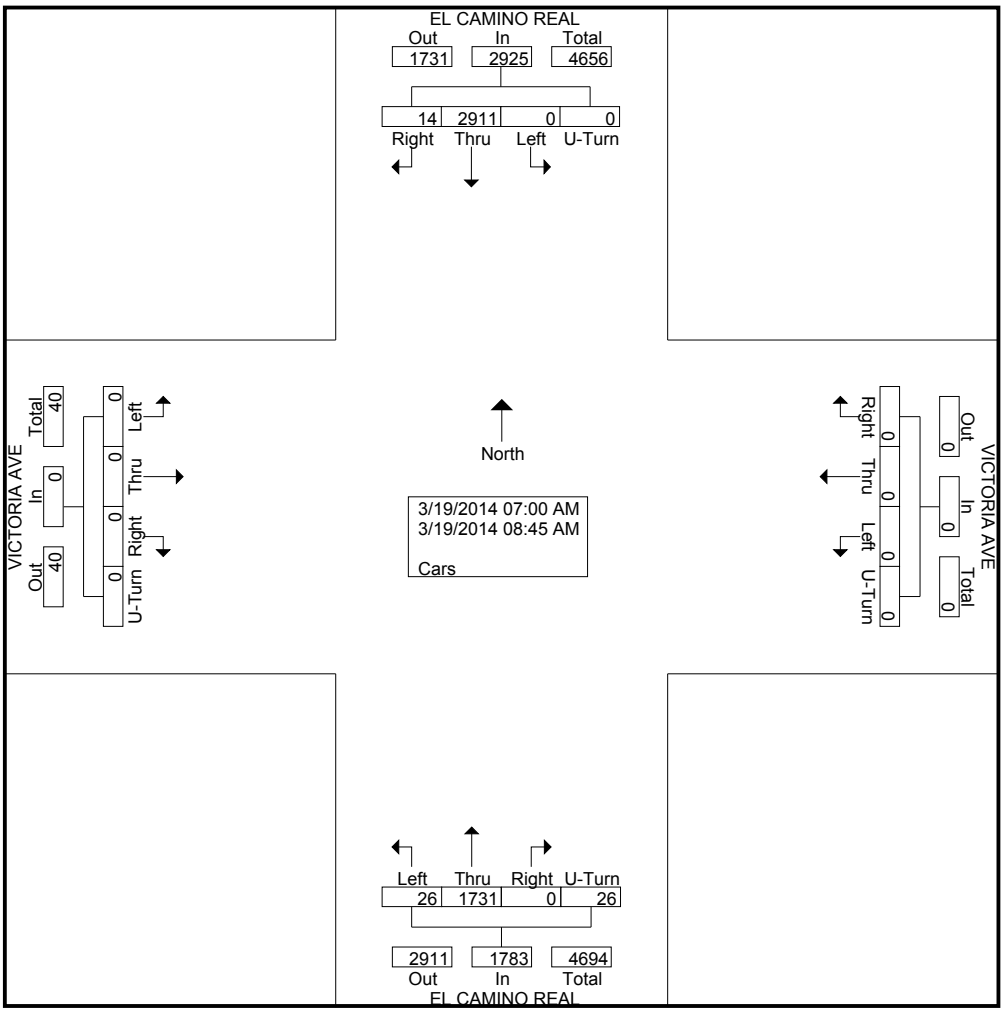
File Name : #7 ELCAMINOREAL&VICTORIAAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				VICTORIA AVE Westbound				EL CAMINO REAL Northbound				VICTORIA AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	235	0	0	0	0	0	0	0	163	3	4	0	0	0	0	407
07:15 AM	1	287	0	0	0	0	0	0	0	172	1	1	0	0	0	0	462
07:30 AM	0	360	0	0	0	0	0	0	0	196	3	2	0	0	0	0	561
07:45 AM	4	412	0	0	0	0	0	0	0	236	5	3	0	0	0	0	660
Total	7	1294	0	0	0	0	0	0	0	767	12	10	0	0	0	0	2090
08:00 AM	0	429	0	0	0	0	0	0	0	216	0	1	0	0	0	0	646
08:15 AM	2	395	0	0	0	0	0	0	0	216	5	6	0	0	0	0	624
08:30 AM	2	415	0	0	0	0	0	0	0	265	5	5	0	0	0	0	692
08:45 AM	3	378	0	0	0	0	0	0	0	267	4	4	0	0	0	0	656
Total	7	1617	0	0	0	0	0	0	0	964	14	16	0	0	0	0	2618
Grand Total	14	2911	0	0	0	0	0	0	0	1731	26	26	0	0	0	0	4708
Apprch %	0.5	99.5	0	0	0	0	0	0	0	97.1	1.5	1.5	0	0	0	0	
Total %	0.3	61.8	0	0	0	0	0	0	0	36.8	0.6	0.6	0	0	0	0	



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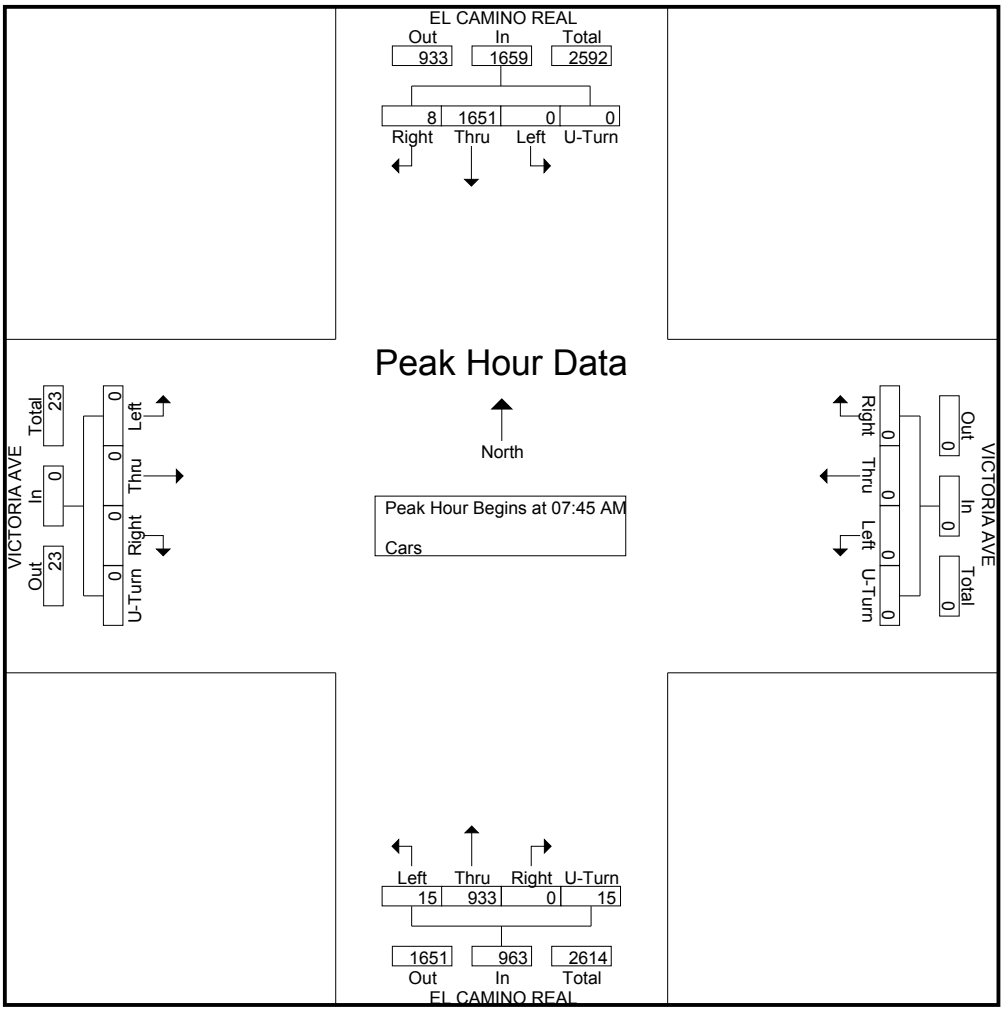
File Name : #7 ELCAMINOREAL&VICTORIAAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	EL CAMINO REAL Southbound					VICTORIA AVE Westbound					EL CAMINO REAL Northbound					VICTORIA AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	**4**	412	0	0	416	0	0	0	0	0	0	236	**5**	3	244	0	0	0	0	0	660
08:00 AM	0	**429**	0	0	**429**	0	0	0	0	0	0	216	0	1	217	0	0	0	0	0	646
08:15 AM	2	395	0	0	397	0	0	0	0	0	0	216	5	**6**	227	0	0	0	0	0	624
08:30 AM	2	415	0	0	417	0	0	0	0	0	0	**265**	5	5	**275**	0	0	0	0	0	**692**
Total Volume	8	1651	0	0	1659	0	0	0	0	0	0	933	15	15	963	0	0	0	0	0	2622
% App. Total	0.5	99.5	0	0		0	0	0	0		0	96.9	1.6	1.6		0	0	0	0		
PHF	.500	.962	.000	.000	.967	.000	.000	.000	.000	.000	.000	.880	.750	.625	.875	.000	.000	.000	.000	.000	.947



All Traffic Data Services
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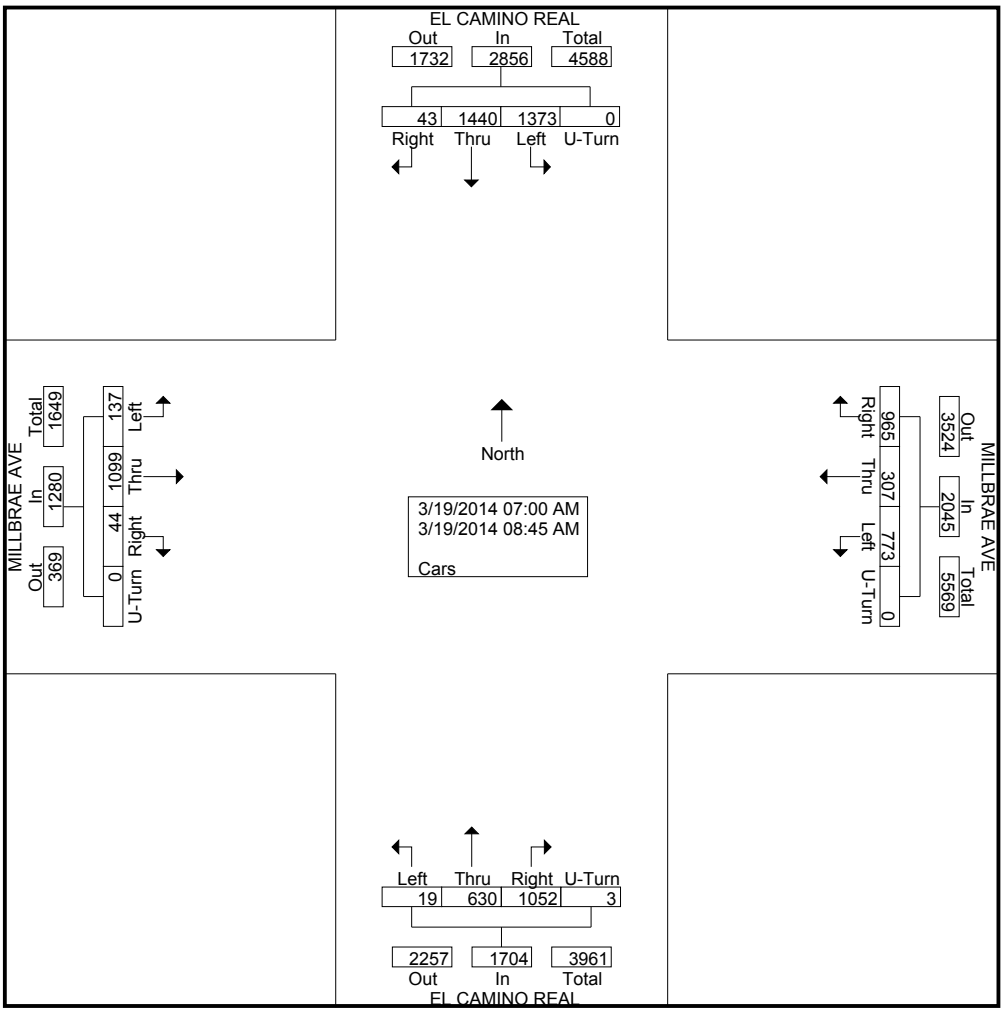
File Name : #2 ELCAMINOREAL&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				MILLBRAE AVE Westbound				EL CAMINO REAL Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	5	76	152	0	98	19	79	0	127	42	0	1	2	93	13	0	707
07:15 AM	7	137	160	0	122	41	82	0	127	51	1	0	1	114	12	0	855
07:30 AM	5	177	159	0	124	36	110	0	127	68	1	0	3	157	17	0	984
07:45 AM	7	185	192	0	142	47	105	0	158	84	2	0	7	125	24	0	1078
Total	24	575	663	0	486	143	376	0	539	245	4	1	13	489	66	0	3624
08:00 AM	2	210	210	0	114	48	87	0	111	75	3	1	6	156	17	0	1040
08:15 AM	8	206	178	0	111	38	89	0	140	96	0	0	8	163	16	0	1053
08:30 AM	3	211	170	0	114	37	108	0	137	109	5	0	9	152	21	0	1076
08:45 AM	6	238	152	0	140	41	113	0	125	105	7	1	8	139	17	0	1092
Total	19	865	710	0	479	164	397	0	513	385	15	2	31	610	71	0	4261
Grand Total	43	1440	1373	0	965	307	773	0	1052	630	19	3	44	1099	137	0	7885
Apprch %	1.5	50.4	48.1	0	47.2	15	37.8	0	61.7	37	1.1	0.2	3.4	85.9	10.7	0	
Total %	0.5	18.3	17.4	0	12.2	3.9	9.8	0	13.3	8	0.2	0	0.6	13.9	1.7	0	



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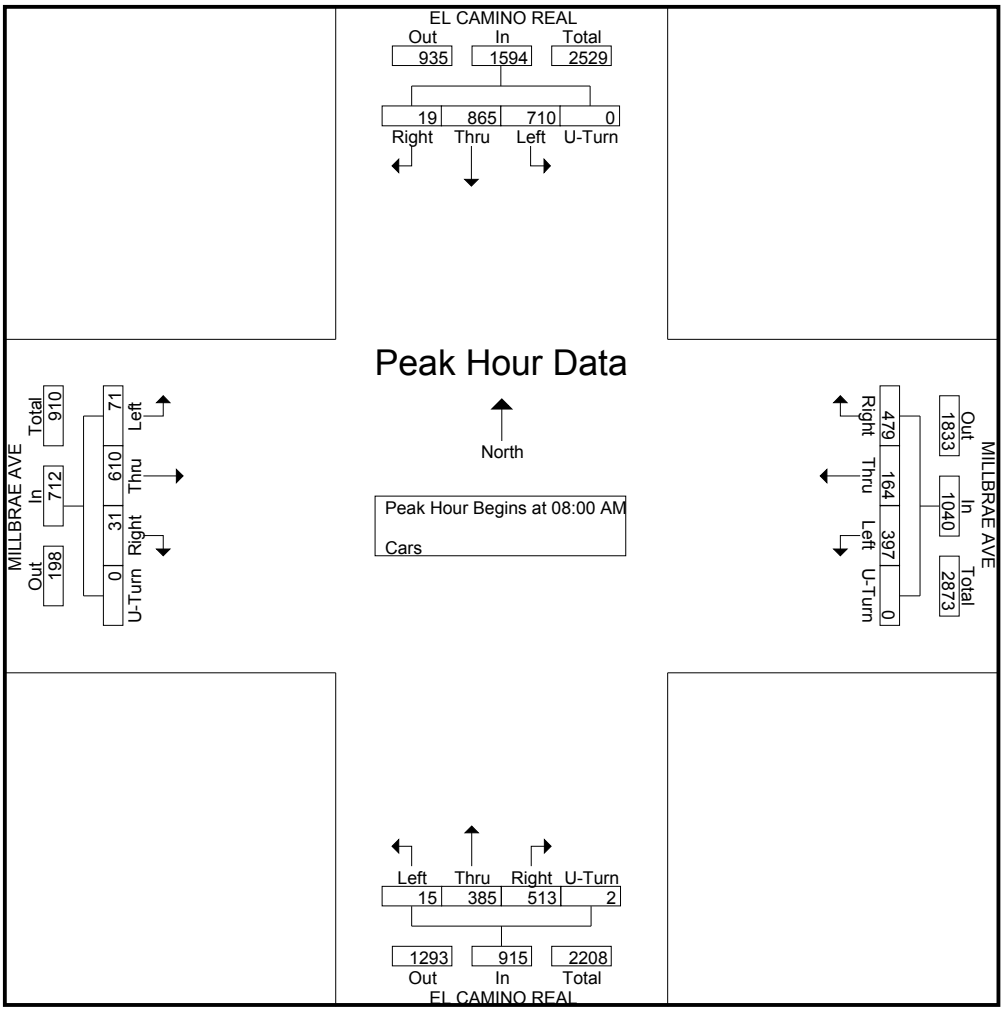
File Name : #2 ELCAMINOREAL&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	EL CAMINO REAL Southbound					MILLBRAE AVE Westbound					EL CAMINO REAL Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	2	210	**210**	0	**422**	114	**48**	87	0	249	111	75	3	**1**	190	6	156	17	0	179	1040
08:15 AM	**8**	206	178	0	392	111	38	89	0	238	**140**	96	0	0	236	8	**163**	16	0	**187**	1053
08:30 AM	3	211	170	0	384	114	37	108	0	259	137	**109**	5	0	**251**	**9**	152	**21**	0	182	1076
08:45 AM	6	**238**	152	0	396	**140**	41	**113**	0	**294**	125	105	**7**	1	238	8	139	17	0	164	**1092**
Total Volume	19	865	710	0	1594	479	164	397	0	1040	513	385	15	2	915	31	610	71	0	712	4261
% App. Total	1.2	54.3	44.5	0		46.1	15.8	38.2	0		56.1	42.1	1.6	0.2		4.4	85.7	10	0		
PHF	.594	.909	.845	.000	.944	.855	.854	.878	.000	.884	.916	.883	.536	.500	.911	.861	.936	.845	.000	.952	.976



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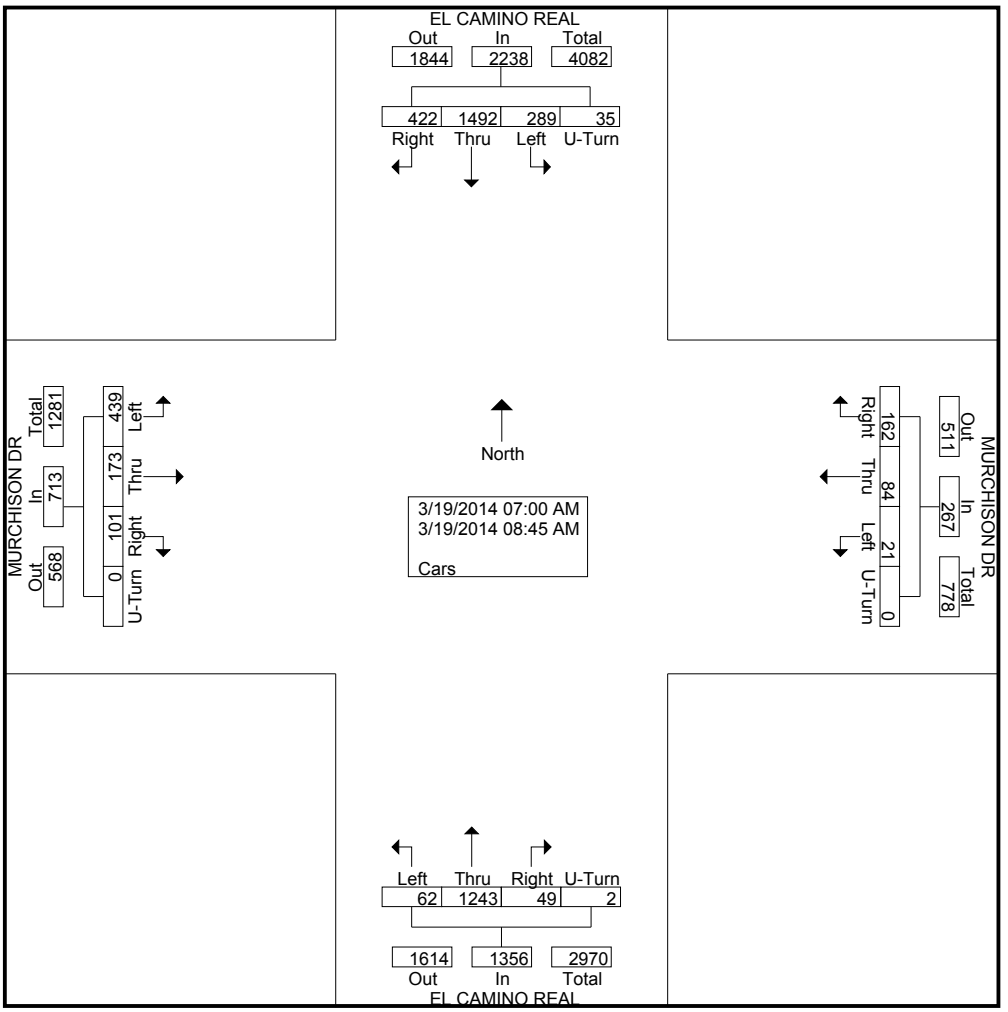
File Name : #8 ELCAMINOREAL&MURCHISONAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				MURCHISON DR Westbound				EL CAMINO REAL Northbound				MURCHISON DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	21	105	20	7	15	12	1	0	4	99	5	0	8	10	47	0	354
07:15 AM	26	151	26	5	16	6	2	0	6	118	4	0	8	12	43	0	423
07:30 AM	36	194	32	2	14	8	3	0	2	130	6	0	10	16	46	0	499
07:45 AM	69	216	39	6	10	11	0	0	3	183	9	2	16	24	53	0	641
Total	152	666	117	20	55	37	6	0	15	530	24	2	42	62	189	0	1917
08:00 AM	81	178	29	6	24	12	6	0	5	182	6	0	8	20	72	0	629
08:15 AM	62	202	39	3	20	14	5	0	6	172	4	0	17	35	66	0	645
08:30 AM	52	227	60	2	26	7	2	0	12	187	11	0	17	29	67	0	699
08:45 AM	75	219	44	4	37	14	2	0	11	172	17	0	17	27	45	0	684
Total	270	826	172	15	107	47	15	0	34	713	38	0	59	111	250	0	2657
Grand Total	422	1492	289	35	162	84	21	0	49	1243	62	2	101	173	439	0	4574
Apprch %	18.9	66.7	12.9	1.6	60.7	31.5	7.9	0	3.6	91.7	4.6	0.1	14.2	24.3	61.6	0	
Total %	9.2	32.6	6.3	0.8	3.5	1.8	0.5	0	1.1	27.2	1.4	0	2.2	3.8	9.6	0	



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Santa Clara, CA, 95054
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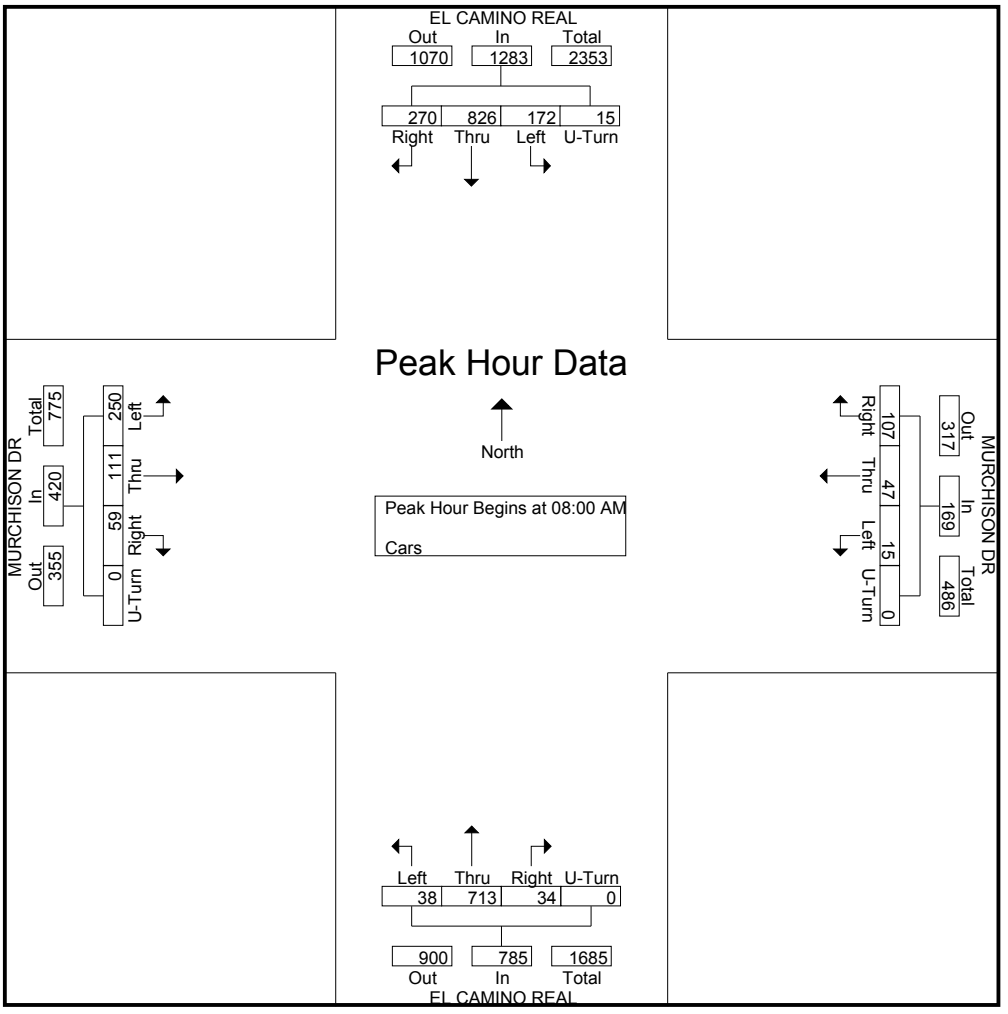
File Name : #8 ELCAMINOREAL&MURCHISONAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	EL CAMINO REAL Southbound					MURCHISON DR Westbound					EL CAMINO REAL Northbound					MURCHISON DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**81**	178	29	**6**	294	24	12	**6**	0	42	5	182	6	0	193	8	20	**72**	0	100	629
08:15 AM	62	202	39	3	306	20	**14**	5	0	39	6	172	4	0	182	**17**	**35**	66	0	**118**	645
08:30 AM	52	**227**	**60**	2	341	26	7	2	0	35	**12**	**187**	11	0	**210**	17	29	67	0	113	**699**
08:45 AM	75	219	44	4	**342**	**37**	14	2	0	**53**	11	172	**17**	0	200	17	27	45	0	89	684
Total Volume	270	826	172	15	1283	107	47	15	0	169	34	713	38	0	785	59	111	250	0	420	2657
% App. Total	21	64.4	13.4	1.2		63.3	27.8	8.9	0		4.3	90.8	4.8	0		14	26.4	59.5	0		
PHF	.833	.910	.717	.625	.938	.723	.839	.625	.000	.797	.708	.953	.559	.000	.935	.868	.793	.868	.000	.890	.950

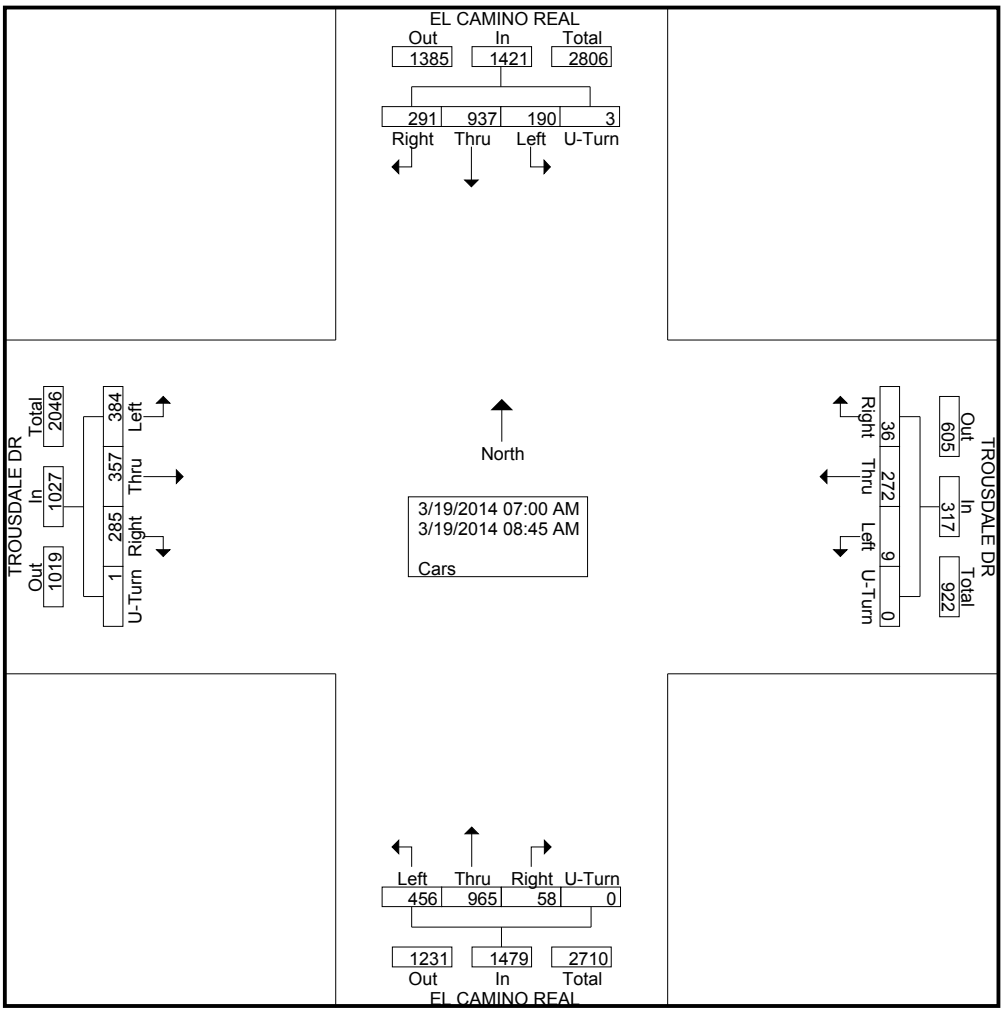


All Traffic Data Services
2187 Kingsbury Cir
Santa Clara, CA, 95054
www.Alltrafficdata.net

File Name : #9 ELCAMINOREAL&TROUSDALEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				TROUSDALE DR Westbound				EL CAMINO REAL Northbound				TROUSDALE DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	24	74	9	0	5	17	0	0	6	72	34	0	15	24	35	0	315
07:15 AM	34	98	12	0	2	23	0	0	6	85	48	0	24	17	36	0	385
07:30 AM	36	138	16	0	5	29	0	0	9	106	39	0	34	39	37	0	488
07:45 AM	46	126	33	1	3	24	0	0	8	130	69	0	29	33	50	1	553
Total	140	436	70	1	15	93	0	0	29	393	190	0	102	113	158	1	1741
08:00 AM	37	106	21	0	5	46	2	0	5	137	70	0	35	37	37	0	538
08:15 AM	48	108	27	1	1	44	2	0	4	135	71	0	49	65	69	0	624
08:30 AM	30	144	36	0	7	42	3	0	13	156	54	0	60	91	61	0	697
08:45 AM	36	143	36	1	8	47	2	0	7	144	71	0	39	51	59	0	644
Total	151	501	120	2	21	179	9	0	29	572	266	0	183	244	226	0	2503
Grand Total	291	937	190	3	36	272	9	0	58	965	456	0	285	357	384	1	4244
Apprch %	20.5	65.9	13.4	0.2	11.4	85.8	2.8	0	3.9	65.2	30.8	0	27.8	34.8	37.4	0.1	
Total %	6.9	22.1	4.5	0.1	0.8	6.4	0.2	0	1.4	22.7	10.7	0	6.7	8.4	9	0	



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File Name : #9 ELCAMINOREAL&TROUSDALEAM
Site Code : 00000000
Start Date : 3/19/2014
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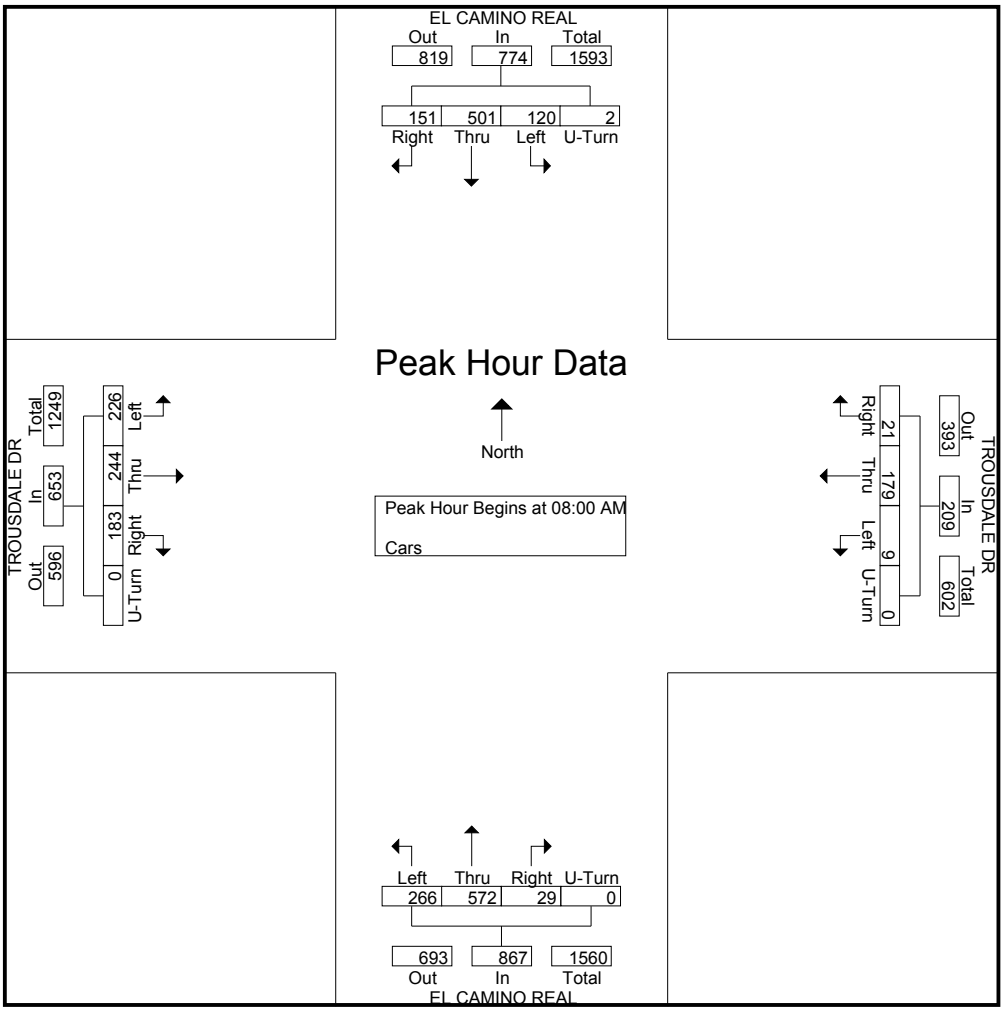
	EL CAMINO REAL Southbound					TROUSDALE DR Westbound					EL CAMINO REAL Northbound					TROUSDALE DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	37	106	21	0	164	5	46	2	0	53	5	137	70	0	212	35	37	37	0	109	538
08:15 AM	**48**	108	27	**1**	184	1	44	2	0	47	4	135	**71**	0	210	49	65	**69**	0	183	624
08:30 AM	30	**144**	**36**	0	210	7	42	**3**	0	52	**13**	**156**	54	0	**223**	**60**	**91**	61	0	**212**	**697**
08:45 AM	36	143	36	1	**216**	**8**	**47**	2	0	**57**	7	144	71	0	222	39	51	59	0	149	644
Total Volume	151	501	120	2	774	21	179	9	0	209	29	572	266	0	867	183	244	226	0	653	2503
% App. Total	19.5	64.7	15.5	0.3		10	85.6	4.3	0		3.3	66	30.7	0		28	37.4	34.6	0		
PHF	.786	.870	.833	.500	.896	.656	.952	.750	.000	.917	.558	.917	.937	.000	.972	.763	.670	.819	.000	.770	.898



All Traffic Data Services
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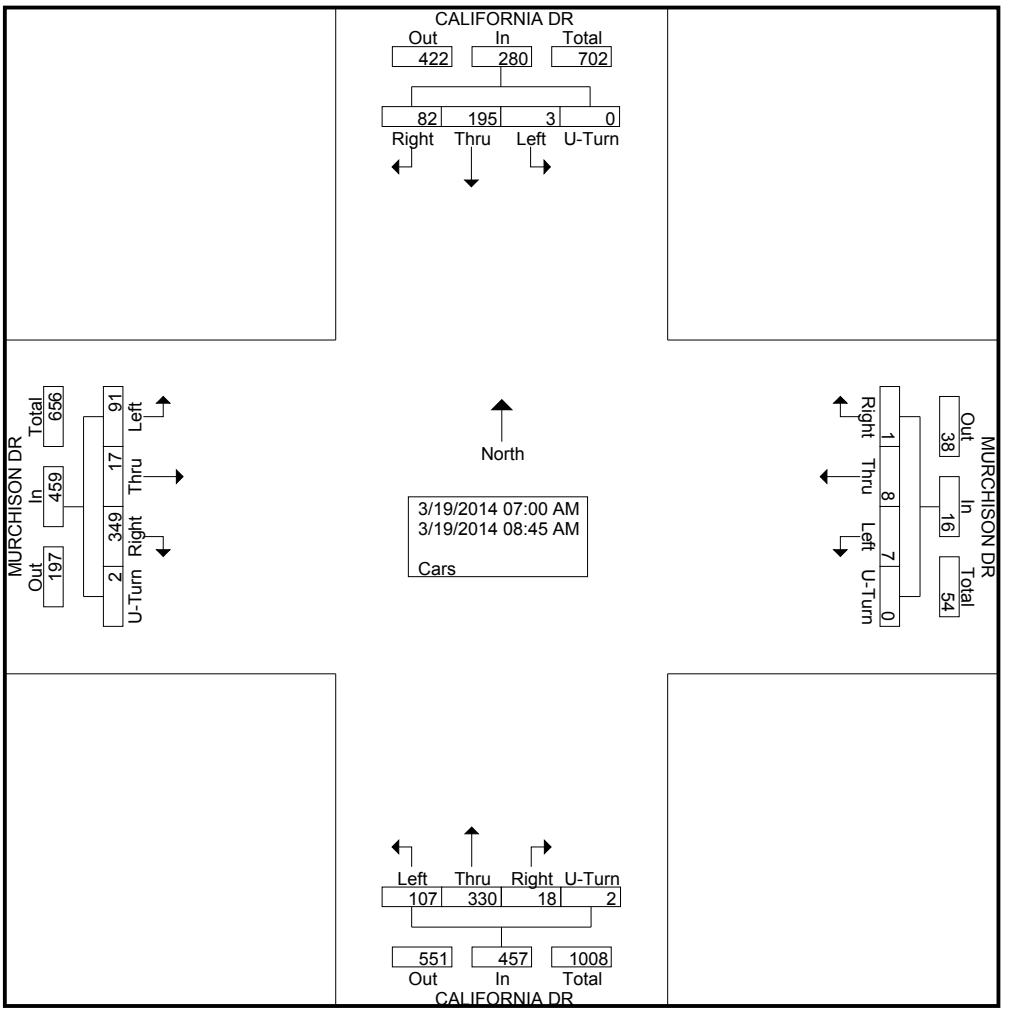
File Name : #10 CALIFORNIA&MURCHISONAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	CALIFORNIA DR Southbound				MURCHISON DR Westbound				CALIFORNIA DR Northbound				MURCHISON DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	11	22	0	0	0	0	1	0	2	47	12	0	13	1	16	0	125
07:15 AM	13	17	0	0	0	0	0	0	2	35	11	0	24	2	12	0	116
07:30 AM	10	25	1	0	0	0	0	0	3	41	12	0	34	1	10	0	137
07:45 AM	8	23	0	0	0	2	1	0	4	44	12	1	42	9	15	0	161
Total	42	87	1	0	0	2	2	0	11	167	47	1	113	13	53	0	539
08:00 AM	10	27	1	0	0	1	0	0	7	39	15	0	38	4	8	0	150
08:15 AM	12	22	0	0	0	1	0	0	0	36	14	0	62	0	11	0	158
08:30 AM	9	34	0	0	1	0	3	0	0	42	17	0	73	0	15	2	196
08:45 AM	9	25	1	0	0	4	2	0	0	46	14	1	63	0	4	0	169
Total	40	108	2	0	1	6	5	0	7	163	60	1	236	4	38	2	673
Grand Total	82	195	3	0	1	8	7	0	18	330	107	2	349	17	91	2	1212
Apprch %	29.3	69.6	1.1	0	6.2	50	43.8	0	3.9	72.2	23.4	0.4	76	3.7	19.8	0.4	
Total %	6.8	16.1	0.2	0	0.1	0.7	0.6	0	1.5	27.2	8.8	0.2	28.8	1.4	7.5	0.2	



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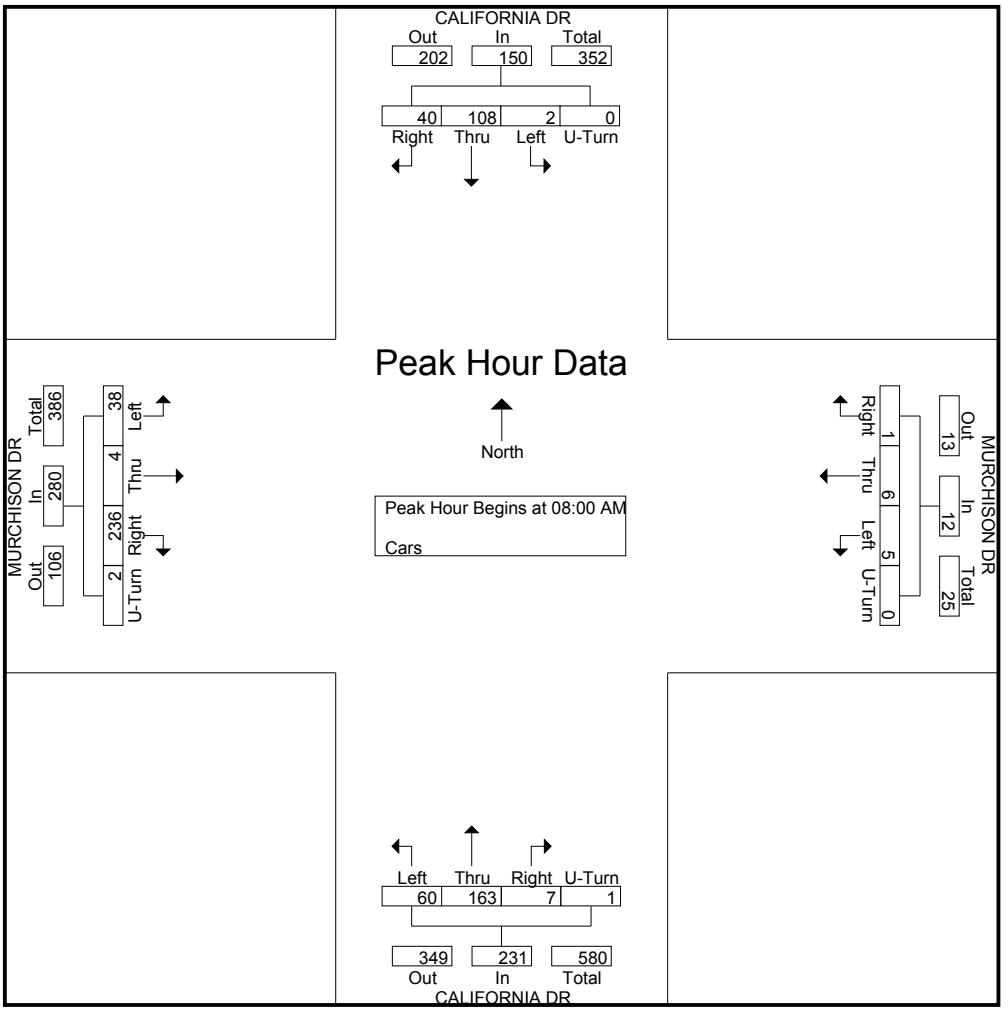
File Name : #10 CALIFORNIA&MURCHISONAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	CALIFORNIA DR Southbound					MURCHISON DR Westbound					CALIFORNIA DR Northbound					MURCHISON DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	10	27	**1**	0	38	0	1	0	0	1	**7**	39	15	0	**61**	38	**4**	8	0	50	150
08:15 AM	**12**	22	0	0	34	0	1	0	0	1	0	36	14	0	50	62	0	11	0	73	158
08:30 AM	9	**34**	0	0	**43**	**1**	0	**3**	0	4	0	42	**17**	0	59	**73**	0	**15**	**2**	**90**	**196**
08:45 AM	9	25	1	0	35	0	**4**	2	0	**6**	0	**46**	14	**1**	61	63	0	4	0	67	169
Total Volume	40	108	2	0	150	1	6	5	0	12	7	163	60	1	231	236	4	38	2	280	673
% App. Total	26.7	72	1.3	0		8.3	50	41.7	0		3	70.6	26	0.4		84.3	1.4	13.6	0.7		
PHF	.833	.794	.500	.000	.872	.250	.375	.417	.000	.500	.250	.886	.882	.250	.947	.808	.250	.633	.250	.778	.858



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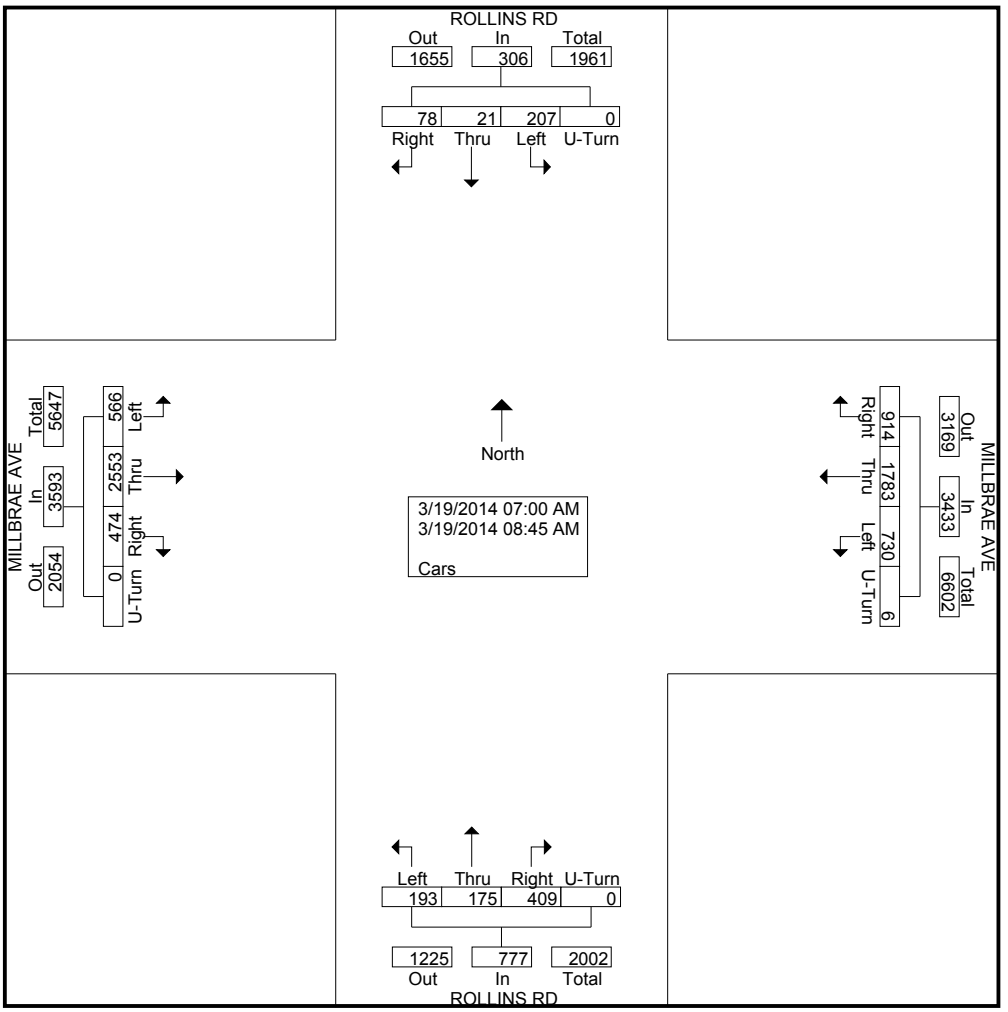
File Name : #1 ROLLINS&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	ROLLINS RD Southbound				MILLBRAE AVE Westbound				ROLLINS RD Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	5	0	25	0	138	177	62	1	66	25	17	0	33	272	59	0	880
07:15 AM	14	0	31	0	122	196	73	0	35	18	18	0	32	281	52	0	872
07:30 AM	11	2	28	0	106	248	117	2	39	32	28	0	31	295	80	0	1019
07:45 AM	16	6	24	0	146	234	114	0	38	21	25	0	66	293	72	0	1055
Total	46	8	108	0	512	855	366	3	178	96	88	0	162	1141	263	0	3826
08:00 AM	11	3	30	0	119	238	83	1	48	26	23	0	79	376	88	0	1125
08:15 AM	9	2	25	0	122	212	102	2	46	22	27	0	82	371	91	0	1113
08:30 AM	6	5	25	0	83	219	89	0	67	19	28	0	77	360	63	0	1041
08:45 AM	6	3	19	0	78	259	90	0	70	12	27	0	74	305	61	0	1004
Total	32	13	99	0	402	928	364	3	231	79	105	0	312	1412	303	0	4283
Grand Total	78	21	207	0	914	1783	730	6	409	175	193	0	474	2553	566	0	8109
Apprch %	25.5	6.9	67.6	0	26.6	51.9	21.3	0.2	52.6	22.5	24.8	0	13.2	71.1	15.8	0	
Total %	1	0.3	2.6	0	11.3	22	9	0.1	5	2.2	2.4	0	5.8	31.5	7	0	



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File Name : #1 ROLLINS&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
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	ROLLINS RD Southbound					MILLBRAE AVE Westbound					ROLLINS RD Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 07:15 AM - Peak 1 of 1

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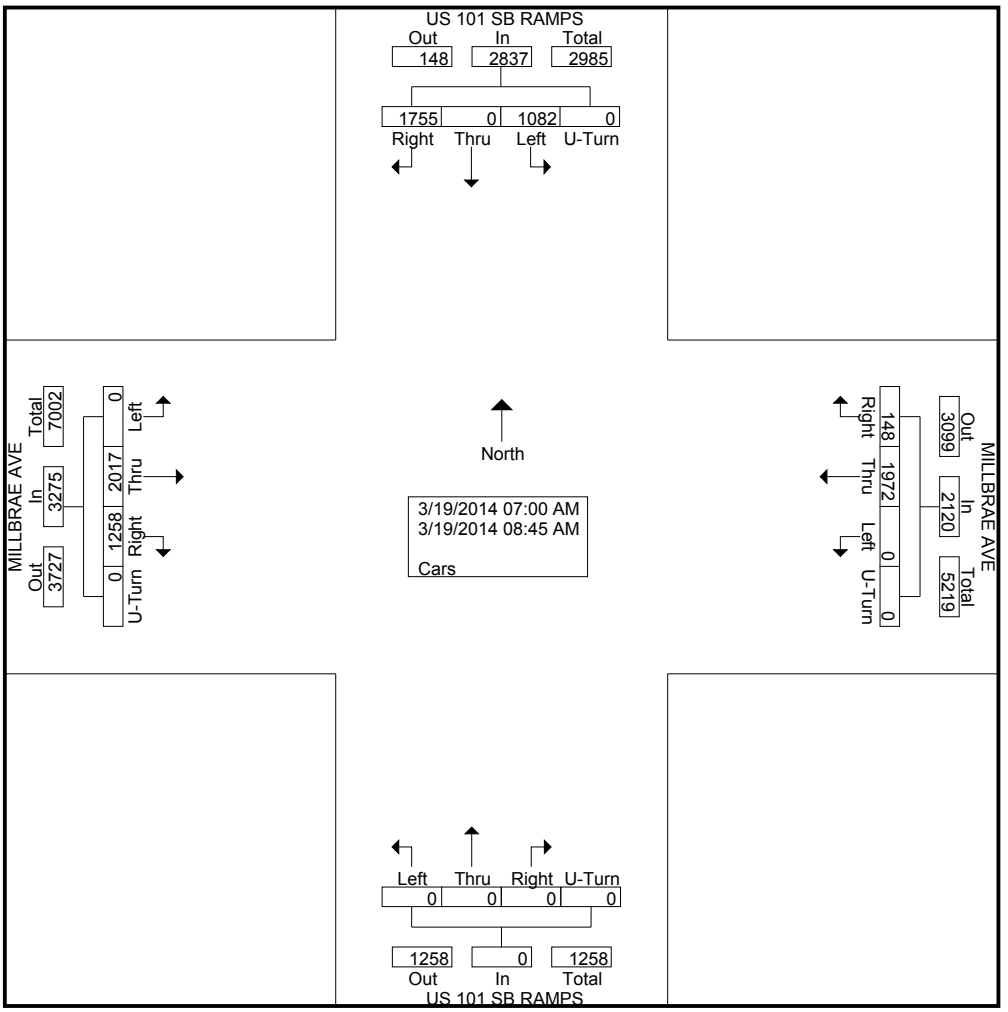
File Name : #3 US101SBRAMPS&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	US 101 SB RAMPS Southbound				MILLBRAE AVE Westbound				US 101 SB RAMPS Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	202	0	95	0	18	216	0	0	0	0	0	0	151	200	0	0	882
07:15 AM	207	0	159	0	14	217	0	0	0	0	0	0	178	200	0	0	975
07:30 AM	234	0	123	0	12	252	0	0	0	0	0	0	162	251	0	0	1034
07:45 AM	268	0	146	0	18	284	0	0	0	0	0	0	129	245	0	0	1090
Total	911	0	523	0	62	969	0	0	0	0	0	0	620	896	0	0	3981
08:00 AM	210	0	104	0	21	283	0	0	0	0	0	0	167	289	0	0	1074
08:15 AM	235	0	131	0	32	244	0	0	0	0	0	0	161	297	0	0	1100
08:30 AM	206	0	157	0	24	222	0	0	0	0	0	0	157	281	0	0	1047
08:45 AM	193	0	167	0	9	254	0	0	0	0	0	0	153	254	0	0	1030
Total	844	0	559	0	86	1003	0	0	0	0	0	0	638	1121	0	0	4251
Grand Total	1755	0	1082	0	148	1972	0	0	0	0	0	0	1258	2017	0	0	8232
Apprch %	61.9	0	38.1	0	7	93	0	0	0	0	0	0	38.4	61.6	0	0	
Total %	21.3	0	13.1	0	1.8	24	0	0	0	0	0	0	15.3	24.5	0	0	



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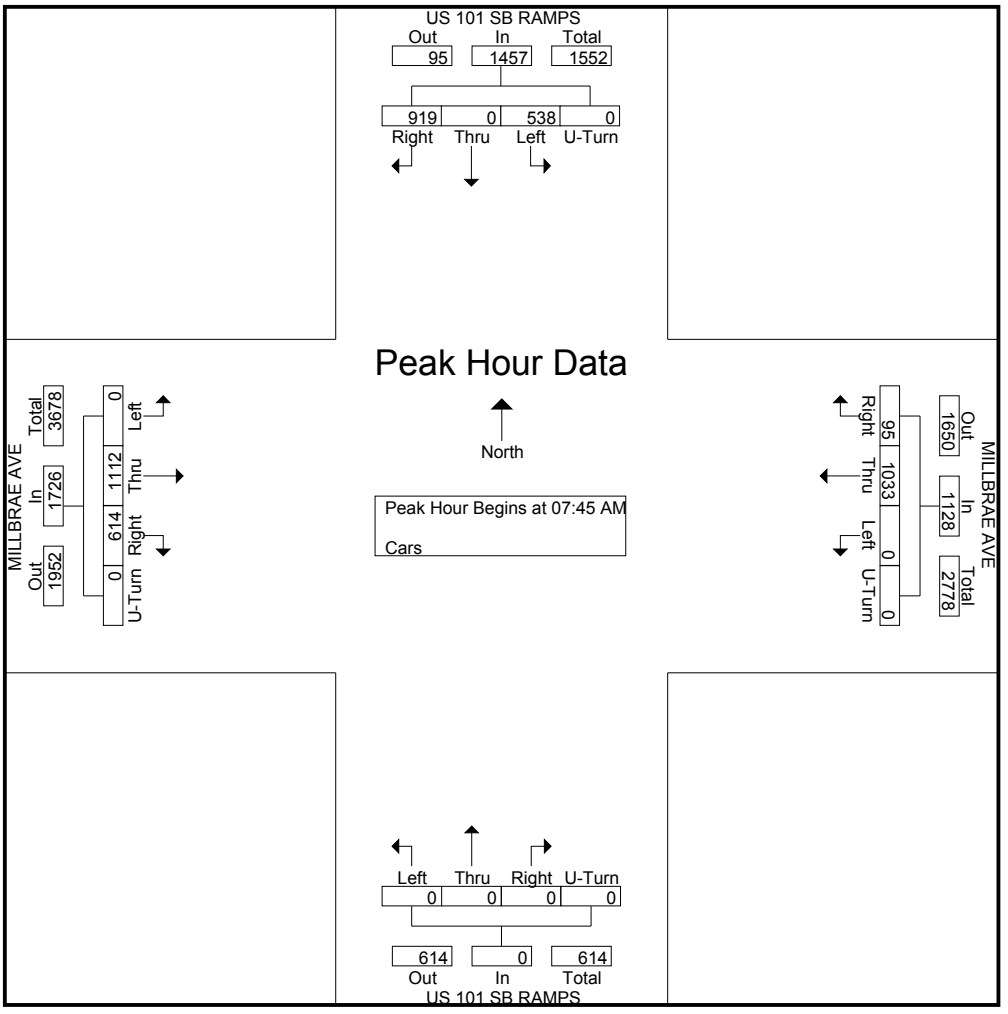
File Name : #3 US101SBRAMPS&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	US 101 SB RAMPS Southbound					MILLBRAE AVE Westbound					US 101 SB RAMPS Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	**268**	0	146	0	**414**	18	**284**	0	0	302	0	0	0	0	0	129	245	0	0	374	1090
08:00 AM	210	0	104	0	314	21	283	0	0	**304**	0	0	0	0	0	**167**	289	0	0	456	1074
08:15 AM	235	0	131	0	366	**32**	244	0	0	276	0	0	0	0	0	161	**297**	0	0	**458**	**1100**
08:30 AM	206	0	**157**	0	363	24	222	0	0	246	0	0	0	0	0	157	281	0	0	438	1047
Total Volume	919	0	538	0	1457	95	1033	0	0	1128	0	0	0	0	0	614	1112	0	0	1726	4311
% App. Total	63.1	0	36.9	0		8.4	91.6	0	0		0	0	0	0		35.6	64.4	0	0		
PHF	.857	.000	.857	.000	.880	.742	.909	.000	.000	.928	.000	.000	.000	.000	.000	.919	.936	.000	.000	.942	.980



All Traffic Data Services
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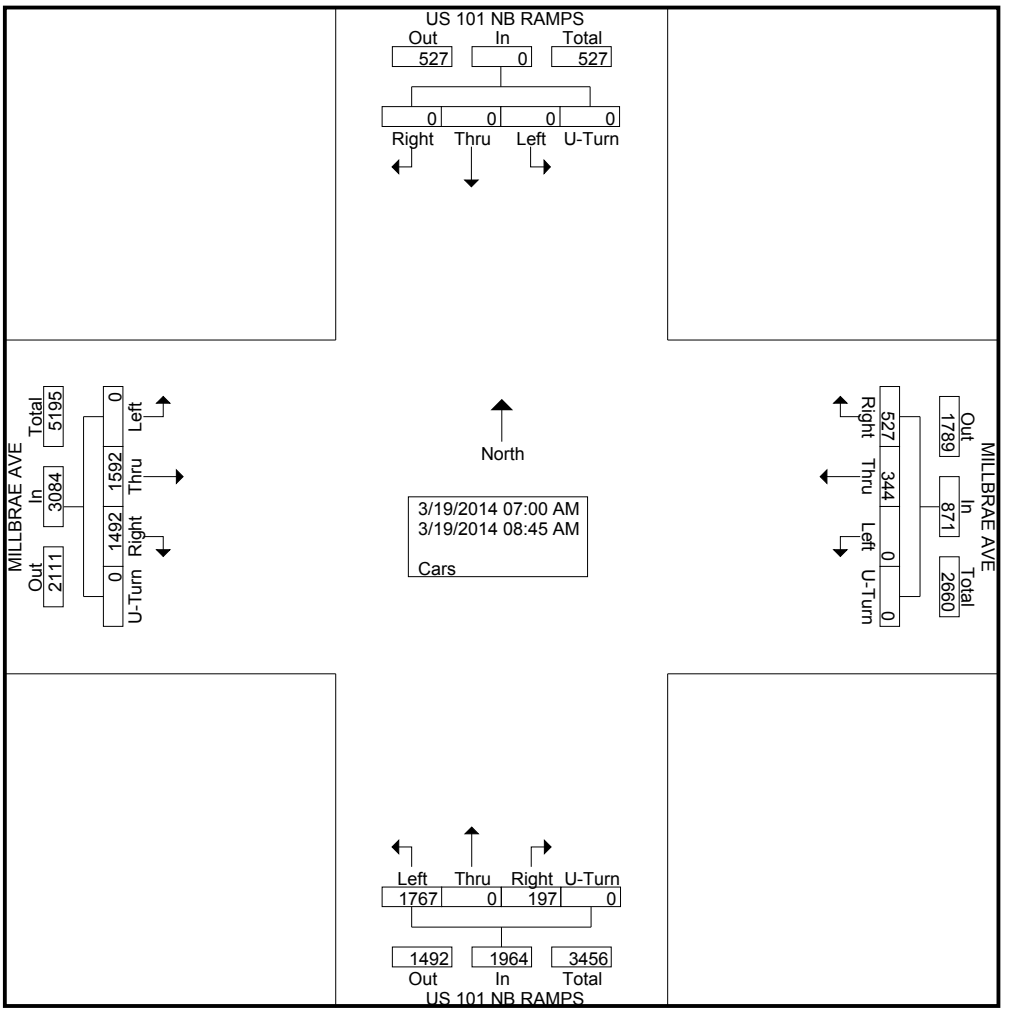
File Name : #4 US101NBRAMPS&MILLBRAEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	US 101 NB RAMPS Southbound				MILLBRAE AVE Westbound				US 101 NB RAMPS Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	49	29	0	0	16	0	206	0	155	132	0	0	587
07:15 AM	0	0	0	0	61	40	0	0	27	0	208	0	165	185	0	0	686
07:30 AM	0	0	0	0	74	37	0	0	22	0	214	0	177	192	0	0	716
07:45 AM	0	0	0	0	83	47	0	0	27	0	256	0	202	204	0	0	819
Total	0	0	0	0	267	153	0	0	92	0	884	0	699	713	0	0	2808
08:00 AM	0	0	0	0	70	49	0	0	26	0	245	0	187	200	0	0	777
08:15 AM	0	0	0	0	70	46	0	0	23	0	226	0	210	207	0	0	782
08:30 AM	0	0	0	0	62	47	0	0	29	0	197	0	220	228	0	0	783
08:45 AM	0	0	0	0	58	49	0	0	27	0	215	0	176	244	0	0	769
Total	0	0	0	0	260	191	0	0	105	0	883	0	793	879	0	0	3111
Grand Total	0	0	0	0	527	344	0	0	197	0	1767	0	1492	1592	0	0	5919
Apprch %	0	0	0	0	60.5	39.5	0	0	10	0	90	0	48.4	51.6	0	0	
Total %	0	0	0	0	8.9	5.8	0	0	3.3	0	29.9	0	25.2	26.9	0	0	



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File Name : #4 US101NBRAMPS&MILLBRAEAM
Site Code : 00000000
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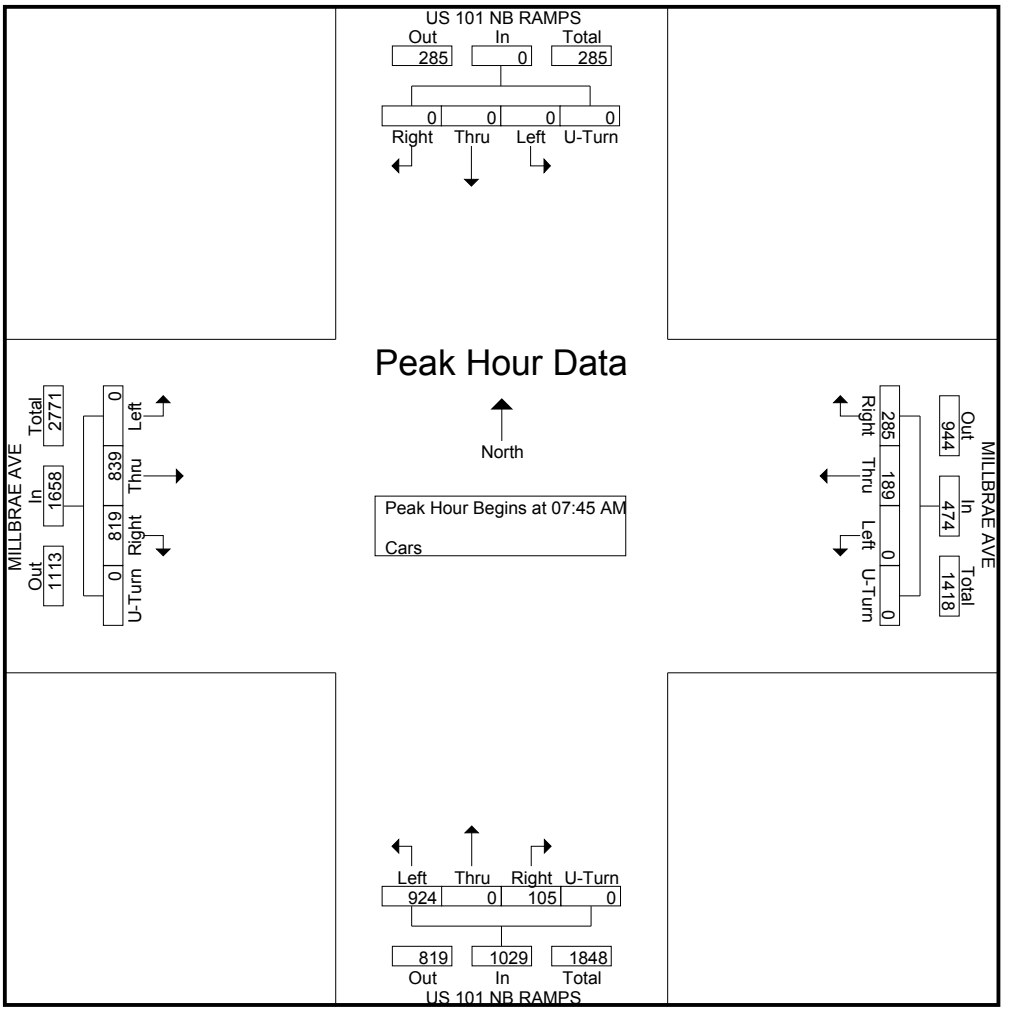
	US 101 NB RAMPS Southbound					MILLBRAE AVE Westbound					US 101 NB RAMPS Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	**83**	47	0	0	**130**	27	0	**256**	0	**283**	202	204	0	0	406	**819**
08:00 AM	0	0	0	0	0	70	**49**	0	0	119	26	0	245	0	271	187	200	0	0	387	777
08:15 AM	0	0	0	0	0	70	46	0	0	116	23	0	226	0	249	210	207	0	0	417	782
08:30 AM	0	0	0	0	0	62	47	0	0	109	**29**	0	197	0	226	**220**	**228**	0	0	**448**	783
Total Volume	0	0	0	0	0	285	189	0	0	474	105	0	924	0	1029	819	839	0	0	1658	3161
% App. Total	0	0	0	0		60.1	39.9	0	0		10.2	0	89.8	0		49.4	50.6	0	0		
PHF	.000	.000	.000	.000	.000	.858	.964	.000	.000	.912	.905	.000	.902	.000	.909	.931	.920	.000	.000	.925	.965



All Traffic Data Services
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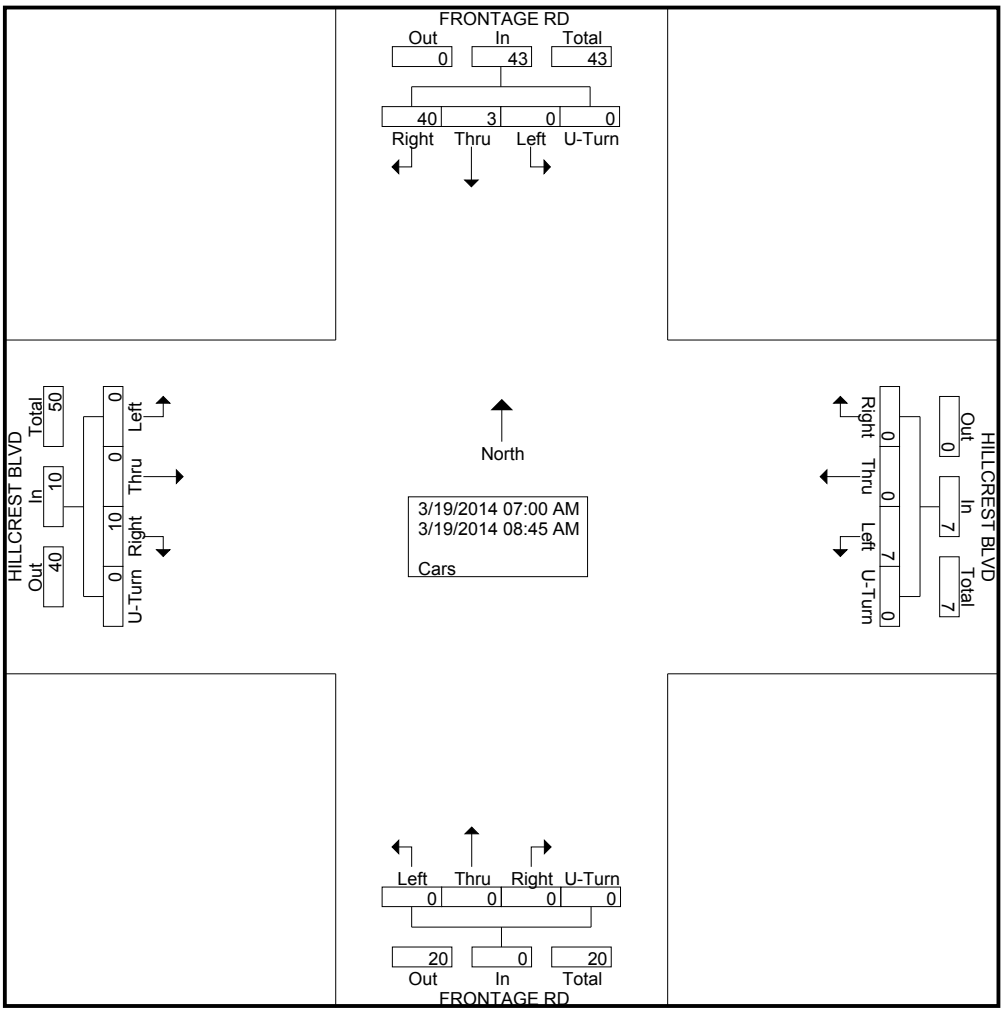
File Name : #5 FRONTAGE&HILLCRESTAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	FRONTAGE RD Southbound				HILLCREST BLVD Westbound				FRONTAGE RD Northbound				HILLCREST BLVD Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6
07:15 AM	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4
07:30 AM	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
07:45 AM	4	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	6
Total	12	1	0	0	0	0	3	0	0	0	0	0	3	0	0	0	19
08:00 AM	6	1	0	0	0	0	1	0	0	0	0	0	2	0	0	0	10
08:15 AM	7	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8
08:30 AM	10	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	11
08:45 AM	5	1	0	0	0	0	1	0	0	0	0	0	5	0	0	0	12
Total	28	2	0	0	0	0	4	0	0	0	0	0	7	0	0	0	41
Grand Total	40	3	0	0	0	0	7	0	0	0	0	0	10	0	0	0	60
Apprch %	93	7	0	0	0	0	100	0	0	0	0	0	100	0	0	0	
Total %	66.7	5	0	0	0	0	11.7	0	0	0	0	0	16.7	0	0	0	



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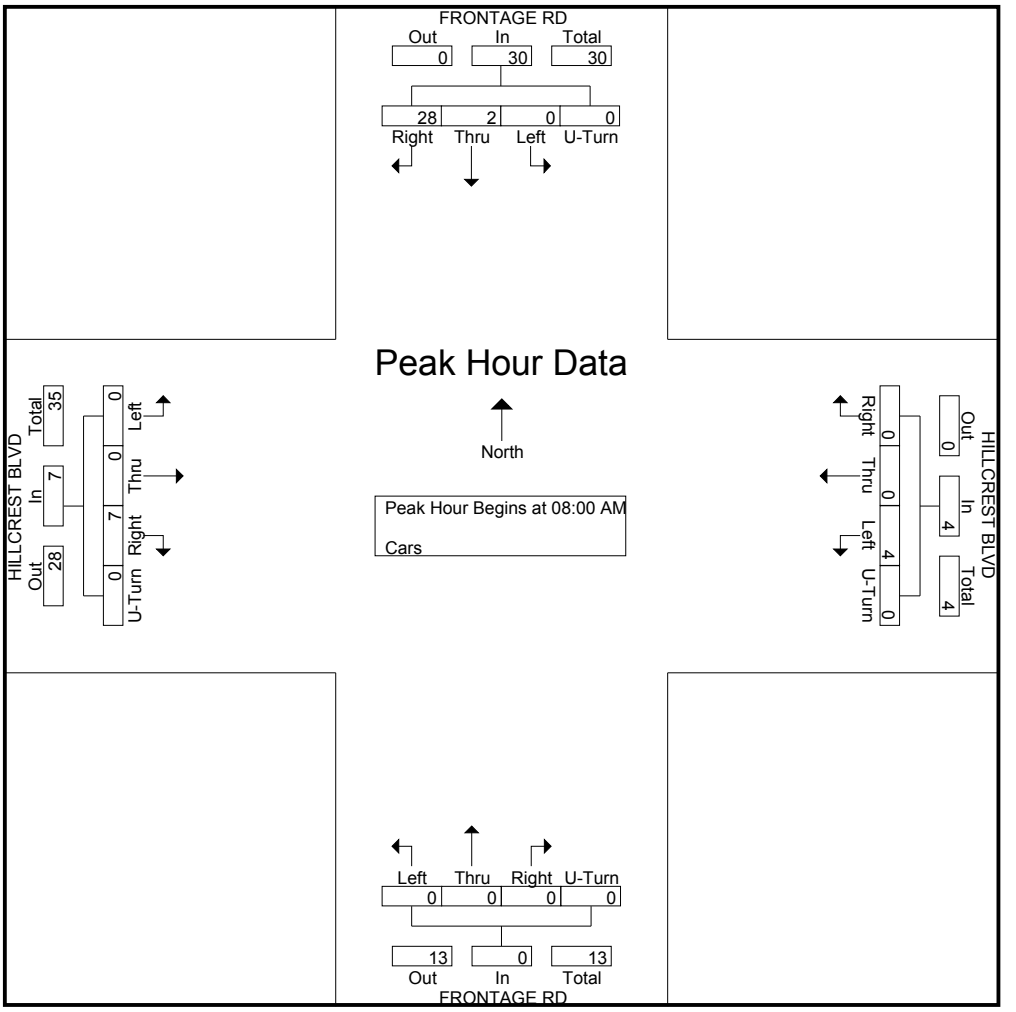
File Name : #5 FRONTAGE&HILLCRESTAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	FRONTAGE RD Southbound					HILLCREST BLVD Westbound					FRONTAGE RD Northbound					HILLCREST BLVD Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	6	**1**	0	0	7	0	0	**1**	0	**1**	0	0	0	0	0	2	0	0	0	2	10
08:15 AM	7	0	0	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
08:30 AM	**10**	0	0	0	**10**	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	11
08:45 AM	5	1	0	0	6	0	0	1	0	1	0	0	0	0	0	**5**	0	0	0	**5**	**12**
Total Volume	28	2	0	0	30	0	0	4	0	4	0	0	0	0	0	7	0	0	0	7	41
% App. Total	93.3	6.7	0	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	.700	.500	.000	.000	.750	.000	.000	1.00	.000	1.00	.000	.000	.000	.000	.000	.350	.000	.000	.000	.350	.854



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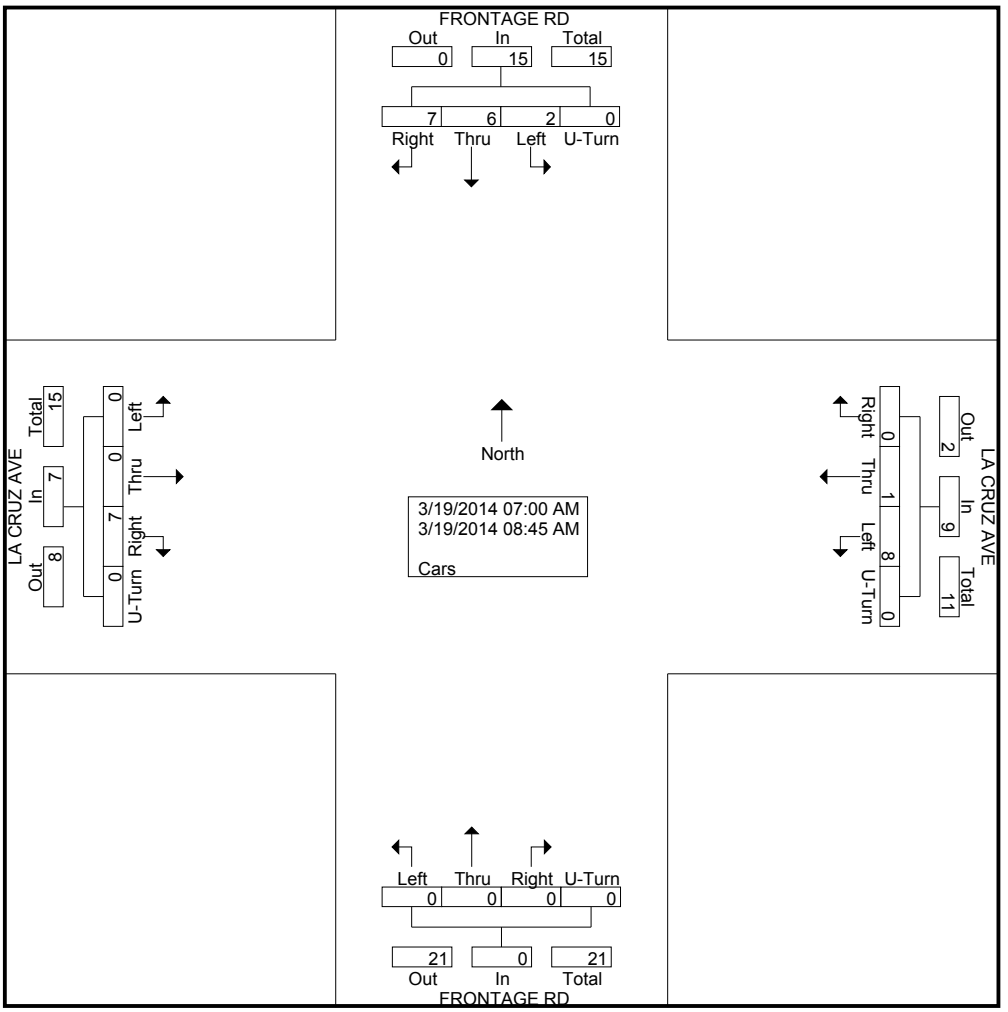
File Name : #6 FRONTAGE&LACRUZAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	FRONTAGE RD Southbound				LA CRUZ AVE Westbound				FRONTAGE RD Northbound				LA CRUZ AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3
07:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	3
07:45 AM	1	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	5
Total	1	2	1	0	0	1	5	0	0	0	0	0	3	0	0	0	13
08:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5
08:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30 AM	1	1	0	0	0	0	2	0	0	0	0	0	1	0	0	0	5
08:45 AM	1	3	0	0	0	0	1	0	0	0	0	0	1	0	0	0	6
Total	6	4	1	0	0	0	3	0	0	0	0	0	4	0	0	0	18
Grand Total	7	6	2	0	0	1	8	0	0	0	0	0	7	0	0	0	31
Apprch %	46.7	40	13.3	0	0	11.1	88.9	0	0	0	0	0	100	0	0	0	
Total %	22.6	19.4	6.5	0	0	3.2	25.8	0	0	0	0	0	22.6	0	0	0	



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File Name : #6 FRONTAGE&LACRUZAM
Site Code : 00000000
Start Date : 3/19/2014
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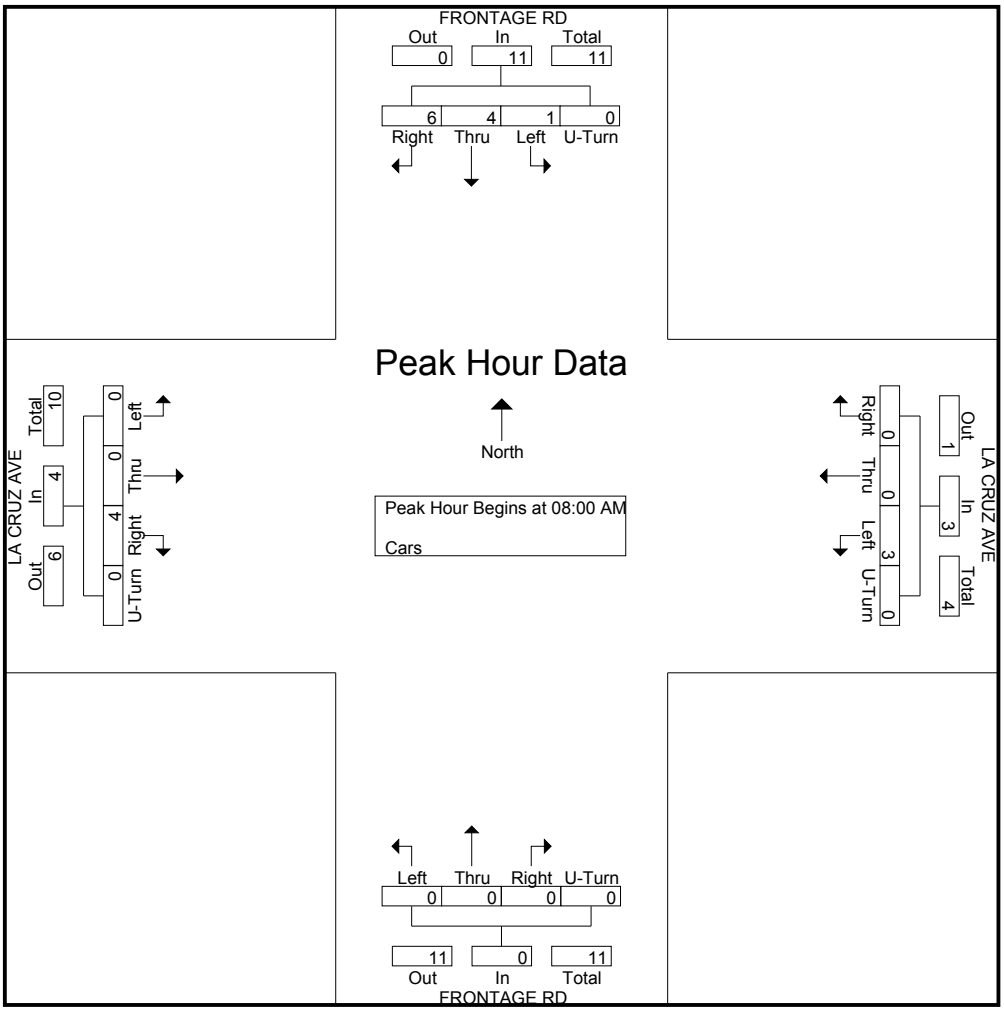
	FRONTAGE RD Southbound					LA CRUZ AVE Westbound					FRONTAGE RD Northbound					LA CRUZ AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**3**	0	0	0	3	0	0	0	0	0	0	0	0	0	0	**2**	0	0	0	**2**	5
08:15 AM	1	0	**1**	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30 AM	1	1	0	0	2	0	0	**2**	0	**2**	0	0	0	0	0	1	0	0	0	1	5
08:45 AM	1	**3**	0	0	**4**	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	**6**
Total Volume	6	4	1	0	11	0	0	3	0	3	0	0	0	0	0	4	0	0	0	4	18
% App. Total	54.5	36.4	9.1	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	.500	.333	.250	.000	.688	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.750



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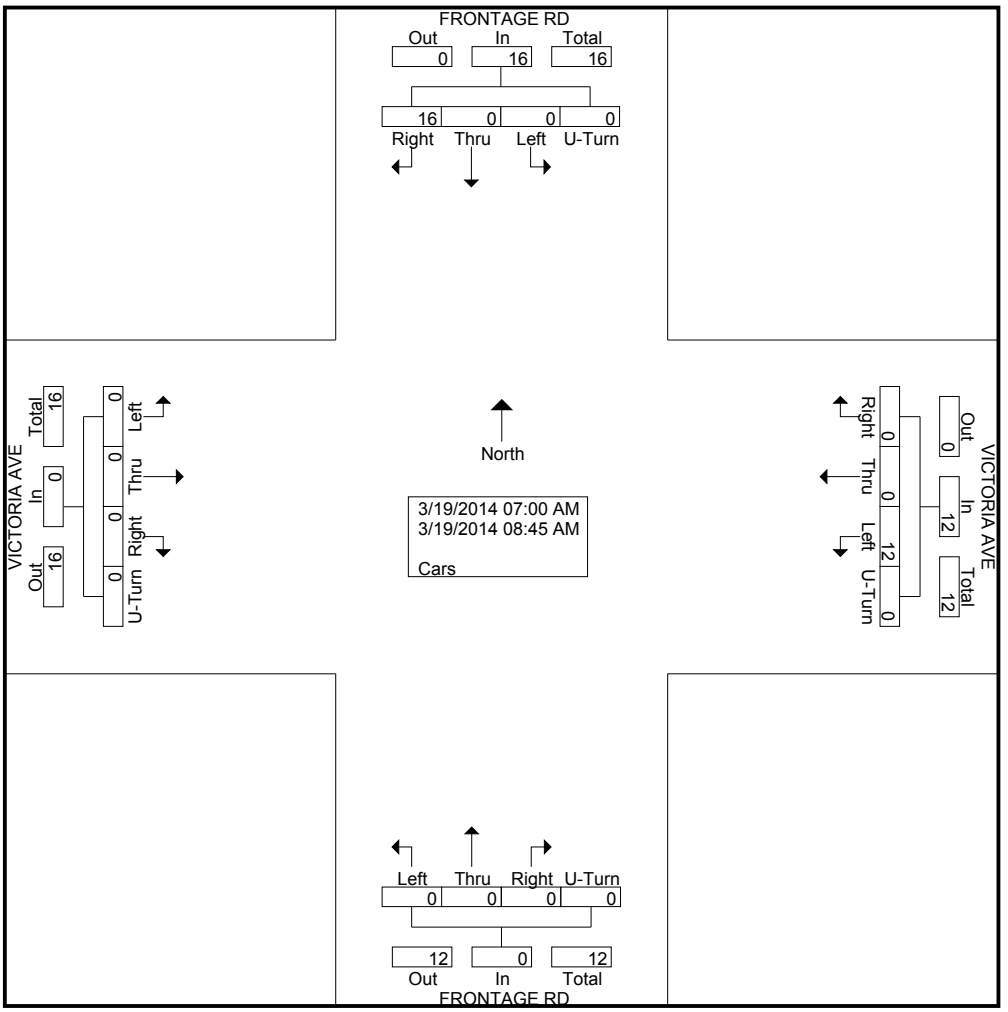
File Name : #7 FRONTAGE&VICTORIAAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	FRONTAGE RD Southbound				VICTORIA AVE Westbound				FRONTAGE RD Northbound				VICTORIA AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:15 AM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
07:30 AM	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4
07:45 AM	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4
Total	6	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	10
08:00 AM	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
08:30 AM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
08:45 AM	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	10
Total	10	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	18
Grand Total	16	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	28
Apprch %	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	
Total %	57.1	0	0	0	0	0	42.9	0	0	0	0	0	0	0	0	0	



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File Name : #7 FRONTAGE&VICTORIAAM
Site Code : 00000000
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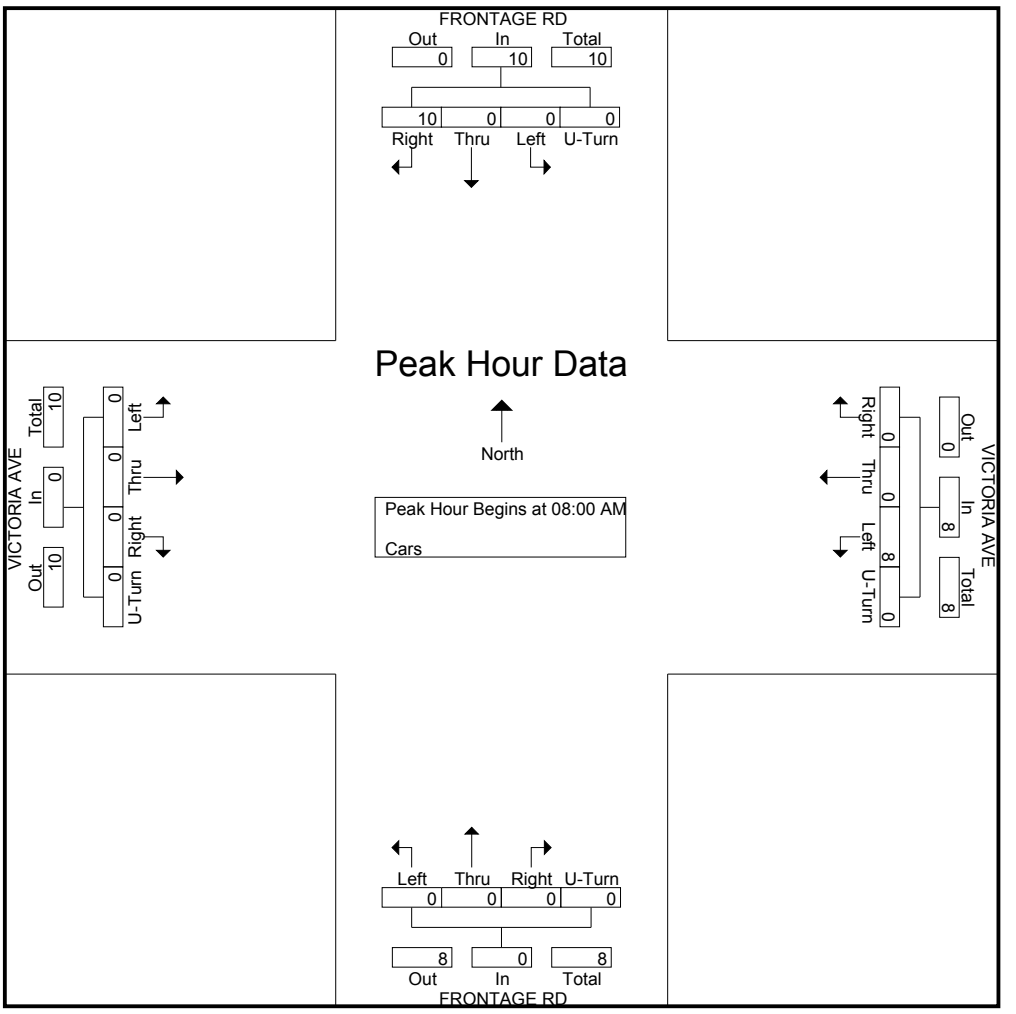
	FRONTAGE RD Southbound					VICTORIA AVE Westbound					FRONTAGE RD Northbound					VICTORIA AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
08:45 AM	**5**	0	0	0	**5**	0	0	**5**	0	**5**	0	0	0	0	0	0	0	0	0	0	**10**
Total Volume	10	0	0	0	10	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	18
% App. Total	100	0	0	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.500	.000	.000	.000	.500	.000	.000	.400	.000	.400	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.450



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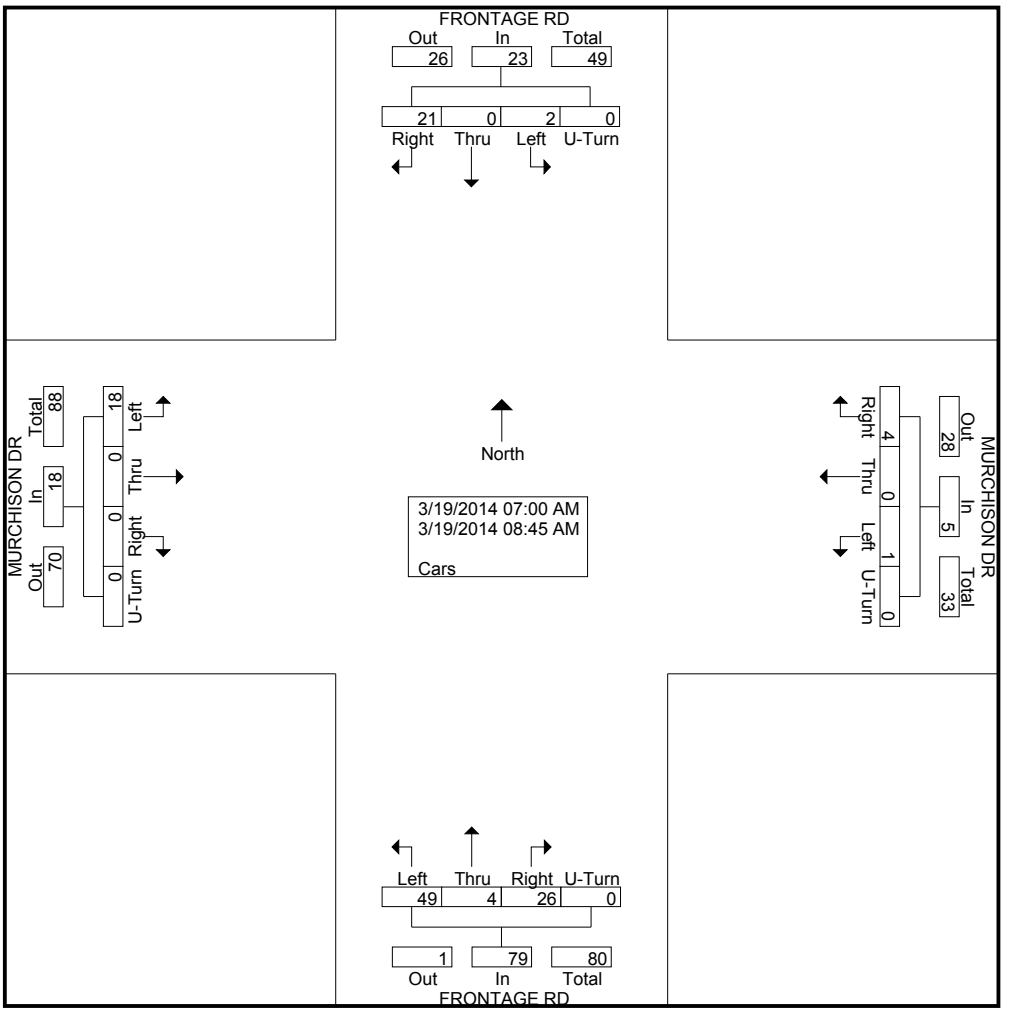
File Name : #8 FRONTAGE&MURCHISONAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	FRONTAGE RD Southbound				MURCHISON DR Westbound				FRONTAGE RD Northbound				MURCHISON DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	4	0	0	0	1	0	1	0	1	2	3	0	0	0	1	0	13
07:15 AM	2	0	0	0	1	0	0	0	1	1	2	0	0	0	2	0	9
07:30 AM	2	0	1	0	1	0	0	0	1	0	1	0	0	0	4	0	10
07:45 AM	2	0	0	0	1	0	0	0	8	0	6	0	0	0	2	0	19
Total	10	0	1	0	4	0	1	0	11	3	12	0	0	0	9	0	51
08:00 AM	0	0	0	0	0	0	0	0	5	0	9	0	0	0	1	0	15
08:15 AM	3	0	0	0	0	0	0	0	2	1	5	0	0	0	1	0	12
08:30 AM	1	0	1	0	0	0	0	0	2	0	10	0	0	0	2	0	16
08:45 AM	7	0	0	0	0	0	0	0	6	0	13	0	0	0	5	0	31
Total	11	0	1	0	0	0	0	0	15	1	37	0	0	0	9	0	74
Grand Total	21	0	2	0	4	0	1	0	26	4	49	0	0	0	18	0	125
Apprch %	91.3	0	8.7	0	80	0	20	0	32.9	5.1	62	0	0	0	100	0	
Total %	16.8	0	1.6	0	3.2	0	0.8	0	20.8	3.2	39.2	0	0	0	14.4	0	



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File Name : #8 FRONTAGE&MURCHISONAM
Site Code : 00000000
Start Date : 3/19/2014
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	FRONTAGE RD Southbound					MURCHISON DR Westbound					FRONTAGE RD Northbound					MURCHISON DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:15 AM - Peak 1 of 1																					

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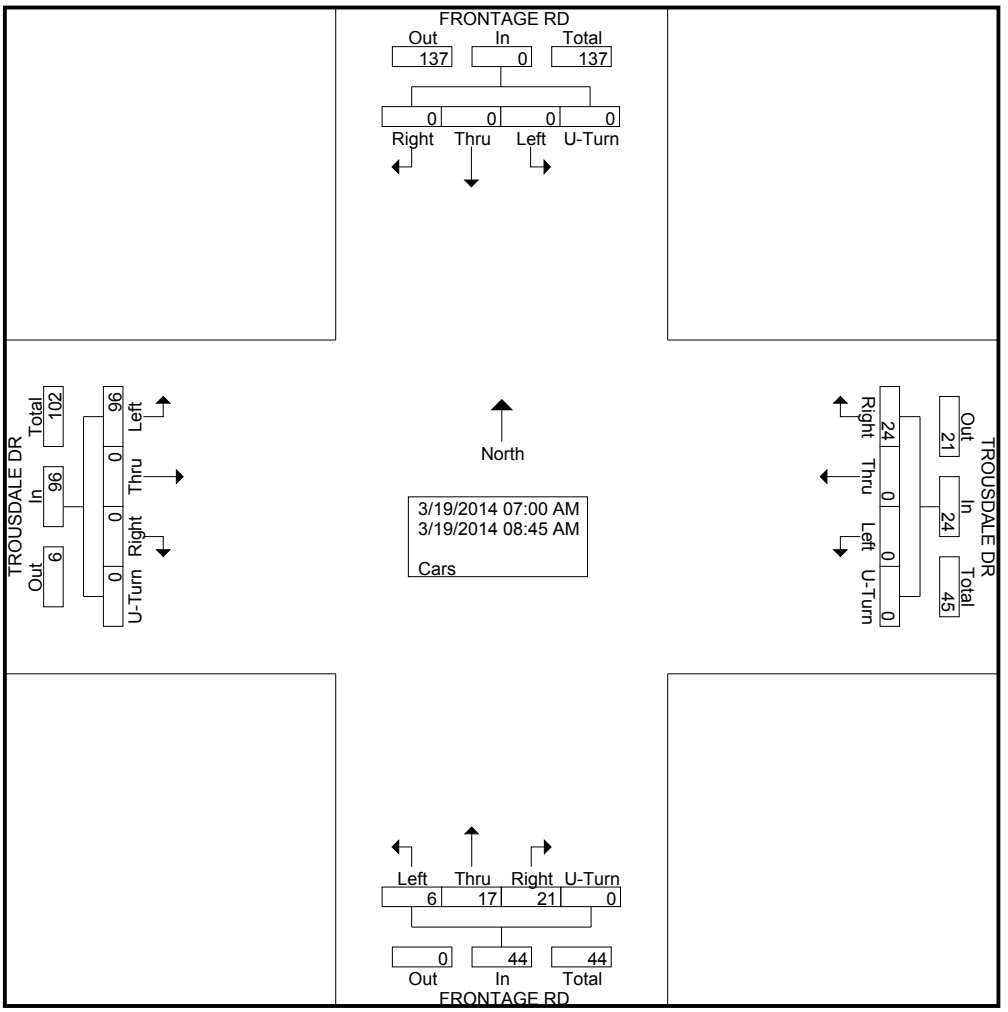
File Name : #9 FRONTAGE&TROUSDALEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	FRONTAGE RD Southbound				TROUSDALE DR Westbound				FRONTAGE RD Northbound				TROUSDALE DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	1	0	0	0	4	1	0	0	0	0	6	0	12
07:15 AM	0	0	0	0	3	0	0	0	3	2	0	0	0	0	6	0	14
07:30 AM	0	0	0	0	2	0	0	0	0	1	0	0	0	0	6	0	9
07:45 AM	0	0	0	0	2	0	0	0	7	5	0	0	0	0	16	0	30
Total	0	0	0	0	8	0	0	0	14	9	0	0	0	0	34	0	65
08:00 AM	0	0	0	0	2	0	0	0	2	2	1	0	0	0	8	0	15
08:15 AM	0	0	0	0	5	0	0	0	4	2	0	0	0	0	12	0	23
08:30 AM	0	0	0	0	5	0	0	0	0	3	3	0	0	0	18	0	29
08:45 AM	0	0	0	0	4	0	0	0	1	1	2	0	0	0	24	0	32
Total	0	0	0	0	16	0	0	0	7	8	6	0	0	0	62	0	99
Grand Total	0	0	0	0	24	0	0	0	21	17	6	0	0	0	96	0	164
Apprch %	0	0	0	0	100	0	0	0	47.7	38.6	13.6	0	0	0	100	0	
Total %	0	0	0	0	14.6	0	0	0	12.8	10.4	3.7	0	0	0	58.5	0	



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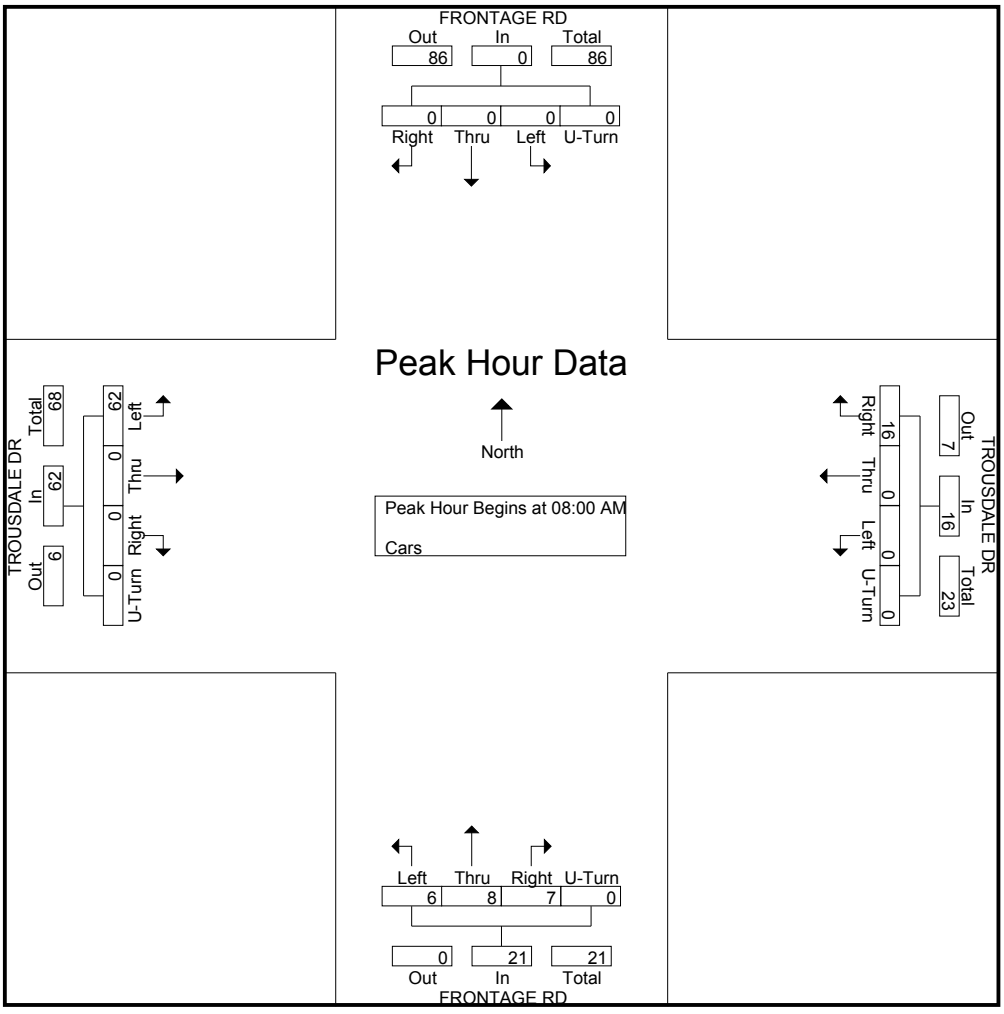
File Name : #9 FRONTAGE&TROUSDALEAM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	FRONTAGE RD Southbound					TROUSDALE DR Westbound					FRONTAGE RD Northbound					TROUSDALE DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	2	0	0	0	2	2	2	1	0	5	0	0	8	0	8	15
08:15 AM	0	0	0	0	0	**5**	0	0	0	**5**	**4**	2	0	0	**6**	0	0	12	0	12	23
08:30 AM	0	0	0	0	0	5	0	0	0	5	0	**3**	**3**	0	6	0	0	18	0	18	29
08:45 AM	0	0	0	0	0	4	0	0	0	4	1	1	2	0	4	0	0	**24**	0	**24**	**32**
Total Volume	0	0	0	0	0	16	0	0	0	16	7	8	6	0	21	0	0	62	0	62	99
% App. Total	0	0	0	0		100	0	0	0		33.3	38.1	28.6	0		0	0	100	0		
PHF	.000	.000	.000	.000	.000	.800	.000	.000	.000	.800	.438	.667	.500	.000	.875	.000	.000	.646	.000	.646	.773



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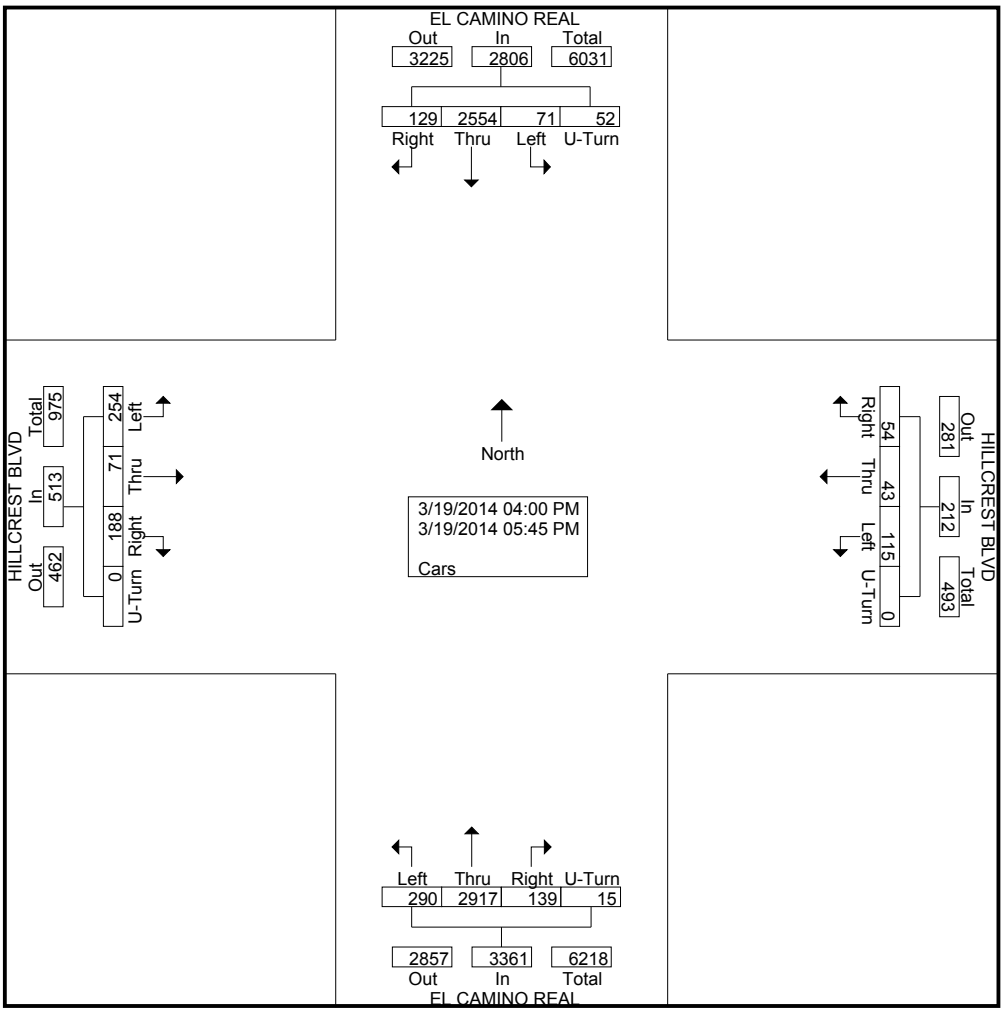
File Name : #5 ELCAMINOREAL&HILLCRESTPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				HILLCREST BLVD Westbound				EL CAMINO REAL Northbound				HILLCREST BLVD Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	17	312	7	8	2	5	9	0	15	323	32	5	25	8	29	0	797
04:15 PM	9	321	11	9	4	2	8	0	19	332	33	0	23	3	32	0	806
04:30 PM	18	297	8	4	8	7	14	0	14	384	47	1	24	9	30	0	865
04:45 PM	12	314	6	8	15	5	10	0	17	355	26	3	21	11	27	0	830
Total	56	1244	32	29	29	19	41	0	65	1394	138	9	93	31	118	0	3298
05:00 PM	18	320	14	6	6	7	19	0	9	378	39	3	26	12	38	0	895
05:15 PM	13	346	11	7	6	11	18	0	28	380	35	1	17	16	35	0	924
05:30 PM	20	304	7	7	8	3	23	0	17	393	45	2	23	3	28	0	883
05:45 PM	22	340	7	3	5	3	14	0	20	372	33	0	29	9	35	0	892
Total	73	1310	39	23	25	24	74	0	74	1523	152	6	95	40	136	0	3594
Grand Total	129	2554	71	52	54	43	115	0	139	2917	290	15	188	71	254	0	6892
Apprch %	4.6	91	2.5	1.9	25.5	20.3	54.2	0	4.1	86.8	8.6	0.4	36.6	13.8	49.5	0	
Total %	1.9	37.1	1	0.8	0.8	0.6	1.7	0	2	42.3	4.2	0.2	2.7	1	3.7	0	



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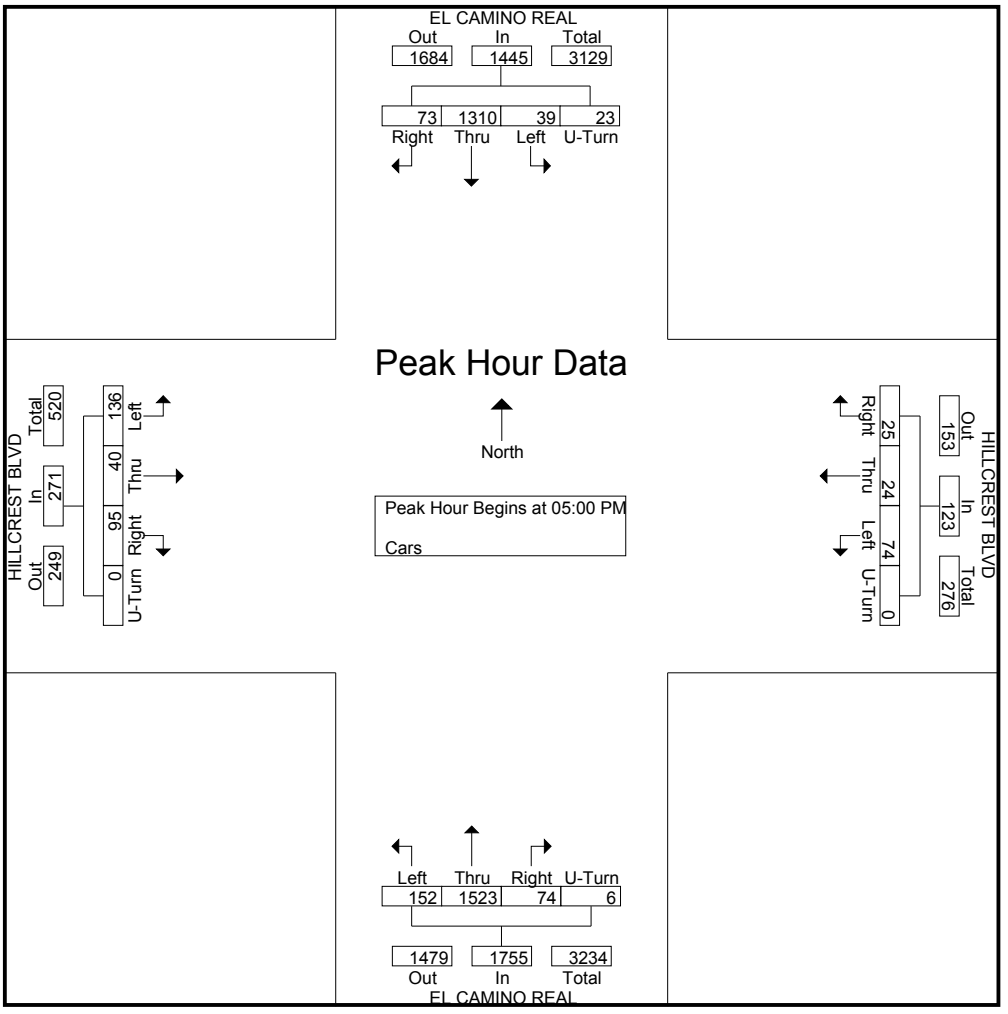
File Name : #5 ELCAMINOREAL&HILLCRESTPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	EL CAMINO REAL Southbound					HILLCREST BLVD Westbound					EL CAMINO REAL Northbound					HILLCREST BLVD Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	18	320	**14**	6	358	6	7	19	0	32	9	378	39	**3**	429	26	12	**38**	0	**76**	895
05:15 PM	13	**346**	11	**7**	**377**	6	**11**	18	0	**35**	**28**	380	35	1	444	17	**16**	35	0	68	**924**
05:30 PM	20	304	7	7	338	**8**	3	**23**	0	34	17	**393**	**45**	2	**457**	23	3	28	0	54	883
05:45 PM	**22**	340	7	3	372	5	3	14	0	22	20	372	33	0	425	**29**	9	35	0	73	892
Total Volume	73	1310	39	23	1445	25	24	74	0	123	74	1523	152	6	1755	95	40	136	0	271	3594
% App. Total	5.1	90.7	2.7	1.6		20.3	19.5	60.2	0		4.2	86.8	8.7	0.3		35.1	14.8	50.2	0		
PHF	.830	.947	.696	.821	.958	.781	.545	.804	.000	.879	.661	.969	.844	.500	.960	.819	.625	.895	.000	.891	.972



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File Name : #6 ELCAMINOREAL&LACRUZPM
Site Code : 00000000
Start Date : 3/19/2014
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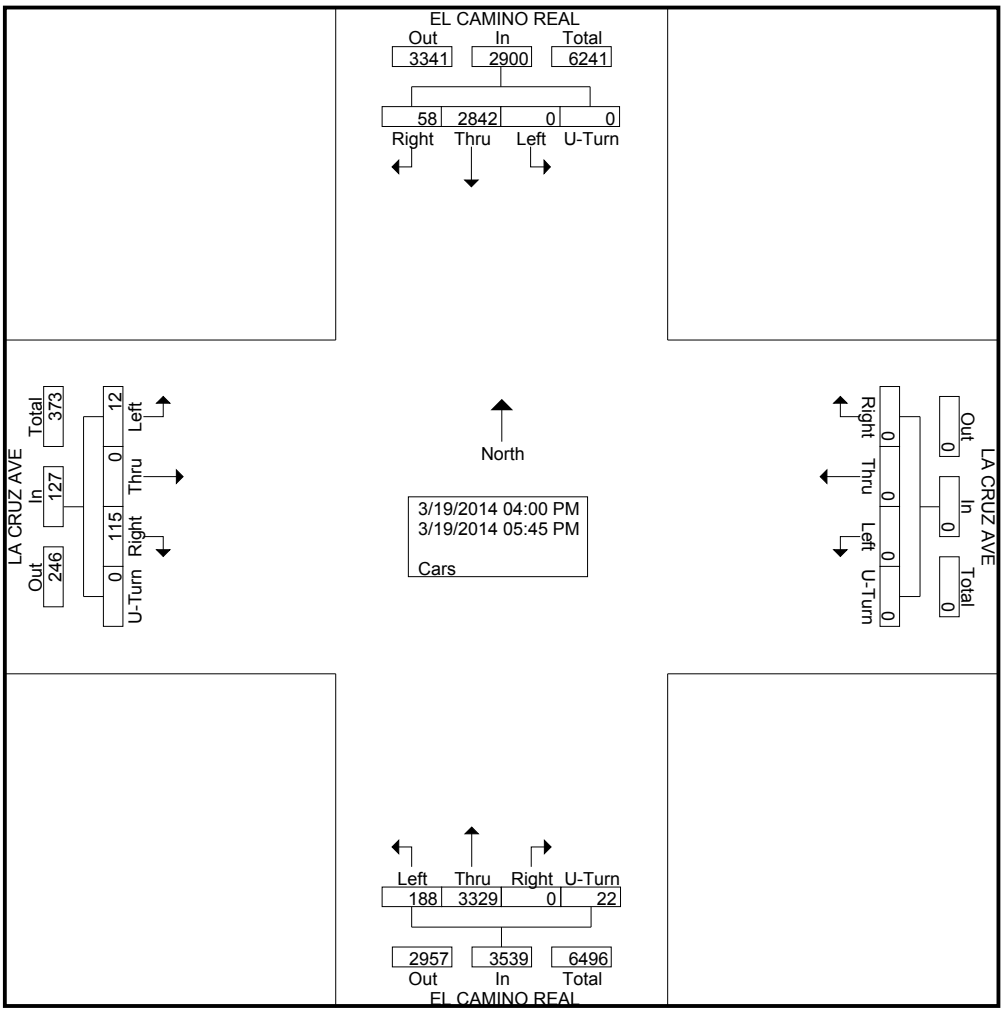
Groups Printed- Cars

	EL CAMINO REAL Southbound				LA CRUZ AVE Westbound				EL CAMINO REAL Northbound				LA CRUZ AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	12	344	0	0	0	0	0	0	0	362	14	6	13	0	0	0	751
04:15 PM	7	347	0	0	0	0	0	0	0	388	24	3	13	0	2	0	784
04:30 PM	3	335	0	0	0	0	0	0	0	423	24	3	20	0	1	0	809
04:45 PM	6	343	0	0	0	0	0	0	0	387	20	2	13	0	2	0	773
Total	28	1369	0	0	0	0	0	0	0	1560	82	14	59	0	5	0	3117
05:00 PM	5	385	0	0	0	0	0	0	0	443	23	2	14	0	3	0	875
05:15 PM	10	375	0	0	0	0	0	0	0	475	34	2	9	0	0	0	905
05:30 PM	11	336	0	0	0	0	0	0	0	424	20	0	21	0	1	0	813
05:45 PM	4	377	0	0	0	0	0	0	0	427	29	4	12	0	3	0	856
Total	30	1473	0	0	0	0	0	0	0	1769	106	8	56	0	7	0	3449
Grand Total	58	2842	0	0	0	0	0	0	0	3329	188	22	115	0	12	0	6566
Apprch %	2	98	0	0	0	0	0	0	0	94.1	5.3	0.6	90.6	0	9.4	0	
Total %	0.9	43.3	0	0	0	0	0	0	0	50.7	2.9	0.3	1.8	0	0.2	0	



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File Name : #6 ELCAMINOREAL&LACRUZPM
Site Code : 00000000
Start Date : 3/19/2014
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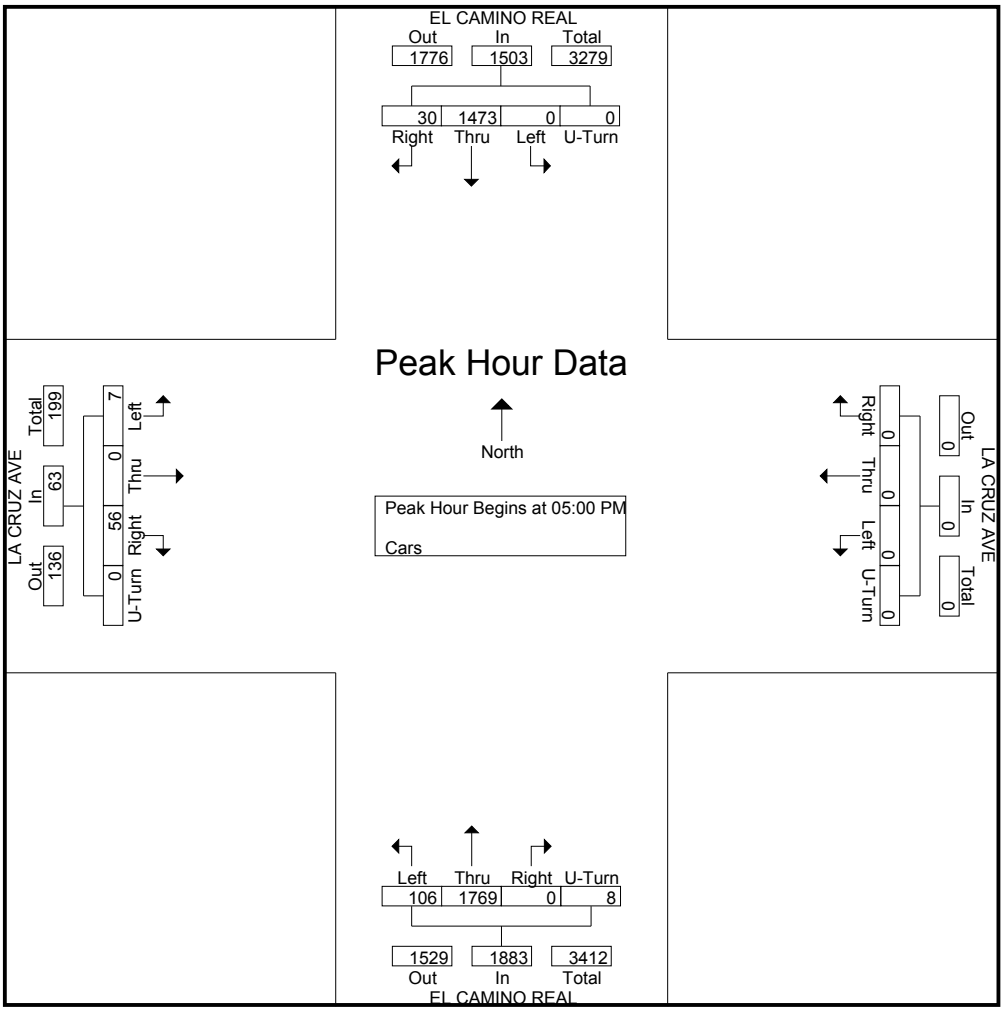
	EL CAMINO REAL Southbound					LA CRUZ AVE Westbound					EL CAMINO REAL Northbound					LA CRUZ AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	5	**385**	0	0	**390**	0	0	0	0	0	0	443	23	2	468	14	0	**3**	0	17	875
05:15 PM	10	375	0	0	385	0	0	0	0	0	0	**475**	**34**	2	**511**	9	0	0	0	9	**905**
05:30 PM	**11**	336	0	0	347	0	0	0	0	0	0	424	20	0	444	**21**	0	1	0	**22**	813
05:45 PM	4	377	0	0	381	0	0	0	0	0	0	427	29	**4**	460	12	0	3	0	15	856
Total Volume	30	1473	0	0	1503	0	0	0	0	0	0	1769	106	8	1883	56	0	7	0	63	3449
% App. Total	2	98	0	0		0	0	0	0		0	93.9	5.6	0.4		88.9	0	11.1	0		
PHF	.682	.956	.000	.000	.963	.000	.000	.000	.000	.000	.000	.931	.779	.500	.921	.667	.000	.583	.000	.716	.953



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File Name : #7 ELCAMINOREAL&VICTORIAPM
Site Code : 00000000
Start Date : 3/19/2014
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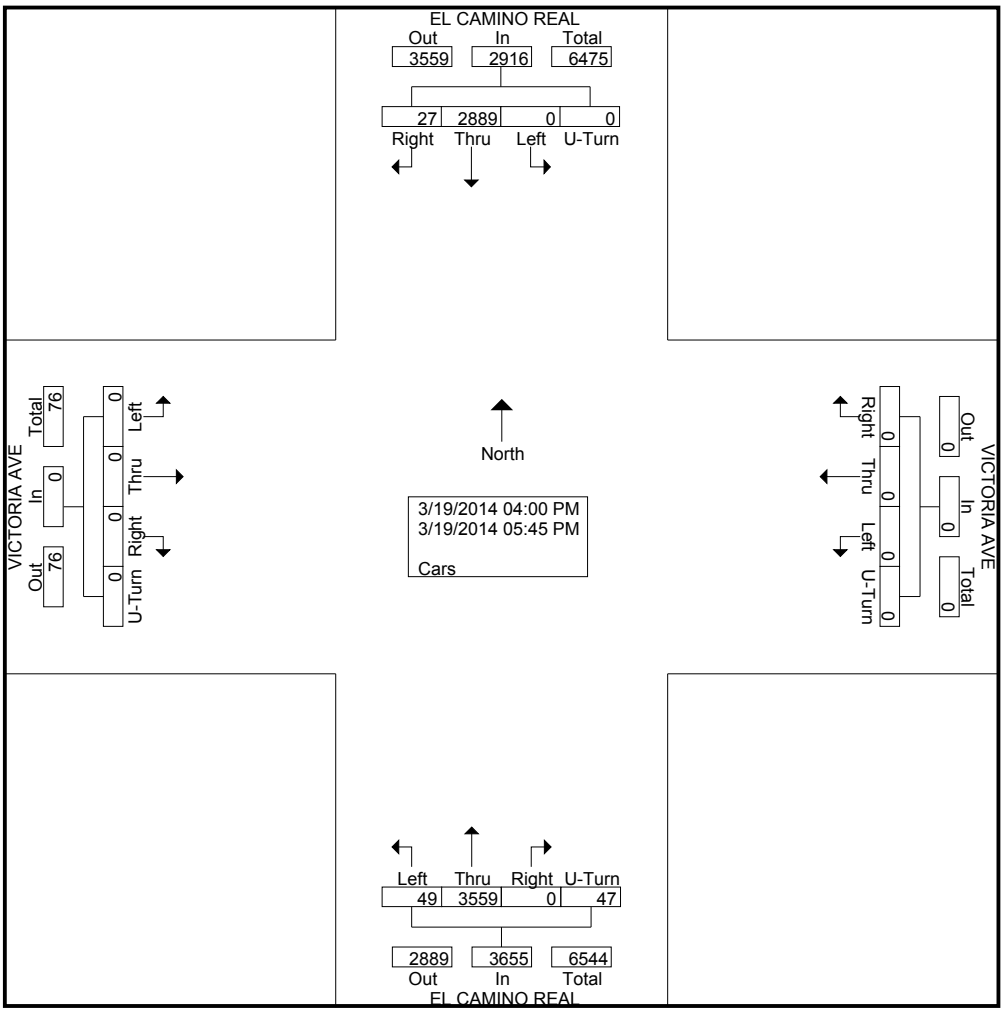
Groups Printed- Cars

	EL CAMINO REAL Southbound				VICTORIA AVE Westbound				EL CAMINO REAL Northbound				VICTORIA AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	2	353	0	0	0	0	0	0	0	389	8	7	0	0	0	0	759
04:15 PM	0	353	0	0	0	0	0	0	0	412	4	5	0	0	0	0	774
04:30 PM	4	343	0	0	0	0	0	0	0	465	8	5	0	0	0	0	825
04:45 PM	2	343	0	0	0	0	0	0	0	408	3	5	0	0	0	0	761
Total	8	1392	0	0	0	0	0	0	0	1674	23	22	0	0	0	0	3119
05:00 PM	4	370	0	0	0	0	0	0	0	452	7	5	0	0	0	0	838
05:15 PM	4	384	0	0	0	0	0	0	0	513	3	4	0	0	0	0	908
05:30 PM	7	352	0	0	0	0	0	0	0	454	9	13	0	0	0	0	835
05:45 PM	4	391	0	0	0	0	0	0	0	466	7	3	0	0	0	0	871
Total	19	1497	0	0	0	0	0	0	0	1885	26	25	0	0	0	0	3452
Grand Total	27	2889	0	0	0	0	0	0	0	3559	49	47	0	0	0	0	6571
Apprch %	0.9	99.1	0	0	0	0	0	0	0	97.4	1.3	1.3	0	0	0	0	
Total %	0.4	44	0	0	0	0	0	0	0	54.2	0.7	0.7	0	0	0	0	



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File Name : #7 ELCAMINOREAL&VICTORIAPM
Site Code : 00000000
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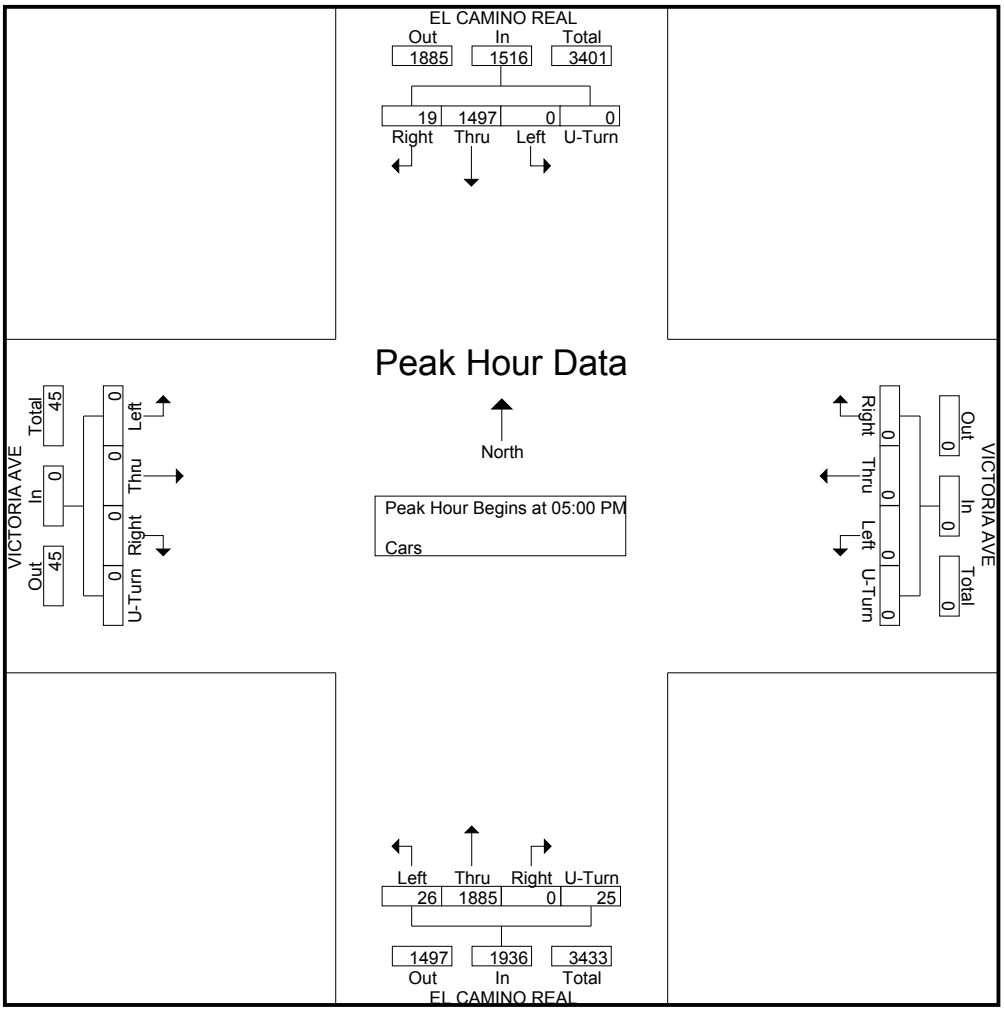
	EL CAMINO REAL Southbound					VICTORIA AVE Westbound					EL CAMINO REAL Northbound					VICTORIA AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	4	370	0	0	374	0	0	0	0	0	0	452	7	5	464	0	0	0	0	0	838
05:15 PM	4	384	0	0	388	0	0	0	0	0	0	**513**	3	4	**520**	0	0	0	0	0	**908**
05:30 PM	**7**	352	0	0	359	0	0	0	0	0	0	454	**9**	**13**	476	0	0	0	0	0	835
05:45 PM	4	**391**	0	0	**395**	0	0	0	0	0	0	466	7	3	476	0	0	0	0	0	871
Total Volume	19	1497	0	0	1516	0	0	0	0	0	0	1885	26	25	1936	0	0	0	0	0	3452
% App. Total	1.3	98.7	0	0		0	0	0	0		0	97.4	1.3	1.3		0	0	0	0		
PHF	.679	.957	.000	.000	.959	.000	.000	.000	.000	.000	.000	.919	.722	.481	.931	.000	.000	.000	.000	.000	.950



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File Name : #2 ELCAMINOREAL&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
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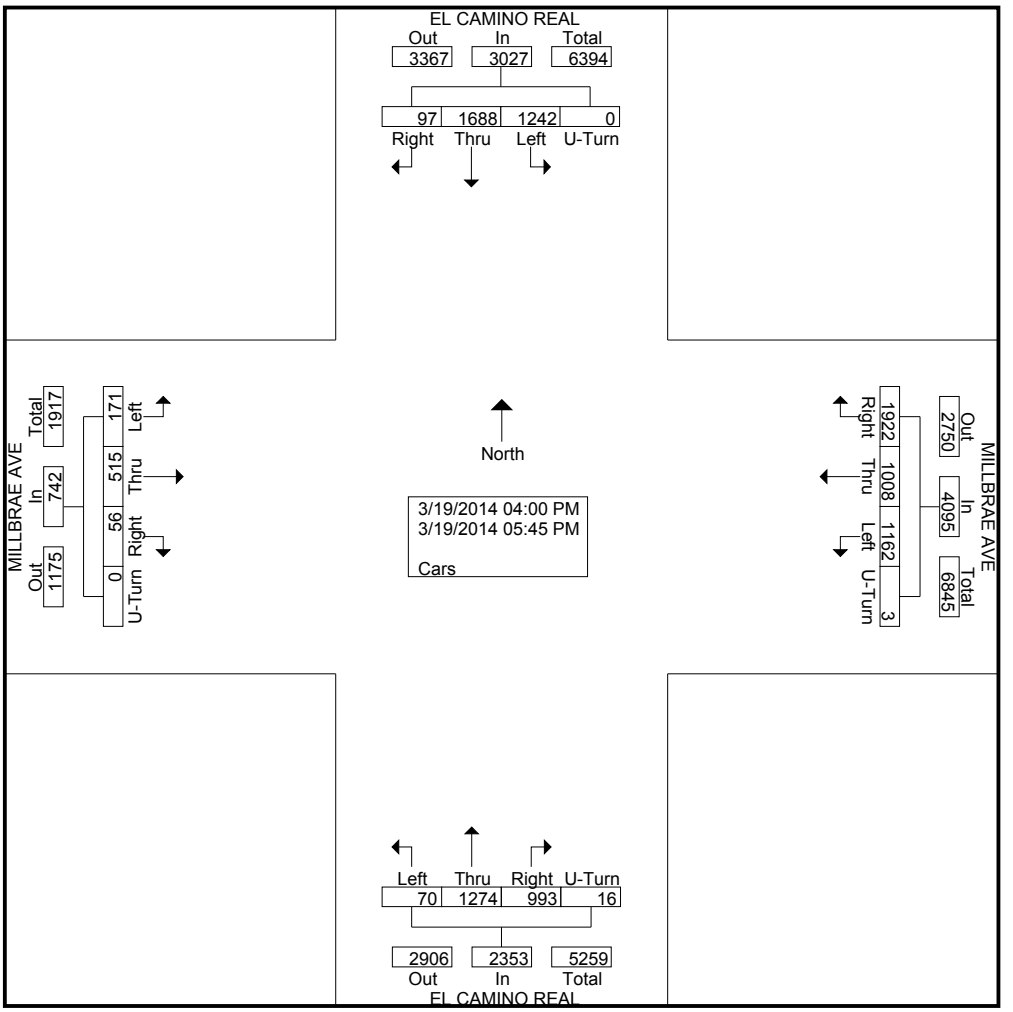
Groups Printed- Cars

	EL CAMINO REAL Southbound				MILLBRAE AVE Westbound				EL CAMINO REAL Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	11	195	174	0	217	96	163	0	139	138	3	1	7	63	21	0	1228
04:15 PM	12	199	149	0	216	107	108	0	97	168	7	2	4	58	26	0	1153
04:30 PM	12	190	146	0	263	118	128	0	100	156	8	3	9	46	26	0	1205
04:45 PM	17	222	155	0	228	133	116	0	123	154	4	2	6	61	15	0	1236
Total	52	806	624	0	924	454	515	0	459	616	22	8	26	228	88	0	4822
05:00 PM	14	224	148	0	248	129	130	0	160	161	14	1	6	51	16	0	1302
05:15 PM	15	221	161	0	265	144	148	0	123	161	12	4	4	72	18	0	1348
05:30 PM	2	189	139	0	226	139	188	0	133	183	13	1	3	78	25	0	1319
05:45 PM	14	248	170	0	259	142	181	3	118	153	9	2	17	86	24	0	1426
Total	45	882	618	0	998	554	647	3	534	658	48	8	30	287	83	0	5395
Grand Total	97	1688	1242	0	1922	1008	1162	3	993	1274	70	16	56	515	171	0	10217
Apprch %	3.2	55.8	41	0	46.9	24.6	28.4	0.1	42.2	54.1	3	0.7	7.5	69.4	23	0	
Total %	0.9	16.5	12.2	0	18.8	9.9	11.4	0	9.7	12.5	0.7	0.2	0.5	5	1.7	0	



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File Name : #2 ELCAMINOREAL&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
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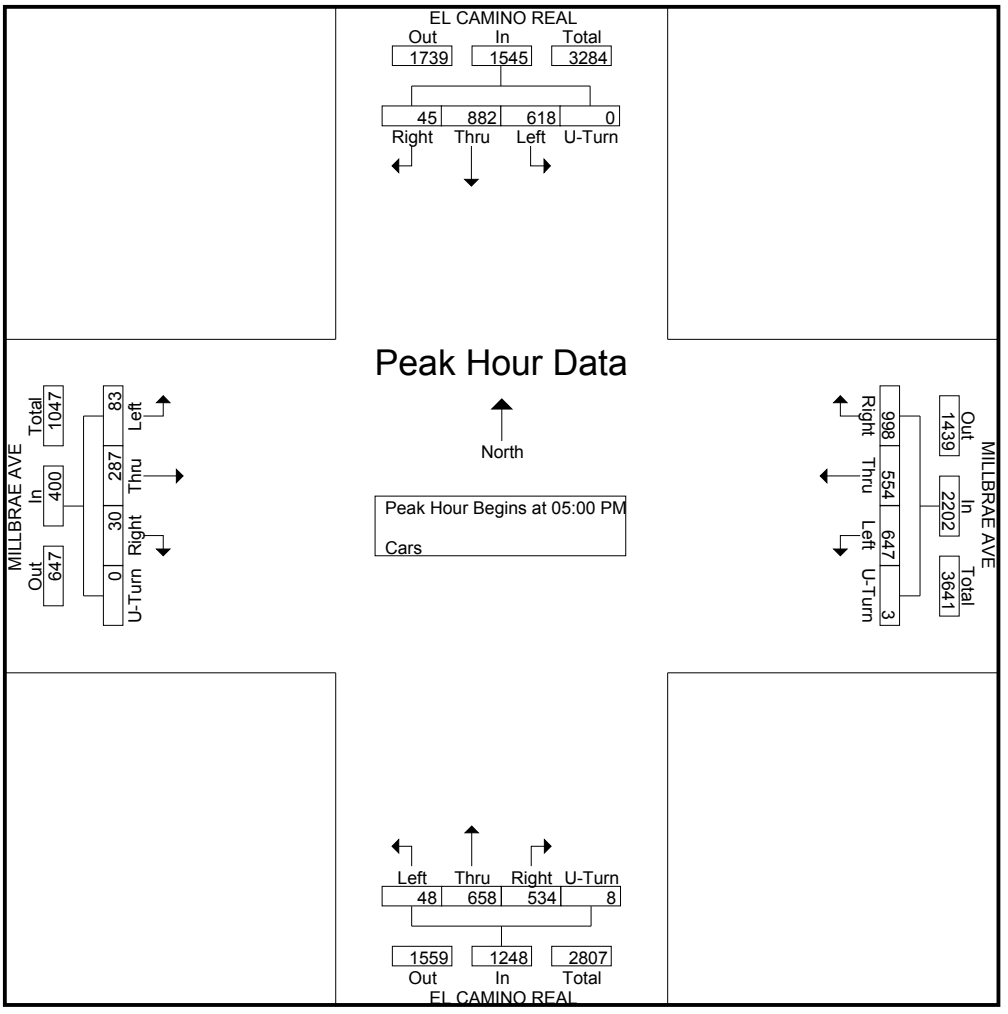
	EL CAMINO REAL Southbound					MILLBRAE AVE Westbound					EL CAMINO REAL Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	14	224	148	0	386	248	129	130	0	507	**160**	161	**14**	1	**336**	6	51	16	0	73	1302
05:15 PM	**15**	221	161	0	397	**265**	**144**	148	0	557	123	161	12	**4**	300	4	72	18	0	94	1348
05:30 PM	2	189	139	0	330	226	139	**188**	0	553	133	**183**	13	1	330	3	78	**25**	0	106	1319
05:45 PM	14	**248**	**170**	0	**432**	259	142	181	**3**	**585**	118	153	9	2	282	**17**	**86**	24	0	**127**	**1426**
Total Volume	45	882	618	0	1545	998	554	647	3	2202	534	658	48	8	1248	30	287	83	0	400	5395
% App. Total	2.9	57.1	40	0		45.3	25.2	29.4	0.1		42.8	52.7	3.8	0.6		7.5	71.8	20.8	0		
PHF	.750	.889	.909	.000	.894	.942	.962	.860	.250	.941	.834	.899	.857	.500	.929	.441	.834	.830	.000	.787	.946



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File Name : #8 ELCAMINOREAL&MURCHISONPM
Site Code : 00000000
Start Date : 3/19/2014
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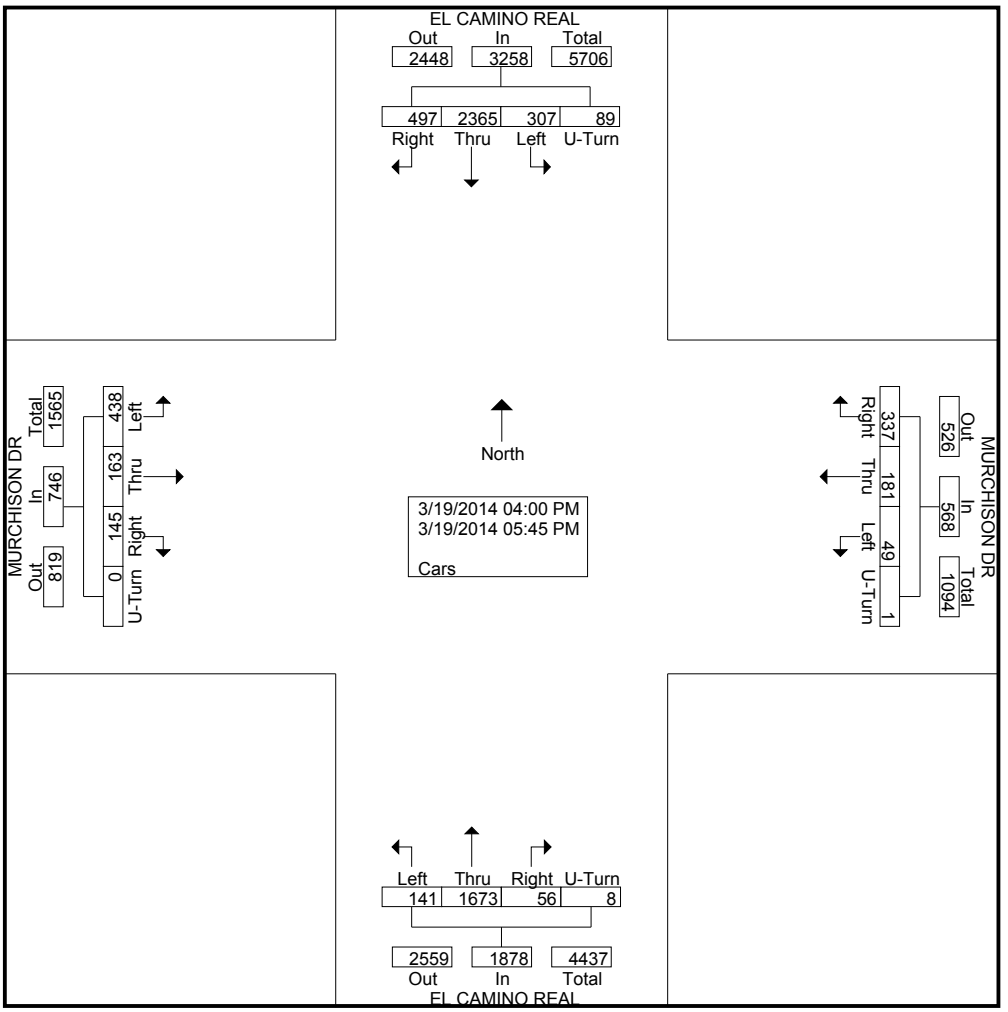
Groups Printed- Cars

	EL CAMINO REAL Southbound				MURCHISON DR Westbound				EL CAMINO REAL Northbound				MURCHISON DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	65	206	35	8	36	20	2	0	12	187	16	1	19	12	68	0	687
04:15 PM	51	218	43	12	43	18	5	0	8	205	17	1	13	20	44	0	698
04:30 PM	37	254	34	14	41	22	7	0	9	204	14	1	17	18	46	0	718
04:45 PM	56	199	38	13	41	24	13	0	5	187	14	0	13	26	46	0	675
Total	209	877	150	47	161	84	27	0	34	783	61	3	62	76	204	0	2778
05:00 PM	47	333	37	12	60	24	8	0	10	239	12	0	22	14	59	0	877
05:15 PM	69	331	42	11	40	22	3	1	3	231	21	3	20	26	55	0	878
05:30 PM	73	367	35	9	35	28	6	0	7	201	32	1	19	19	71	0	903
05:45 PM	99	457	43	10	41	23	5	0	2	219	15	1	22	28	49	0	1014
Total	288	1488	157	42	176	97	22	1	22	890	80	5	83	87	234	0	3672
Grand Total	497	2365	307	89	337	181	49	1	56	1673	141	8	145	163	438	0	6450
Apprch %	15.3	72.6	9.4	2.7	59.3	31.9	8.6	0.2	3	89.1	7.5	0.4	19.4	21.8	58.7	0	
Total %	7.7	36.7	4.8	1.4	5.2	2.8	0.8	0	0.9	25.9	2.2	0.1	2.2	2.5	6.8	0	



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File Name : #8 ELCAMINOREAL&MURCHISONPM
Site Code : 00000000
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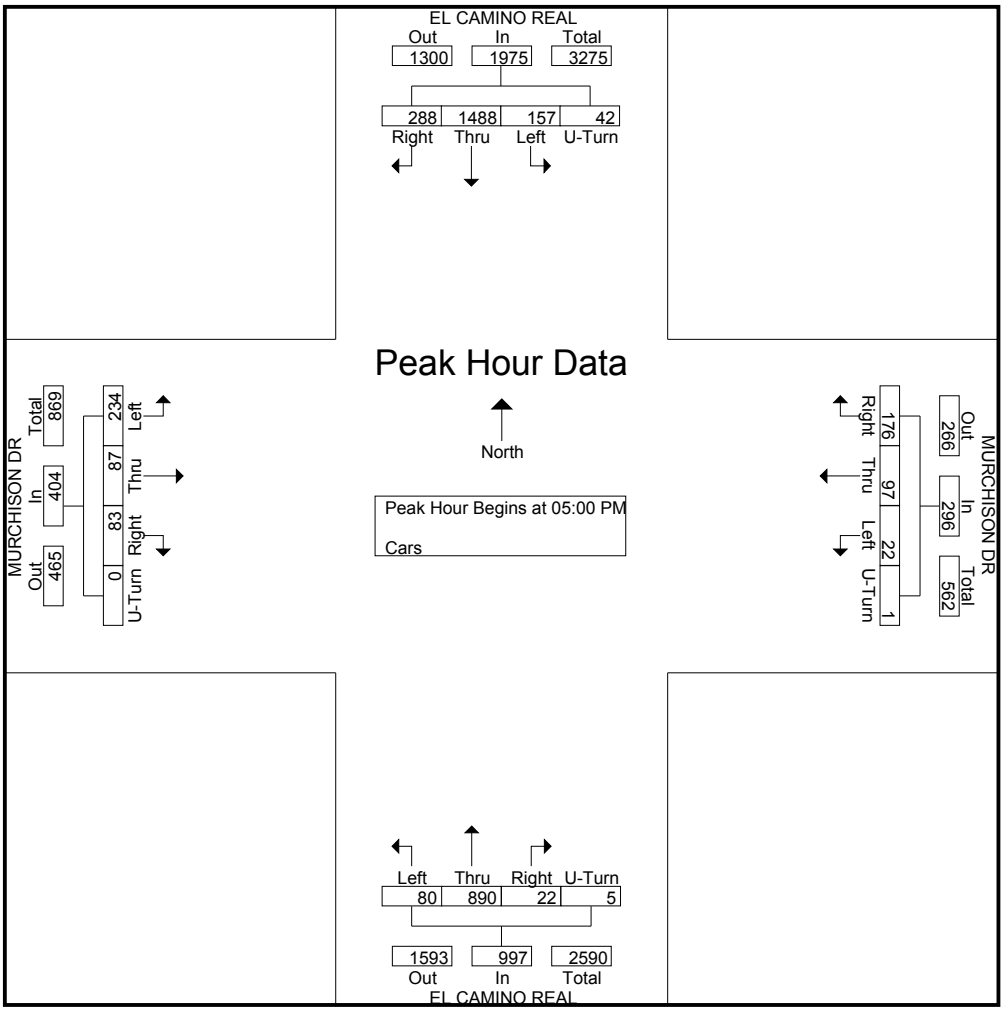
	EL CAMINO REAL Southbound					MURCHISON DR Westbound					EL CAMINO REAL Northbound					MURCHISON DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	47	333	37	**12**	429	**60**	24	**8**	0	**92**	**10**	**239**	12	0	**261**	**22**	14	59	0	95	877
05:15 PM	69	331	42	11	453	40	22	3	**1**	66	3	231	21	**3**	258	20	26	55	0	101	878
05:30 PM	73	367	35	9	484	35	**28**	6	0	69	7	201	**32**	1	241	19	19	**71**	0	**109**	903
05:45 PM	**99**	**457**	**43**	10	**609**	41	23	5	0	69	2	219	15	1	237	22	**28**	49	0	99	**1014**
Total Volume	288	1488	157	42	1975	176	97	22	1	296	22	890	80	5	997	83	87	234	0	404	3672
% App. Total	14.6	75.3	7.9	2.1		59.5	32.8	7.4	0.3		2.2	89.3	8	0.5		20.5	21.5	57.9	0		
PHF	.727	.814	.913	.875	.811	.733	.866	.688	.250	.804	.550	.931	.625	.417	.955	.943	.777	.824	.000	.927	.905



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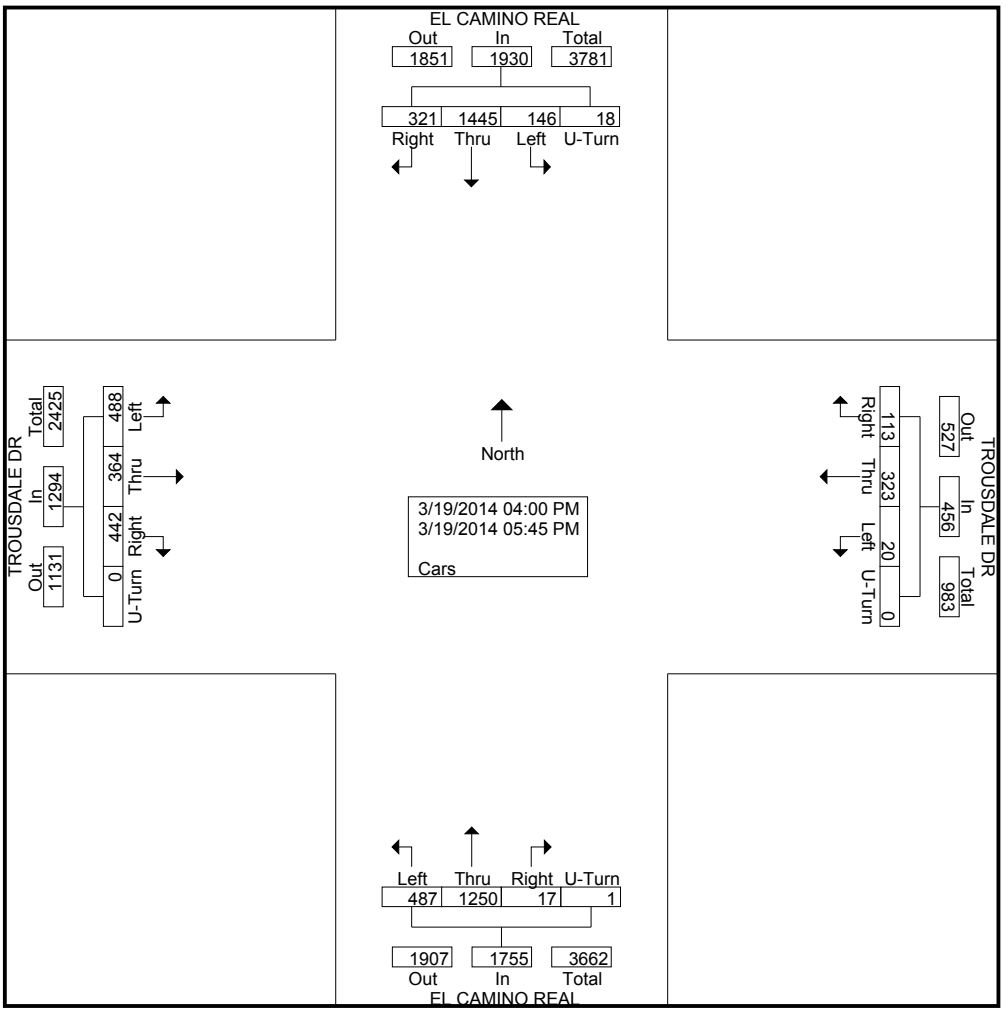
File Name : #9 ELCAMINOREAL&TROUSDALEPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	EL CAMINO REAL Southbound				TROUSDALE DR Westbound				EL CAMINO REAL Northbound				TROUSDALE DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	51	167	18	1	7	38	2	0	2	146	51	0	42	45	71	0	641
04:15 PM	49	169	16	3	19	46	2	0	1	139	57	0	52	47	63	0	663
04:30 PM	46	166	21	0	6	37	3	0	0	142	56	0	62	35	66	0	640
04:45 PM	39	172	10	3	19	30	2	0	0	139	64	1	59	58	64	0	660
Total	185	674	65	7	51	151	9	0	3	566	228	1	215	185	264	0	2604
05:00 PM	50	207	23	3	16	46	7	0	1	142	52	0	52	55	72	0	726
05:15 PM	13	174	24	2	24	43	2	0	3	195	84	0	61	49	52	0	726
05:30 PM	35	182	19	4	9	49	2	0	4	175	59	0	52	47	54	0	691
05:45 PM	38	208	15	2	13	34	0	0	6	172	64	0	62	28	46	0	688
Total	136	771	81	11	62	172	11	0	14	684	259	0	227	179	224	0	2831
Grand Total	321	1445	146	18	113	323	20	0	17	1250	487	1	442	364	488	0	5435
Apprch %	16.6	74.9	7.6	0.9	24.8	70.8	4.4	0	1	71.2	27.7	0.1	34.2	28.1	37.7	0	
Total %	5.9	26.6	2.7	0.3	2.1	5.9	0.4	0	0.3	23	9	0	8.1	6.7	9	0	



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File Name : #9 ELCAMINOREAL&TROUSDALEPM
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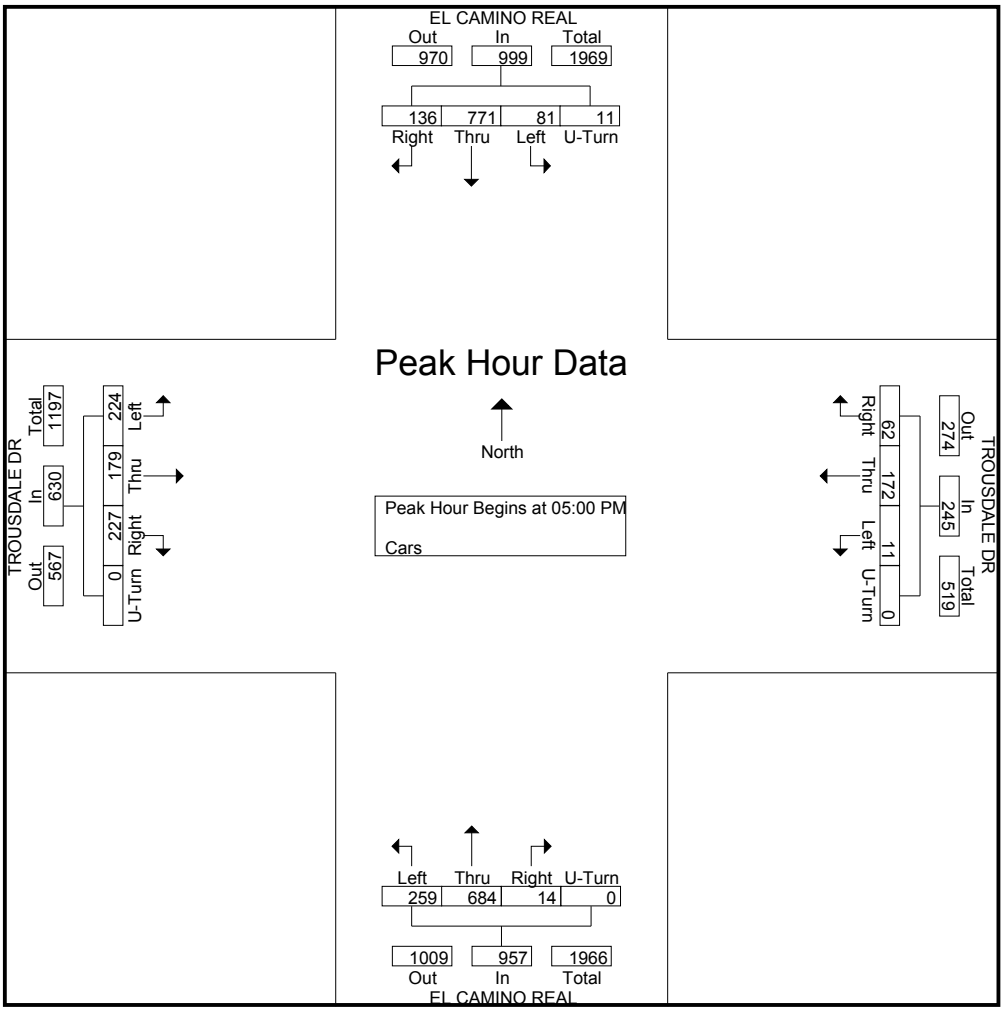
	EL CAMINO REAL Southbound					TROUSDALE DR Westbound					EL CAMINO REAL Northbound					TROUSDALE DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**50**	207	23	3	**283**	16	46	**7**	0	**69**	1	142	52	0	195	52	**55**	**72**	0	**179**	**726**
05:15 PM	13	174	**24**	2	213	**24**	43	2	0	69	3	**195**	**84**	0	**282**	61	49	52	0	162	726
05:30 PM	35	182	19	**4**	240	9	**49**	2	0	60	4	175	59	0	238	52	47	54	0	153	691
05:45 PM	38	**208**	15	2	263	13	34	0	0	47	**6**	172	64	0	242	**62**	28	46	0	136	688
Total Volume	136	771	81	11	999	62	172	11	0	245	14	684	259	0	957	227	179	224	0	630	2831
% App. Total	13.6	77.2	8.1	1.1		25.3	70.2	4.5	0		1.5	71.5	27.1	0		36	28.4	35.6	0		
PHF	.680	.927	.844	.688	.883	.646	.878	.393	.000	.888	.583	.877	.771	.000	.848	.915	.814	.778	.000	.880	.975



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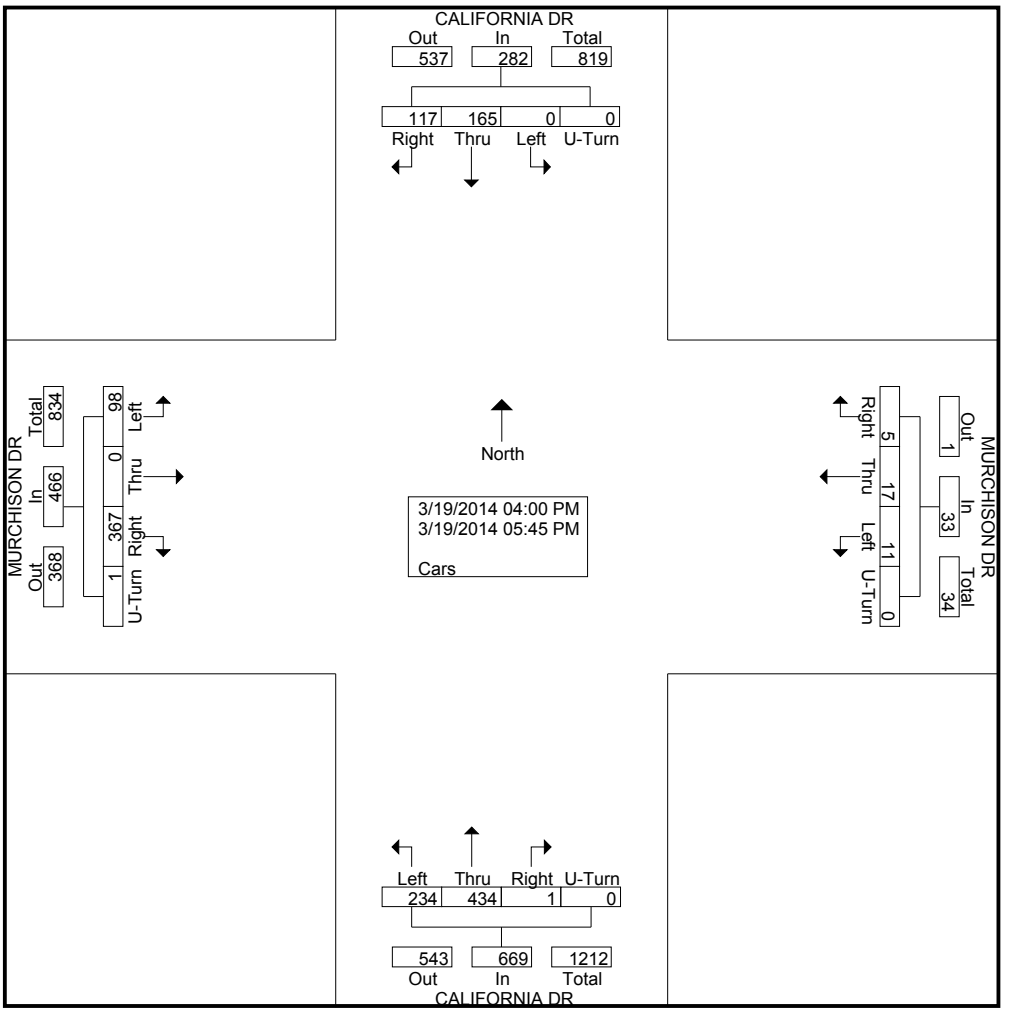
File Name : #10 CALIFORNIA&MURCHISONPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	CALIFORNIA DR Southbound				MURCHISON DR Westbound				CALIFORNIA DR Northbound				MURCHISON DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	11	17	0	0	0	0	1	0	0	36	18	0	50	0	5	0	138
04:15 PM	10	19	0	0	1	2	0	0	0	59	34	0	49	0	19	1	194
04:30 PM	14	19	0	0	0	0	0	0	0	54	29	0	36	0	12	0	164
04:45 PM	15	23	0	0	1	4	1	0	0	55	30	0	49	0	13	0	191
Total	50	78	0	0	2	6	2	0	0	204	111	0	184	0	49	1	687
05:00 PM	17	26	0	0	0	2	1	0	0	64	36	0	44	0	6	0	196
05:15 PM	13	19	0	0	1	1	0	0	0	63	29	0	54	0	14	0	194
05:30 PM	15	18	0	0	1	2	3	0	1	55	29	0	39	0	14	0	177
05:45 PM	22	24	0	0	1	6	5	0	0	48	29	0	46	0	15	0	196
Total	67	87	0	0	3	11	9	0	1	230	123	0	183	0	49	0	763
Grand Total	117	165	0	0	5	17	11	0	1	434	234	0	367	0	98	1	1450
Apprch %	41.5	58.5	0	0	15.2	51.5	33.3	0	0.1	64.9	35	0	78.8	0	21	0.2	
Total %	8.1	11.4	0	0	0.3	1.2	0.8	0	0.1	29.9	16.1	0	25.3	0	6.8	0.1	



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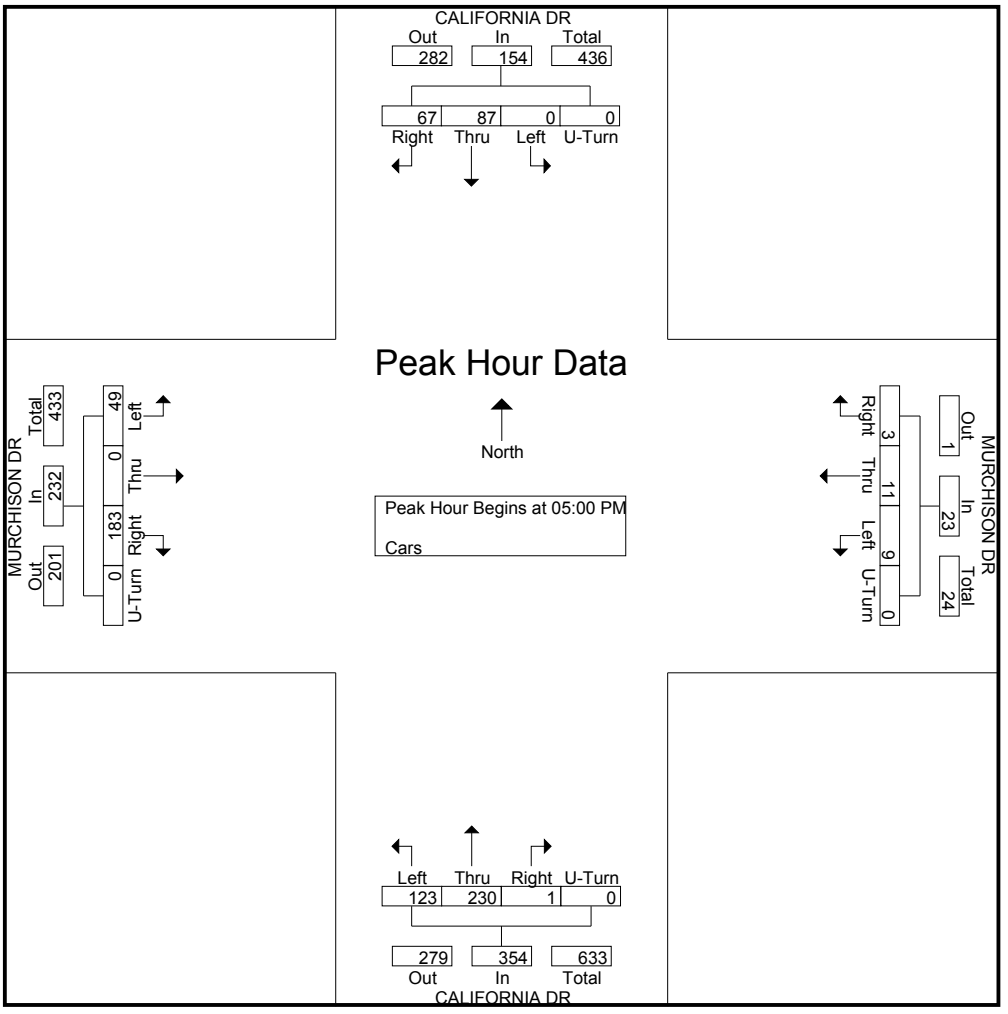
File Name : #10 CALIFORNIA&MURCHISONPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	CALIFORNIA DR Southbound					MURCHISON DR Westbound					CALIFORNIA DR Northbound					MURCHISON DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	17	**26**	0	0	43	0	2	1	0	3	0	**64**	**36**	0	**100**	44	0	6	0	50	**196**
05:15 PM	13	19	0	0	32	**1**	1	0	0	2	0	63	29	0	92	**54**	0	14	0	**68**	194
05:30 PM	15	18	0	0	33	1	2	3	0	6	**1**	55	29	0	85	39	0	14	0	53	177
05:45 PM	**22**	24	0	0	**46**	1	**6**	**5**	0	**12**	0	48	29	0	77	46	0	**15**	0	61	196
Total Volume	67	87	0	0	154	3	11	9	0	23	1	230	123	0	354	183	0	49	0	232	763
% App. Total	43.5	56.5	0	0		13	47.8	39.1	0		0.3	65	34.7	0		78.9	0	21.1	0		
PHF	.761	.837	.000	.000	.837	.750	.458	.450	.000	.479	.250	.898	.854	.000	.885	.847	.000	.817	.000	.853	.973



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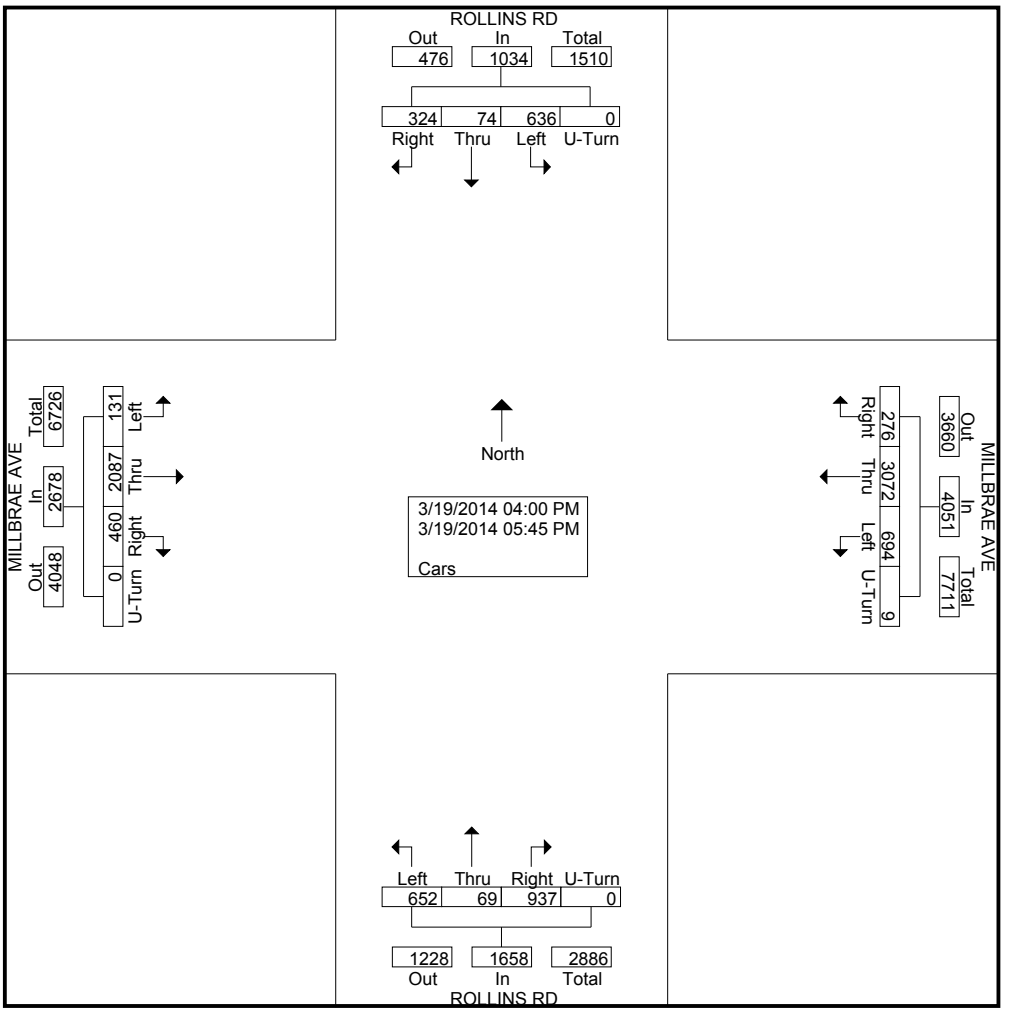
File Name : #1 ROLLINS&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	ROLLINS RD Southbound				MILLBRAE AVE Westbound				ROLLINS RD Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	19	4	39	0	26	386	83	2	107	10	68	0	64	295	13	0	1116
04:15 PM	20	9	57	0	19	325	73	3	112	6	82	0	53	215	8	0	982
04:30 PM	21	10	59	0	34	461	106	0	128	10	75	0	42	247	13	0	1206
04:45 PM	44	11	96	0	33	356	82	1	119	8	95	0	60	237	15	0	1157
Total	104	34	251	0	112	1528	344	6	466	34	320	0	219	994	49	0	4461
05:00 PM	47	6	82	0	50	404	82	0	138	9	85	0	42	288	19	0	1252
05:15 PM	52	14	110	0	34	396	70	2	130	8	100	0	52	272	19	0	1259
05:30 PM	54	9	94	0	39	401	97	0	87	10	76	0	63	277	23	0	1230
05:45 PM	67	11	99	0	41	343	101	1	116	8	71	0	84	256	21	0	1219
Total	220	40	385	0	164	1544	350	3	471	35	332	0	241	1093	82	0	4960
Grand Total	324	74	636	0	276	3072	694	9	937	69	652	0	460	2087	131	0	9421
Apprch %	31.3	7.2	61.5	0	6.8	75.8	17.1	0.2	56.5	4.2	39.3	0	17.2	77.9	4.9	0	
Total %	3.4	0.8	6.8	0	2.9	32.6	7.4	0.1	9.9	0.7	6.9	0	4.9	22.2	1.4	0	



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File Name : #1 ROLLINS&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
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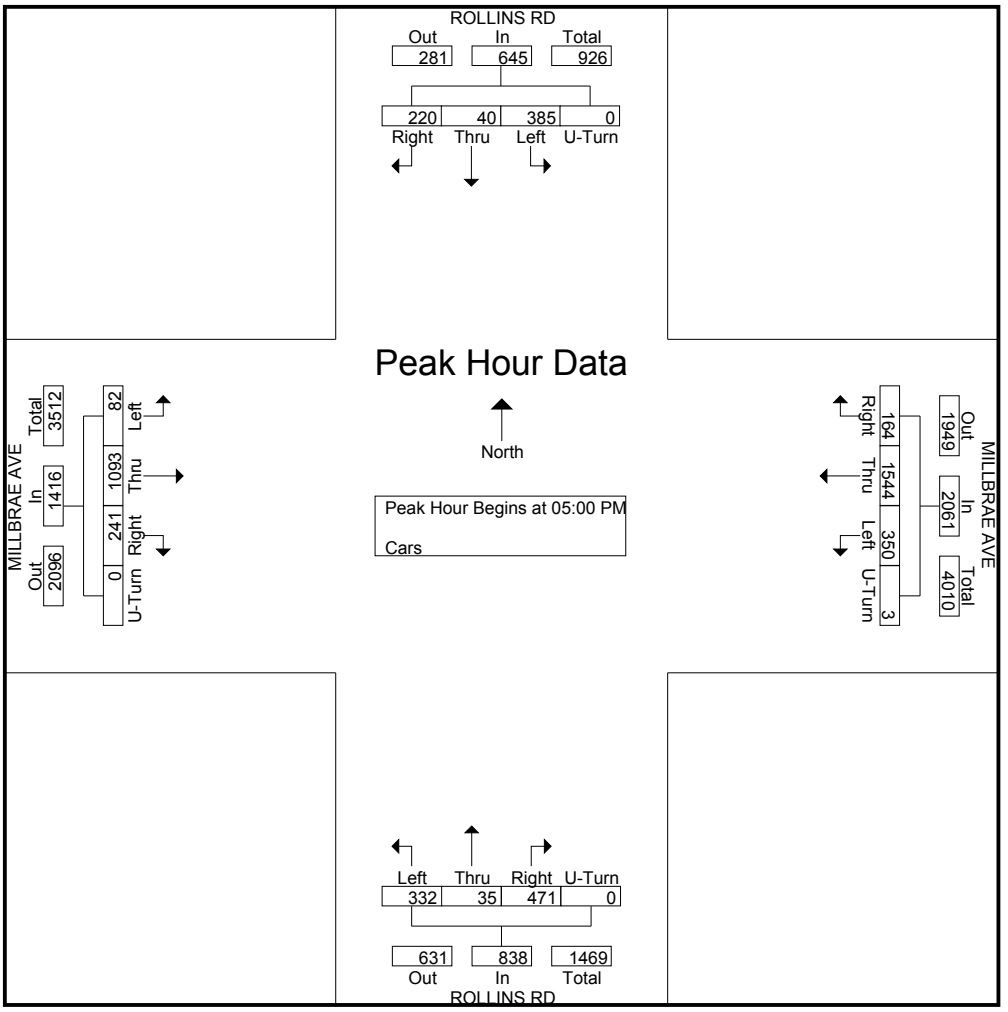
	ROLLINS RD Southbound					MILLBRAE AVE Westbound					ROLLINS RD Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	47	6	82	0	135	**50**	**404**	82	0	536	**138**	9	85	0	232	42	**288**	19	0	349	1252
05:15 PM	52	**14**	**110**	0	176	34	396	70	**2**	502	130	8	**100**	0	**238**	52	272	19	0	343	**1259**
05:30 PM	54	9	94	0	157	39	401	97	0	**537**	87	**10**	76	0	173	63	277	**23**	0	**363**	1230
05:45 PM	**67**	11	99	0	**177**	41	343	**101**	1	486	116	8	71	0	195	**84**	256	21	0	361	1219
Total Volume	220	40	385	0	645	164	1544	350	3	2061	471	35	332	0	838	241	1093	82	0	1416	4960
% App. Total	34.1	6.2	59.7	0		8	74.9	17	0.1		56.2	4.2	39.6	0		17	77.2	5.8	0		
PHF	.821	.714	.875	.000	.911	.820	.955	.866	.375	.959	.853	.875	.830	.000	.880	.717	.949	.891	.000	.975	.985



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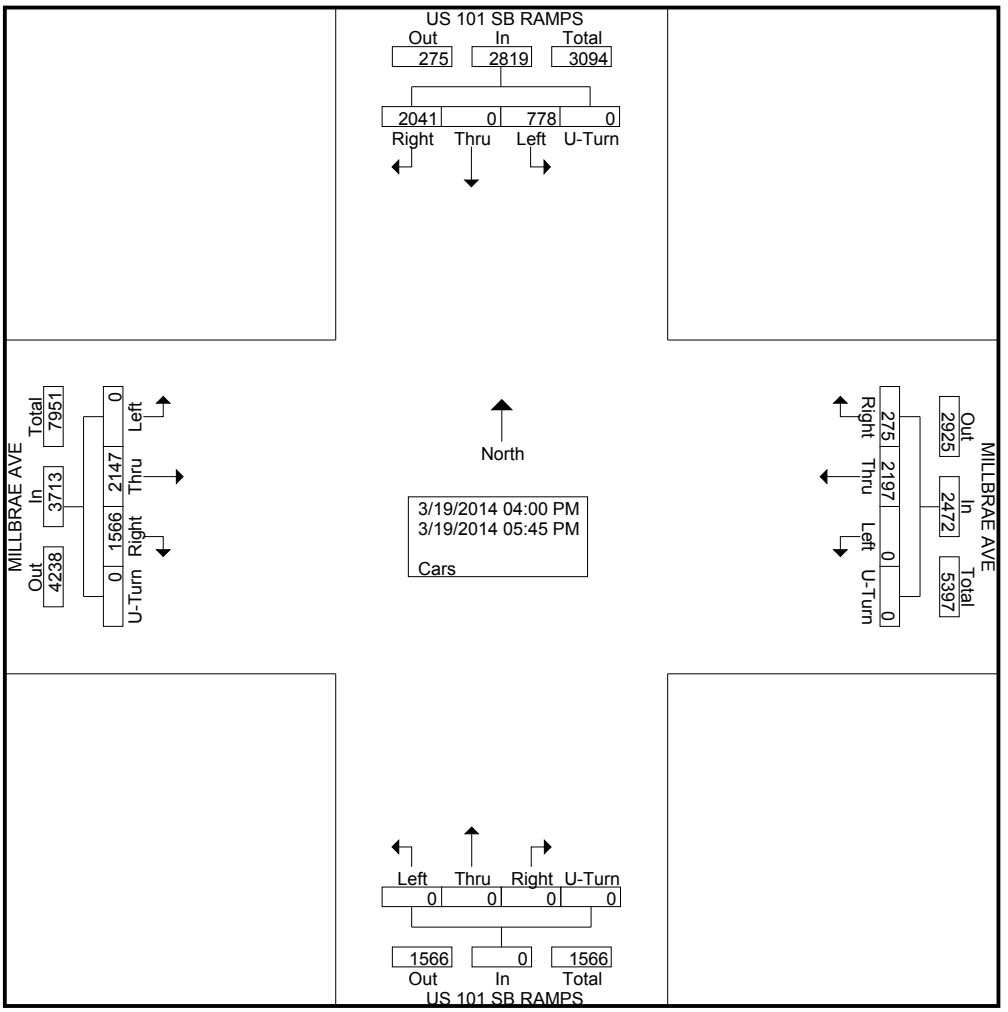
File Name : #3 US101SBRAMPS&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	US 101 SB RAMPS Southbound				MILLBRAE AVE Westbound				US 101 SB RAMPS Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	245	0	92	0	38	261	0	0	0	0	0	0	204	250	0	0	1090
04:15 PM	235	0	91	0	33	254	0	0	0	0	0	0	176	222	0	0	1011
04:30 PM	268	0	99	0	26	272	0	0	0	0	0	0	196	268	0	0	1129
04:45 PM	231	0	98	0	30	273	0	0	0	0	0	0	175	287	0	0	1094
Total	979	0	380	0	127	1060	0	0	0	0	0	0	751	1027	0	0	4324
05:00 PM	263	0	113	0	36	242	0	0	0	0	0	0	185	303	0	0	1142
05:15 PM	258	0	103	0	51	296	0	0	0	0	0	0	233	294	0	0	1235
05:30 PM	259	0	89	0	28	285	0	0	0	0	0	0	197	255	0	0	1113
05:45 PM	282	0	93	0	33	314	0	0	0	0	0	0	200	268	0	0	1190
Total	1062	0	398	0	148	1137	0	0	0	0	0	0	815	1120	0	0	4680
Grand Total	2041	0	778	0	275	2197	0	0	0	0	0	0	1566	2147	0	0	9004
Apprch %	72.4	0	27.6	0	11.1	88.9	0	0	0	0	0	0	42.2	57.8	0	0	
Total %	22.7	0	8.6	0	3.1	24.4	0	0	0	0	0	0	17.4	23.8	0	0	



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File Name : #3 US101SBRAMPS&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
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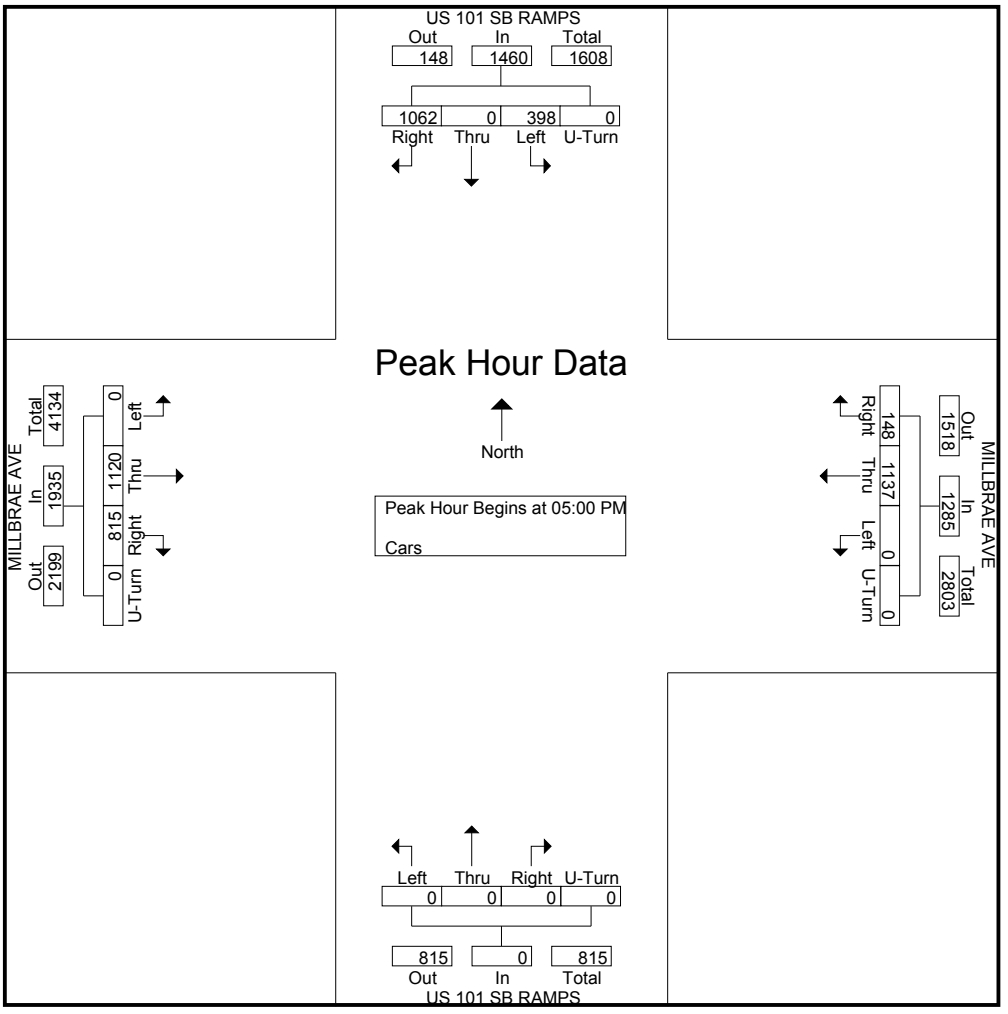
	US 101 SB RAMPS Southbound					MILLBRAE AVE Westbound					US 101 SB RAMPS Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	263	0	**113**	0	**376**	36	242	0	0	278	0	0	0	0	0	185	**303**	0	0	488	1142
05:15 PM	258	0	103	0	361	**51**	296	0	0	**347**	0	0	0	0	0	**233**	294	0	0	**527**	**1235**
05:30 PM	259	0	89	0	348	28	285	0	0	313	0	0	0	0	0	197	255	0	0	452	1113
05:45 PM	**282**	0	93	0	375	33	**314**	0	0	347	0	0	0	0	0	200	268	0	0	468	1190
Total Volume	1062	0	398	0	1460	148	1137	0	0	1285	0	0	0	0	0	815	1120	0	0	1935	4680
% App. Total	72.7	0	27.3	0		11.5	88.5	0	0		0	0	0	0		42.1	57.9	0	0		
PHF	.941	.000	.881	.000	.971	.725	.905	.000	.000	.926	.000	.000	.000	.000	.000	.874	.924	.000	.000	.918	.947



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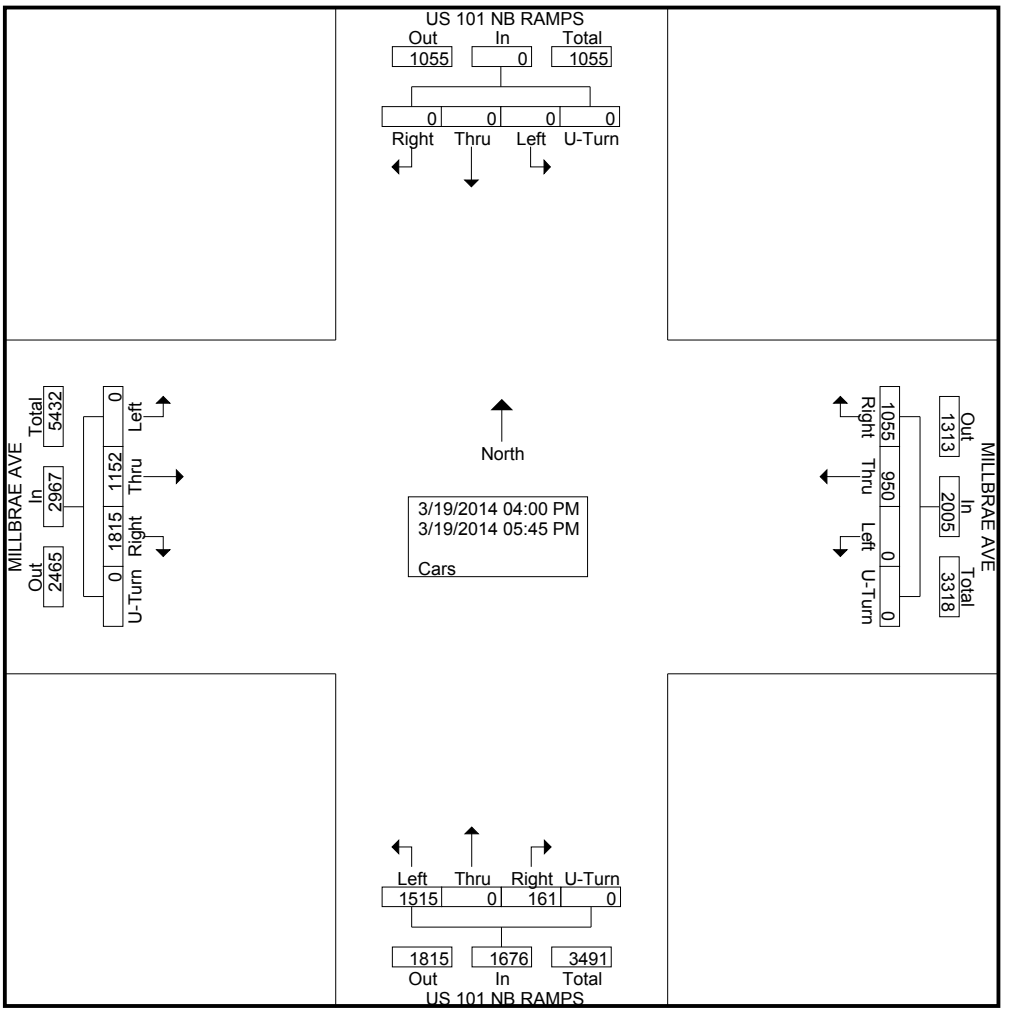
File Name : #4 US101NBRAMPS&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	US 101 NB RAMPS Southbound				MILLBRAE AVE Westbound				US 101 NB RAMPS Northbound				MILLBRAE AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	95	116	0	0	16	0	185	0	201	135	0	0	748
04:15 PM	0	0	0	0	116	103	0	0	17	0	179	0	182	139	0	0	736
04:30 PM	0	0	0	0	151	105	0	0	19	0	200	0	238	116	0	0	829
04:45 PM	0	0	0	0	132	103	0	0	22	0	184	0	244	147	0	0	832
Total	0	0	0	0	494	427	0	0	74	0	748	0	865	537	0	0	3145
05:00 PM	0	0	0	0	148	118	0	0	20	0	185	0	269	163	0	0	903
05:15 PM	0	0	0	0	145	153	0	0	22	0	187	0	248	151	0	0	906
05:30 PM	0	0	0	0	139	127	0	0	24	0	184	0	204	159	0	0	837
05:45 PM	0	0	0	0	129	125	0	0	21	0	211	0	229	142	0	0	857
Total	0	0	0	0	561	523	0	0	87	0	767	0	950	615	0	0	3503
Grand Total	0	0	0	0	1055	950	0	0	161	0	1515	0	1815	1152	0	0	6648
Apprch %	0	0	0	0	52.6	47.4	0	0	9.6	0	90.4	0	61.2	38.8	0	0	
Total %	0	0	0	0	15.9	14.3	0	0	2.4	0	22.8	0	27.3	17.3	0	0	



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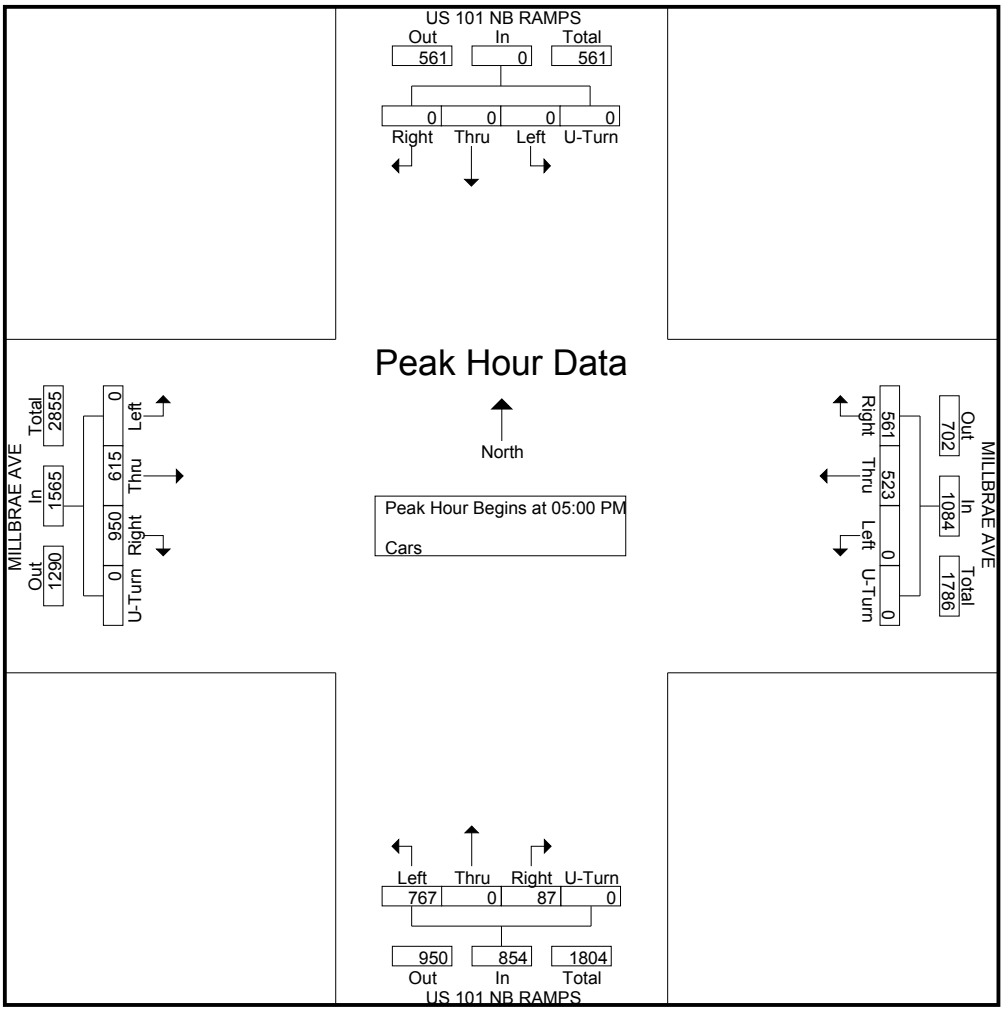
File Name : #4 US101NBRAMPS&MILLBRAEPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 2

	US 101 NB RAMPS Southbound					MILLBRAE AVE Westbound					US 101 NB RAMPS Northbound					MILLBRAE AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	**148**	118	0	0	266	20	0	185	0	205	**269**	**163**	0	0	**432**	903
05:15 PM	0	0	0	0	0	145	**153**	0	0	**298**	22	0	187	0	209	248	151	0	0	399	**906**
05:30 PM	0	0	0	0	0	139	127	0	0	266	**24**	0	184	0	208	204	159	0	0	363	837
05:45 PM	0	0	0	0	0	129	125	0	0	254	21	0	**211**	0	**232**	229	142	0	0	371	857
Total Volume	0	0	0	0	0	561	523	0	0	1084	87	0	767	0	854	950	615	0	0	1565	3503
% App. Total	0	0	0	0		51.8	48.2	0	0		10.2	0	89.8	0		60.7	39.3	0	0		
PHF	.000	.000	.000	.000	.000	.948	.855	.000	.000	.909	.906	.000	.909	.000	.920	.883	.943	.000	.000	.906	.967



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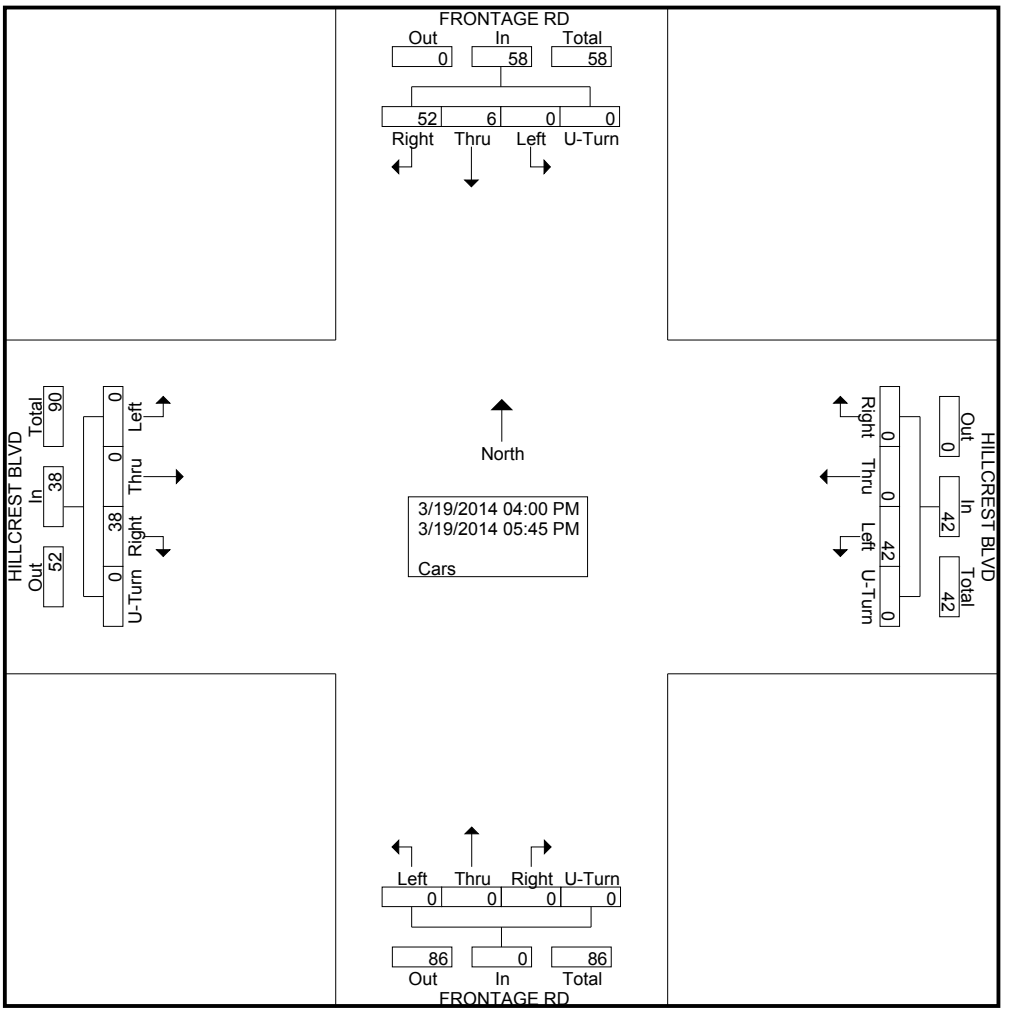
File Name : #5 FRONTAGE&HILLCRESTPM
Site Code : 00000000
Start Date : 3/19/2014
Page No : 1

Groups Printed- Cars

	FRONTAGE RD Southbound				HILLCREST BLVD Westbound				FRONTAGE RD Northbound				HILLCREST BLVD Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	6	2	0	0	0	0	6	0	0	0	0	0	4	0	0	0	18
04:15 PM	7	1	0	0	0	0	6	0	0	0	0	0	3	0	0	0	17
04:30 PM	10	0	0	0	0	0	2	0	0	0	0	0	4	0	0	0	16
04:45 PM	5	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	11
Total	28	3	0	0	0	0	19	0	0	0	0	0	12	0	0	0	62
05:00 PM	6	1	0	0	0	0	5	0	0	0	0	0	6	0	0	0	18
05:15 PM	6	0	0	0	0	0	2	0	0	0	0	0	10	0	0	0	18
05:30 PM	6	1	0	0	0	0	8	0	0	0	0	0	3	0	0	0	18
05:45 PM	6	1	0	0	0	0	8	0	0	0	0	0	7	0	0	0	22
Total	24	3	0	0	0	0	23	0	0	0	0	0	26	0	0	0	76
Grand Total	52	6	0	0	0	0	42	0	0	0	0	0	38	0	0	0	138
Apprch %	89.7	10.3	0	0	0	0	100	0	0	0	0	0	100	0	0	0	
Total %	37.7	4.3	0	0	0	0	30.4	0	0	0	0	0	27.5	0	0	0	



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File Name : #5 FRONTAGE&HILLCRESTPM
Site Code : 00000000
Start Date : 3/19/2014
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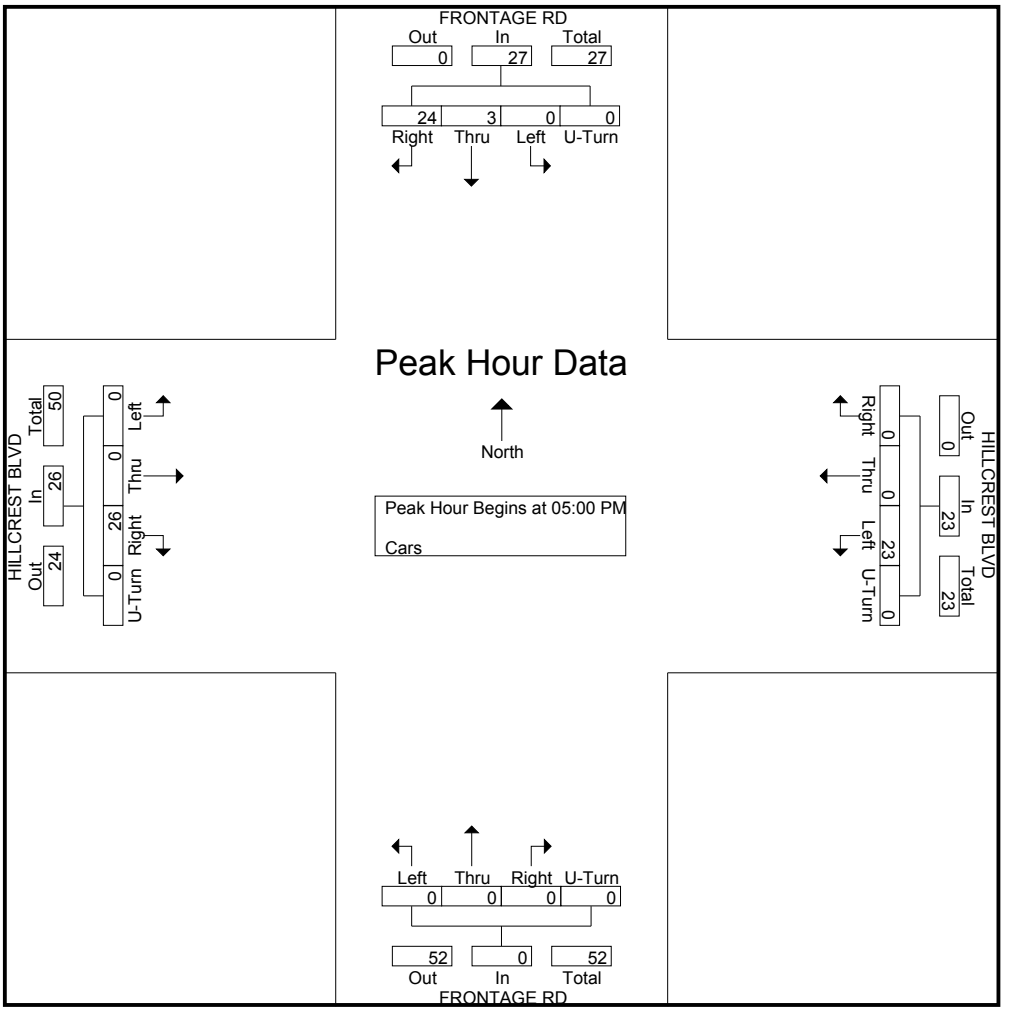
	FRONTAGE RD Southbound					HILLCREST BLVD Westbound					FRONTAGE RD Northbound					HILLCREST BLVD Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**6**	**1**	0	0	**7**	0	0	5	0	5	0	0	0	0	0	6	0	0	0	6	18
05:15 PM	6	0	0	0	6	0	0	2	0	2	0	0	0	0	0	**10**	0	0	0	**10**	18
05:30 PM	6	1	0	0	7	0	0	**8**	0	**8**	0	0	0	0	0	3	0	0	0	3	18
05:45 PM	6	1	0	0	7	0	0	8	0	8	0	0	0	0	0	7	0	0	0	7	**22**
Total Volume	24	3	0	0	27	0	0	23	0	23	0	0	0	0	0	26	0	0	0	26	76
% App. Total	88.9	11.1	0	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	1.00	.750	.000	.000	.964	.000	.000	.719	.000	.719	.000	.000	.000	.000	.000	.650	.000	.000	.000	.650	.864



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File Name : #6 FRONTAGE&LACRUZPM
Site Code : 00000000
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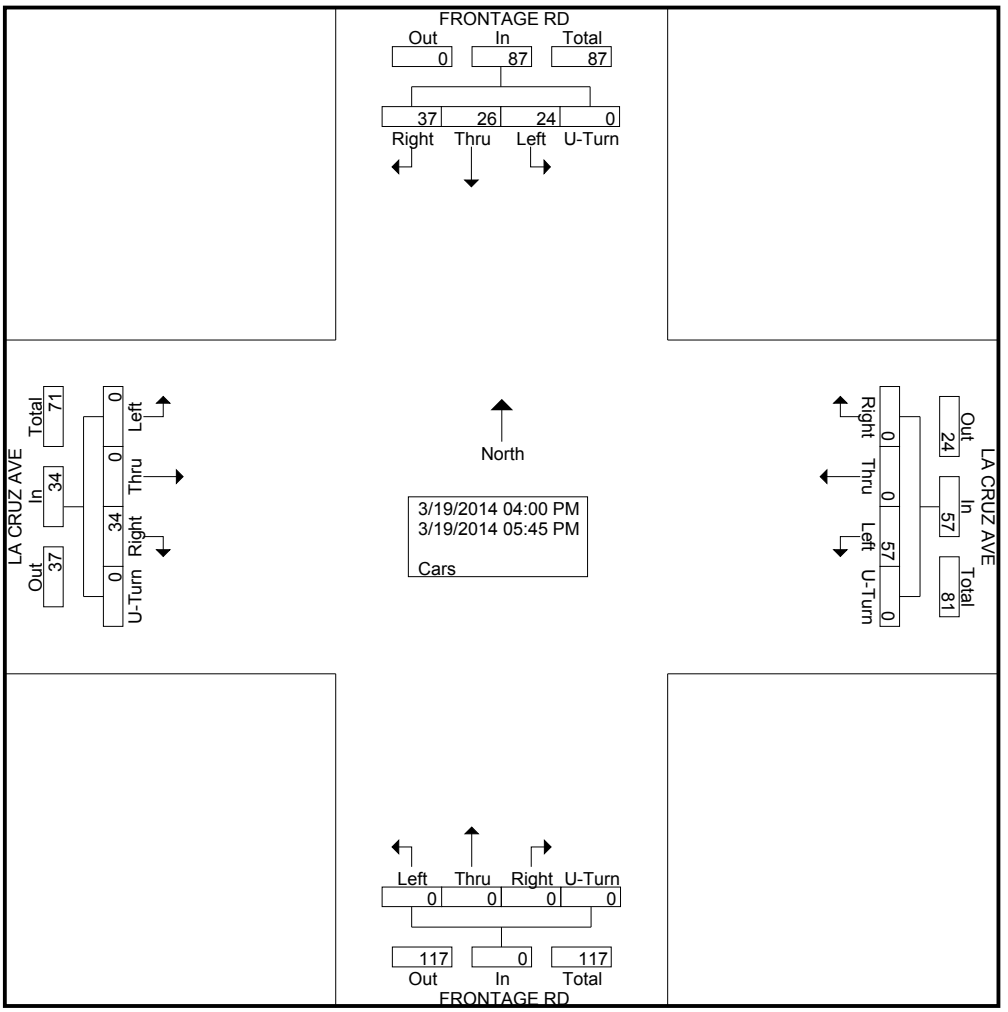
Groups Printed- Cars

	FRONTAGE RD Southbound				LA CRUZ AVE Westbound				FRONTAGE RD Northbound				LA CRUZ AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	7	4	5	0	0	0	9	0	0	0	0	0	0	0	0	0	25
04:15 PM	3	4	4	0	0	0	3	0	0	0	0	0	0	0	0	0	14
04:30 PM	0	0	3	0	0	0	3	0	0	0	0	0	4	0	0	0	10
04:45 PM	6	0	1	0	0	0	5	0	0	0	0	0	4	0	0	0	16
Total	16	8	13	0	0	0	20	0	0	0	0	0	8	0	0	0	65
05:00 PM	4	3	3	0	0	0	5	0	0	0	0	0	2	0	0	0	17
05:15 PM	5	1	2	0	0	0	10	0	0	0	0	0	4	0	0	0	22
05:30 PM	7	6	2	0	0	0	8	0	0	0	0	0	7	0	0	0	30
05:45 PM	5	8	4	0	0	0	14	0	0	0	0	0	13	0	0	0	44
Total	21	18	11	0	0	0	37	0	0	0	0	0	26	0	0	0	113
Grand Total	37	26	24	0	0	0	57	0	0	0	0	0	34	0	0	0	178
Apprch %	42.5	29.9	27.6	0	0	0	100	0	0	0	0	0	100	0	0	0	
Total %	20.8	14.6	13.5	0	0	0	32	0	0	0	0	0	19.1	0	0	0	



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File Name : #6 FRONTAGE&LACRUZPM
Site Code : 00000000
Start Date : 3/19/2014
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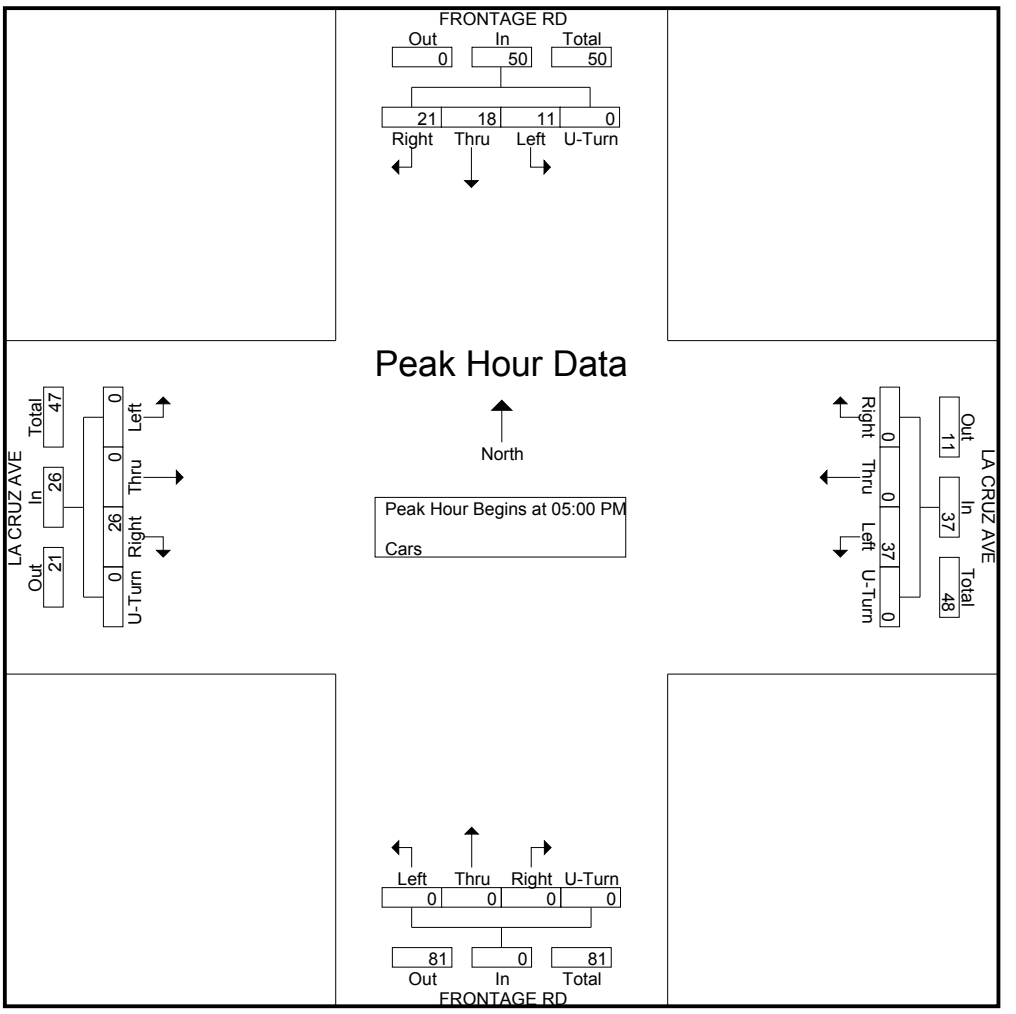
	FRONTAGE RD Southbound					LA CRUZ AVE Westbound					FRONTAGE RD Northbound					LA CRUZ AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	4	3	3	0	10	0	0	5	0	5	0	0	0	0	0	2	0	0	0	2	17
05:15 PM	5	1	2	0	8	0	0	10	0	10	0	0	0	0	0	4	0	0	0	4	22
05:30 PM	**7**	6	2	0	15	0	0	8	0	8	0	0	0	0	0	7	0	0	0	7	30
05:45 PM	5	**8**	**4**	0	**17**	0	0	**14**	0	**14**	0	0	0	0	0	**13**	0	0	0	**13**	**44**
Total Volume	21	18	11	0	50	0	0	37	0	37	0	0	0	0	0	26	0	0	0	26	113
% App. Total	42	36	22	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	.750	.563	.688	.000	.735	.000	.000	.661	.000	.661	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.642



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File Name : #7 FRONTAGE&VICTORIAPM
Site Code : 00000000
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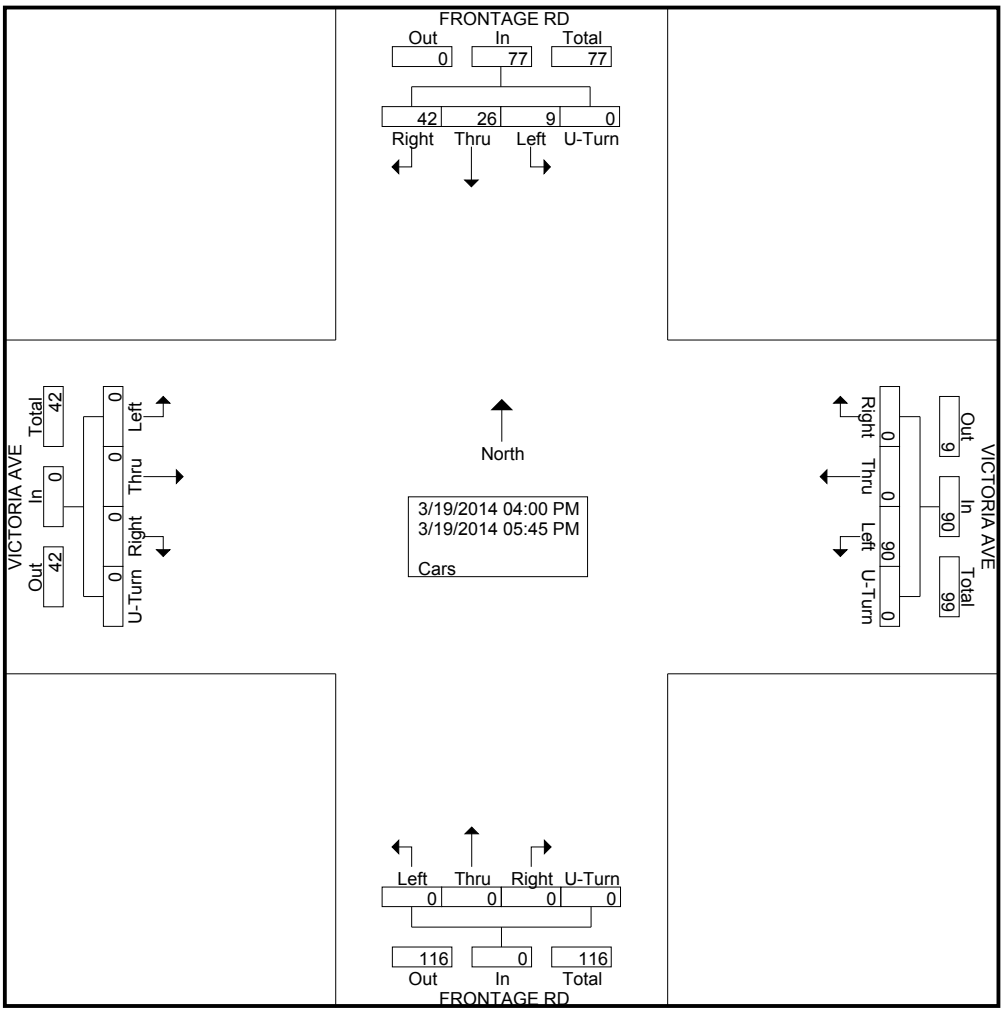
Groups Printed- Cars

	FRONTAGE RD Southbound				VICTORIA AVE Westbound				FRONTAGE RD Northbound				VICTORIA AVE Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	4	4	3	0	0	0	7	0	0	0	0	0	0	0	0	0	18
04:15 PM	4	4	2	0	0	0	14	0	0	0	0	0	0	0	0	0	24
04:30 PM	6	3	2	0	0	0	13	0	0	0	0	0	0	0	0	0	24
04:45 PM	5	3	0	0	0	0	17	0	0	0	0	0	0	0	0	0	25
Total	19	14	7	0	0	0	51	0	0	0	0	0	0	0	0	0	91
05:00 PM	3	2	1	0	0	0	15	0	0	0	0	0	0	0	0	0	21
05:15 PM	3	3	0	0	0	0	8	0	0	0	0	0	0	0	0	0	14
05:30 PM	11	4	1	0	0	0	9	0	0	0	0	0	0	0	0	0	25
05:45 PM	6	3	0	0	0	0	7	0	0	0	0	0	0	0	0	0	16
Total	23	12	2	0	0	0	39	0	0	0	0	0	0	0	0	0	76
Grand Total	42	26	9	0	0	0	90	0	0	0	0	0	0	0	0	0	167
Apprch %	54.5	33.8	11.7	0	0	0	100	0	0	0	0	0	0	0	0	0	
Total %	25.1	15.6	5.4	0	0	0	53.9	0	0	0	0	0	0	0	0	0	



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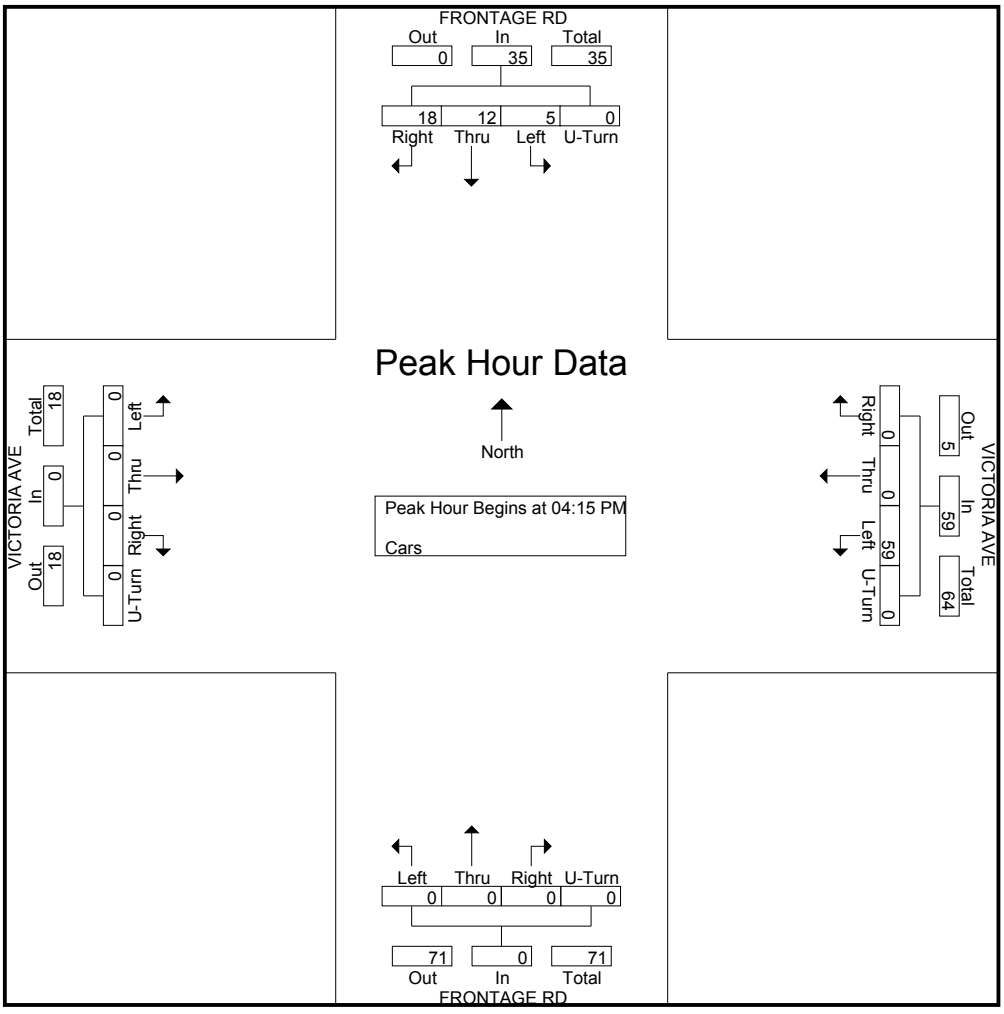
	FRONTAGE RD Southbound					VICTORIA AVE Westbound					FRONTAGE RD Northbound					VICTORIA AVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	4	**4**	**2**	0	10	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	24
04:30 PM	**6**	3	2	0	**11**	0	0	13	0	13	0	0	0	0	0	0	0	0	0	0	24
04:45 PM	5	3	0	0	8	0	0	**17**	0	**17**	0	0	0	0	0	0	0	0	0	0	**25**
05:00 PM	3	2	1	0	6	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	21
Total Volume	18	12	5	0	35	0	0	59	0	59	0	0	0	0	0	0	0	0	0	0	94
% App. Total	51.4	34.3	14.3	0		0	0	100	0		0	0	0	0		0	0	0	0		
PHF	.750	.750	.625	.000	.795	.000	.000	.868	.000	.868	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.940



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Site Code : 00000000
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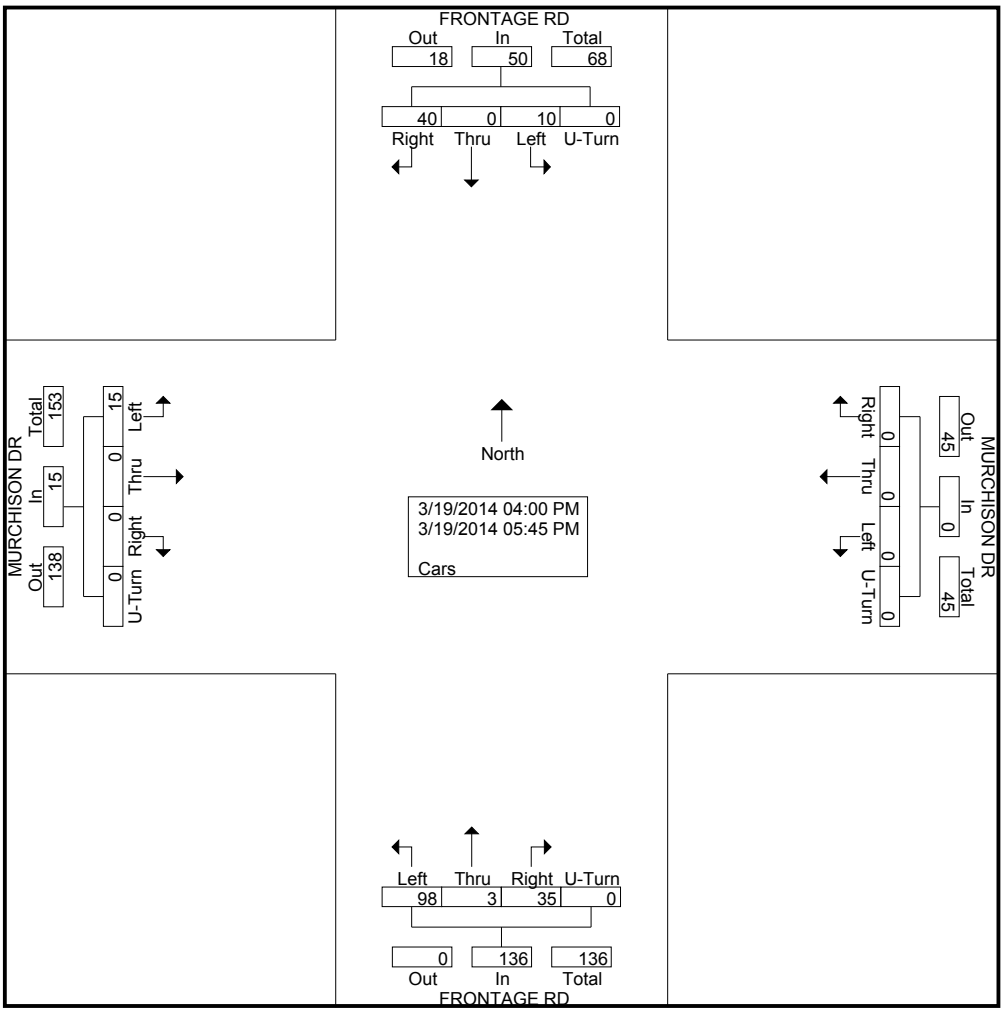
Groups Printed- Cars

	FRONTAGE RD Southbound				MURCHISON DR Westbound				FRONTAGE RD Northbound				MURCHISON DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	3	0	2	0	0	0	0	0	3	0	19	0	0	0	0	0	27
04:15 PM	3	0	0	0	0	0	0	0	12	0	11	0	0	0	1	0	27
04:30 PM	6	0	1	0	0	0	0	0	2	1	20	0	0	0	0	0	30
04:45 PM	5	0	1	0	0	0	0	0	5	1	7	0	0	0	8	0	27
Total	17	0	4	0	0	0	0	0	22	2	57	0	0	0	9	0	111
05:00 PM	8	0	1	0	0	0	0	0	3	0	17	0	0	0	1	0	30
05:15 PM	4	0	3	0	0	0	0	0	4	0	9	0	0	0	1	0	21
05:30 PM	4	0	2	0	0	0	0	0	5	0	8	0	0	0	1	0	20
05:45 PM	7	0	0	0	0	0	0	0	1	1	7	0	0	0	3	0	19
Total	23	0	6	0	0	0	0	0	13	1	41	0	0	0	6	0	90
Grand Total	40	0	10	0	0	0	0	0	35	3	98	0	0	0	15	0	201
Apprch %	80	0	20	0	0	0	0	0	25.7	2.2	72.1	0	0	0	100	0	
Total %	19.9	0	5	0	0	0	0	0	17.4	1.5	48.8	0	0	0	7.5	0	



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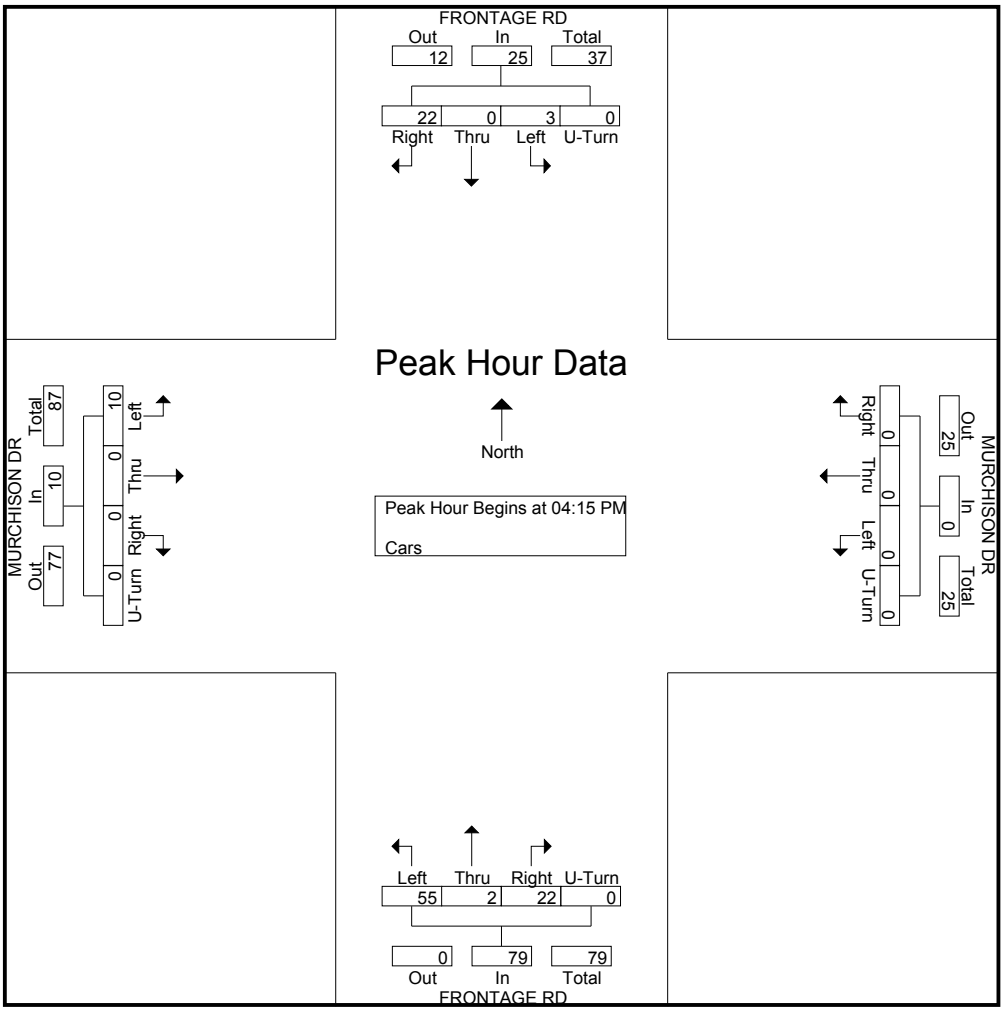
	FRONTAGE RD Southbound					MURCHISON DR Westbound					FRONTAGE RD Northbound					MURCHISON DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	3	0	0	0	3	0	0	0	0	0	**12**	0	11	0	**23**	0	0	1	0	1	27
04:30 PM	6	0	**1**	0	7	0	0	0	0	0	2	**1**	**20**	0	23	0	0	0	0	0	**30**
04:45 PM	5	0	1	0	6	0	0	0	0	0	5	1	7	0	13	0	0	**8**	0	**8**	27
05:00 PM	**8**	0	1	0	**9**	0	0	0	0	0	3	0	17	0	20	0	0	1	0	1	30
Total Volume	22	0	3	0	25	0	0	0	0	0	22	2	55	0	79	0	0	10	0	10	114
% App. Total	88	0	12	0		0	0	0	0		27.8	2.5	69.6	0		0	0	100	0		
PHF	.688	.000	.750	.000	.694	.000	.000	.000	.000	.000	.458	.500	.688	.000	.859	.000	.000	.313	.000	.313	.950



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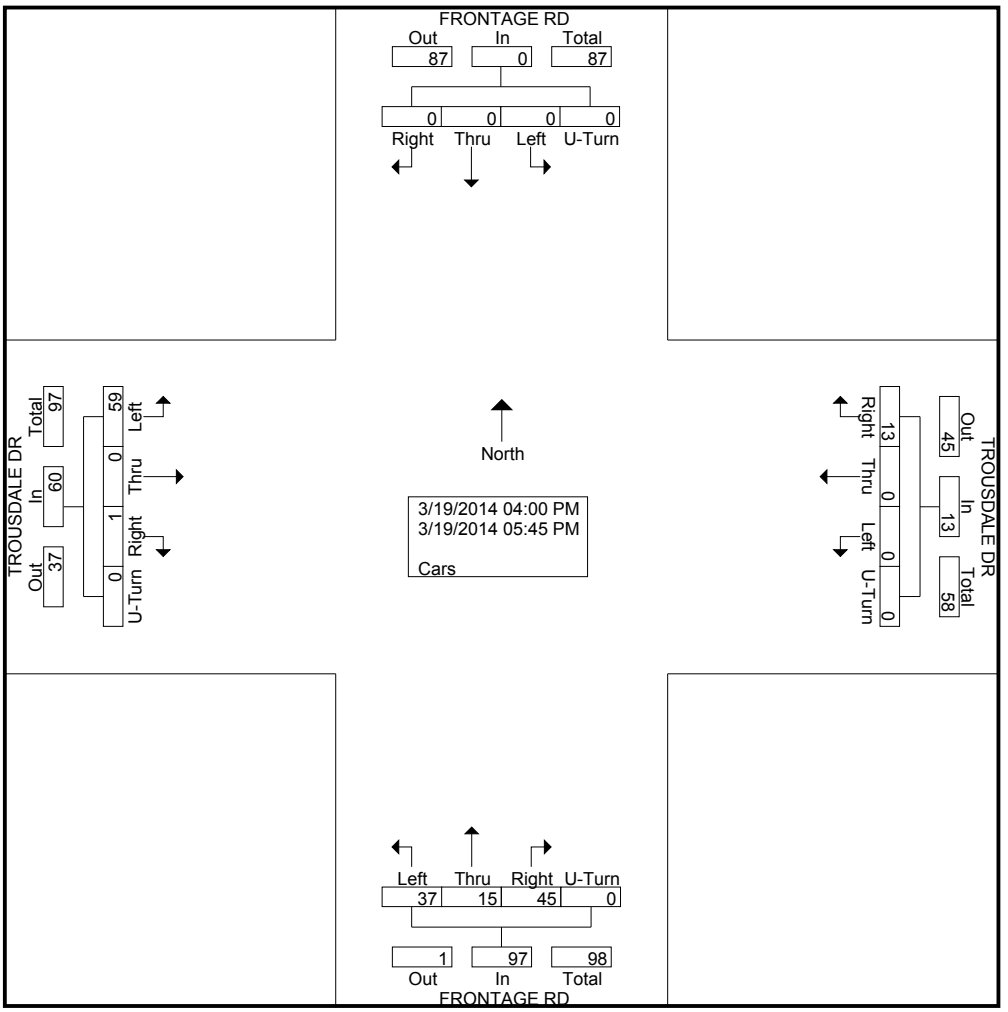
Groups Printed- Cars

	FRONTAGE RD Southbound				TROUSDALE DR Westbound				FRONTAGE RD Northbound				TROUSDALE DR Eastbound				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	1	0	0	0	3	0	4	0	0	0	14	0	22
04:15 PM	0	0	0	0	3	0	0	0	9	1	7	0	0	0	9	0	29
04:30 PM	0	0	0	0	3	0	0	0	6	3	5	0	0	0	10	0	27
04:45 PM	0	0	0	0	1	0	0	0	4	1	4	0	0	0	13	0	23
Total	0	0	0	0	8	0	0	0	22	5	20	0	0	0	46	0	101
05:00 PM	0	0	0	0	0	0	0	0	8	2	7	0	1	0	3	0	21
05:15 PM	0	0	0	0	1	0	0	0	6	3	4	0	0	0	4	0	18
05:30 PM	0	0	0	0	4	0	0	0	6	3	4	0	0	0	2	0	19
05:45 PM	0	0	0	0	0	0	0	0	3	2	2	0	0	0	4	0	11
Total	0	0	0	0	5	0	0	0	23	10	17	0	1	0	13	0	69
Grand Total	0	0	0	0	13	0	0	0	45	15	37	0	1	0	59	0	170
Apprch %	0	0	0	0	100	0	0	0	46.4	15.5	38.1	0	1.7	0	98.3	0	
Total %	0	0	0	0	7.6	0	0	0	26.5	8.8	21.8	0	0.6	0	34.7	0	



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Site Code : 00000000
Start Date : 3/19/2014
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	FRONTAGE RD Southbound					TROUSDALE DR Westbound					FRONTAGE RD Northbound					TROUSDALE DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 04:15 PM - Peak 1 of 1

Effects of Millbrae Station Area Specific Plan on BART Ridership and Parking Memo

FEHR PEERS

MEMORANDUM

Date: January 27th, 2015

To: Ellen Smith and Jeff Ordway, BART

From: Jerry Walters, Nikki Foletta and Steve Crosley, Fehr & Peers

Subject: Effects of Millbrae Station Area Specific Plan on BART Ridership and Parking

SF14-0730

This memorandum examines the impact of the proposed Millbrae Station Area Specific Plan (MSASP) transit oriented development (TOD) on BART and Caltrain ridership, mode of access and parking demand in 2040[1]. Land use scenarios analyzed as part of the MSASP include a standalone Sites 5/6 TOD on areas presently devoted to surface parking; a standalone Site 1 TOD a site presently devoted to a restaurant, auto and tire repair, miscellaneous retail, a dormant senior housing facility and one residential dwelling unit; and full buildout of the Specific Plan area. The Sites 5/6 TOD would reduce the net parking supply at the station by 566 spaces. These land use and parking supply changes would result in an increase in ridership, shifts in mode of access, and an increase in parking demand at the station which are detailed in the technical sections below.

[1] 2040 represents the horizon year for the MSASP and the Bay Area regional transportation plan (RTP) and Sustainable Communities Strategy (SCS) and includes transportation system improvements, jobs, housing units, and population growth throughout the Bay Area consistent with Plan Bay Area, which was jointly approved by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) in 2013.

SUMMARY OF FINDINGS

RIDERSHIP

Daily BART and Caltrain boardings at the Millbrae Station combined are projected to increase 47 percent, from 9,685 in 2013 to 14,200 by 2040 under 2040 Baseline conditions without the MSASP TOD. Of the total increase, BART ridership is projected to increase by 18 percent (1,130 daily boardings). Caltrain will experience most of the net increase in ridership for reasons that include increasing Caltrain speeds and frequencies through electrification, extending Caltrain to the Transbay Terminal Station for direct access to the financial district. In 2040, travel times from Millbrae to the financial district will be 24 minutes on Caltrain and 31 minutes on BART. In addition, there will be substantial growth and development in areas near the existing Caltrain station at 4th and King Streets; including significant amounts of new employment and housing in the south-of-market (SOMA) and Mission Bay areas of San Francisco well served by Caltrain. BART will retain several advantages, including direct service to other areas of San Francisco and the East Bay and seat availability for passengers boarding or considering a transfer from Caltrain in Millbrae. However, the Caltrain improvements listed above will mean that 48 percent of those boarding a San Francisco bound train at Millbrae in 2040 will board Caltrain while 52 percent will board BART (compared to 21 percent and 79 percent today).

The 566 parking space reduction in the BART parking supply caused by the TOD will dampen BART ridership growth by 2040 by approximately 337 daily BART boardings at the station when parking is at capacity, which is projected to occur on most weekdays before 2040. Lost riders would represent those who could not or would not shift to alternative modes of access such as kiss-ride, transit, walking or bicycling. However, the uses at the TOD will generate boardings which will more than offset these reductions. Site 1 will generate approximately 582 daily BART boardings, Site 5-6 will generate 659 daily boardings and the full Buildout will generate 1,863 daily boardings.

MODE OF ACCESS

Independent of train-to-train transfers, the majority of those boarding BART in Millbrae (67%) drive to and park at the station while only 28% of those boarding Caltrain park-and-ride. As an end-of-line station, BART passengers come from a large area in the north and central Peninsula

where park-ride drive access is the most convenient approach. Caltrain offers opportunities for system access along the full length of the Peninsula, so that most riders access Caltrain at the most convenient station rather than driving to Millbrae. The MSASP TOD will shift BART's access profile from predominantly auto-oriented to more balanced use of walking, bicycle, bus and driving to reach the station.

PARKING DEMAND

Due to parking turnover rates, the peak demand for parking spaces at the station is less than the total number of daily park-and-riders. BART generates one parking space of demand in Millbrae for each 3 daily boardings while Caltrain generates one space per 10 daily boardings. Because of the higher growth in Millbrae Caltrain use than BART use by 2040, demand for parking at Millbrae by those boarding Caltrain will increase from 335 to 940 parking spaces, while the parking demand by those boarding BART will decrease from 2,280 to 2,180 under 2040 Baseline conditions. This reduction is due to changes in land use and connecting transit in the future which would shift travel patterns of BART riders accessing the Millbrae station from park-and-ride access to transit access. The peak daily demand for parking for BART and Caltrain riders combined will increase to 3,120 spaces under 2040 Baseline conditions, five percent more than the existing supply.

While the development of the proposed MSASP TOD will increase overall BART and Caltrain ridership at the station, it will reduce the demand for park-and-riders from 2040 Baseline due to the parking spaces it removes. Therefore with the TOD, parking demand at the station will be reduced to 1,940 spaces for BART riders and 910 spaces for Caltrain riders. The existing parking supply, excluding spaces reserved for station agents, is 2,928. With the removal of 566 parking spaces by the TOD, the effective parking supply will be 2,362 spaces. This assumes that current auxiliary uses of BART parking will discontinue; no spaces will be reserved for airport passengers or other entities such as Google. This parking supply would be able to accommodate the future BART parking demand with the TOD. However, if Caltrain riders are able to park in the BART facilities, as they are today, the combined parking demand from BART and Caltrain riders will exceed the supply. Options to balance the parking supply and demand include: 1) reclaim the airport and Google designated spaces, and/or 2) prevent Caltrain riders from parking in the BART parking areas.

SCENARIOS ANALYZED

Three land use scenarios were analyzed for ridership (BART/Caltrain), mode of access, and parking demand in year 2040. These scenarios are being considered as part of the Millbrae Station Area Specific Plan update. The first two scenarios are project-specific: transit-oriented development (TOD) on the BART property in the northeast quadrant of the Station Area Specific Plan area (herein known as Sites 5/6 TOD) and TOD in the northwest quadrant (herein known as Site 1 TOD). The third scenario is a program level analysis of buildout of the entire Station Area Specific Plan, which includes Sites 5/6 TOD, Site 1 TOD, and development of the southeast and southwest quadrants of the Specific Plan area. **Table 1** details the land use for each scenario.

TABLE 1. LAND USE SCENARIOS ANALYZED

Scenario	Residential (dwelling units)	Office (ksf)	Retail (ksf)	Hotel (rooms)
Site 1 TOD	500	267	32	0
Sites 5/6 TOD[1]	321	165	47	116
Specific Plan Buildout	1,437	1,577	143	325

[1]Currently proposed Site 5/6 project has 5% lower land use totals than shown above.

SITE 5/6 TOD PARKING SUPPLY CHANGES

The Sites 5/6 TOD developer proposes to eliminate all 883 surface level BART parking lot stalls and provide 317 replacement BART parking spaces, for a total net reduction of 566 parking spaces. All current 2,096 BART parking garage spaces would remain.

MILLBRAE STATION RAIL RIDERSHIP

This section describes existing BART and Caltrain ridership at the Millbrae Station and develops ridership forecasts for the 2040 baseline and the three MSASP land use scenarios.

EXISTING RIDERSHIP

According to existing ridership data provided by BART and Caltrain, there are approximately 6,430 daily BART boardings at the Millbrae Station and 3,255 daily Caltrain boardings. These include boardings (largely in the morning) for trips originating in Millbrae, boardings (largely in the afternoon) by Millbrae visitors and nearby employees, and transfers between BART and Caltrain. In 2013 Fehr & Peers conducted an intercept survey of Caltrain riders which asked questions about trip origin, destination, and mode of access. Through analysis of these responses it was estimated that approximately 1,600 riders transfer between BART and Caltrain daily. Each passenger would make two transfers per day: one transfer during the initial trip and one transfer in the opposite direction for the return trip. This estimate was validated by BART who estimated a similar number of daily transferring riders. Subtracting transfer trips, approximately 4,830 daily BART boardings and approximately 1,655 daily Caltrain boardings have an origin or destination at the Millbrae Station. **Table 2** details existing ridership for BART and Caltrain at the Millbrae Station.

TABLE 2. EXISTING MILLBRAE STATION DAILY BOARDINGS

	Non-Transfer	Transfer	Total
BART	4,830	1,600	6,430
Caltrain	1,655	1,600	3,255

BASELINE 2040 RIDERSHIP FORECASTS

Methodology

To produce future baseline 2040 ridership forecasts for BART and Caltrain at the Millbrae station, Fehr & Peers used ridership forecasts produced by the C/CAG Peninsula Corridor model operated by Santa Clara Valley Transportation Authority (VTA). These C/CAG model forecasts take into account a wide array of regional and corridor factors influencing transit ridership including population and employment densities, auto ownership rates, demographics, transit and highway travel conditions and other factors. The 2040 forecast takes into account the effects of service improvements of the Caltrain Electrification project as reported in that project's EIR, including the extension of Caltrain to the Transbay Terminal. Fehr & Peers also checked these forecasts against

forecasts of Caltrain and BART ridership produced by the Metropolitan Transportation Commission (MTC) travel model for the agency's most recent Regional Transportation Plan and found the C/CAG model forecasts to more specifically represent the planned land use and transportation changes anticipated in the corridor.

Ridership

Table 3 summarizes daily BART and Caltrain boardings for both Existing and 2040 Baseline conditions. Daily ridership on BART and Caltrain combined is projected to increase 47 percent from 9,685 to 14,200 by 2040. BART ridership is projected to increase by 18 percent, while Caltrain ridership (including transfers) is expected to double.

TABLE 3. MILLBRAE STATION DAILY BOARDINGS

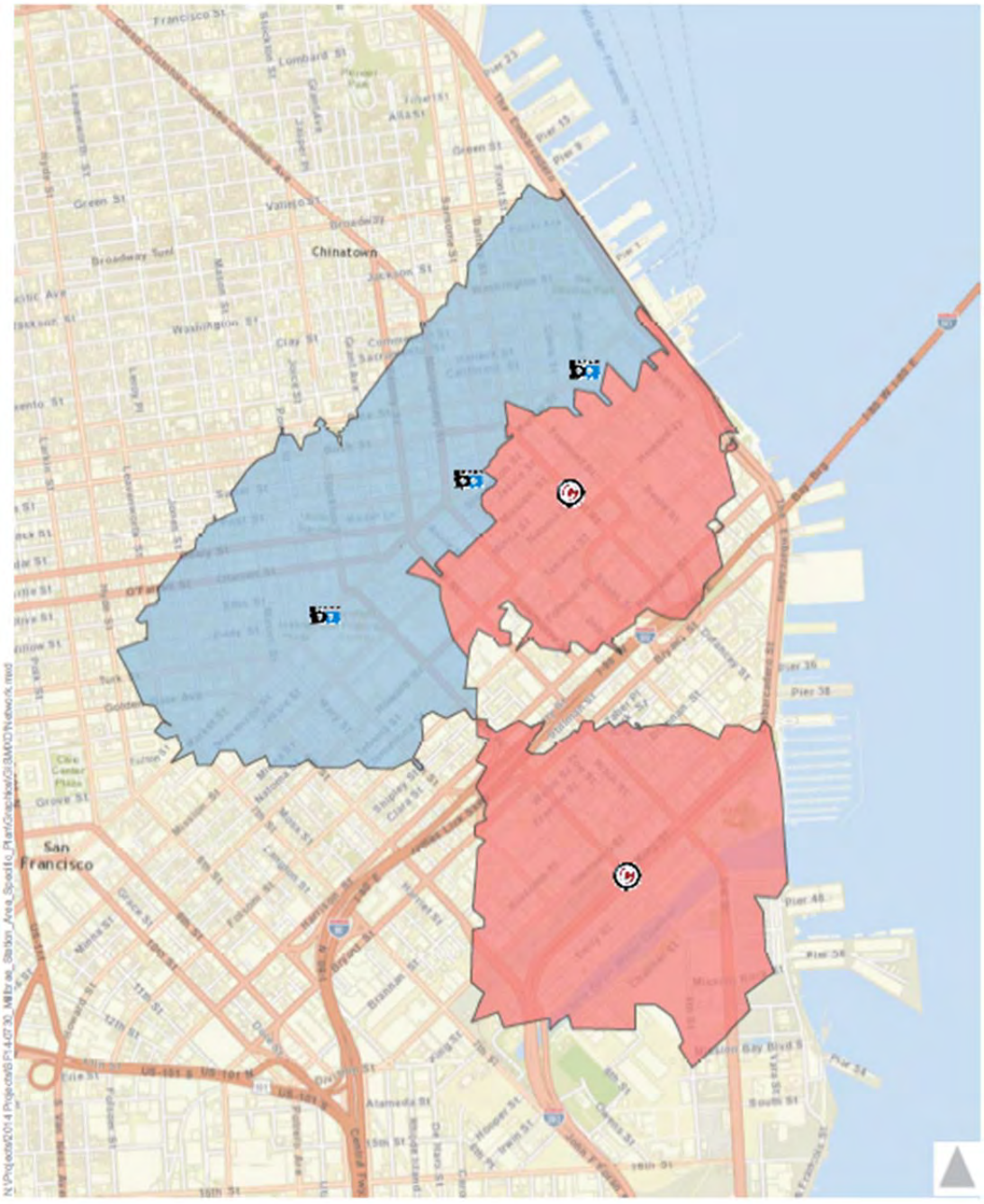
	Existing Conditions	2040 Baseline
BART		
Daily	6,430	7,560
Daily without Caltrain Transfers	4,830	5,720
Caltrain		
Daily	3,255	6,640
Daily without BART Transfers	1,655	4,800
TOTAL		
Daily	9,685	14,200
Daily without Transfers	6,485	10,520

The Millbrae station is the sole transfer hub between BART and Caltrain. Daily boardings excluding the 1,600 transfers are shown in Table 3. According to the C/CAG model, the number of daily transfers is expected to increase by 2040. However, this increase is expected to be lower than the percentage increase in ridership on BART and Caltrain. This is primarily due to the opening of the Transbay Terminal in San Francisco, which would allow passengers to commute directly from Caltrain stations along the Peninsula and South Bay into San Francisco without transferring to BART.

Caltrain vs. BART Ridership Differences Explained

Since in 2040 Caltrain will provide service to the Transbay Terminal, a walk shed analysis was conducted to help understand the shift in ridership from BART to Caltrain for riders with an origin or destination in the Financial District in San Francisco. This analysis looked at the walk shed around the downtown BART and Caltrain stations, using the sum of on-board transit times plus walk-to-destination times for trips between Millbrae and locations near downtown San Francisco. In 2040 the travel time on Caltrain between Millbrae and the Transbay Terminal will be approximately 24 minutes while the travel time on BART between Millbrae and the Montgomery Station will be about 31 minutes. This travel time savings gives Caltrain an advantage in serving certain destinations in the downtown area. However, seat availability will be much higher on BART than on Caltrain at the Millbrae Station since it is the end of the line station for BART but not for Caltrain. Using information from *TCRP Report 166: Characteristics of Premium Transit Services that Affect Choice of Mode*, this seating availability advantage was converted into equivalent in vehicle travel time to adjust the BART travel time to downtown San Francisco in order to make BART service more competitive with Caltrain. The ability to find a seat on BART was measured to be worth four minutes of in vehicle travel time. The resulting walk sheds for BART (blue) and Caltrain (red) are shown in **Figure 1**. As a result, trips between Millbrae and certain areas of the south-of-market (SOMA) area which would currently be served by BART would be served more quickly by Caltrain with the opening of the Transbay Terminal Station. Furthermore, a high percentage of employment and residential growth in San Francisco will occur in the SOMA and Mission Bay areas, both well served by Caltrain's 4th and King Station and Transbay Terminal Station. Between 2012 and 2040, 71 percent of the employment and population growth in the Financial District, SOMA and Mission Bay areas occur at locations closer to Caltrain stations than to BART stations. BART will retain several advantages, including direct service to other areas of San Francisco and the East Bay and seat availability for passengers boarding or considering a transfer from Caltrain in Millbrae. However, the Caltrain improvements listed above will mean that 48 percent of those boarding a San Francisco bound train at Millbrae in 2040 will board Caltrain while 52 percent will board BART (compared to 21 percent and 79 percent today).

FIGURE 1: Caltrain and BART Walksheds for Trips from Millbrae Station



2040 MSASP LAND USE SCENARIOS RIDERSHIP FORECASTS

Methodology

In order to estimate daily BART and Caltrain boardings at the Millbrae Station under the three 2040 MSASP land use scenarios summarized in Table 1, 2040 Baseline ridership, shown in Table 3, was used as a base and then ridership reductions due to parking removal and ridership generated by the TOD scenarios were incorporated into the forecasts.

MSASP Parking Reduction Impact on Ridership

The MSASP Site 5/6 TOD developer proposes to eliminate all 883 surface level BART parking lot stalls located at the Millbrae Station and provide 317 replacement BART parking spaces, for a total net reduction of 566 parking spaces from the current BART station parking supply. All current 2,096 BART parking garage spaces would remain. The resulting reduction in supply would reduce potential future ridership for BART, by 337 daily boardings and for Caltrain by 37 daily boardings when parking reaches capacity (projected to occur on most weekdays well before 2040). These potential riders could or would not shift to alternative modes of access such as kiss-ride, transit, walking or bicycling.

Ridership Generated by the MSASP

While some ridership would be lost due to elimination of parking spaces, this loss would be more than offset by the increase in BART and Caltrain riders generated by the MSASP TOD. Ridership generated by the three land use scenarios in 2040 (see Table 1) was forecast using a four-step modeling process including: 1) trip generation, 2) mode choice, 3) trip distribution, 4) trip assignment.

Trip Generation

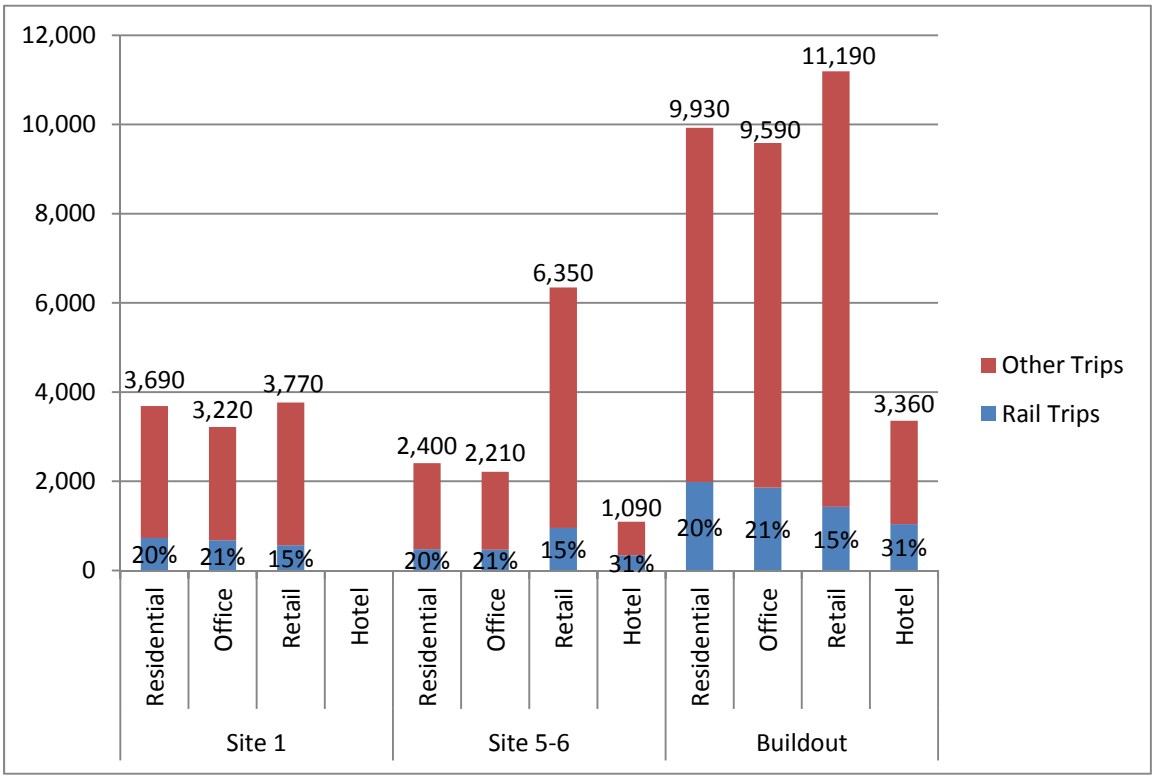
First, total daily trips generated were estimated using Fehr & Peers' MXD+ tool. This tool uses general site information, including intensity and size of land uses, as inputs and produces trip generation estimates that take into account reductions in trips due to internal capture of trips among mixed uses. Initial vehicle trip generation estimates are derived from standard ITE trip generation rates; the MXD+ tool then estimates internalization based on national research by the US EPA on the impact of smart growth factors such as development density, scale, design, accessibility, transit proximity, demographics and mix of uses on site trip generation. The MXD+

tool has been validated for sites within California. Output of the tool includes trips generated by each land use and by trip purpose.

Mode Share

Literature on travel behavior of TOD residents and workers was reviewed to develop mode share estimates of trips generated by the TOD. Research shows that trips to and from TODs have higher transit mode shares than for locations not located near transit stations.[2] Due to its proximity to two rail lines, the TOD is expected to have a high transit mode share. This mode share was applied to the trip generation results to estimate total daily rail boardings generated by the TOD. **Figure 2** shows the total daily person trips generated by each project scenario by land use (trips generated are listed at the top of each bar) and the percent of trips for each land use which are by rail, including both BART and Caltrain (rail share shown as percent on each bar).

FIGURE 2: Daily Person Trips Generated by each Scenario by Land Use



[2] Hollie Lund, Robert Cervero, and Richard Willson, "Travel Characteristics of Transit-Oriented Development in California," January 2004.

Trip Distribution and Assignment

Rail trip distribution and assignment of trips to either BART or Caltrain were determined using existing BART and Caltrain ridership data paired with intercept survey results. Those transferring at Millbrae were excluded from the analysis. Trips between Millbrae and downtown San Francisco in 2040 would not match existing trip assignment due to changes to the transit system by 2040 such as the opening of the Caltrain Transbay Terminal Station. In order to determine future assignment of these trips, the ratio of total households and jobs located in each walk shed shown in Figure 1 was used to assign the share of rail trips between Millbrae and downtown San Francisco which would use BART and Caltrain.

The daily BART and Caltrain boardings at the Millbrae Station generated by each land use scenario are summarized in **Table 4**.

TABLE 4. MILLBRAE STATION BOARDINGS GENERATED BY MSASP LAND USE SCENARIOS

Scenario	Daily BART Boardings	Daily Caltrain Boardings
Site 1	582	403
Sites 5/6	659	456
Buildout	1,863	1,290

Ridership Forecasts

Table 5 shows the total daily BART and Caltrain boardings forecasts at the Millbrae Station in 2040 under baseline conditions and with the three land use scenarios (excluding transfers between BART and Caltrain). These forecasts consider both riders lost due to reduction in parking supply on BART property and riders gained through the TOD, as described above.

TABLE 5. MILLBRAE STATION BOARDINGS WITH MSASP LAND USE SCENARIOS (TRANSFERS REMOVED)

	2040 Future Baseline	2040 with Site 1	2040 with Sites 5-6	2040 Buildout
Daily BART Boardings (Caltrain transfers removed)	5,720	5,960	6,040	7,250
Daily Caltrain Boardings (BART Transfers removed)	4,800	5,170	5,220	6,060
TOTAL Daily Boardings (transfers removed)	10,520	11,130	11,260	13,310

In terms of net ridership effects, daily BART boardings at Millbrae are forecast to increase by 240 boardings above 2040 Baseline with Site 1, 320 boardings above 2040 Baseline with Sites 5-6, and 1,530 boardings above 2040 Baseline with full Specific Plan Buildout.

MODE OF ACCESS

Changes to the transit system and station area will not only impact the number of riders in the future but also how these riders access the Millbrae Station. This section looks at how mode of access changes between existing and 2040 baseline conditions, as well as for each MSASP land use scenario.

METHODOLOGY

Existing

BART existing mode of access estimates were obtained through BART's 2008 on-board survey results. Caltrain existing mode of access estimates were obtained through a rider intercept survey conducted by Fehr & Peers in 2013 as part of the Caltrain Electrification EIR. Independent of train-to-train transfers, the majority of those boarding BART in Millbrae (67 percent) drive to the station while only 28 percent of those boarding Caltrain drive. As an end-of-line station, Millbrae's BART passengers come from a large area in the north and central Peninsula where park-ride drive access is the most convenient approach. Caltrain offers opportunities for system access along the full length of the Peninsula, so that most riders access Caltrain at the most convenient station rather than driving to Millbrae.

2040 Baseline

The 2040 Baseline mode of access forecasts for both BART and Caltrain are based on shifts in mode of access forecast by the C/CAG model. Due to changes in the transit system by 2040 (e.g. the opening of the Transbay Terminal Caltrain Station) and changes in regional land use, the origins and destinations of those using BART and Caltrain will shift in the future. This will impact how and where riders access each transit system. As a result, the forecasts show a reduction in the number of riders accessing BART at Millbrae by driving (PNR or KNR) and an increase in the number accessing the station by bus or shuttle. Caltrain will see the number of its riders accessing by all modes of access increase. While the number of riders accessing Caltrain by driving will increase, the percent of daily riders accessing by these modes will remain similar to existing conditions. However, excluding BART transfers, the number accessing Caltrain by bus or shuttle is expected to increase at a faster rate than the number accessing by walking or biking. A component of these shifts can be attributed to improved transit service to the station through SamTrans El Camino Real BRT service as well as to an increase in the number of both public and private shuttles serving the station. Another factor is projected major development occurring in Burlingame east of US 101 with access primarily via local bus and shuttle.

2040 with MSASP Land Use Scenarios

2040 with TOD (Site 1, Sites 5/6, and Specific Plan buildout) mode of access forecasts for each of the scenarios were forecast by assuming a reduction of 337 PNR daily BART boardings and 37 daily Caltrain boardings due to the reduction in parking at the station and an increase in the number of walk/bike boardings according to the daily boardings generated by the TOD for each scenario, summarized in **Table 4**. These changes demonstrate a further reduction in driving access to the station as a share of total boardings and an increase in the walk/bike access mode share to the station for both BART and Caltrain.

MODE OF ACCESS FORECASTS

Figures 3 and **4** show the daily modes of access for BART and Caltrain, respectively, for riders originating at Millbrae (excluding pass-through trips transferring between BART and Caltrain). The breakdown includes the percent that access the station by walk/bike, transit (bus or shuttle), kiss-and-ride (KNR), and park-and-ride (PNR). Since these percentages are based on total daily boardings, they include the mode of access for both those boarding at Millbrae for their initial

trip (Millbrae is the home or origin station) and those boarding at Millbrae for their return trip (Millbrae is the destination station).

FIGURE 3: BART Daily Mode of Access
(Caltrain transfers removed)

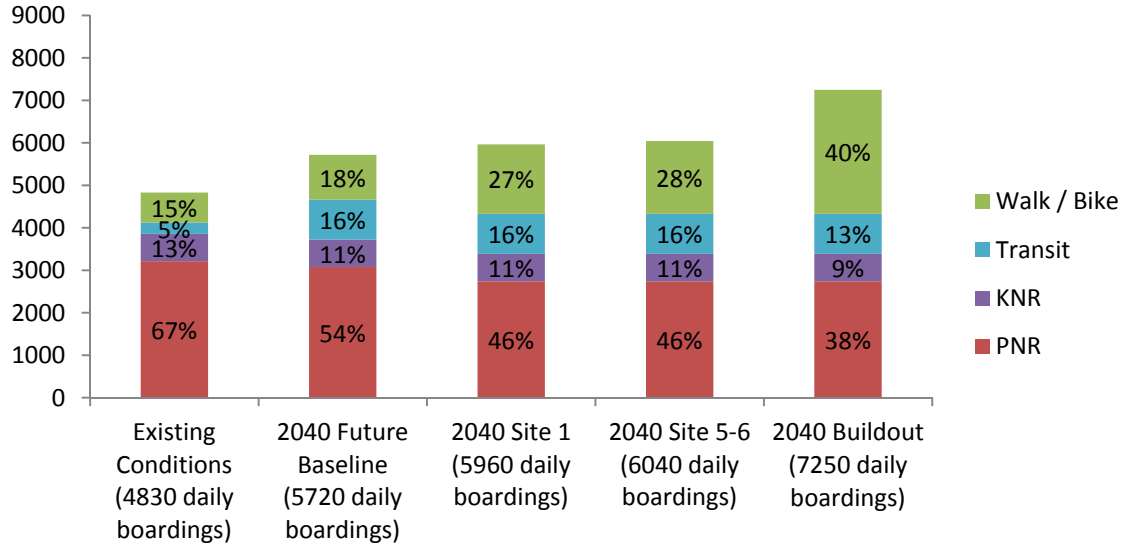
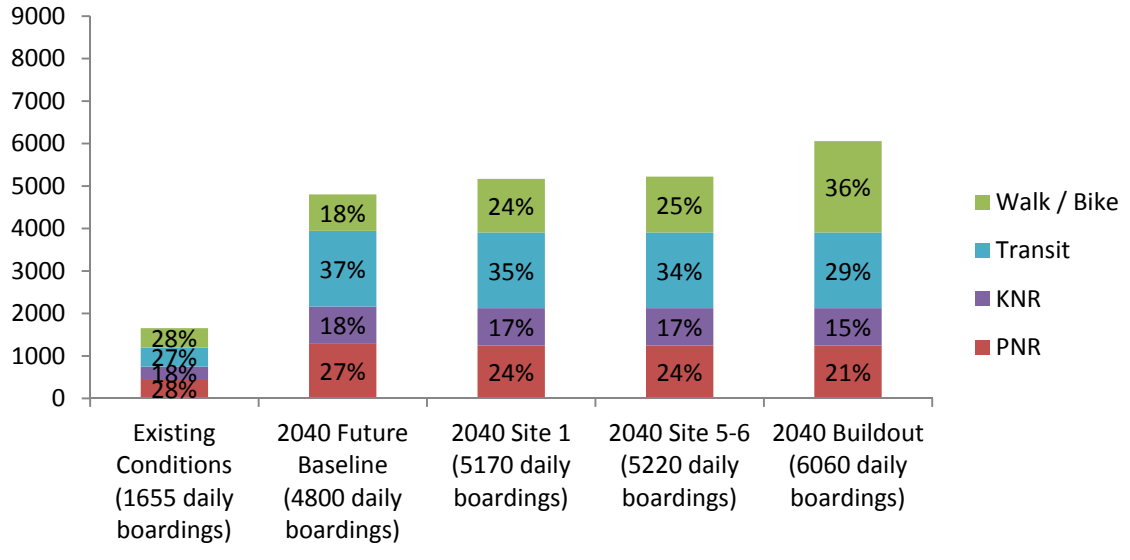


FIGURE 4: Caltrain Daily Mode of Access
(BART transfers removed)



The only difference between the 2040 Site 1, 2040 Sites 5/6 and 2040 Buildout scenarios is the number of residents in the TOD walking or biking to BART and Caltrain. For both BART and Caltrain, the absolute number of riders using Transit, KNR or PNR to access the station remain the same between the three scenarios. However, under the Sites 5/6 scenario, there are more residents than under the Site 1 scenario and therefore more residents walking or biking to BART and Caltrain. Under the Buildout scenario there are more residents than under the Sites 5/6 scenario. Due to the increase in TOD residents, the mode shares shift towards a higher walk/bike mode share under the Buildout scenario, while the mode share for the other modes decreases, even though the absolute number using each of these modes (transit, PNR, KNR) remains the same.

TRANSIT STATION PARKING DEMAND

The demand for parking spaces at the Millbrae Station varies throughout the day as vehicles come and go. Together the ridership and PNR mode of access values provide information about the number of vehicles parking at the station throughout the day; however, not all of these vehicles will be parked at the station at the same time. The parking demand is defined as the peak number of vehicles wanting to park in the parking facilities at any given time. If the parking facilities are under capacity, the parking demand can be estimated as the peak parking occupancy. However, if the facilities are over capacity, the demand will be higher than supply.

EXISTING PARKING DEMAND

The Millbrae BART station currently has a parking garage for BART patrons with a total of 2,096 parking spaces and four parking lots with a total of 883 parking spaces, for a total parking supply of 2,979 spaces. However, 30 of these spaces are leased to Google as a park-ride location, and 42 spaces are reserved for station agents, reducing the total supply available to the public to 2,907 spaces. On weekdays, 357 of these spaces are reserved for permit holders and 230 are reserved for airport/long-term parkers until 10:00 AM when these spaces become publicly available.[1] The Caltrain parking lot at the station has a total of 185 parking spaces. However, Caltrain riders are also allowed to park in the BART parking facilities.

On a typical weekday, the BART parking reaches peak occupancy of around 90 - 95 percent.[3] According to data provided by BART, the typical occupancy of the reserved airport spaces on a weekday at 10:00 AM is 74 percent, at which point the remaining spaces open up to general BART and Caltrain riders. Subtracting out the station agent, Google, and airport parking, the estimated daily parking demand for general BART and Caltrain riders at the BART parking facilities is approximately 2,440.

Through analysis of 2013 Caltrain rider intercept surveys, which asked riders questions about how they got to the station and where they parked, the estimated parking demand by Caltrain riders at the Millbrae Station is 335. Since the Caltrain parking lot has 185 spaces, up to 185 vehicles park in this lot and the remaining 150 vehicles park in the BART parking facilities (BART does not track the number of Caltrain riders using these facilities). In sum, about 150 Caltrain riders presently park in the BART parking facilities along with approximately 2,290 BART riders.

PARKING DEMAND FORECASTS

By 2040 the daily number of BART riders accessing the Millbrae Station by PNR will decrease while the number of Caltrain riders accessing the station by PNR will increase, as described in the Mode of Access section. According to the existing conditions analysis, both Caltrain and BART parking spaces turn over during the course of the day, so that the peak accumulations are less than 100 percent of all vehicles that park at the station. The current Caltrain peak parking demand is approximately 73 percent of daily Caltrain PNR access, and BART's peak parking demand is approximately 71 percent of daily PNR access. These rates were assumed to remain constant in 2040. The existing and 2040 parking demand generated by BART and Caltrain riders is summarized in **Table 6**.

[3] Information provided by Robert Franklin, BART, in August 2014

TABLE 6. MILLBRAE STATION PARKING DEMAND

	BART	Caltrain	Total
Existing	2,280	335	2,615
2040 Baseline	2,180	940	3,120
2040 Site 1 TOD	1,940	910	2,850
2040 Site 5-6 TOD	1,940	910	2,850
2040 Buildout	1,940	910	2,850

BART and Caltrain Parking Demand Changes Explained

As shown in **Table 6**, parking demand by BART patrons is expected to decline from existing to 2040 Baseline conditions. This is primarily due to changes in land use and transit provision in the future, impacting travel patterns across the region resulting in a shift in how riders will access BART away from PNR access and towards bus and shuttle access. Caltrain ridership (excluding passthrough trips) will nearly triple between Existing and 2040 Baseline conditions and as a result parking demand by Caltrain ridership at the Millbrae Station will increase significantly.

If Caltrain riders are allowed to park in the BART parking facilities in 2040, the combined demand for BART and Caltrain riders who park will exceed the parking supply with the buildout of the TOD and the related net reduction of 566 spaces even if BART reclaims the 230 parking spaces it currently leases to the airport and 30 to Google. As a result, some BART ridership will be lost (approximately 337 daily riders) unless they can find parking at other Peninsula stations. However, this lost ridership will be more than replaced by ridership generated by the TOD.

BART Parking Strategies for Maximizing Ridership

Fehr & Peers has identified two simple-in-concept options BART could pursue to minimize the loss of BART patron park-and-riders at the Millbrae Station:

A. Reclaim the airport and Google designated spaces. If BART were to reclaim all 230 airport and 30 Google spaces and allowed Caltrain riders to park in the BART parking facilities, parking demand would still exceed supply by 13 percent in 2040 with any of the three MSASP land use scenarios.

B. Prevent Caltrain riders from parking in the BART parking areas. If BART develops the means through which to completely prevent Caltrain riders from parking in the BART garage and lots, the BART parking supply will exceed the BART parking demand, even with the reduced parking supply due to the Sites 5/6 TOD, and no BART park-and-riders will be lost. However, Caltrain may lose riders and generate spillover parking and traffic impacts on surrounding streets.

The effective BART parking supply and utilization rates for these scenarios are shown in **Table 7**.

TABLE 7. MILLBRAE STATION PARKING DEMAND WITH NO RESERVED SPACES FOR AIRPORT OR GOOGLE

	Utilization of Effective Supply (both BART and Caltrain parkers)	**Utilization of Effective Supply** (Caltrain parkers excluded)	**Effective BART Parking Supply[1]**
2040 Future Baseline	100%	74%	2,928
2040 Site 1 TOD	113%	92%	2,362
2040 Site 5-6 TOD	113%	92%	2,362
2040 Buildout	113%	92%	2,362

1. Assumes 42 spaces reserved for station agents, no spaces reserved for airport or Google

If BART retains 185 spaces for the airport and/or Google, and excludes Caltrain riders from parking in the BART parking facilities, the BART parking facilities will be at capacity with the TOD in 2040. However, if Caltrain riders are allowed to park in the BART facilities, the demand will exceed the supply be 23 percent, as shown in **Table 8**.

TABLE 8. MILLBRAE STATION PARKING DEMAND WITH 185 SPACES RESERVED FOR AIRPORT AND GOOGLE

	Utilization of Effective Supply (both BART and Caltrain parkers)	**Utilization of Effective Supply** (Caltrain parkers excluded)	**BART Parking Supply[1]**
2040 Future Baseline	107%	79%	2,743
2040 Site 1 TOD	123%	100%	2,177
2040 Site 5-6 TOD	123%	100%	2,177
2040 Buildout	123%	100%	2,177

1. Assumes 42 spaces reserved for station agents, 185 spaces reserved for airport and/or Google

Intersection LOS Calculations

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	83	35	121	61	45	32	4	72	837	26	17	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.88			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1749	1607			1746			1770	5051			1770
Flt Permitted	0.57	1.00			0.64			0.95	1.00			0.95
Satd. Flow (perm)	1057	1607			1142			1770	5051			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	36	126	64	47	33	4	75	872	27	18	28
RTOR Reduction (vph)	0	107	0	0	16	0	0	0	2	0	0	0
Lane Group Flow (vph)	86	55	0	0	128	0	0	79	897	0	0	46
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm			Perm			Prot	Prot			Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	12.2	12.2			12.2			7.8	52.6			5.2
Effective Green, g (s)	12.2	12.2			12.2			7.8	52.6			5.2
Actuated g/C Ratio	0.15	0.15			0.15			0.10	0.66			0.07
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	161	245			174			173	3321			115
v/s Ratio Prot		0.03						c0.04	c0.18			0.03
v/s Ratio Perm	0.08				c0.11							
v/c Ratio	0.53	0.23			0.74			0.46	0.27			0.40
Uniform Delay, d1	31.3	29.8			32.4			34.1	5.7			35.9
Progression Factor	1.00	1.00			1.00			0.86	1.47			1.00
Incremental Delay, d2	3.4	0.5			14.9			1.9	0.2			2.3
Delay (s)	34.7	30.2			47.2			31.2	8.6			38.2
Level of Service	C	C			D			C	A			D
Approach Delay (s)		31.8			47.2				10.4			
Approach LOS		C			D				B			

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1419	41
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5060	
Flt Permitted	1.00	
Satd. Flow (perm)	5060	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1478	43
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1519	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type		
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	50.0	
Effective Green, g (s)	50.0	
Actuated g/C Ratio	0.62	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	3163	
v/s Ratio Prot	c0.30	
v/s Ratio Perm		
v/c Ratio	0.48	
Uniform Delay, d1	8.0	
Progression Factor	1.00	
Incremental Delay, d2	0.5	
Delay (s)	8.6	
Level of Service	A	
Approach Delay (s)	9.4	
Approach LOS	A	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	2	39	7	41	948	1573	11
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	2	40	0	42	967	1605	11
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.86	0.86	0.00	0.86			
vC, conflicting volume	2036	559	0	1634			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1635	0	0	1168			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	97	96	0	92			
cM capacity (veh/h)	71	919	0	503			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	42	42	322	322	322	642	642	332
Volume Left	2	42	0	0	0	0	0	0
Volume Right	40	0	0	0	0	0	0	11
cSH	581	503	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.07	0.08	0.19	0.19	0.19	0.38	0.38	0.20
Queue Length 95th (ft)	6	7	0	0	0	0	0	0
Control Delay (s)	11.7	12.8	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	11.7	0.5				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	15	15	933	1651	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	*0.80	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	4467	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	4467	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	16	16	982	1738	8
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	32	982	1746	0
Confl. Peds. (#/hr)				10			10
Confl. Bikes (#/hr)							9
Parking (#/hr)					0		
Turn Type			Prot	Prot			
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				3.3	65.8	68.7	
Effective Green, g (s)				3.3	65.8	68.7	
Actuated g/C Ratio				0.04	0.82	0.86	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				73	4043	3836	
v/s Ratio Prot				c0.02	0.20	c0.39	
v/s Ratio Perm							
v/c Ratio				0.44	0.24	0.46	
Uniform Delay, d1				37.4	1.6	1.3	
Progression Factor				1.00	1.00	1.28	
Incremental Delay, d2				4.2	0.1	0.4	
Delay (s)				41.6	1.7	2.0	
Level of Service				D	A	A	
Approach Delay (s)	0.0				3.0	2.0	
Approach LOS	A				A	A	

Intersection Summary			
HCM Average Control Delay	2.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	71	610	31	397	164	479	2	15	385	513	710	865
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3504		4990	3539	1495		1770	5085	1561	3433	5065
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3504		4990	3539	1495		1770	5085	1561	3433	5065
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	72	622	32	405	167	489	2	15	393	523	724	883
RTOR Reduction (vph)	0	2	0	0	0	78	0	0	0	113	0	1
Lane Group Flow (vph)	72	652	0	405	167	411	0	17	393	410	724	901
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot			Prot		pm+ov	Prot	Prot		Perm	Prot	
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	9.8	39.8		15.4	43.7	79.3		2.9	44.2	44.2	35.6	77.9
Effective Green, g (s)	9.8	39.8		15.4	43.7	79.3		2.9	44.2	44.2	35.6	77.9
Actuated g/C Ratio	0.06	0.26		0.10	0.29	0.52		0.02	0.29	0.29	0.23	0.51
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	114	920		507	1020	826		34	1483	455	806	2603
v/s Ratio Prot	0.04	c0.19		c0.08	0.05	0.12		0.01	0.08		c0.21	0.18
v/s Ratio Perm						0.16				c0.26		
v/c Ratio	0.63	0.71		0.80	0.16	0.50		0.50	0.27	0.90	0.90	0.35
Uniform Delay, d1	69.1	50.6		66.6	40.3	23.3		73.6	41.2	51.6	56.2	21.8
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	8.1	4.6		8.0	0.3	0.2		4.2	0.4	23.7	12.4	0.1
Delay (s)	77.2	55.2		74.6	40.6	23.5		77.8	41.7	75.3	68.7	21.9
Level of Service	E	E		E	D	C		E	D	E	E	C
Approach Delay (s)		57.4			45.7				61.2			42.7
Approach LOS		E			D				E			D

Intersection Summary			
HCM Average Control Delay	49.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	151.6	Sum of lost time (s)	16.6
Intersection Capacity Utilization	106.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	19
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	250	111	59	15	47	107	38	713	34	15	172	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.99			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1740			3496	1485	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1740			3496	1485	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	263	117	62	16	49	113	40	751	36	16	181	869
RTOR Reduction (vph)	0	14	0	0	0	104	0	0	12	0	0	0
Lane Group Flow (vph)	263	165	0	0	65	9	40	751	24	0	197	869
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split			Split		Perm	Prot		Perm	Prot	Prot	
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			7.6	7.6	4.0	39.9	39.9		15.7	51.6
Effective Green, g (s)	19.1	19.1			7.6	7.6	4.0	39.9	39.9		15.7	51.6
Actuated g/C Ratio	0.20	0.20			0.08	0.08	0.04	0.41	0.41		0.16	0.53
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	347	342			273	116	73	2085	634		286	2697
v/s Ratio Prot	c0.15	0.10			c0.02		0.02	c0.15			c0.11	0.17
v/s Ratio Perm						0.01			0.02			
v/c Ratio	0.76	0.48			0.24	0.08	0.55	0.36	0.04		0.69	0.32
Uniform Delay, d1	36.9	34.7			42.1	41.6	45.8	19.9	17.2		38.5	12.9
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.1	1.1			0.5	0.3	8.2	0.5	0.1		6.8	0.3
Delay (s)	46.1	35.8			42.6	41.9	53.9	20.4	17.3		45.2	13.3
Level of Service	D	D			D	D	D	C	B		D	B
Approach Delay (s)		41.9			42.1			21.8				17.8
Approach LOS		D			D			C				B

Intersection Summary			
HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	97.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	270
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1536
Flt Permitted	1.00
Satd. Flow (perm)	1536
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	284
RTOR Reduction (vph)	103
Lane Group Flow (vph)	181
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.6
Effective Green, g (s)	51.6
Actuated g/C Ratio	0.53
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	815
v/s Ratio Prot	
v/s Ratio Perm	0.12
v/c Ratio	0.22
Uniform Delay, d1	12.2
Progression Factor	1.00
Incremental Delay, d2	0.6
Delay (s)	12.8
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	226	244	183	9	179	21	266	572	29	2	120	501
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.99		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3175			3479		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3175			3479		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	251	271	203	10	199	23	296	636	32	2	133	557
RTOR Reduction (vph)	0	80	0	0	6	0	0	0	11	0	0	0
Lane Group Flow (vph)	226	419	0	0	226	0	296	636	21	0	135	557
Confl. Peds. (#/hr)							8					
Turn Type	Split			Split			Prot		Perm	Prot	Prot	
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	24.9	24.9			11.9		24.5	55.8	55.8		14.4	45.7
Effective Green, g (s)	24.9	24.9			11.9		24.5	55.8	55.8		14.4	45.7
Actuated g/C Ratio	0.21	0.21			0.10		0.20	0.46	0.46		0.12	0.38
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	331	653			342		358	2345	730		211	1921
v/s Ratio Prot	c0.14	0.13			c0.06		c0.17	0.13			0.08	c0.11
v/s Ratio Perm									0.01			
v/c Ratio	0.68	0.64			0.66		0.83	0.27	0.03		0.64	0.29
Uniform Delay, d1	44.4	44.0			52.6		46.2	20.1	17.8		50.8	26.3
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.7	2.2			4.6		14.4	0.3	0.1		6.2	0.4
Delay (s)	50.1	46.1			57.2		60.6	20.4	17.9		57.1	26.7
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		47.4			57.2			32.6				28.5
Approach LOS		D			E			C				C

Intersection Summary			
HCM Average Control Delay	37.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	121.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	151
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1563
Flt Permitted	1.00
Satd. Flow (perm)	1563
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	168
RTOR Reduction (vph)	59
Lane Group Flow (vph)	109
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	70.6
Effective Green, g (s)	70.6
Actuated g/C Ratio	0.58
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	912
v/s Ratio Prot	0.02
v/s Ratio Perm	0.05
v/c Ratio	0.12
Uniform Delay, d1	11.3
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	11.3
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	38	4	236	5	6	1	1	60	163	7	2
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	44	5	274	6	7	1	0	70	190	8	2
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	540	562	171	812	581	274	0	194			247
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	540	562	171	812	581	274	0	194			247
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	89	99	68	97	98	100	0	95			100
cM capacity (veh/h)	0	391	389	857	176	379	715	0	1354			1265

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	49	274	14	70	198	174
Volume Left	44	0	6	70	0	2
Volume Right	0	274	1	0	8	47
cSH	390	857	263	1354	1700	1265
Volume to Capacity	0.13	0.32	0.05	0.05	0.12	0.00
Queue Length 95th (ft)	11	35	4	4	0	0
Control Delay (s)	15.5	11.2	19.4	7.8	0.0	0.1
Lane LOS	C	B	C	A		A
Approach Delay (s)	11.8		19.4	2.0		0.1
Approach LOS	B		C			

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	108	40
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	126	47
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	314	1400	304	391	903	470	103	88	199	104	16	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1523	2477	5085	1561	3433	1863	1576	3433	1863	1463
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1523	2477	5085	1561	3433	1863	1576	3433	1863	1463
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	327	1458	317	407	941	490	107	92	207	108	17	44
RTOR Reduction (vph)	0	0	82	0	0	249	0	0	132	0	0	41
Lane Group Flow (vph)	327	1458	235	407	941	241	107	92	75	108	17	3
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot		Perm	Prot		Perm	Split		pm+ov	Split		Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.1	60.3	60.3	24.9	60.1	60.1	10.5	10.5	35.4	8.4	8.4	8.4
Effective Green, g (s)	25.1	60.3	60.3	24.9	60.1	60.1	10.5	10.5	35.4	8.4	8.4	8.4
Actuated g/C Ratio	0.21	0.49	0.49	0.20	0.49	0.49	0.09	0.09	0.29	0.07	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	364	2511	752	505	2503	768	295	160	457	236	128	101
v/s Ratio Prot	c0.18	c0.29		c0.16	0.19		0.03	c0.05	0.03	c0.03	0.01	
v/s Ratio Perm			0.15			0.15			0.01			0.00
v/c Ratio	0.90	0.58	0.31	0.81	0.38	0.31	0.36	0.57	0.16	0.46	0.13	0.03
Uniform Delay, d1	47.3	21.9	18.5	46.3	19.3	18.6	52.6	53.7	32.3	54.7	53.4	53.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.2	1.0	1.1	8.6	0.4	1.1	0.3	3.1	0.1	0.5	0.2	0.0
Delay (s)	70.5	22.9	19.6	54.9	19.7	19.7	52.9	56.7	32.4	55.2	53.6	53.1
Level of Service	E	C	B	D	B	B	D	E	C	E	D	D
Approach Delay (s)		29.8			27.5			43.3			54.5	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	122.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.4%	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												
Volume (vph)	0	1112	614	0	1033	95	0	0	0	538	0	919
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.97	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4663	1337		5085	1551				1681	1445	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4663	1337		5085	1551				1681	1445	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1135	627	0	1054	97	0	0	0	549	0	938
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	1342	395	0	1054	97	0	0	0	494	491	492
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type			Free			Free				Perm		Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		39.5	90.0		39.5	90.0				43.3	43.3	43.3
Effective Green, g (s)		39.5	90.0		39.5	90.0				43.3	43.3	43.3
Actuated g/C Ratio		0.44	1.00		0.44	1.00				0.48	0.48	0.48
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		2047	1337		2232	1551				809	695	714
v/s Ratio Prot		c0.29			0.21							
v/s Ratio Perm			0.30			0.06				0.29	0.34	0.33
v/c Ratio		0.66	0.30		0.47	0.06				0.61	0.71	0.69
Uniform Delay, d1		19.9	0.0		17.9	0.0				17.2	18.4	18.1
Progression Factor		1.00	1.00		0.56	1.00				1.00	1.00	1.00
Incremental Delay, d2		1.7	0.6		0.6	0.1				1.4	3.3	2.8
Delay (s)		21.5	0.6		10.6	0.1				18.5	21.6	20.9
Level of Service		C	A		B	A				B	C	C
Approach Delay (s)		16.8			9.7			0.0			20.4	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	839	819	0	189	924	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1557
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1557
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	865	844	0	195	953	108
RTOR Reduction (vph)	0	0	0	0	0	44
Lane Group Flow (vph)	865	844	0	195	953	64
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type		Free				Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	52.4	90.0		52.4	30.6	30.6
Effective Green, g (s)	52.4	90.0		52.4	30.6	30.6
Actuated g/C Ratio	0.58	1.00		0.58	0.34	0.34
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2060	1528		2060	1167	529
v/s Ratio Prot	0.24			0.06	c0.28	
v/s Ratio Perm		c0.55				0.04
v/c Ratio	0.42	0.55		0.09	0.82	0.12
Uniform Delay, d1	10.4	0.0		8.3	27.1	20.4
Progression Factor	0.68	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	1.2		0.1	4.5	0.1
Delay (s)	7.5	1.2		8.4	31.7	20.6
Level of Service	A	A		A	C	C
Approach Delay (s)	4.4			8.4	30.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	136	40	95	74	24	25	6	152	1523	74	23	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1756	1634			1738			1770	5023			1770
Flt Permitted	0.65	1.00			0.67			0.95	1.00			0.95
Satd. Flow (perm)	1210	1634			1197			1770	5023			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	41	98	76	25	26	6	157	1570	76	24	40
RTOR Reduction (vph)	0	81	0	0	12	0	0	0	4	0	0	0
Lane Group Flow (vph)	140	58	0	0	115	0	0	163	1642	0	0	64
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm			Perm			Prot	Prot			Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	15.6	15.6			15.6			13.5	56.9			7.5
Effective Green, g (s)	15.6	15.6			15.6			13.5	56.9			7.5
Actuated g/C Ratio	0.17	0.17			0.17			0.15	0.63			0.08
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	210	283			207			266	3176			148
v/s Ratio Prot		0.04						c0.09	c0.33			0.04
v/s Ratio Perm	c0.12				0.10							
v/c Ratio	0.67	0.20			0.56			0.61	0.52			0.43
Uniform Delay, d1	34.8	31.9			34.0			35.8	9.0			39.2
Progression Factor	1.00	1.00			1.00			0.99	1.12			1.00
Incremental Delay, d2	7.8	0.4			3.2			3.7	0.5			2.0
Delay (s)	42.5	32.2			37.3			39.0	10.7			41.2
Level of Service	D	C			D			D	B			D
Approach Delay (s)		37.4			37.3				13.2			
Approach LOS		D			D				B			

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1310	73
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5034	
Flt Permitted	1.00	
Satd. Flow (perm)	5034	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1351	75
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1421	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type		
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	50.9	
Effective Green, g (s)	50.9	
Actuated g/C Ratio	0.57	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2847	
v/s Ratio Prot	0.28	
v/s Ratio Perm		
v/c Ratio	0.50	
Uniform Delay, d1	11.8	
Progression Factor	1.00	
Incremental Delay, d2	0.6	
Delay (s)	12.5	
Level of Service	B	
Approach Delay (s)	13.7	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	7	56	8	106	1769	1473	30
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	59	0	112	1862	1551	32
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.91	0.85	0.00	0.85			
vC, conflicting volume	2502	615	0	1664			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1311	0	0	1145			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	92	93	0	77			
cM capacity (veh/h)	97	854	0	477			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	66	112	621	621	621	620	620	342
Volume Left	7	112	0	0	0	0	0	0
Volume Right	59	0	0	0	0	0	0	32
cSH	458	477	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.23	0.37	0.37	0.37	0.36	0.36	0.20
Queue Length 95th (ft)	13	22	0	0	0	0	0	0
Control Delay (s)	14.2	14.8	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	14.2	0.8				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	25	26	1885	1497	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	0.91	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	5069	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	5069	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	26	27	1984	1576	20
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	53	1984	1596	0
Confl. Peds. (#/hr)							32
Confl. Bikes (#/hr)							3
Parking (#/hr)					0		
Turn Type			Prot	Prot			
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				5.7	70.0	76.3	
Effective Green, g (s)				5.7	70.0	76.3	
Actuated g/C Ratio				0.06	0.78	0.85	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				112	3824	4297	
v/s Ratio Prot				c0.03	c0.40	c0.31	
v/s Ratio Perm							
v/c Ratio				0.47	0.52	0.37	
Uniform Delay, d1				40.7	3.7	1.5	
Progression Factor				1.00	1.00	1.45	
Incremental Delay, d2				3.1	0.5	0.2	
Delay (s)				43.8	4.2	2.4	
Level of Service				D	A	A	
Approach Delay (s)	0.0				5.3	2.4	
Approach LOS	A				A	A	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	83	287	30	650	554	998	8	48	658	534	618	882
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3475		4990	3539	1514		1770	5085	1543	3433	5036
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3475		4990	3539	1514		1770	5085	1543	3433	5036
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	87	302	32	684	583	1051	8	51	693	562	651	928
RTOR Reduction (vph)	0	5	0	0	0	18	0	0	0	196	0	3
Lane Group Flow (vph)	87	329	0	684	583	1033	0	59	693	366	651	972
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot			Prot		pm+ov	Prot	Prot		Perm	Prot	
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.05	0.26	0.26	0.27	0.49
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	822		629	1064	912		93	1335	405	943	2471
v/s Ratio Prot	0.05	0.09		c0.14	0.16	c0.31		0.03	0.14		0.19	0.19
v/s Ratio Perm						0.37				c0.24		
v/c Ratio	0.95	0.40		1.09	0.55	1.13		0.63	0.52	0.90	0.69	0.39
Uniform Delay, d1	78.3	53.3		72.4	48.5	35.2		76.9	52.2	59.1	53.8	26.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	74.8	1.5		62.0	2.0	73.5		9.9	1.4	26.0	1.8	0.1
Delay (s)	153.1	54.8		134.4	50.6	108.7		86.9	53.6	85.1	55.6	26.7
Level of Service	F	D		F	D	F		F	D	F	E	C
Approach Delay (s)		75.1			101.6				68.6			38.3
Approach LOS		E			F				E			D

Intersection Summary			
HCM Average Control Delay	73.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	165.7	Sum of lost time (s)	7.6
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	47
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	234	87	83	23	97	176	5	80	890	22	42	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1700			3506	1508		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1700			3506	1508		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	257	96	91	25	107	193	5	88	978	24	46	173
RTOR Reduction (vph)	0	24	0	0	0	175	0	0	0	5	0	0
Lane Group Flow (vph)	257	163	0	0	132	18	0	93	978	19	0	219
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split			Split		Perm	Prot	Prot		Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	20.8	20.8			9.8	9.8		7.0	43.0	43.0		18.3
Effective Green, g (s)	20.8	20.8			9.8	9.8		7.0	43.0	43.0		18.3
Actuated g/C Ratio	0.19	0.19			0.09	0.09		0.07	0.40	0.40		0.17
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	344	331			321	138		116	2045	626		303
v/s Ratio Prot	c0.15	0.10			c0.04			c0.05	0.19			c0.12
v/s Ratio Perm						0.01				0.01		
v/c Ratio	0.75	0.49			0.41	0.13		0.80	0.48	0.03		0.72
Uniform Delay, d1	40.6	38.3			45.8	44.6		49.3	23.6	19.3		41.9
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	8.6	1.2			0.9	0.4		31.5	0.8	0.1		8.3
Delay (s)	49.1	39.5			46.7	45.0		80.8	24.5	19.4		50.2
Level of Service	D	D			D	D		F	C	B		D
Approach Delay (s)		45.1			45.7				29.1			
Approach LOS		D			D				C			

Intersection Summary			
HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	106.9	Sum of lost time (s)	11.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1488	288
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1524
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1524
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1635	316
RTOR Reduction (vph)	0	59
Lane Group Flow (vph)	1635	257
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type		Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.3	54.3
Effective Green, g (s)	54.3	54.3
Actuated g/C Ratio	0.51	0.51
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2583	774
v/s Ratio Prot	c0.32	
v/s Ratio Perm		0.17
v/c Ratio	0.63	0.33
Uniform Delay, d1	19.1	15.6
Progression Factor	1.00	1.00
Incremental Delay, d2	1.2	1.2
Delay (s)	20.3	16.7
Level of Service	C	B
Approach Delay (s)	22.8	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	224	179	227	11	172	62	259	684	14	11	81	771
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3058			3398		1770	5085	1560		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3058			3398		1770	5085	1560		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	229	183	232	11	176	63	264	698	14	11	83	787
RTOR Reduction (vph)	0	161	0	0	24	0	0	0	4	0	0	0
Lane Group Flow (vph)	206	277	0	0	226	0	264	698	10	0	94	787
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split			Split			Prot		Perm	Prot	Prot	
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	21.6	21.6			12.8		21.6	52.0	52.0		11.5	41.9
Effective Green, g (s)	21.6	21.6			12.8		21.6	52.0	52.0		11.5	41.9
Actuated g/C Ratio	0.19	0.19			0.11		0.19	0.46	0.46		0.10	0.37
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	311	590			389		342	2363	725		182	1904
v/s Ratio Prot	c0.13	0.09			c0.07		c0.15	0.14			0.05	c0.15
v/s Ratio Perm									0.01			
v/c Ratio	0.66	0.47			0.58		0.77	0.30	0.01		0.52	0.41
Uniform Delay, d1	41.8	40.1			47.0		42.8	18.6	16.1		47.6	25.9
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.2	0.6			2.2		10.3	0.3	0.0		2.5	0.7
Delay (s)	47.0	40.7			49.2		53.1	18.9	16.2		50.0	26.6
Level of Service	D	D			D		D	B	B		D	C
Approach Delay (s)		42.7			49.2			28.1				26.6
Approach LOS		D			D			C				C

Intersection Summary			
HCM Average Control Delay	32.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	111.9	Sum of lost time (s)	14.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	136
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	139
RTOR Reduction (vph)	60
Lane Group Flow (vph)	79
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	63.5
Effective Green, g (s)	63.5
Actuated g/C Ratio	0.57
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	898
v/s Ratio Prot	0.02
v/s Ratio Perm	0.03
v/c Ratio	0.09
Uniform Delay, d1	11.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	11.1
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

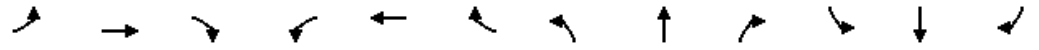
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	0	183	9	11	3	123	230	1	0	87	67
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	51	0	189	9	11	3	127	237	1	0	90	69
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	650	627	132	811	661	263	165			243		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	650	627	132	811	661	263	165			243		
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 %	85	100	79	96	97	100	91			100		
cM capacity (veh/h)	336	361	911	217	345	760	1406			1318		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	51	189	24	127	238	159
Volume Left	51	0	9	127	0	0
Volume Right	0	189	3	0	1	69
cSH	336	911	298	1406	1700	1318
Volume to Capacity	0.15	0.21	0.08	0.09	0.14	0.00
Queue Length 95th (ft)	13	19	6	7	0	0
Control Delay (s)	17.6	10.0	18.1	7.8	0.0	0.0
Lane LOS	C	A	C	A		
Approach Delay (s)	11.6		18.1	2.7		0.0
Approach LOS	B		C			

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	42.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	1093	241	353	1544	164	332	35	471	385	40	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1500	2477	5085	1553	3433	1863	1575	3433	1863	1473
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1500	2477	5085	1553	3433	1863	1575	3433	1863	1473
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	83	1104	243	357	1560	166	335	35	476	389	40	222
RTOR Reduction (vph)	0	0	91	0	0	55	0	0	31	0	0	188
Lane Group Flow (vph)	83	1104	152	357	1560	111	335	35	445	389	40	34
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot		Perm	Prot		Perm	Split		pm+ov	Split		Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	10.5	47.1	47.1	25.2	61.8	61.8	16.9	16.9	42.1	19.2	19.2	19.2
Effective Green, g (s)	10.5	47.1	47.1	25.2	61.8	61.8	16.9	16.9	42.1	19.2	19.2	19.2
Actuated g/C Ratio	0.08	0.37	0.37	0.20	0.49	0.49	0.13	0.13	0.33	0.15	0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	147	1895	559	494	2486	759	459	249	525	521	283	224
v/s Ratio Prot	0.05	c0.22		0.14	c0.31		0.10	0.02	c0.17	c0.11	0.02	
v/s Ratio Perm			0.10			0.07			0.11			0.02
v/c Ratio	0.56	0.58	0.27	0.72	0.63	0.15	0.73	0.14	0.85	0.75	0.14	0.15
Uniform Delay, d1	55.8	31.8	27.7	47.3	23.8	17.8	52.6	48.3	39.2	51.3	46.5	46.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	1.3	1.2	4.4	1.2	0.4	4.9	0.1	11.6	5.1	0.1	0.1
Delay (s)	58.7	33.1	28.9	51.7	25.0	18.2	57.4	48.4	50.7	56.3	46.5	46.6
Level of Service	E	C	C	D	C	B	E	D	D	E	D	D
Approach Delay (s)		33.9			29.1			53.3			52.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	37.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	126.4	Sum of lost time (s)	22.5
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1120	815	0	1137	148	0	0	0	398	0	1062
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4593	1336		5085	1547				1681	1454	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4593	1336		5085	1547				1681	1454	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1179	858	0	1197	156	0	0	0	419	0	1118
RTOR Reduction (vph)	0	47	0	0	0	0	0	0	0	0	7	7
Lane Group Flow (vph)	0	1527	463	0	1197	156	0	0	0	377	572	574
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type			Free			Free				Perm		Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		51.2	115.0		51.2	115.0				56.8	56.8	56.8
Effective Green, g (s)		51.2	115.0		51.2	115.0				56.8	56.8	56.8
Actuated g/C Ratio		0.45	1.00		0.45	1.00				0.49	0.49	0.49
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		2045	1336		2264	1547				830	718	743
v/s Ratio Prot		c0.33			0.24							
v/s Ratio Perm			0.35			0.10				0.22	0.39	0.38
v/c Ratio		0.75	0.35		0.53	0.10				0.45	0.80	0.77
Uniform Delay, d1		26.5	0.0		23.1	0.0				19.0	24.3	23.8
Progression Factor		1.00	1.00		0.52	1.00				1.00	1.00	1.00
Incremental Delay, d2		2.5	0.7		0.8	0.1				0.4	6.1	5.0
Delay (s)		29.1	0.7		12.8	0.1				19.4	30.4	28.8
Level of Service		C	A		B	A				B	C	C
Approach Delay (s)		22.6			11.3			0.0			27.1	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	615	950	0	523	767	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	634	979	0	539	791	90
RTOR Reduction (vph)	0	0	0	0	0	44
Lane Group Flow (vph)	634	979	0	539	791	46
Confl. Peds. (#/hr)		25				
Turn Type		Free				Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	73.8	115.0		73.8	34.2	34.2
Effective Green, g (s)	73.8	115.0		73.8	34.2	34.2
Actuated g/C Ratio	0.64	1.00		0.64	0.30	0.30
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2271	1532		2271	1021	471
v/s Ratio Prot	0.18			0.15	c0.23	
v/s Ratio Perm		c0.64				0.03
v/c Ratio	0.28	0.64		0.24	0.77	0.10
Uniform Delay, d1	9.0	0.0		8.7	36.9	29.2
Progression Factor	0.39	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	1.5		0.2	3.7	0.1
Delay (s)	3.8	1.5		9.0	40.6	29.3
Level of Service	A	A		A	D	C
Approach Delay (s)	2.4			9.0	39.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	83	35	146	61	45	32	4	98	952	26	17	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.88			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1749	1597			1747			1770	5055			1770
Flt Permitted	0.57	1.00			0.56			0.95	1.00			0.95
Satd. Flow (perm)	1057	1597			992			1770	5055			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	36	152	64	47	33	4	102	992	27	18	28
RTOR Reduction (vph)	0	129	0	0	16	0	0	0	2	0	0	0
Lane Group Flow (vph)	86	59	0	0	128	0	0	106	1017	0	0	46
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	12.2	12.2			12.2			8.8	52.6			5.2
Effective Green, g (s)	12.2	12.2			12.2			8.8	52.6			5.2
Actuated g/C Ratio	0.15	0.15			0.15			0.11	0.66			0.07
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	161	243			151			194	3323			115
v/s Ratio Prot		0.04						c0.06	0.20			0.03
v/s Ratio Perm	0.08				c0.13							
v/c Ratio	0.53	0.24			0.85			0.55	0.31			0.40
Uniform Delay, d1	31.3	29.8			33.0			33.7	5.9			35.9
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	3.4	0.5			33.1			3.1	0.2			2.3
Delay (s)	34.7	30.4			66.1			36.8	6.1			38.2
Level of Service	C	C			E			D	A			D
Approach Delay (s)		31.7			66.1				9.0			
Approach LOS		C			E				A			

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1632	41
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5063	
Flt Permitted	1.00	
Satd. Flow (perm)	5063	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1700	43
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1741	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	49.0	
Effective Green, g (s)	49.0	
Actuated g/C Ratio	0.61	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	3101	
v/s Ratio Prot	c0.34	
v/s Ratio Perm		
v/c Ratio	0.56	
Uniform Delay, d1	9.2	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	9.9	
Level of Service	A	
Approach Delay (s)	10.6	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	2	39	7	41	1089	1811	11
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	2	40	0	42	1111	1848	11
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.85	0.80	0.00	0.80			
vC, conflicting volume	2327	640	0	1877			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1214	0	0	1241			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	98	95	0	91			
cM capacity (veh/h)	132	859	0	442			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	42	42	370	370	370	739	739	381
Volume Left	2	42	0	0	0	0	0	0
Volume Right	40	0	0	0	0	0	0	11
cSH	677	442	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.06	0.09	0.22	0.22	0.22	0.43	0.43	0.22
Queue Length 95th (ft)	5	8	0	0	0	0	0	0
Control Delay (s)	10.7	14.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	10.7	0.5				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	162	0	58	15	15	1016	251	106	1783
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	*0.80
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.97		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4766		1770	4467
Flt Permitted					0.95	1.00		0.95	1.00		0.14	1.00
Satd. Flow (perm)					1770	1583		1770	4766		265	4467
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	176	0	63	16	16	1069	273	115	1877
RTOR Reduction (vph)	0	0	0	0	0	54	0	0	29	0	0	0
Lane Group Flow (vph)	0	0	0	0	176	9	0	32	1313	0	115	1885
Confl. Peds. (#/hr)								10				
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					13.9	13.9		5.0	61.7		69.1	69.1
Effective Green, g (s)					13.9	13.9		5.0	61.7		69.1	69.1
Actuated g/C Ratio					0.14	0.14		0.05	0.62		0.69	0.69
Clearance Time (s)					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
Lane Grp Cap (vph)					246	220		88	2940		183	3086
v/s Ratio Prot								c0.02	0.28			0.42
v/s Ratio Perm					0.10	0.01					c0.43	
v/c Ratio					0.72	0.04		0.36	0.45		0.63	0.61
Uniform Delay, d1					41.2	37.3		46.0	10.1		8.4	8.3
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					9.5	0.1		2.5	0.5		15.2	0.9
Delay (s)					50.6	37.3		48.5	10.6		23.7	9.2
Level of Service					D	D		D	B		C	A
Approach Delay (s)		0.0			47.1				11.5			10.0
Approach LOS		A			D				B			B

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	8
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	8
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	10
Confl. Bikes (#/hr)	9
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	122	666	31	468	192	915	2	15	493	701	960	909
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3506		4990	3539	1503		1770	5085	1560	3433	5066
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3506		4990	3539	1503		1770	5085	1560	3433	5066
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	124	680	32	478	196	934	2	15	503	715	980	928
RTOR Reduction (vph)	0	2	0	0	0	34	0	0	0	104	0	1
Lane Group Flow (vph)	124	710	0	478	196	900	0	17	503	611	980	946
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.8	39.4		16.6	43.5	94.0		4.2	43.3	43.3	50.5	90.6
Effective Green, g (s)	10.8	39.4		16.6	43.5	94.0		4.2	43.3	43.3	50.5	90.6
Actuated g/C Ratio	0.06	0.24		0.10	0.26	0.56		0.03	0.26	0.26	0.30	0.54
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	114	830		497	925	889		44	1323	405	1041	2758
v/s Ratio Prot	0.07	0.20		c0.10	0.06	c0.31		0.01	0.10		0.29	0.19
v/s Ratio Perm						0.29				c0.39		
v/c Ratio	1.09	0.86		0.96	0.21	1.01		0.39	0.38	1.51	0.94	0.34
Uniform Delay, d1	77.8	60.8		74.6	48.0	36.2		79.8	50.5	61.6	56.5	21.2
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	109.8	11.0		30.5	0.5	33.3		2.0	0.8	241.9	15.6	0.1
Delay (s)	187.6	71.7		105.1	48.6	69.5		81.9	51.4	303.4	72.1	21.3
Level of Service	F	E		F	D	E		F	D	F	E	C
Approach Delay (s)		88.9			77.5				197.7			47.1
Approach LOS		F			E				F			D

Intersection Summary			
HCM 2000 Control Delay	95.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	166.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	113.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	19
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	262	116	59	42	50	155	38	948	61	15	199	907
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.99			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1743			3461	1484	1770	5085	1544		1770	5085
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1743			3461	1484	1770	5085	1544		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	276	122	62	44	53	163	40	998	64	16	209	955
RTOR Reduction (vph)	0	13	0	0	0	149	0	0	39	0	0	0
Lane Group Flow (vph)	276	171	0	0	97	14	40	998	25	0	225	955
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			8.5	8.5	4.0	38.5	38.5		17.4	51.9
Effective Green, g (s)	19.1	19.1			8.5	8.5	4.0	38.5	38.5		17.4	51.9
Actuated g/C Ratio	0.19	0.19			0.09	0.09	0.04	0.39	0.39		0.18	0.53
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	343	337			298	128	71	1987	603		312	2679
v/s Ratio Prot	c0.16	0.10			c0.03		0.02	c0.20			c0.13	0.19
v/s Ratio Perm						0.01			0.02			
v/c Ratio	0.80	0.51			0.33	0.11	0.56	0.50	0.04		0.72	0.36
Uniform Delay, d1	37.9	35.5			42.3	41.5	46.4	22.7	18.6		38.3	13.6
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	12.8	1.2			0.6	0.4	9.8	0.9	0.1		8.0	0.4
Delay (s)	50.7	36.7			42.9	41.9	56.2	23.6	18.7		46.2	13.9
Level of Service	D	D			D	D	E	C	B		D	B
Approach Delay (s)		45.1			42.3			24.5				18.8
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	98.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	276
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	291
RTOR Reduction (vph)	97
Lane Group Flow (vph)	194
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.9
Effective Green, g (s)	51.9
Actuated g/C Ratio	0.53
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	808
v/s Ratio Prot	
v/s Ratio Perm	0.13
v/c Ratio	0.24
Uniform Delay, d1	12.6
Progression Factor	1.00
Incremental Delay, d2	0.7
Delay (s)	13.3
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	272	244	183	23	195	34	266	776	29	2	126	591
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3177			3451		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3177			3451		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	302	271	203	26	217	38	296	862	32	2	140	657
RTOR Reduction (vph)	0	71	0	0	9	0	0	0	18	0	0	0
Lane Group Flow (vph)	263	442	0	0	272	0	296	862	14	0	142	657
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	27.5	27.5			12.7		24.9	55.4	55.4		15.0	45.5
Effective Green, g (s)	27.5	27.5			12.7		24.9	55.4	55.4		15.0	45.5
Actuated g/C Ratio	0.22	0.22			0.10		0.20	0.44	0.44		0.12	0.37
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	355	701			351		353	2260	703		213	1856
v/s Ratio Prot	c0.16	0.14			c0.08		c0.17	c0.17			0.08	0.13
v/s Ratio Perm									0.01			
v/c Ratio	0.74	0.63			0.77		0.84	0.38	0.02		0.67	0.35
Uniform Delay, d1	45.2	44.0			54.6		47.9	23.1	19.4		52.4	28.8
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.1	1.9			10.2		15.8	0.5	0.1		7.7	0.5
Delay (s)	53.3	45.8			64.8		63.7	23.6	19.4		60.1	29.4
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		48.4			64.8			33.5				30.5
Approach LOS		D			E			C				C

Intersection Summary			
HCM 2000 Control Delay	38.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	124.6	Sum of lost time (s)	14.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	163
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	181
RTOR Reduction (vph)	57
Lane Group Flow (vph)	124
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	73.0
Effective Green, g (s)	73.0
Actuated g/C Ratio	0.59
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	916
v/s Ratio Prot	0.03
v/s Ratio Perm	0.05
v/c Ratio	0.14
Uniform Delay, d1	11.6
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	11.7
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	98	4	236	5	6	1	1	60	177	7	2
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	114	5	274	6	7	1	0	70	206	8	2
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	647	668	261	919	733	290	0	330			263
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	647	668	261	919	733	290	0	330			263
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	65	99	64	96	98	100	0	94			100
cM capacity (veh/h)	0	329	336	763	140	308	700	0	1207			1248

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	119	274	14	70	214	310
Volume Left	114	0	6	70	0	2
Volume Right	0	274	1	0	8	138
cSH	329	763	212	1207	1700	1248
Volume to Capacity	0.36	0.36	0.07	0.06	0.13	0.00
Queue Length 95th (ft)	40	41	5	5	0	0
Control Delay (s)	22.0	12.3	23.2	8.2	0.0	0.1
Lane LOS	C	B	C	A		A
Approach Delay (s)	15.2		23.2	2.0		0.1
Approach LOS	C		C			

Intersection Summary				
Average Delay	6.9			
Intersection Capacity Utilization	66.4%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	146	119
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	170	138
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	479	1576	458	529	1250	638	203	106	265	194	25	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1529	2477	5085	1562	3433	1863	1578	1681	1704	1478
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5085	1529	2477	5085	1562	3433	1863	1578	1681	1704	1478
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	499	1642	477	551	1302	665	211	110	276	202	26	135
RTOR Reduction (vph)	0	0	167	0	0	335	0	0	98	0	0	120
Lane Group Flow (vph)	499	1642	310	551	1302	330	211	110	178	113	115	15
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	33.5	40.5	40.5	26.5	33.5	33.5	8.0	8.0	34.5	11.4	11.4	11.4
Effective Green, g (s)	33.5	40.5	40.5	26.5	33.5	33.5	8.0	8.0	34.5	11.4	11.4	11.4
Actuated g/C Ratio	0.32	0.39	0.39	0.25	0.32	0.32	0.08	0.08	0.33	0.11	0.11	0.11
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	567	1972	593	628	1631	501	263	142	521	183	186	161
v/s Ratio Prot	0.28	c0.32		c0.22	0.26		c0.06	0.06	0.09	0.07	c0.07	
v/s Ratio Perm			0.20			0.21			0.03			0.01
v/c Ratio	0.88	0.83	0.52	0.88	0.80	0.66	0.80	0.77	0.34	0.62	0.62	0.09
Uniform Delay, d1	33.5	28.9	24.5	37.4	32.4	30.5	47.4	47.3	26.4	44.4	44.4	41.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.4	4.3	3.3	12.8	4.2	6.6	15.2	20.9	0.1	4.3	4.3	0.1
Delay (s)	48.0	33.2	27.8	50.2	36.5	37.1	62.6	68.3	26.5	48.7	48.7	41.9
Level of Service	D	C	C	D	D	D	E	E	C	D	D	D
Approach Delay (s)		35.0			39.7			47.0			46.2	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	104.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1271	787	0	1400	95	0	0	0	538	0	1205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.97	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4633	1337		5085	1551				1681	1440	1486
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4633	1337		5085	1551				1681	1440	1486
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1297	803	0	1429	97	0	0	0	549	0	1230
RTOR Reduction (vph)	0	40	0	0	0	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	1586	474	0	1429	97	0	0	0	494	640	635
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		32.5	90.0		32.5	90.0				50.3	50.3	50.3
Effective Green, g (s)		32.5	90.0		32.5	90.0				50.3	50.3	50.3
Actuated g/C Ratio		0.36	1.00		0.36	1.00				0.56	0.56	0.56
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1673	1337		1836	1551				939	804	830
v/s Ratio Prot		c0.34			0.28							
v/s Ratio Perm			0.35			0.06				0.29	0.44	0.43
v/c Ratio		0.95	0.35		0.78	0.06				0.53	0.80	0.76
Uniform Delay, d1		27.9	0.0		25.5	0.0				12.4	15.8	15.3
Progression Factor		1.00	1.00		0.77	1.00				1.00	1.00	1.00
Incremental Delay, d2		12.7	0.7		1.7	0.0				0.5	5.5	4.2
Delay (s)		40.6	0.7		21.4	0.0				12.9	21.2	19.5
Level of Service		D	A		C	A				B	C	B
Approach Delay (s)		31.6			20.0			0.0			18.3	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	853	964	0	216	1264	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	879	994	0	223	1303	108
RTOR Reduction (vph)	0	0	0	0	0	29
Lane Group Flow (vph)	879	994	0	223	1303	79
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	48.0	90.0		48.0	35.0	35.0
Effective Green, g (s)	48.0	90.0		48.0	35.0	35.0
Actuated g/C Ratio	0.53	1.00		0.53	0.39	0.39
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1887	1528		1887	1335	605
v/s Ratio Prot	0.25			0.06	c0.38	
v/s Ratio Perm		c0.65				0.05
v/c Ratio	0.47	0.65		0.12	0.98	0.13
Uniform Delay, d1	13.0	0.0		10.5	27.1	17.7
Progression Factor	0.55	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	1.2		0.1	19.0	0.1
Delay (s)	7.6	1.2		10.6	46.0	17.8
Level of Service	A	A		B	D	B
Approach Delay (s)	4.2			10.6	43.9	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	136	40	110	74	24	25	6	206	1744	74	23	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1756	1624			1738			1770	5030			1770
Flt Permitted	0.65	1.00			0.63			0.95	1.00			0.95
Satd. Flow (perm)	1210	1624			1124			1770	5030			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	41	113	76	25	26	6	212	1798	76	24	40
RTOR Reduction (vph)	0	93	0	0	12	0	0	0	3	0	0	0
Lane Group Flow (vph)	140	61	0	0	115	0	0	218	1871	0	0	64
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	15.6	15.6			15.6			16.0	56.9			7.5
Effective Green, g (s)	15.6	15.6			15.6			16.0	56.9			7.5
Actuated g/C Ratio	0.17	0.17			0.17			0.18	0.63			0.08
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	209	281			194			314	3180			147
v/s Ratio Prot		0.04						c0.12	c0.37			0.04
v/s Ratio Perm	c0.12				0.10							
v/c Ratio	0.67	0.22			0.59			0.69	0.59			0.44
Uniform Delay, d1	34.8	31.9			34.3			34.7	9.7			39.2
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	7.9	0.4			4.8			6.5	0.8			2.1
Delay (s)	42.7	32.3			39.1			41.2	10.5			41.3
Level of Service	D	C			D			D	B			D
Approach Delay (s)		37.3			39.1				13.7			
Approach LOS		D			D				B			

Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1428	73
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5038	
Flt Permitted	1.00	
Satd. Flow (perm)	5038	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1472	75
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1542	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	48.4	
Effective Green, g (s)	48.4	
Actuated g/C Ratio	0.54	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2709	
v/s Ratio Prot	0.31	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	13.9	
Progression Factor	1.00	
Incremental Delay, d2	0.9	
Delay (s)	14.7	
Level of Service	B	
Approach Delay (s)	15.8	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	7	56	8	106	2043	1607	30
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	59	0	112	2151	1692	32
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.78	0.81	0.00	0.81			
vC, conflicting volume	2739	662	0	1805			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	596	0	0	1164			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	97	93	0	75			
cM capacity (veh/h)	236	816	0	448			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	66	112	717	717	717	677	677	370
Volume Left	7	112	0	0	0	0	0	0
Volume Right	59	0	0	0	0	0	0	32
cSH	641	448	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.10	0.25	0.42	0.42	0.42	0.40	0.40	0.22
Queue Length 95th (ft)	9	24	0	0	0	0	0	0
Control Delay (s)	11.3	15.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	C						
Approach Delay (s)	11.3	0.8				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	339	0	120	25	26	2039	154	65	1566
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	0.91
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4863		1770	5068
Flt Permitted					0.95	1.00		0.95	1.00		0.05	1.00
Satd. Flow (perm)					1770	1583		1770	4863		100	5068
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	368	0	130	26	27	2146	167	71	1648
RTOR Reduction (vph)	0	0	0	0	0	67	0	0	5	0	0	1
Lane Group Flow (vph)	0	0	0	0	368	63	0	53	2308	0	71	1667
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					16.0	16.0		7.6	70.0		74.4	74.4
Effective Green, g (s)					16.0	16.0		7.6	70.0		74.4	74.4
Actuated g/C Ratio					0.15	0.15		0.07	0.64		0.68	0.68
Clearance Time (s)					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
Lane Grp Cap (vph)					257	230		122	3094		67	3427
v/s Ratio Prot								c0.03	0.47			0.33
v/s Ratio Perm					0.21	0.04					c0.71	
v/c Ratio					1.43	0.28		0.43	0.75		1.06	0.49
Uniform Delay, d1					47.0	41.8		49.1	13.8		17.8	8.6
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					215.3	0.7		2.5	1.7		127.4	0.5
Delay (s)					262.3	42.5		51.6	15.5		145.2	9.1
Level of Service					F	D		D	B		F	A
Approach Delay (s)		0.0			204.9				16.3			14.6
Approach LOS		A			F				B			B

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	20
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	32
Confl. Bikes (#/hr)	3
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	114	315	30	770	603	1323	8	48	724	704	974	933
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3480		4990	3539	1514		1770	5085	1543	3433	5039
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3480		4990	3539	1514		1770	5085	1543	3433	5039
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	120	332	32	811	635	1393	8	51	762	741	1025	982
RTOR Reduction (vph)	0	5	0	0	0	18	0	0	0	176	0	3
Lane Group Flow (vph)	120	359	0	811	635	1375	0	59	762	565	1025	1026
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.05	0.26	0.26	0.27	0.49
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	91	823		629	1063	911		92	1334	405	942	2472
v/s Ratio Prot	0.07	0.10		c0.16	0.18	c0.41		0.03	0.15		0.30	0.20
v/s Ratio Perm						0.49				c0.37		
v/c Ratio	1.32	0.44		1.29	0.60	1.51		0.64	0.57	1.40	1.09	0.42
Uniform Delay, d1	78.5	53.9		72.4	49.4	35.2		77.0	53.0	61.1	60.1	27.0
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	201.6	1.7		141.9	2.5	235.0		10.9	1.8	192.8	56.3	0.1
Delay (s)	280.2	55.5		214.3	51.9	270.2		87.9	54.8	253.9	116.4	27.1
Level of Service	F	E		F	D	F		F	D	F	F	C
Approach Delay (s)		111.2			205.4				150.5			71.7
Approach LOS		F			F				F			E

Intersection Summary			
HCM 2000 Control Delay	146.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.53		
Actuated Cycle Length (s)	165.7	Sum of lost time (s)	18.3
Intersection Capacity Utilization	136.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	47
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	240	90	83	80	103	277	5	80	1019	39	42	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1702			3463	1506		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1702			3463	1506		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	264	99	91	88	113	304	5	88	1120	43	46	191
RTOR Reduction (vph)	0	23	0	0	0	233	0	0	0	27	0	0
Lane Group Flow (vph)	264	167	0	0	201	71	0	93	1120	16	0	237
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	21.5	21.5			13.6	13.6		7.0	41.7	41.7		19.7
Effective Green, g (s)	21.5	21.5			13.6	13.6		7.0	41.7	41.7		19.7
Actuated g/C Ratio	0.19	0.19			0.12	0.12		0.06	0.37	0.37		0.18
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	341	328			422	183		111	1901	582		312
v/s Ratio Prot	c0.15	0.10			c0.06			c0.05	0.22			c0.13
v/s Ratio Perm						0.05				0.01		
v/c Ratio	0.77	0.51			0.48	0.39		0.84	0.59	0.03		0.76
Uniform Delay, d1	42.7	40.3			45.6	45.1		51.7	28.0	22.1		43.6
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	10.5	1.2			0.9	1.4		39.6	1.3	0.1		10.2
Delay (s)	53.2	41.5			46.5	46.5		91.2	29.4	22.2		53.8
Level of Service	D	D			D	D		F	C	C		D
Approach Delay (s)		48.3			46.5				33.7			
Approach LOS		D			D				C			

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	111.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1631	299
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1522
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1522
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1792	329
RTOR Reduction (vph)	0	58
Lane Group Flow (vph)	1792	271
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.4	54.4
Effective Green, g (s)	54.4	54.4
Actuated g/C Ratio	0.49	0.49
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2480	742
v/s Ratio Prot	c0.35	
v/s Ratio Perm		0.18
v/c Ratio	0.72	0.37
Uniform Delay, d1	22.6	17.8
Progression Factor	1.00	1.00
Incremental Delay, d2	1.9	1.4
Delay (s)	24.4	19.2
Level of Service	C	B
Approach Delay (s)	26.7	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	249	179	227	40	206	68	259	798	14	11	92	940
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.97		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3057			3403		1770	5085	1560		1770	5085
Flt Permitted	0.95	1.00			0.99		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3057			3403		1770	5085	1560		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	254	183	232	41	210	69	264	814	14	11	94	959
RTOR Reduction (vph)	0	159	0	0	18	0	0	0	8	0	0	0
Lane Group Flow (vph)	229	281	0	0	302	0	264	814	6	0	105	959
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	24.2	24.2			14.7		22.2	51.5	51.5		12.5	41.8
Effective Green, g (s)	24.2	24.2			14.7		22.2	51.5	51.5		12.5	41.8
Actuated g/C Ratio	0.21	0.21			0.13		0.19	0.44	0.44		0.11	0.36
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	333	632			427		336	2240	687		189	1818
v/s Ratio Prot	c0.14	0.09			c0.09		c0.15	0.16			0.06	c0.19
v/s Ratio Perm									0.00			
v/c Ratio	0.69	0.45			0.71		0.79	0.36	0.01		0.56	0.53
Uniform Delay, d1	42.9	40.5			49.0		45.1	21.8	18.4		49.6	29.7
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.8	0.5			5.3		11.4	0.5	0.0		3.5	1.1
Delay (s)	48.7	41.0			54.3		56.5	22.2	18.4		53.1	30.8
Level of Service	D	D			D		E	C	B		D	C
Approach Delay (s)		43.6			54.3			30.5				30.3
Approach LOS		D			D			C				C

Intersection Summary			
HCM 2000 Control Delay	35.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	116.9	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	157
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	160
RTOR Reduction (vph)	70
Lane Group Flow (vph)	90
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	66.0
Effective Green, g (s)	66.0
Actuated g/C Ratio	0.56
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	893
v/s Ratio Prot	0.02
v/s Ratio Perm	0.04
v/c Ratio	0.10
Uniform Delay, d1	11.8
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	11.8
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	85	0	183	9	11	3	123	239	1	0	165	231
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	88	0	189	9	11	3	127	246	1	0	170	238
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	824	801	297	985	920	272	414			252		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	824	801	297	985	920	272	414			252		
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 %	65	100	74	94	95	100	89			100		
cM capacity (veh/h)	249	280	737	153	239	751	1139			1307		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	88	189	24	127	247	408
Volume Left	88	0	9	127	0	0
Volume Right	0	189	3	0	1	238
cSH	249	737	211	1139	1700	1307
Volume to Capacity	0.35	0.26	0.11	0.11	0.15	0.00
Queue Length 95th (ft)	38	25	9	9	0	0
Control Delay (s)	27.1	11.6	24.2	8.6	0.0	0.0
Lane LOS	D	B	C	A		
Approach Delay (s)	16.5		24.2	2.9		0.0
Approach LOS	C		C			

Intersection Summary				
Average Delay	5.7			
Intersection Capacity Utilization	56.6%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	185	1460	326	401	1756	269	453	46	572	550	57	381
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1505	2477	5085	1553	3433	1863	1574	1681	1701	1479
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5085	1505	2477	5085	1553	3433	1863	1574	1681	1701	1479
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	187	1475	329	405	1774	272	458	46	578	556	58	385
RTOR Reduction (vph)	0	0	137	0	0	136	0	0	63	0	0	170
Lane Group Flow (vph)	187	1475	192	405	1774	136	458	46	515	306	308	215
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	13.6	36.0	36.0	22.6	45.0	45.0	16.5	16.5	39.1	24.3	24.3	24.3
Effective Green, g (s)	13.6	36.0	36.0	22.6	45.0	45.0	16.5	16.5	39.1	24.3	24.3	24.3
Actuated g/C Ratio	0.12	0.31	0.31	0.19	0.38	0.38	0.14	0.14	0.33	0.21	0.21	0.21
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	205	1559	461	476	1949	595	482	261	524	347	352	306
v/s Ratio Prot	0.11	c0.29		0.16	c0.35		0.13	0.02	c0.19	c0.18	0.18	
v/s Ratio Perm			0.13			0.09			0.14			0.14
v/c Ratio	0.91	0.95	0.42	0.85	0.91	0.23	0.95	0.18	0.98	0.88	0.88	0.70
Uniform Delay, d1	51.3	39.8	32.3	45.8	34.3	24.5	50.0	44.5	38.8	45.2	45.1	43.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	38.6	13.1	2.8	13.2	7.8	0.9	28.5	0.1	34.4	21.6	20.2	5.8
Delay (s)	90.0	52.9	35.1	58.9	42.1	25.4	78.6	44.6	73.3	66.7	65.3	49.0
Level of Service	F	D	D	E	D	C	E	D	E	E	E	D
Approach Delay (s)		53.4			43.0			74.3			59.4	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	53.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	117.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1423	1145	0	1342	148	0	0	0	398	0	1222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4565	1336		5085	1547				1681	1452	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4565	1336		5085	1547				1681	1452	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1498	1205	0	1413	156	0	0	0	419	0	1286
RTOR Reduction (vph)	0	59	0	0	0	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	2029	615	0	1413	156	0	0	0	377	668	652
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		46.5	115.0		46.5	115.0				61.5	61.5	61.5
Effective Green, g (s)		46.5	115.0		46.5	115.0				61.5	61.5	61.5
Actuated g/C Ratio		0.40	1.00		0.40	1.00				0.53	0.53	0.53
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1845	1336		2056	1547				898	776	804
v/s Ratio Prot		c0.44			0.28							
v/s Ratio Perm			0.46			0.10				0.22	0.46	0.43
v/c Ratio		1.10	0.46		0.69	0.10				0.42	0.86	0.81
Uniform Delay, d1		34.2	0.0		28.3	0.0				16.0	23.1	22.0
Progression Factor		1.00	1.00		0.61	1.00				1.00	1.00	1.00
Incremental Delay, d2		53.9	1.1		1.7	0.1				0.3	9.6	6.2
Delay (s)		88.1	1.1		19.1	0.1				16.4	32.7	28.2
Level of Service		F	A		B	A				B	C	C
Approach Delay (s)		68.3			17.2			0.0			27.3	
Approach LOS		E			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	43.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	641	1227	0	538	957	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	661	1265	0	555	987	90
RTOR Reduction (vph)	0	0	0	0	0	32
Lane Group Flow (vph)	661	1265	0	555	987	58
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	NA	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	66.3	115.0		66.3	41.7	41.7
Effective Green, g (s)	66.3	115.0		66.3	41.7	41.7
Actuated g/C Ratio	0.58	1.00		0.58	0.36	0.36
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2040	1532		2040	1244	574
v/s Ratio Prot	0.19			0.16	0.29	
v/s Ratio Perm		c0.83				0.04
v/c Ratio	0.32	0.83		0.27	0.79	0.10
Uniform Delay, d1	12.7	0.0		12.2	32.8	24.3
Progression Factor	0.31	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	1.8		0.3	3.6	0.1
Delay (s)	4.1	1.8		12.6	36.4	24.3
Level of Service	A	A		B	D	C
Approach Delay (s)	2.6			12.6	35.4	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	83	35	132	61	45	32	4	86	870	26	17	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.88			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1749	1602			1747			1770	5053			1770
Flt Permitted	0.57	1.00			0.60			0.95	1.00			0.95
Satd. Flow (perm)	1057	1602			1072			1770	5053			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	36	138	64	47	33	4	90	906	27	18	28
RTOR Reduction (vph)	0	117	0	0	16	0	0	0	2	0	0	0
Lane Group Flow (vph)	86	57	0	0	128	0	0	94	931	0	0	46
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	12.2	12.2			12.2			8.4	52.6			5.2
Effective Green, g (s)	12.2	12.2			12.2			8.4	52.6			5.2
Actuated g/C Ratio	0.15	0.15			0.15			0.11	0.66			0.07
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	161	244			163			185	3322			115
v/s Ratio Prot		0.04						c0.05	0.18			0.03
v/s Ratio Perm	0.08				c0.12							
v/c Ratio	0.53	0.23			0.78			0.51	0.28			0.40
Uniform Delay, d1	31.3	29.8			32.6			33.8	5.8			35.9
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	3.4	0.5			21.5			2.2	0.2			2.3
Delay (s)	34.7	30.3			54.1			36.0	6.0			38.2
Level of Service	C	C			D			D	A			D
Approach Delay (s)		31.7			54.1				8.7			
Approach LOS		C			D				A			

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1468	41
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5061	
Flt Permitted	1.00	
Satd. Flow (perm)	5061	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1529	43
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1570	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	49.4	
Effective Green, g (s)	49.4	
Actuated g/C Ratio	0.62	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	3125	
v/s Ratio Prot	c0.31	
v/s Ratio Perm		
v/c Ratio	0.50	
Uniform Delay, d1	8.5	
Progression Factor	1.00	
Incremental Delay, d2	0.6	
Delay (s)	9.1	
Level of Service	A	
Approach Delay (s)	9.9	
Approach LOS	A	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	2	39	7	41	995	1634	11
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	2	40	0	42	1015	1667	11
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.87	0.84	0.00	0.84			
vC, conflicting volume	2114	579	0	1697			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1269	0	0	1164			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	98	96	0	92			
cM capacity (veh/h)	126	898	0	493			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	42	42	338	338	338	667	667	345
Volume Left	2	42	0	0	0	0	0	0
Volume Right	40	0	0	0	0	0	0	11
cSH	691	493	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.06	0.08	0.20	0.20	0.20	0.39	0.39	0.20
Queue Length 95th (ft)	5	7	0	0	0	0	0	0
Control Delay (s)	10.5	13.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	10.5	0.5				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	87	0	31	15	15	949	114	48	1663
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	*0.80
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.98		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4834		1770	4466
Flt Permitted					0.95	1.00		0.95	1.00		0.20	1.00
Satd. Flow (perm)					1770	1583		1770	4834		368	4466
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	95	0	34	16	16	999	124	52	1751
RTOR Reduction (vph)	0	0	0	0	0	31	0	0	9	0	0	0
Lane Group Flow (vph)	0	0	0	0	95	3	0	32	1114	0	52	1759
Confl. Peds. (#/hr)								10				
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					9.4	9.4		5.0	66.2		73.6	73.6
Effective Green, g (s)					9.4	9.4		5.0	66.2		73.6	73.6
Actuated g/C Ratio					0.09	0.09		0.05	0.66		0.74	0.74
Clearance Time (s)					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
Lane Grp Cap (vph)					166	148		88	3200		270	3286
v/s Ratio Prot								c0.02	0.23			c0.39
v/s Ratio Perm					0.05	0.00					0.14	
v/c Ratio					0.57	0.02		0.36	0.35		0.19	0.54
Uniform Delay, d1					43.4	41.1		46.0	7.4		4.1	5.7
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					4.7	0.1		2.5	0.3		1.6	0.6
Delay (s)					48.1	41.2		48.5	7.7		5.6	6.4
Level of Service					D	D		D	A		A	A
Approach Delay (s)		0.0			46.3				8.9			6.4
Approach LOS		A			D				A			A

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	8
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	8
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	10
Confl. Bikes (#/hr)	9
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	94	610	31	397	164	653	2	15	434	539	788	886
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3503		4990	3539	1498		1770	5085	1561	3433	5065
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3503		4990	3539	1498		1770	5085	1561	3433	5065
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	96	622	32	405	167	666	2	15	443	550	804	904
RTOR Reduction (vph)	0	2	0	0	0	54	0	0	0	110	0	1
Lane Group Flow (vph)	96	652	0	405	167	612	0	17	443	440	804	922
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.4	40.2		15.5	43.6	83.8		4.1	43.5	43.5	40.2	80.6
Effective Green, g (s)	10.4	40.2		15.5	43.6	83.8		4.1	43.5	43.5	40.2	80.6
Actuated g/C Ratio	0.07	0.26		0.10	0.28	0.54		0.03	0.28	0.28	0.26	0.52
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	118	902		495	989	847		46	1417	435	884	2616
v/s Ratio Prot	0.05	0.19		c0.08	0.05	c0.19		0.01	0.09		c0.23	0.18
v/s Ratio Perm						0.22				c0.28		
v/c Ratio	0.81	0.72		0.82	0.17	0.72		0.37	0.31	1.01	0.91	0.35
Uniform Delay, d1	71.8	52.8		68.9	42.5	27.3		74.7	44.4	56.2	56.1	22.3
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	31.8	5.0		9.6	0.4	2.6		1.8	0.6	46.3	12.8	0.1
Delay (s)	103.6	57.8		78.5	42.9	29.9		76.5	45.0	102.5	68.9	22.4
Level of Service	F	E		E	D	C		E	D	F	E	C
Approach Delay (s)		63.7			47.6				76.9			44.0
Approach LOS		E			D				E			D

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	156.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	108.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	19
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	252	113	59	30	48	133	38	760	46	15	184	833
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.99			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1741			3472	1485	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1741			3472	1485	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	265	119	62	32	51	140	40	800	48	16	194	877
RTOR Reduction (vph)	0	14	0	0	0	128	0	0	29	0	0	0
Lane Group Flow (vph)	265	167	0	0	83	12	40	800	19	0	210	877
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			8.1	8.1	4.0	39.2	39.2		16.5	51.7
Effective Green, g (s)	19.1	19.1			8.1	8.1	4.0	39.2	39.2		16.5	51.7
Actuated g/C Ratio	0.20	0.20			0.08	0.08	0.04	0.40	0.40		0.17	0.53
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	345	339			287	122	72	2036	618		298	2685
v/s Ratio Prot	c0.15	0.10			c0.02		0.02	c0.16			c0.12	0.17
v/s Ratio Perm						0.01			0.01			
v/c Ratio	0.77	0.49			0.29	0.09	0.56	0.39	0.03		0.70	0.33
Uniform Delay, d1	37.3	35.1			42.2	41.5	46.1	20.9	17.8		38.4	13.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.9	1.1			0.6	0.3	9.0	0.6	0.1		7.4	0.3
Delay (s)	47.2	36.2			42.8	41.9	55.1	21.5	17.9		45.8	13.5
Level of Service	D	D			D	D	E	C	B		D	B
Approach Delay (s)		42.7			42.2			22.8				18.3
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	97.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	271
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	285
RTOR Reduction (vph)	103
Lane Group Flow (vph)	182
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.7
Effective Green, g (s)	51.7
Actuated g/C Ratio	0.53
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	810
v/s Ratio Prot	
v/s Ratio Perm	0.12
v/c Ratio	0.22
Uniform Delay, d1	12.4
Progression Factor	1.00
Incremental Delay, d2	0.6
Delay (s)	13.0
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	236	244	183	16	188	21	266	621	29	2	120	523
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.99		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3175			3478		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3175			3478		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	262	271	203	18	209	23	296	690	32	2	133	581
RTOR Reduction (vph)	0	79	0	0	5	0	0	0	17	0	0	0
Lane Group Flow (vph)	236	421	0	0	245	0	296	690	15	0	135	581
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	25.5	25.5			12.3		24.6	55.8	55.8		14.4	45.6
Effective Green, g (s)	25.5	25.5			12.3		24.6	55.8	55.8		14.4	45.6
Actuated g/C Ratio	0.21	0.21			0.10		0.20	0.46	0.46		0.12	0.37
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	336	663			350		356	2325	724		208	1900
v/s Ratio Prot	c0.15	0.13			c0.07		c0.17	c0.14			0.08	0.11
v/s Ratio Perm									0.01			
v/c Ratio	0.70	0.63			0.70		0.83	0.30	0.02		0.65	0.31
Uniform Delay, d1	44.7	44.0			53.1		46.7	20.8	18.1		51.4	27.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.5	2.0			6.0		15.1	0.3	0.1		6.8	0.4
Delay (s)	51.2	46.0			59.0		61.8	21.1	18.2		58.2	27.4
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		47.7			59.0			32.9				29.1
Approach LOS		D			E			C				C

Intersection Summary			
HCM 2000 Control Delay	37.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	122.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	151
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1563
Flt Permitted	1.00
Satd. Flow (perm)	1563
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	168
RTOR Reduction (vph)	58
Lane Group Flow (vph)	110
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	71.1
Effective Green, g (s)	71.1
Actuated g/C Ratio	0.58
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	910
v/s Ratio Prot	0.03
v/s Ratio Perm	0.04
v/c Ratio	0.12
Uniform Delay, d1	11.4
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	11.5
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	65	4	236	5	6	1	1	60	170	7	2
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	76	5	274	6	7	1	0	70	198	8	2
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	596	618	219	868	661	282	0	266			255
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	596	618	219	868	661	282	0	266			255
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	79	99	66	96	98	100	0	95			100
cM capacity (veh/h)	0	357	360	806	156	340	707	0	1274			1257

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	80	274	14	70	206	247
Volume Left	76	0	6	70	0	2
Volume Right	0	274	1	0	8	95
cSH	357	806	235	1274	1700	1257
Volume to Capacity	0.22	0.34	0.06	0.05	0.12	0.00
Queue Length 95th (ft)	21	38	5	4	0	0
Control Delay (s)	18.0	11.8	21.3	8.0	0.0	0.1
Lane LOS	C	B	C	A		A
Approach Delay (s)	13.2		21.3	2.0		0.1
Approach LOS	B		C			

Intersection Summary				
Average Delay	6.2			
Intersection Capacity Utilization	63.3%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	128	82
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	149	95
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	314	1495	314	391	1060	470	119	88	199	104	16	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1523	2477	5085	1561	3433	1863	1576	3433	1863	1463
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1523	2477	5085	1561	3433	1863	1576	3433	1863	1463
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	327	1557	327	407	1104	490	124	92	207	108	17	44
RTOR Reduction (vph)	0	0	79	0	0	249	0	0	131	0	0	41
Lane Group Flow (vph)	327	1557	248	407	1104	241	124	92	76	108	17	3
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.1	60.3	60.3	24.9	60.1	60.1	10.5	10.5	35.4	8.4	8.4	8.4
Effective Green, g (s)	25.1	60.3	60.3	24.9	60.1	60.1	10.5	10.5	35.4	8.4	8.4	8.4
Actuated g/C Ratio	0.21	0.49	0.49	0.20	0.49	0.49	0.09	0.09	0.29	0.07	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	363	2511	752	505	2502	768	295	160	456	236	128	100
v/s Ratio Prot	c0.18	c0.31		c0.16	0.22		0.04	c0.05	0.03	c0.03	0.01	
v/s Ratio Perm			0.16			0.15			0.01			0.00
v/c Ratio	0.90	0.62	0.33	0.81	0.44	0.31	0.42	0.57	0.17	0.46	0.13	0.03
Uniform Delay, d1	47.3	22.5	18.7	46.3	20.1	18.6	52.9	53.7	32.4	54.7	53.4	53.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.0	1.2	1.2	8.6	0.6	1.1	0.4	3.1	0.1	0.5	0.2	0.0
Delay (s)	71.3	23.7	19.8	54.9	20.7	19.7	53.3	56.7	32.4	55.2	53.6	53.1
Level of Service	E	C	B	D	C	B	D	E	C	E	D	D
Approach Delay (s)		30.2			27.4			43.8			54.5	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	31.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	122.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.2%	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												
Volume (vph)	0	1157	663	0	1122	95	0	0	0	538	0	988
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.97	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4655	1337		5085	1551				1681	1443	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4655	1337		5085	1551				1681	1443	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1181	677	0	1145	97	0	0	0	549	0	1008
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1409	420	0	1145	97	0	0	0	494	533	518
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		37.1	90.0		37.1	90.0				45.7	45.7	45.7
Effective Green, g (s)		37.1	90.0		37.1	90.0				45.7	45.7	45.7
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.51	0.51	0.51
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1918	1337		2096	1551				853	732	754
v/s Ratio Prot		c0.30			0.23							
v/s Ratio Perm			0.31			0.06				0.29	0.37	0.35
v/c Ratio		0.73	0.31		0.55	0.06				0.58	0.73	0.69
Uniform Delay, d1		22.3	0.0		20.1	0.0				15.4	17.3	16.7
Progression Factor		1.00	1.00		0.63	1.00				1.00	1.00	1.00
Incremental Delay, d2		2.5	0.6		0.8	0.1				1.0	3.6	2.6
Delay (s)		24.8	0.6		13.4	0.1				16.4	20.9	19.4
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		19.4			12.3			0.0			19.0	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	843	860	0	196	1006	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1557
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1557
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	869	887	0	202	1037	108
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	869	887	0	202	1037	69
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	50.9	90.0		50.9	32.1	32.1
Effective Green, g (s)	50.9	90.0		50.9	32.1	32.1
Actuated g/C Ratio	0.57	1.00		0.57	0.36	0.36
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2001	1528		2001	1224	555
v/s Ratio Prot	0.25			0.06	c0.30	
v/s Ratio Perm		c0.58				0.04
v/c Ratio	0.43	0.58		0.10	0.85	0.12
Uniform Delay, d1	11.3	0.0		9.0	26.7	19.5
Progression Factor	0.62	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	1.2		0.1	5.6	0.1
Delay (s)	7.5	1.2		9.1	32.3	19.6
Level of Service	A	A		A	C	B
Approach Delay (s)	4.3			9.1	31.1	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	136	40	105	74	24	25	6	179	1589	74	23	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1756	1627			1738			1770	5025			1770
Flt Permitted	0.65	1.00			0.64			0.95	1.00			0.95
Satd. Flow (perm)	1210	1627			1148			1770	5025			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	41	108	76	25	26	6	185	1638	76	24	40
RTOR Reduction (vph)	0	89	0	0	12	0	0	0	4	0	0	0
Lane Group Flow (vph)	140	60	0	0	115	0	0	191	1710	0	0	64
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	15.6	15.6			15.6			14.9	56.9			7.5
Effective Green, g (s)	15.6	15.6			15.6			14.9	56.9			7.5
Actuated g/C Ratio	0.17	0.17			0.17			0.17	0.63			0.08
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	209	282			198			293	3176			147
v/s Ratio Prot		0.04						c0.11	c0.34			0.04
v/s Ratio Perm	c0.12				0.10							
v/c Ratio	0.67	0.21			0.58			0.65	0.54			0.44
Uniform Delay, d1	34.8	31.9			34.2			35.1	9.2			39.2
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	7.9	0.4			4.3			5.1	0.7			2.1
Delay (s)	42.7	32.3			38.5			40.2	9.9			41.3
Level of Service	D	C			D			D	A			D
Approach Delay (s)		37.3			38.5				12.9			
Approach LOS		D			D				B			

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1352	73
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5035	
Flt Permitted	1.00	
Satd. Flow (perm)	5035	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1394	75
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1464	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	49.5	
Effective Green, g (s)	49.5	
Actuated g/C Ratio	0.55	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2769	
v/s Ratio Prot	0.29	
v/s Ratio Perm		
v/c Ratio	0.53	
Uniform Delay, d1	12.8	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	13.6	
Level of Service	B	
Approach Delay (s)	14.7	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	7	56	8	106	1862	1524	30
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	59	0	112	1960	1604	32
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.83	0.83	0.00	0.83			
vC, conflicting volume	2588	633	0	1718			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	772	0	0	1131			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	96	93	0	76			
cM capacity (veh/h)	196	834	0	472			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	66	112	653	653	653	642	642	352
Volume Left	7	112	0	0	0	0	0	0
Volume Right	59	0	0	0	0	0	0	32
cSH	613	472	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.11	0.24	0.38	0.38	0.38	0.38	0.38	0.21
Queue Length 95th (ft)	9	23	0	0	0	0	0	0
Control Delay (s)	11.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	11.6	0.8				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	171	0	61	25	26	1917	97	41	1507
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	0.91
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4879		1770	5068
Flt Permitted					0.95	1.00		0.95	1.00		0.05	1.00
Satd. Flow (perm)					1770	1583		1770	4879		99	5068
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	186	0	66	26	27	2018	105	45	1586
RTOR Reduction (vph)	0	0	0	0	0	57	0	0	4	0	0	1
Lane Group Flow (vph)	0	0	0	0	186	9	0	53	2119	0	45	1605
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					14.8	14.8		7.6	71.2		75.6	75.6
Effective Green, g (s)					14.8	14.8		7.6	71.2		75.6	75.6
Actuated g/C Ratio					0.13	0.13		0.07	0.65		0.69	0.69
Clearance Time (s)					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
Lane Grp Cap (vph)					238	212		122	3158		68	3483
v/s Ratio Prot								c0.03	0.43			0.32
v/s Ratio Perm					0.11	0.01					c0.46	
v/c Ratio					0.78	0.04		0.43	0.67		0.66	0.46
Uniform Delay, d1					46.0	41.4		49.1	12.1		9.9	7.9
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					15.3	0.1		2.5	1.2		40.8	0.4
Delay (s)					61.3	41.5		51.6	13.3		50.7	8.3
Level of Service					E	D		D	B		D	A
Approach Delay (s)		0.0			56.1				14.2			9.5
Approach LOS		A			E				B			A

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	20
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	32
Confl. Bikes (#/hr)	3
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	102	287	30	650	554	1145	8	48	700	585	771	910
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3475		4990	3539	1514		1770	5085	1543	3433	5038
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3475		4990	3539	1514		1770	5085	1543	3433	5038
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	107	302	32	684	583	1205	8	51	737	616	812	958
RTOR Reduction (vph)	0	5	0	0	0	18	0	0	0	188	0	3
Lane Group Flow (vph)	107	329	0	684	583	1187	0	59	737	428	812	1002
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.05	0.26	0.26	0.27	0.49
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	91	822		629	1063	911		92	1334	405	942	2471
v/s Ratio Prot	0.06	0.09		c0.14	0.16	c0.36		0.03	0.14		0.24	0.20
v/s Ratio Perm						0.43				c0.28		
v/c Ratio	1.18	0.40		1.09	0.55	1.30		0.64	0.55	1.06	0.86	0.41
Uniform Delay, d1	78.5	53.3		72.4	48.5	35.2		77.0	52.7	61.1	57.1	26.8
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	149.2	1.5		62.0	2.0	144.4		10.9	1.7	60.5	7.9	0.1
Delay (s)	227.8	54.8		134.4	50.6	179.6		87.9	54.4	121.6	65.0	26.9
Level of Service	F	D		F	D	F		F	D	F	E	C
Approach Delay (s)		96.8			136.7				85.1			44.0
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	94.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	165.7	Sum of lost time (s)	18.3
Intersection Capacity Utilization	125.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	47
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	236	89	83	52	100	227	5	80	930	32	42	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1701			3480	1507		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1701			3480	1507		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	259	98	91	57	110	249	5	88	1022	35	46	184
RTOR Reduction (vph)	0	23	0	0	0	223	0	0	0	21	0	0
Lane Group Flow (vph)	259	166	0	0	167	26	0	93	1022	14	0	230
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	21.1	21.1			11.4	11.4		7.0	42.1	42.1		19.2
Effective Green, g (s)	21.1	21.1			11.4	11.4		7.0	42.1	42.1		19.2
Actuated g/C Ratio	0.19	0.19			0.10	0.10		0.06	0.39	0.39		0.18
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	343	329			364	157		113	1967	602		312
v/s Ratio Prot	c0.15	0.10			c0.05			c0.05	0.20			c0.13
v/s Ratio Perm						0.02				0.01		
v/c Ratio	0.76	0.50			0.46	0.17		0.82	0.52	0.02		0.74
Uniform Delay, d1	41.4	39.2			45.8	44.4		50.3	25.6	20.6		42.4
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	9.1	1.2			0.9	0.5		36.2	1.0	0.1		8.8
Delay (s)	50.5	40.4			46.7	44.9		86.5	26.6	20.7		51.2
Level of Service	D	D			D	D		F	C	C		D
Approach Delay (s)		46.2			45.6				31.2			
Approach LOS		D			D				C			

Intersection Summary			
HCM 2000 Control Delay	30.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	108.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1502	291
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1523
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1523
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1651	320
RTOR Reduction (vph)	0	60
Lane Group Flow (vph)	1651	260
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.3	54.3
Effective Green, g (s)	54.3	54.3
Actuated g/C Ratio	0.50	0.50
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2537	760
v/s Ratio Prot	c0.32	
v/s Ratio Perm		0.17
v/c Ratio	0.65	0.34
Uniform Delay, d1	20.2	16.5
Progression Factor	1.00	1.00
Incremental Delay, d2	1.3	1.2
Delay (s)	21.5	17.7
Level of Service	C	B
Approach Delay (s)	24.1	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	232	179	227	25	189	62	259	726	14	11	81	814
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.97		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3057			3405		1770	5085	1560		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3057			3405		1770	5085	1560		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	237	183	232	26	193	63	264	741	14	11	83	831
RTOR Reduction (vph)	0	161	0	0	19	0	0	0	8	0	0	0
Lane Group Flow (vph)	213	278	0	0	263	0	264	741	6	0	94	831
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	22.3	22.3			13.8		21.8	52.1	52.1		11.6	41.9
Effective Green, g (s)	22.3	22.3			13.8		21.8	52.1	52.1		11.6	41.9
Actuated g/C Ratio	0.20	0.20			0.12		0.19	0.46	0.46		0.10	0.37
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	315	599			412		339	2328	714		180	1872
v/s Ratio Prot	c0.13	0.09			c0.08		c0.15	0.15			0.05	c0.16
v/s Ratio Perm									0.00			
v/c Ratio	0.68	0.46			0.64		0.78	0.32	0.01		0.52	0.44
Uniform Delay, d1	42.4	40.5			47.6		43.7	19.6	16.8		48.5	27.2
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.7	0.6			3.2		10.8	0.4	0.0		2.7	0.8
Delay (s)	48.1	41.0			50.8		54.5	19.9	16.8		51.2	27.9
Level of Service	D	D			D		D	B	B		D	C
Approach Delay (s)		43.3			50.8			28.8				27.8
Approach LOS		D			D			C				C

Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	113.8	Sum of lost time (s)	14.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	136
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	139
RTOR Reduction (vph)	61
Lane Group Flow (vph)	78
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	64.2
Effective Green, g (s)	64.2
Actuated g/C Ratio	0.56
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	893
v/s Ratio Prot	0.02
v/s Ratio Perm	0.03
v/c Ratio	0.09
Uniform Delay, d1	11.4
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	11.4
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	72	0	183	9	11	3	123	236	1	0	127	150
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	74	0	189	9	11	3	127	243	1	0	131	155
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	740	717	216	901	794	269	292			249		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	740	717	216	901	794	269	292			249		
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 %	74	100	77	95	96	100	90			100		
cM capacity (veh/h)	288	317	818	182	286	754	1264			1311		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	74	189	24	127	244	286
Volume Left	74	0	9	127	0	0
Volume Right	0	189	3	0	1	155
cSH	288	818	250	1264	1700	1311
Volume to Capacity	0.26	0.23	0.09	0.10	0.14	0.00
Queue Length 95th (ft)	25	22	8	8	0	0
Control Delay (s)	21.8	10.7	20.9	8.2	0.0	0.0
Lane LOS	C	B	C	A		
Approach Delay (s)	13.8		20.9	2.8		0.0
Approach LOS	B		C			

Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	49.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	1278	260	353	1677	164	346	35	471	385	40	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1501	2477	5085	1553	3433	1863	1574	3433	1863	1473
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1501	2477	5085	1553	3433	1863	1574	3433	1863	1473
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	83	1291	263	357	1694	166	349	35	476	389	40	222
RTOR Reduction (vph)	0	0	84	0	0	51	0	0	48	0	0	188
Lane Group Flow (vph)	83	1291	179	357	1694	115	349	35	428	389	40	34
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	10.5	47.1	47.1	24.1	60.7	60.7	17.4	17.4	41.5	19.3	19.3	19.3
Effective Green, g (s)	10.5	47.1	47.1	24.1	60.7	60.7	17.4	17.4	41.5	19.3	19.3	19.3
Actuated g/C Ratio	0.08	0.37	0.37	0.19	0.48	0.48	0.14	0.14	0.33	0.15	0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	147	1902	561	474	2451	748	474	257	518	526	285	225
v/s Ratio Prot	0.05	c0.25		0.14	c0.33		0.10	0.02	c0.16	c0.11	0.02	
v/s Ratio Perm			0.12			0.07			0.11			0.02
v/c Ratio	0.56	0.68	0.32	0.75	0.69	0.15	0.74	0.14	0.83	0.74	0.14	0.15
Uniform Delay, d1	55.5	33.1	28.0	48.1	25.3	18.2	52.0	47.6	38.9	50.9	46.1	46.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	2.0	1.5	5.9	1.6	0.4	5.1	0.1	9.9	4.7	0.1	0.1
Delay (s)	58.4	35.0	29.5	54.0	26.9	18.7	57.1	47.7	48.8	55.6	46.2	46.3
Level of Service	E	D	C	D	C	B	E	D	D	E	D	D
Approach Delay (s)		35.3			30.7			52.1			51.8	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	125.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1209	912	0	1212	148	0	0	0	398	0	1120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4584	1336		5085	1547				1681	1453	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4584	1336		5085	1547				1681	1453	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1273	960	0	1276	156	0	0	0	419	0	1179
RTOR Reduction (vph)	0	51	0	0	0	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	1673	509	0	1276	156	0	0	0	377	603	608
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		49.4	115.0		49.4	115.0				58.6	58.6	58.6
Effective Green, g (s)		49.4	115.0		49.4	115.0				58.6	58.6	58.6
Actuated g/C Ratio		0.43	1.00		0.43	1.00				0.51	0.51	0.51
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1969	1336		2184	1547				856	740	766
v/s Ratio Prot		c0.37			0.25							
v/s Ratio Perm			0.38			0.10				0.22	0.41	0.40
v/c Ratio		0.85	0.38		0.58	0.10				0.44	0.81	0.79
Uniform Delay, d1		29.5	0.0		25.0	0.0				17.8	23.7	23.2
Progression Factor		1.00	1.00		0.55	1.00				1.00	1.00	1.00
Incremental Delay, d2		4.8	0.8		1.1	0.1				0.4	6.9	5.7
Delay (s)		34.3	0.8		14.7	0.1				18.2	30.5	28.9
Level of Service		C	A		B	A				B	C	C
Approach Delay (s)		26.7			13.1			0.0			27.0	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	623	1031	0	529	837	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	642	1063	0	545	863	90
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	642	1063	0	545	863	51
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	71.1	115.0		71.1	36.9	36.9
Effective Green, g (s)	71.1	115.0		71.1	36.9	36.9
Actuated g/C Ratio	0.62	1.00		0.62	0.32	0.32
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2188	1532		2188	1101	507
v/s Ratio Prot	0.18			0.15	c0.25	
v/s Ratio Perm		c0.69				0.03
v/c Ratio	0.29	0.69		0.25	0.78	0.10
Uniform Delay, d1	10.2	0.0		9.9	35.4	27.4
Progression Factor	0.36	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	1.7		0.3	3.7	0.1
Delay (s)	3.9	1.7		10.2	39.2	27.5
Level of Service	A	A		B	D	C
Approach Delay (s)	2.5			10.2	38.1	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	83	35	121	61	45	32	4	72	872	26	17	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.88			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1749	1607			1746			1770	5053			1770
Flt Permitted	0.57	1.00			0.64			0.95	1.00			0.95
Satd. Flow (perm)	1057	1607			1142			1770	5053			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	36	126	64	47	33	4	75	908	27	18	28
RTOR Reduction (vph)	0	107	0	0	16	0	0	0	2	0	0	0
Lane Group Flow (vph)	86	55	0	0	128	0	0	79	933	0	0	46
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	12.2	12.2			12.2			7.8	52.6			5.2
Effective Green, g (s)	12.2	12.2			12.2			7.8	52.6			5.2
Actuated g/C Ratio	0.15	0.15			0.15			0.10	0.66			0.07
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	161	245			174			172	3322			115
v/s Ratio Prot		0.03						c0.04	c0.18			0.03
v/s Ratio Perm	0.08				c0.11							
v/c Ratio	0.53	0.23			0.74			0.46	0.28			0.40
Uniform Delay, d1	31.3	29.8			32.4			34.1	5.8			35.9
Progression Factor	1.00	1.00			1.00			0.86	1.48			1.00
Incremental Delay, d2	3.4	0.5			14.9			1.9	0.2			2.3
Delay (s)	34.7	30.2			47.2			31.2	8.7			38.2
Level of Service	C	C			D			C	A			D
Approach Delay (s)		31.8			47.2				10.5			
Approach LOS		C			D				B			

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1477	41
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5061	
Flt Permitted	1.00	
Satd. Flow (perm)	5061	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1539	43
RTOR Reduction (vph)	2	0
Lane Group Flow (vph)	1580	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	50.0	
Effective Green, g (s)	50.0	
Actuated g/C Ratio	0.62	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	3163	
v/s Ratio Prot	c0.31	
v/s Ratio Perm		
v/c Ratio	0.50	
Uniform Delay, d1	8.2	
Progression Factor	1.00	
Incremental Delay, d2	0.6	
Delay (s)	8.7	
Level of Service	A	
Approach Delay (s)	9.6	
Approach LOS	A	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	2	39	7	41	983	1631	11
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	2	40	0	42	1003	1664	11
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.84	0.84	0.00	0.84			
vC, conflicting volume	2107	578	0	1694			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1659	0	0	1168			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	97	96	0	92			
cM capacity (veh/h)	67	900	0	493			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	42	42	334	334	334	666	666	344
Volume Left	2	42	0	0	0	0	0	0
Volume Right	40	0	0	0	0	0	0	11
cSH	560	493	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.07	0.08	0.20	0.20	0.20	0.39	0.39	0.20
Queue Length 95th (ft)	6	7	0	0	0	0	0	0
Control Delay (s)	11.9	13.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	11.9	0.5				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	15	15	968	1709	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	*0.80	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	4467	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	4467	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	16	16	1019	1799	8
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	32	1019	1807	0
Confl. Peds. (#/hr)				10			10
Confl. Bikes (#/hr)							9
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				3.3	65.8	68.7	
Effective Green, g (s)				3.3	65.8	68.7	
Actuated g/C Ratio				0.04	0.82	0.86	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				73	4043	3836	
v/s Ratio Prot				c0.02	0.21	c0.40	
v/s Ratio Perm							
v/c Ratio				0.44	0.25	0.47	
Uniform Delay, d1				37.4	1.6	1.3	
Progression Factor				1.00	1.00	1.40	
Incremental Delay, d2				4.2	0.1	0.4	
Delay (s)				41.6	1.7	2.3	
Level of Service				D	A	A	
Approach Delay (s)	0.0				3.0	2.3	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	2.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	71	642	31	443	183	514	2	15	385	588	768	865
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3505		4990	3539	1497		1770	5085	1561	3433	5065
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3505		4990	3539	1497		1770	5085	1561	3433	5065
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	72	655	32	452	187	524	2	15	393	600	784	883
RTOR Reduction (vph)	0	2	0	0	0	75	0	0	0	109	0	1
Lane Group Flow (vph)	72	685	0	452	187	449	0	17	393	491	784	901
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	9.8	39.5		16.2	44.2	83.3		4.1	43.5	43.5	39.1	79.5
Effective Green, g (s)	9.8	39.5		16.2	44.2	83.3		4.1	43.5	43.5	39.1	79.5
Actuated g/C Ratio	0.06	0.26		0.10	0.29	0.54		0.03	0.28	0.28	0.25	0.51
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	111	893		521	1009	848		46	1428	438	866	2599
v/s Ratio Prot	0.04	c0.20		c0.09	0.05	0.13		0.01	0.08		c0.23	0.18
v/s Ratio Perm						0.17				c0.31		
v/c Ratio	0.65	0.77		0.87	0.19	0.53		0.37	0.28	1.12	0.91	0.35
Uniform Delay, d1	70.9	53.4		68.3	41.8	23.1		74.1	43.4	55.7	56.1	22.3
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	9.4	6.3		13.8	0.4	0.3		1.8	0.5	80.6	12.6	0.1
Delay (s)	80.3	59.7		82.0	42.2	23.4		76.0	43.9	136.3	68.7	22.4
Level of Service	F	E		F	D	C		E	D	F	E	C
Approach Delay (s)		61.6			49.2				99.3			43.9
Approach LOS		E			D				F			D

Intersection Summary			
HCM 2000 Control Delay	60.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	154.9	Sum of lost time (s)	18.3
Intersection Capacity Utilization	108.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	19
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	19
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	253	111	59	15	47	107	38	786	34	15	172	870
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.99			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1740			3496	1485	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1740			3496	1485	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	266	117	62	16	49	113	40	827	36	16	181	916
RTOR Reduction (vph)	0	14	0	0	0	104	0	0	21	0	0	0
Lane Group Flow (vph)	266	165	0	0	65	9	40	827	15	0	197	916
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			7.6	7.6	4.0	39.9	39.9		15.7	51.6
Effective Green, g (s)	19.1	19.1			7.6	7.6	4.0	39.9	39.9		15.7	51.6
Actuated g/C Ratio	0.20	0.20			0.08	0.08	0.04	0.41	0.41		0.16	0.53
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	347	341			273	115	72	2085	633		285	2696
v/s Ratio Prot	c0.15	0.10			c0.02		0.02	c0.16			c0.11	0.18
v/s Ratio Perm						0.01			0.01			
v/c Ratio	0.77	0.48			0.24	0.08	0.56	0.40	0.02		0.69	0.34
Uniform Delay, d1	37.0	34.7			42.1	41.6	45.8	20.2	17.1		38.5	13.1
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.7	1.1			0.5	0.3	9.0	0.6	0.1		7.1	0.3
Delay (s)	46.7	35.8			42.6	41.9	54.8	20.8	17.2		45.6	13.4
Level of Service	D	D			D	D	D	C	B		D	B
Approach Delay (s)		42.3			42.1			22.1				17.8
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	97.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	272
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1536
Flt Permitted	1.00
Satd. Flow (perm)	1536
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	286
RTOR Reduction (vph)	98
Lane Group Flow (vph)	188
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.6
Effective Green, g (s)	51.6
Actuated g/C Ratio	0.53
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	814
v/s Ratio Prot	
v/s Ratio Perm	0.12
v/c Ratio	0.23
Uniform Delay, d1	12.2
Progression Factor	1.00
Incremental Delay, d2	0.7
Delay (s)	12.9
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	239	244	183	9	179	28	266	625	29	2	124	533
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3176			3463		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3176			3463		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	266	271	203	10	199	31	296	694	32	2	138	592
RTOR Reduction (vph)	0	79	0	0	8	0	0	0	17	0	0	0
Lane Group Flow (vph)	239	422	0	0	232	0	296	694	15	0	140	592
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	25.7	25.7			12.0		24.6	55.6	55.6		14.7	45.7
Effective Green, g (s)	25.7	25.7			12.0		24.6	55.6	55.6		14.7	45.7
Actuated g/C Ratio	0.21	0.21			0.10		0.20	0.46	0.46		0.12	0.37
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	339	669			340		356	2317	721		213	1904
v/s Ratio Prot	c0.15	0.13			c0.07		c0.17	c0.14			0.08	0.12
v/s Ratio Perm									0.01			
v/c Ratio	0.71	0.63			0.68		0.83	0.30	0.02		0.66	0.31
Uniform Delay, d1	44.6	43.8			53.2		46.7	20.9	18.2		51.2	27.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.5	1.9			5.6		15.1	0.3	0.1		7.1	0.4
Delay (s)	51.2	45.8			58.7		61.8	21.3	18.3		58.4	27.4
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		47.5			58.7			32.9				29.1
Approach LOS		D			E			C				C

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	122.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	159
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1563
Flt Permitted	1.00
Satd. Flow (perm)	1563
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	177
RTOR Reduction (vph)	59
Lane Group Flow (vph)	118
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	71.4
Effective Green, g (s)	71.4
Actuated g/C Ratio	0.59
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	914
v/s Ratio Prot	0.03
v/s Ratio Perm	0.05
v/c Ratio	0.13
Uniform Delay, d1	11.4
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	11.4
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	2	38	4	236	5	6	1	1	60	163	7	2
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	44	5	274	6	7	1	0	70	190	8	2
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	540	562	171	812	581	274	0	194			247
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	540	562	171	812	581	274	0	194			247
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	89	99	68	97	98	100	0	95			100
cM capacity (veh/h)	0	391	389	857	176	379	715	0	1354			1265

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	49	274	14	70	198	174
Volume Left	44	0	6	70	0	2
Volume Right	0	274	1	0	8	47
cSH	390	857	263	1354	1700	1265
Volume to Capacity	0.13	0.32	0.05	0.05	0.12	0.00
Queue Length 95th (ft)	11	35	4	4	0	0
Control Delay (s)	15.5	11.2	19.4	7.8	0.0	0.1
Lane LOS	C	B	C	A		A
Approach Delay (s)	11.8		19.4	2.0		0.1
Approach LOS	B		C			

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	108	40
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	126	47
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	479	1400	304	391	903	638	103	106	199	206	27	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1536	2477	5085	1562	3433	1863	1576	1681	1704	1495
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5085	1536	2477	5085	1562	3433	1863	1576	1681	1704	1495
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	499	1458	317	407	941	665	107	110	207	215	28	148
RTOR Reduction (vph)	0	0	148	0	0	404	0	0	138	0	0	130
Lane Group Flow (vph)	499	1458	169	407	941	261	107	110	69	120	123	18
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	27.7	31.1	31.1	17.4	20.8	20.8	6.5	6.5	23.9	10.3	10.3	10.3
Effective Green, g (s)	27.7	31.1	31.1	17.4	20.8	20.8	6.5	6.5	23.9	10.3	10.3	10.3
Actuated g/C Ratio	0.33	0.37	0.37	0.21	0.25	0.25	0.08	0.08	0.29	0.12	0.12	0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	588	1898	573	517	1269	390	267	145	452	207	210	184
v/s Ratio Prot	c0.28	0.29		0.16	c0.19		0.03	c0.06	0.03	0.07	c0.07	
v/s Ratio Perm			0.11			0.17			0.01			0.01
v/c Ratio	0.85	0.77	0.30	0.79	0.74	0.67	0.40	0.76	0.15	0.58	0.59	0.10
Uniform Delay, d1	25.9	22.9	18.4	31.2	28.8	28.2	36.5	37.6	22.2	34.5	34.5	32.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.6	3.1	1.3	7.2	3.9	8.8	0.4	18.1	0.1	2.4	2.7	0.1
Delay (s)	36.4	26.0	19.7	38.4	32.7	37.0	36.9	55.7	22.2	36.9	37.2	32.5
Level of Service	D	C	B	D	C	D	D	E	C	D	D	C
Approach Delay (s)		27.4			35.3			34.6			35.3	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	83.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1161	667	0	1128	95	0	0	0	538	0	993
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.97	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4654	1337		5085	1551				1681	1443	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4654	1337		5085	1551				1681	1443	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1185	681	0	1151	97	0	0	0	549	0	1013
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1415	422	0	1151	97	0	0	0	494	535	521
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		37.0	90.0		37.0	90.0				45.8	45.8	45.8
Effective Green, g (s)		37.0	90.0		37.0	90.0				45.8	45.8	45.8
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.51	0.51	0.51
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1913	1337		2090	1551				855	734	755
v/s Ratio Prot		c0.30			0.23							
v/s Ratio Perm			0.32			0.06				0.29	0.37	0.35
v/c Ratio		0.74	0.32		0.55	0.06				0.58	0.73	0.69
Uniform Delay, d1		22.4	0.0		20.2	0.0				15.4	17.3	16.7
Progression Factor		1.00	1.00		0.64	1.00				1.00	1.00	1.00
Incremental Delay, d2		2.6	0.6		0.8	0.1				1.0	3.6	2.7
Delay (s)		25.0	0.6		13.6	0.1				16.3	20.9	19.5
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		19.5			12.5			0.0			19.0	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	843	864	0	196	1012	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1557
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1557
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	869	891	0	202	1043	108
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	869	891	0	202	1043	69
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	50.8	90.0		50.8	32.2	32.2
Effective Green, g (s)	50.8	90.0		50.8	32.2	32.2
Actuated g/C Ratio	0.56	1.00		0.56	0.36	0.36
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1997	1528		1997	1228	557
v/s Ratio Prot	0.25			0.06	c0.30	
v/s Ratio Perm		c0.58				0.04
v/c Ratio	0.44	0.58		0.10	0.85	0.12
Uniform Delay, d1	11.3	0.0		9.1	26.7	19.4
Progression Factor	0.62	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	1.2		0.1	5.7	0.1
Delay (s)	7.5	1.2		9.2	32.3	19.5
Level of Service	A	A		A	C	B
Approach Delay (s)	4.3			9.2	31.1	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	136	40	95	74	24	25	6	152	1579	74	23	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1756	1634			1738			1770	5025			1770
Flt Permitted	0.65	1.00			0.67			0.95	1.00			0.95
Satd. Flow (perm)	1210	1634			1197			1770	5025			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	140	41	98	76	25	26	6	157	1628	76	24	40
RTOR Reduction (vph)	0	81	0	0	12	0	0	0	4	0	0	0
Lane Group Flow (vph)	140	58	0	0	115	0	0	163	1700	0	0	64
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	15.6	15.6			15.6			13.5	56.9			7.5
Effective Green, g (s)	15.6	15.6			15.6			13.5	56.9			7.5
Actuated g/C Ratio	0.17	0.17			0.17			0.15	0.63			0.08
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	209	283			207			265	3176			147
v/s Ratio Prot		0.04						c0.09	c0.34			0.04
v/s Ratio Perm	c0.12				0.10							
v/c Ratio	0.67	0.20			0.56			0.62	0.54			0.44
Uniform Delay, d1	34.8	31.9			34.0			35.8	9.2			39.2
Progression Factor	1.00	1.00			1.00			0.98	1.14			1.00
Incremental Delay, d2	7.9	0.4			3.2			3.7	0.6			2.1
Delay (s)	42.7	32.2			37.3			38.8	11.0			41.3
Level of Service	D	C			D			D	B			D
Approach Delay (s)		37.5			37.3				13.4			
Approach LOS		D			D				B			

Intersection Summary			
HCM 2000 Control Delay	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1355	73
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5035	
Flt Permitted	1.00	
Satd. Flow (perm)	5035	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1397	75
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1467	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	50.9	
Effective Green, g (s)	50.9	
Actuated g/C Ratio	0.57	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2847	
v/s Ratio Prot	0.29	
v/s Ratio Perm		
v/c Ratio	0.52	
Uniform Delay, d1	12.0	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	12.7	
Level of Service	B	
Approach Delay (s)	13.9	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	7	56	8	106	1825	1518	30
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	7	59	0	112	1921	1598	32
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.91	0.83	0.00	0.83			
vC, conflicting volume	2569	630	0	1711			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1251	0	0	1147			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	93	93	0	76			
cM capacity (veh/h)	105	840	0	469			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	66	112	640	640	640	639	639	351
Volume Left	7	112	0	0	0	0	0	0
Volume Right	59	0	0	0	0	0	0	32
cSH	473	469	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.24	0.38	0.38	0.38	0.38	0.38	0.21
Queue Length 95th (ft)	12	23	0	0	0	0	0	0
Control Delay (s)	13.9	15.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	C						
Approach Delay (s)	13.9	0.8				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	25	26	1941	1542	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	0.91	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	5069	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	5069	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	26	27	2043	1623	20
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	53	2043	1643	0
Confl. Peds. (#/hr)							32
Confl. Bikes (#/hr)							3
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				5.7	70.0	76.3	
Effective Green, g (s)				5.7	70.0	76.3	
Actuated g/C Ratio				0.06	0.78	0.85	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				112	3823	4297	
v/s Ratio Prot				c0.03	c0.42	c0.32	
v/s Ratio Perm							
v/c Ratio				0.47	0.53	0.38	
Uniform Delay, d1				40.7	3.8	1.5	
Progression Factor				1.00	1.00	1.49	
Incremental Delay, d2				3.1	0.5	0.2	
Delay (s)				43.8	4.3	2.5	
Level of Service				D	A	A	
Approach Delay (s)	0.0				5.3	2.5	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	83	312	30	724	585	1054	8	48	658	593	663	882
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3480		4990	3539	1514		1770	5085	1543	3433	5036
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3480		4990	3539	1514		1770	5085	1543	3433	5036
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	87	328	32	762	616	1109	8	51	693	624	698	928
RTOR Reduction (vph)	0	5	0	0	0	18	0	0	0	186	0	3
Lane Group Flow (vph)	87	355	0	762	616	1091	0	59	693	438	698	972
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		8.7	43.5	43.5	45.5	81.3
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.05	0.26	0.26	0.27	0.49
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	91	823		629	1063	911		92	1334	405	942	2470
v/s Ratio Prot	0.05	0.10		c0.15	0.17	c0.33		0.03	0.14		0.20	0.19
v/s Ratio Perm						0.39				c0.28		
v/c Ratio	0.96	0.43		1.21	0.58	1.20		0.64	0.52	1.08	0.74	0.39
Uniform Delay, d1	78.4	53.8		72.4	49.1	35.2		77.0	52.2	61.1	54.7	26.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	78.7	1.7		109.4	2.3	99.7		10.9	1.4	68.5	2.8	0.1
Delay (s)	157.0	55.4		181.8	51.4	134.9		87.9	53.6	129.6	57.5	26.7
Level of Service	F	E		F	D	F		F	D	F	E	C
Approach Delay (s)		75.2			128.6				89.5			39.6
Approach LOS		E			F				F			D

Intersection Summary			
HCM 2000 Control Delay	90.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	165.7	Sum of lost time (s)	18.3
Intersection Capacity Utilization	120.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	47
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	236	87	83	23	97	176	5	80	947	22	42	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1700			3506	1508		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1700			3506	1508		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	259	96	91	25	107	193	5	88	1041	24	46	173
RTOR Reduction (vph)	0	24	0	0	0	175	0	0	0	14	0	0
Lane Group Flow (vph)	259	163	0	0	132	18	0	93	1041	10	0	219
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	21.0	21.0			9.8	9.8		7.0	42.9	42.9		18.3
Effective Green, g (s)	21.0	21.0			9.8	9.8		7.0	42.9	42.9		18.3
Actuated g/C Ratio	0.20	0.20			0.09	0.09		0.07	0.40	0.40		0.17
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	347	333			321	138		115	2038	624		302
v/s Ratio Prot	c0.15	0.10			c0.04			c0.05	0.20			c0.12
v/s Ratio Perm						0.01				0.01		
v/c Ratio	0.75	0.49			0.41	0.13		0.81	0.51	0.02		0.73
Uniform Delay, d1	40.5	38.2			45.9	44.7		49.3	24.1	19.3		42.0
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	8.5	1.1			0.9	0.4		32.6	0.9	0.0		8.4
Delay (s)	49.0	39.4			46.7	45.1		82.0	25.1	19.4		50.3
Level of Service	D	D			D	D		F	C	B		D
Approach Delay (s)		44.9			45.8				29.5			
Approach LOS		D			D				C			

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	107.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1559	291
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1524
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1524
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1713	320
RTOR Reduction (vph)	0	57
Lane Group Flow (vph)	1713	263
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.2	54.2
Effective Green, g (s)	54.2	54.2
Actuated g/C Ratio	0.51	0.51
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2575	771
v/s Ratio Prot	c0.34	
v/s Ratio Perm		0.17
v/c Ratio	0.67	0.34
Uniform Delay, d1	19.6	15.8
Progression Factor	1.00	1.00
Incremental Delay, d2	1.4	1.2
Delay (s)	21.0	17.0
Level of Service	C	B
Approach Delay (s)	23.3	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	234	179	227	11	172	67	259	725	14	11	88	822
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3058			3390		1770	5085	1560		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3058			3390		1770	5085	1560		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	239	183	232	11	176	68	264	740	14	11	90	839
RTOR Reduction (vph)	0	160	0	0	27	0	0	0	8	0	0	0
Lane Group Flow (vph)	215	279	0	0	228	0	264	740	6	0	101	839
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	22.4	22.4			12.9		21.7	51.6	51.6		12.1	42.0
Effective Green, g (s)	22.4	22.4			12.9		21.7	51.6	51.6		12.1	42.0
Actuated g/C Ratio	0.20	0.20			0.11		0.19	0.46	0.46		0.11	0.37
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	319	606			387		339	2322	712		189	1890
v/s Ratio Prot	c0.13	0.09			c0.07		c0.15	0.15			0.06	c0.16
v/s Ratio Perm									0.00			
v/c Ratio	0.67	0.46			0.59		0.78	0.32	0.01		0.53	0.44
Uniform Delay, d1	41.9	40.0			47.5		43.4	19.5	16.7		47.8	26.7
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.5	0.6			2.4		10.8	0.4	0.0		2.9	0.8
Delay (s)	47.5	40.5			49.9		54.1	19.9	16.8		50.7	27.5
Level of Service	D	D			D		D	B	B		D	C
Approach Delay (s)		42.8			49.9			28.7				27.3
Approach LOS		D			D			C				C

Intersection Summary			
HCM 2000 Control Delay	33.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	149
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	152
RTOR Reduction (vph)	65
Lane Group Flow (vph)	87
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	64.4
Effective Green, g (s)	64.4
Actuated g/C Ratio	0.57
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	902
v/s Ratio Prot	0.02
v/s Ratio Perm	0.04
v/c Ratio	0.10
Uniform Delay, d1	11.1
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	11.1
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	0	183	9	11	3	123	230	1	0	87	67
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	51	0	189	9	11	3	127	237	1	0	90	69
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	650	627	132	811	661	263	165			243		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	650	627	132	811	661	263	165			243		
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 %	85	100	79	96	97	100	91			100		
cM capacity (veh/h)	336	361	911	217	345	760	1406			1318		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	51	189	24	127	238	159
Volume Left	51	0	9	127	0	0
Volume Right	0	189	3	0	1	69
cSH	336	911	298	1406	1700	1318
Volume to Capacity	0.15	0.21	0.08	0.09	0.14	0.00
Queue Length 95th (ft)	13	19	6	7	0	0
Control Delay (s)	17.6	10.0	18.1	7.8	0.0	0.0
Lane LOS	C	A	C	A		
Approach Delay (s)	11.6		18.1	2.7		0.0
Approach LOS	B		C			

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	42.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	211	1093	241	353	1544	296	332	49	471	550	57	381
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1495	3433	5085	1552	3433	1863	1574	1681	1701	1465
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5085	1495	3433	5085	1552	3433	1863	1574	1681	1701	1465
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	213	1104	243	357	1560	299	335	49	476	556	58	385
RTOR Reduction (vph)	0	0	95	0	0	121	0	0	50	0	0	232
Lane Group Flow (vph)	213	1104	148	357	1560	178	335	49	426	306	308	153
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	20.4	47.1	47.1	24.4	51.1	51.1	18.0	18.0	42.4	29.3	29.3	29.3
Effective Green, g (s)	20.4	47.1	47.1	24.4	51.1	51.1	18.0	18.0	42.4	29.3	29.3	29.3
Actuated g/C Ratio	0.15	0.34	0.34	0.18	0.37	0.37	0.13	0.13	0.31	0.21	0.21	0.21
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	263	1750	514	612	1899	579	451	245	487	360	364	313
v/s Ratio Prot	c0.12	0.22		0.10	c0.31		0.10	0.03	c0.16	c0.18	0.18	
v/s Ratio Perm			0.10			0.11			0.11			0.10
v/c Ratio	0.81	0.63	0.29	0.58	0.82	0.31	0.74	0.20	0.88	0.85	0.85	0.49
Uniform Delay, d1	56.3	37.6	32.6	51.5	38.7	30.3	57.2	53.0	44.7	51.6	51.6	47.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.8	1.7	1.4	0.9	4.1	1.4	5.7	0.1	15.6	16.3	15.8	0.4
Delay (s)	72.1	39.3	34.1	52.5	42.9	31.7	62.9	53.1	60.3	67.9	67.4	47.6
Level of Service	E	D	C	D	D	C	E	D	E	E	E	D
Approach Delay (s)		43.0			42.9			60.9			59.9	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	48.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	136.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1199	901	0	1211	148	0	0	0	398	0	1120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4584	1336		5085	1547				1681	1453	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4584	1336		5085	1547				1681	1453	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1262	948	0	1275	156	0	0	0	419	0	1179
RTOR Reduction (vph)	0	50	0	0	0	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	1658	502	0	1275	156	0	0	0	377	603	608
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		49.4	115.0		49.4	115.0				58.6	58.6	58.6
Effective Green, g (s)		49.4	115.0		49.4	115.0				58.6	58.6	58.6
Actuated g/C Ratio		0.43	1.00		0.43	1.00				0.51	0.51	0.51
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1969	1336		2184	1547				856	740	766
v/s Ratio Prot		c0.36			0.25							
v/s Ratio Perm			0.38			0.10				0.22	0.41	0.40
v/c Ratio		0.84	0.38		0.58	0.10				0.44	0.81	0.79
Uniform Delay, d1		29.3	0.0		25.0	0.0				17.8	23.7	23.2
Progression Factor		1.00	1.00		0.55	1.00				1.00	1.00	1.00
Incremental Delay, d2		4.6	0.8		1.1	0.1				0.4	6.9	5.7
Delay (s)		33.9	0.8		14.7	0.1				18.2	30.5	28.9
Level of Service		C	A		B	A				B	C	C
Approach Delay (s)		26.4			13.1			0.0			27.0	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	622	1022	0	528	836	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	641	1054	0	544	862	90
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	641	1054	0	544	862	51
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	71.1	115.0		71.1	36.9	36.9
Effective Green, g (s)	71.1	115.0		71.1	36.9	36.9
Actuated g/C Ratio	0.62	1.00		0.62	0.32	0.32
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2188	1532		2188	1101	507
v/s Ratio Prot	0.18			0.15	c0.25	
v/s Ratio Perm		c0.69				0.03
v/c Ratio	0.29	0.69		0.25	0.78	0.10
Uniform Delay, d1	10.2	0.0		9.9	35.4	27.4
Progression Factor	0.36	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	1.7		0.3	3.7	0.1
Delay (s)	3.9	1.7		10.2	39.1	27.5
Level of Service	A	A		B	D	C
Approach Delay (s)	2.5			10.2	38.0	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	100	50	140	70	60	40	10	90	920	30	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1750	1621			1748			1770	5050			1770
Flt Permitted	0.53	1.00			0.59			0.95	1.00			0.95
Satd. Flow (perm)	985	1621			1050			1770	5050			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	104	52	146	73	62	42	10	94	958	31	21	42
RTOR Reduction (vph)	0	120	0	0	17	0	0	0	3	0	0	0
Lane Group Flow (vph)	104	78	0	0	161	0	0	104	986	0	0	63
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	14.0	14.0			14.0			8.8	48.9			7.1
Effective Green, g (s)	14.0	14.0			14.0			8.8	48.9			7.1
Actuated g/C Ratio	0.18	0.18			0.18			0.11	0.61			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	172	283			183			194	3086			157
v/s Ratio Prot		0.05						c0.06	0.20			0.04
v/s Ratio Perm	0.11				c0.15							
v/c Ratio	0.60	0.27			0.88			0.54	0.32			0.40
Uniform Delay, d1	30.4	28.6			32.2			33.7	7.5			34.4
Progression Factor	1.00	1.00			1.00			0.91	1.40			1.00
Incremental Delay, d2	5.9	0.5			34.3			2.8	0.3			1.7
Delay (s)	36.3	29.1			66.5			33.3	10.8			36.1
Level of Service	D	C			E			C	B			D
Approach Delay (s)		31.6			66.5				12.9			
Approach LOS		C			E				B			

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1440	50
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5055	
Flt Permitted	1.00	
Satd. Flow (perm)	5055	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1500	52
RTOR Reduction (vph)	3	0
Lane Group Flow (vph)	1549	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	47.2	
Effective Green, g (s)	47.2	
Actuated g/C Ratio	0.59	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2982	
v/s Ratio Prot	c0.31	
v/s Ratio Perm		
v/c Ratio	0.52	
Uniform Delay, d1	9.7	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	10.3	
Level of Service	B	
Approach Delay (s)	11.4	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	50	1050	1620	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	51	1071	1653	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.83	0.83	0.00	0.83			
vC, conflicting volume	2141	579	0	1691			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1651	0	0	1126			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	85	94	0	90			
cM capacity (veh/h)	66	889	0	505			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	51	357	357	357	661	661	351
Volume Left	10	51	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	289	505	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.21	0.10	0.21	0.21	0.21	0.39	0.39	0.21
Queue Length 95th (ft)	20	8	0	0	0	0	0	0
Control Delay (s)	20.8	12.9	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B						
Approach Delay (s)	20.8	0.6				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	20	20	1050	1700	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	*0.80	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	4465	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	4465	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	21	21	1105	1789	11
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	42	1105	1800	0
Confl. Peds. (#/hr)				10			10
Confl. Bikes (#/hr)							9
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				5.1	65.8	66.9	
Effective Green, g (s)				5.1	65.8	66.9	
Actuated g/C Ratio				0.06	0.82	0.84	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				112	4043	3733	
v/s Ratio Prot				c0.02	0.22	c0.40	
v/s Ratio Perm							
v/c Ratio				0.38	0.27	0.48	
Uniform Delay, d1				35.9	1.6	1.8	
Progression Factor				1.00	1.00	1.46	
Incremental Delay, d2				2.1	0.2	0.4	
Delay (s)				38.0	1.8	3.0	
Level of Service				D	A	A	
Approach Delay (s)	0.0				3.1	3.0	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	3.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
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	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	90	660	50	410	190	500	10	20	490	550	730	920
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3488		4990	3539	1496		1770	5085	1561	3433	5054
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3488		4990	3539	1496		1770	5085	1561	3433	5054
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	92	673	51	418	194	510	10	20	500	561	745	939
RTOR Reduction (vph)	0	3	0	0	0	46	0	0	0	110	0	2
Lane Group Flow (vph)	92	721	0	418	194	464	0	30	500	451	745	968
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.3	40.0		15.6	43.6	80.4		4.9	43.5	43.5	36.8	76.4
Effective Green, g (s)	10.3	40.0		15.6	43.6	80.4		4.9	43.5	43.5	36.8	76.4
Actuated g/C Ratio	0.07	0.26		0.10	0.29	0.53		0.03	0.29	0.29	0.24	0.50
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	119	914		510	1011	832		56	1450	445	828	2531
v/s Ratio Prot	0.05	c0.21		c0.08	0.05	0.13		0.02	0.10		c0.22	0.19
v/s Ratio Perm						0.18				c0.29		
v/c Ratio	0.77	0.79		0.82	0.19	0.56		0.54	0.34	1.01	0.90	0.38
Uniform Delay, d1	70.0	52.3		67.1	41.1	24.1		72.7	43.2	54.5	56.1	23.5
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	24.2	6.9		9.5	0.4	0.5		4.9	0.7	46.0	12.3	0.1
Delay (s)	94.1	59.2		76.5	41.6	24.6		77.5	43.9	100.5	68.4	23.6
Level of Service	F	E		E	D	C		E	D	F	E	C
Approach Delay (s)		63.1			46.9				73.9			43.0
Approach LOS		E			D				E			D

Intersection Summary			
HCM 2000 Control Delay	54.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	152.5	Sum of lost time (s)	18.3
Intersection Capacity Utilization	106.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	260	130	80	20	60	110	60	840	50	20	180	890
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1727			3496	1484	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1727			3496	1484	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	274	137	84	21	63	116	63	884	53	21	189	937
RTOR Reduction (vph)	0	16	0	0	0	107	0	0	31	0	0	0
Lane Group Flow (vph)	274	205	0	0	84	9	63	884	22	0	210	937
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			8.0	8.0	5.5	40.2	40.2		16.5	51.2
Effective Green, g (s)	19.1	19.1			8.0	8.0	5.5	40.2	40.2		16.5	51.2
Actuated g/C Ratio	0.19	0.19			0.08	0.08	0.06	0.41	0.41		0.17	0.52
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	342	333			283	120	98	2068	628		295	2635
v/s Ratio Prot	c0.15	0.12			c0.02		0.04	c0.17			c0.12	0.18
v/s Ratio Perm						0.01			0.01			
v/c Ratio	0.80	0.62			0.30	0.08	0.64	0.43	0.03		0.71	0.36
Uniform Delay, d1	38.0	36.5			42.8	42.0	45.7	21.0	17.6		38.9	14.1
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	12.6	3.4			0.6	0.3	13.5	0.6	0.1		7.9	0.4
Delay (s)	50.7	39.8			43.3	42.3	59.2	21.7	17.7		46.8	14.4
Level of Service	D	D			D	D	E	C	B		D	B
Approach Delay (s)		45.8			42.7			23.8				19.0
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	98.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	280
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	295
RTOR Reduction (vph)	102
Lane Group Flow (vph)	193
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.2
Effective Green, g (s)	51.2
Actuated g/C Ratio	0.52
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	795
v/s Ratio Prot	
v/s Ratio Perm	0.13
v/c Ratio	0.24
Uniform Delay, d1	13.1
Progression Factor	1.00
Incremental Delay, d2	0.7
Delay (s)	13.8
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	250	270	190	20	200	30	280	710	40	10	150	520
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3183			3462		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3183			3462		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	278	300	211	22	222	33	311	789	44	11	167	578
RTOR Reduction (vph)	0	69	0	0	7	0	0	0	25	0	0	0
Lane Group Flow (vph)	250	470	0	0	270	0	311	789	19	0	178	578
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	27.4	27.4			12.6		25.8	54.6	54.6		16.7	45.5
Effective Green, g (s)	27.4	27.4			12.6		25.8	54.6	54.6		16.7	45.5
Actuated g/C Ratio	0.22	0.22			0.10		0.21	0.44	0.44		0.13	0.36
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	352	696			348		364	2215	689		235	1846
v/s Ratio Prot	c0.16	0.15			c0.08		c0.18	c0.16			0.10	0.11
v/s Ratio Perm									0.01			
v/c Ratio	0.71	0.68			0.78		0.85	0.36	0.03		0.76	0.31
Uniform Delay, d1	45.3	44.9			55.0		47.9	23.6	20.2		52.3	28.7
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.6	2.6			10.3		17.4	0.4	0.1		13.0	0.4
Delay (s)	51.9	47.5			65.3		65.4	24.1	20.3		65.4	29.1
Level of Service	D	D			E		E	C	C		E	C
Approach Delay (s)		48.9			65.3			35.1				32.1
Approach LOS		D			E			D				C

Intersection Summary			
HCM 2000 Control Delay	40.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	125.3	Sum of lost time (s)	14.0
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	190
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	211
RTOR Reduction (vph)	52
Lane Group Flow (vph)	159
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	72.9
Effective Green, g (s)	72.9
Actuated g/C Ratio	0.58
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	909
v/s Ratio Prot	0.04
v/s Ratio Perm	0.06
v/c Ratio	0.17
Uniform Delay, d1	12.2
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	12.3
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	70	10	250	10	10	10	10	70	190	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	81	12	291	12	12	12	0	81	221	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	646	658	191	927	681	307	0	220			282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	646	658	191	927	681	307	0	220			282
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	74	97	65	92	96	98	0	94			99
cM capacity (veh/h)	0	318	336	836	137	326	685	0	1325			1229

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	93	291	35	81	233	209
Volume Left	81	0	12	81	0	12
Volume Right	0	291	12	0	12	58
cSH	320	836	254	1325	1700	1229
Volume to Capacity	0.29	0.35	0.14	0.06	0.14	0.01
Queue Length 95th (ft)	29	39	12	5	0	1
Control Delay (s)	20.8	11.6	21.4	7.9	0.0	0.5
Lane LOS	C	B	C	A		A
Approach Delay (s)	13.8		21.4	2.0		0.5
Approach LOS	B		C			

Intersection Summary				
Average Delay	7.2			
Intersection Capacity Utilization	63.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	120	50
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	140	58
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	1450	340	440	930	490	120	120	240	120	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1521	2477	5085	1561	3433	1863	1576	3433	1863	1457
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1521	2477	5085	1561	3433	1863	1576	3433	1863	1457
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	344	1510	354	458	969	510	125	125	250	125	31	52
RTOR Reduction (vph)	0	0	94	0	0	257	0	0	110	0	0	48
Lane Group Flow (vph)	344	1510	260	458	969	253	125	125	140	125	31	4
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.1	60.2	60.2	29.4	64.5	64.5	13.1	13.1	42.5	9.2	9.2	9.2
Effective Green, g (s)	25.1	60.2	60.2	29.4	64.5	64.5	13.1	13.1	42.5	9.2	9.2	9.2
Actuated g/C Ratio	0.19	0.46	0.46	0.23	0.50	0.50	0.10	0.10	0.33	0.07	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	342	2356	704	560	2524	775	346	187	515	243	131	103
v/s Ratio Prot	c0.19	c0.30		c0.18	0.19		0.04	c0.07	0.06	c0.04	0.02	
v/s Ratio Perm			0.17			0.16			0.03			0.00
v/c Ratio	1.01	0.64	0.37	0.82	0.38	0.33	0.36	0.67	0.27	0.51	0.24	0.04
Uniform Delay, d1	52.4	26.6	22.6	47.7	20.3	19.7	54.5	56.3	32.3	58.2	57.0	56.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	50.1	1.4	1.5	8.6	0.4	1.1	0.2	6.8	0.1	0.8	0.3	0.1
Delay (s)	102.5	28.0	24.1	56.3	20.8	20.8	54.7	63.1	32.4	59.0	57.4	56.3
Level of Service	F	C	C	E	C	C	D	E	C	E	E	E
Approach Delay (s)		38.9			29.2			45.7			58.1	
Approach LOS		D			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	129.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.8%	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												
Volume (vph)	0	1190	630	0	1050	100	0	0	0	560	0	960
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.98	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4674	1337		5085	1551				1681	1445	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4674	1337		5085	1551				1681	1445	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1214	643	0	1071	102	0	0	0	571	0	980
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1417	418	0	1071	102	0	0	0	514	512	513
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		38.1	90.0		38.1	90.0				44.7	44.7	44.7
Effective Green, g (s)		38.1	90.0		38.1	90.0				44.7	44.7	44.7
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.50	0.50	0.50
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1978	1337		2152	1551				834	717	737
v/s Ratio Prot		c0.30			0.21							
v/s Ratio Perm			0.31			0.07				0.31	0.35	0.35
v/c Ratio		0.72	0.31		0.50	0.07				0.62	0.71	0.70
Uniform Delay, d1		21.5	0.0		19.0	0.0				16.4	17.7	17.4
Progression Factor		1.00	1.00		0.58	1.00				1.00	1.00	1.00
Incremental Delay, d2		2.3	0.6		0.7	0.1				1.4	3.4	2.9
Delay (s)		23.7	0.6		11.6	0.1				17.8	21.0	20.3
Level of Service		C	A		B	A				B	C	C
Approach Delay (s)		18.5			10.6			0.0			19.7	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	910	840	0	200	940	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1557
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1557
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	938	866	0	206	969	206
RTOR Reduction (vph)	0	0	0	0	0	61
Lane Group Flow (vph)	938	866	0	206	969	145
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	51.7	90.0		51.7	31.3	31.3
Effective Green, g (s)	51.7	90.0		51.7	31.3	31.3
Actuated g/C Ratio	0.57	1.00		0.57	0.35	0.35
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2032	1528		2032	1193	541
v/s Ratio Prot	0.27			0.06	c0.28	
v/s Ratio Perm		c0.57				0.09
v/c Ratio	0.46	0.57		0.10	0.81	0.27
Uniform Delay, d1	11.1	0.0		8.7	26.7	21.1
Progression Factor	0.66	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	1.2		0.1	4.3	0.3
Delay (s)	7.9	1.2		8.8	31.0	21.4
Level of Service	A	A		A	C	C
Approach Delay (s)	4.6			8.8	29.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	160	50	120	90	30	30	10	170	1580	80	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1757	1634			1740			1770	5020			1770
Flt Permitted	0.64	1.00			0.58			0.95	1.00			0.95
Satd. Flow (perm)	1181	1634			1037			1770	5020			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	165	52	124	93	31	31	10	175	1629	82	31	52
RTOR Reduction (vph)	0	100	0	0	11	0	0	0	4	0	0	0
Lane Group Flow (vph)	165	76	0	0	144	0	0	185	1707	0	0	83
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	17.5	17.5			17.5			14.4	54.2			8.3
Effective Green, g (s)	17.5	17.5			17.5			14.4	54.2			8.3
Actuated g/C Ratio	0.19	0.19			0.19			0.16	0.60			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	229	317			201			283	3023			163
v/s Ratio Prot		0.05						c0.10	c0.34			0.05
v/s Ratio Perm	c0.14				0.14							
v/c Ratio	0.72	0.24			0.72			0.65	0.56			0.51
Uniform Delay, d1	34.0	30.6			33.9			35.5	10.8			38.9
Progression Factor	1.00	1.00			1.00			1.03	1.08			1.00
Incremental Delay, d2	10.6	0.4			11.4			4.7	0.7			2.5
Delay (s)	44.6	31.0			45.3			41.2	12.3			41.4
Level of Service	D	C			D			D	B			D
Approach Delay (s)		37.6			45.3				15.2			
Approach LOS		D			D				B			

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1400	80
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5032	
Flt Permitted	1.00	
Satd. Flow (perm)	5032	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1443	82
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1520	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	48.1	
Effective Green, g (s)	48.1	
Actuated g/C Ratio	0.53	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2689	
v/s Ratio Prot	0.30	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	14.0	
Progression Factor	1.00	
Incremental Delay, d2	0.9	
Delay (s)	14.8	
Level of Service	B	
Approach Delay (s)	16.2	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	120	1840	1600	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	126	1937	1684	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.88	0.81	0.00	0.81			
vC, conflicting volume	2696	664	0	1808			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1306	0	0	1169			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	88	91	0	72			
cM capacity (veh/h)	89	816	0	447			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	126	646	646	646	674	674	379
Volume Left	11	126	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	403	447	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.21	0.28	0.38	0.38	0.38	0.40	0.40	0.22
Queue Length 95th (ft)	19	29	0	0	0	0	0	0
Control Delay (s)	16.3	16.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	C						
Approach Delay (s)	16.3	1.0				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	30	40	1950	1630	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	0.91	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	5061	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	5061	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	32	42	2053	1716	32
RTOR Reduction (vph)	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	74	2053	1747	0
Confl. Peds. (#/hr)							32
Confl. Bikes (#/hr)							3
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				8.0	70.0	74.0	
Effective Green, g (s)				8.0	70.0	74.0	
Actuated g/C Ratio				0.09	0.78	0.82	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				157	3823	4161	
v/s Ratio Prot				c0.04	c0.42	c0.35	
v/s Ratio Perm							
v/c Ratio				0.47	0.54	0.42	
Uniform Delay, d1				39.0	3.8	2.2	
Progression Factor				1.00	1.00	1.55	
Incremental Delay, d2				2.2	0.5	0.3	
Delay (s)				41.2	4.4	3.6	
Level of Service				D	A	A	
Approach Delay (s)	0.0				5.6	3.6	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	90	310	50	670	570	1030	10	70	700	580	640	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3446		4990	3539	1514		1770	5085	1543	3433	5037
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3446		4990	3539	1514		1770	5085	1543	3433	5037
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	326	53	705	600	1084	11	74	737	611	674	1053
RTOR Reduction (vph)	0	8	0	0	0	18	0	0	0	189	0	3
Lane Group Flow (vph)	95	371	0	705	600	1066	0	85	737	422	674	1103
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		12.1	42.8	42.8	45.5	77.2
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		12.1	42.8	42.8	45.5	77.2
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.07	0.26	0.26	0.28	0.47
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	818		632	1068	915		129	1319	400	946	2356
v/s Ratio Prot	0.05	0.11		c0.14	0.17	c0.32		0.05	0.14		0.20	0.22
v/s Ratio Perm						0.38				c0.27		
v/c Ratio	1.03	0.45		1.12	0.56	1.17		0.66	0.56	1.06	0.71	0.47
Uniform Delay, d1	78.2	53.8		72.0	48.4	34.9		74.4	52.9	61.1	53.9	29.9
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	103.0	1.8		71.9	2.1	86.3		8.9	1.7	60.3	2.1	0.1
Delay (s)	181.2	55.6		143.9	50.6	121.2		83.4	54.6	121.4	56.0	30.1
Level of Service	F	E		F	D	F		F	D	F	E	C
Approach Delay (s)		80.7			110.2				84.8			39.9
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	81.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	118.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	50
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	53
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	250	100	100	30	110	200	10	100	960	30	50	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1696			3502	1507		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1696			3502	1507		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	275	110	110	33	121	220	11	110	1055	33	55	198
RTOR Reduction (vph)	0	25	0	0	0	198	0	0	0	21	0	0
Lane Group Flow (vph)	275	195	0	0	154	22	0	121	1055	12	0	253
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	22.2	22.2			10.7	10.7		7.0	40.7	40.7		20.5
Effective Green, g (s)	22.2	22.2			10.7	10.7		7.0	40.7	40.7		20.5
Actuated g/C Ratio	0.20	0.20			0.10	0.10		0.06	0.37	0.37		0.19
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	360	345			343	147		113	1896	580		332
v/s Ratio Prot	c0.16	0.11			c0.04			c0.07	0.21			c0.14
v/s Ratio Perm						0.01				0.01		
v/c Ratio	0.76	0.56			0.45	0.15		1.07	0.56	0.02		0.76
Uniform Delay, d1	41.0	39.1			46.4	45.0		51.0	27.1	21.6		42.0
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	9.3	2.1			0.9	0.5		105.0	1.2	0.1		9.9
Delay (s)	50.3	41.2			47.4	45.5		156.0	28.2	21.7		51.9
Level of Service	D	D			D	D		F	C	C		D
Approach Delay (s)		46.2			46.3				40.9			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	109.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1600	310
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1523
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1523
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1758	341
RTOR Reduction (vph)	0	60
Lane Group Flow (vph)	1758	281
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.2	54.2
Effective Green, g (s)	54.2	54.2
Actuated g/C Ratio	0.50	0.50
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2526	756
v/s Ratio Prot	c0.35	
v/s Ratio Perm		0.18
v/c Ratio	0.70	0.37
Uniform Delay, d1	21.1	16.9
Progression Factor	1.00	1.00
Incremental Delay, d2	1.6	1.4
Delay (s)	22.7	18.3
Level of Service	C	B
Approach Delay (s)	25.2	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	240	190	240	20	220	80	280	750	20	20	110	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3056			3395		1770	5085	1559		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3056			3395		1770	5085	1559		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	245	194	245	20	224	82	286	765	20	20	112	847
RTOR Reduction (vph)	0	160	0	0	24	0	0	0	11	0	0	0
Lane Group Flow (vph)	220	304	0	0	302	0	286	765	9	0	132	847
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	24.3	24.3			14.9		23.7	51.4	51.4		14.1	41.8
Effective Green, g (s)	24.3	24.3			14.9		23.7	51.4	51.4		14.1	41.8
Actuated g/C Ratio	0.20	0.20			0.13		0.20	0.43	0.43		0.12	0.35
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	329	625			426		353	2201	675		210	1790
v/s Ratio Prot	c0.14	0.10			c0.09		c0.16	0.15			0.07	c0.17
v/s Ratio Perm									0.01			
v/c Ratio	0.67	0.49			0.71		0.81	0.35	0.01		0.63	0.47
Uniform Delay, d1	43.5	41.7			49.8		45.4	22.5	19.2		49.8	29.9
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.1	0.6			5.4		13.1	0.4	0.0		5.8	0.9
Delay (s)	48.6	42.3			55.2		58.5	22.9	19.2		55.6	30.8
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		44.3			55.2			32.3				30.7
Approach LOS		D			E			C				C

Intersection Summary			
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	118.7	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	180
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	184
RTOR Reduction (vph)	69
Lane Group Flow (vph)	115
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	66.1
Effective Green, g (s)	66.1
Actuated g/C Ratio	0.56
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	881
v/s Ratio Prot	0.03
v/s Ratio Perm	0.05
v/c Ratio	0.13
Uniform Delay, d1	12.6
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	12.6
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	0	200	10	20	10	130	240	10	0	130	100
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	72	0	206	10	21	10	134	247	10	0	134	103
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	748	722	194	919	769	278	243			263		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	748	722	194	919	769	278	243			263		
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 %	74	100	76	94	93	99	90			100		
cM capacity (veh/h)	275	314	842	173	295	745	1317			1296		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	72	206	41	134	258	237
Volume Left	72	0	10	134	0	0
Volume Right	0	206	10	0	10	103
cSH	275	842	288	1317	1700	1296
Volume to Capacity	0.26	0.24	0.14	0.10	0.15	0.00
Queue Length 95th (ft)	26	24	12	8	0	0
Control Delay (s)	22.7	10.7	19.6	8.0	0.0	0.0
Lane LOS	C	B	C	A		
Approach Delay (s)	13.8		19.6	2.8		0.0
Approach LOS	B		C			

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	47.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	1140	270	390	1580	170	360	50	500	400	50	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1499	2477	5085	1552	3433	1863	1574	3433	1863	1470
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1499	2477	5085	1552	3433	1863	1574	3433	1863	1470
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	91	1152	273	394	1596	172	364	51	505	404	51	232
RTOR Reduction (vph)	0	0	99	0	0	57	0	0	48	0	0	195
Lane Group Flow (vph)	91	1152	174	394	1596	115	364	51	457	404	51	37
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	11.3	47.1	47.1	25.7	61.5	61.5	18.4	18.4	44.1	20.6	20.6	20.6
Effective Green, g (s)	11.3	47.1	47.1	25.7	61.5	61.5	18.4	18.4	44.1	20.6	20.6	20.6
Actuated g/C Ratio	0.09	0.36	0.36	0.20	0.47	0.47	0.14	0.14	0.34	0.16	0.16	0.16
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	154	1845	543	490	2409	735	486	264	534	544	295	233
v/s Ratio Prot	0.05	c0.23		0.16	c0.31		0.11	0.03	c0.17	c0.12	0.03	
v/s Ratio Perm			0.12			0.07			0.12			0.03
v/c Ratio	0.59	0.62	0.32	0.80	0.66	0.16	0.75	0.19	0.86	0.74	0.17	0.16
Uniform Delay, d1	57.0	34.1	29.8	49.6	26.2	19.4	53.5	49.2	39.9	52.1	47.2	47.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	1.6	1.6	8.8	1.5	0.5	5.5	0.1	12.3	4.8	0.1	0.1
Delay (s)	61.0	35.7	31.4	58.4	27.6	19.9	59.0	49.3	52.3	56.8	47.3	47.2
Level of Service	E	D	C	E	C	B	E	D	D	E	D	D
Approach Delay (s)		36.4			32.6			54.7			52.9	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	129.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1180	840	0	1170	150	0	0	0	400	0	1090
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4600	1336		5085	1547				1681	1454	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4600	1336		5085	1547				1681	1454	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1242	884	0	1232	158	0	0	0	421	0	1147
RTOR Reduction (vph)	0	45	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1595	486	0	1232	158	0	0	0	379	587	590
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		50.2	115.0		50.2	115.0				57.8	57.8	57.8
Effective Green, g (s)		50.2	115.0		50.2	115.0				57.8	57.8	57.8
Actuated g/C Ratio		0.44	1.00		0.44	1.00				0.50	0.50	0.50
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		2008	1336		2219	1547				844	730	755
v/s Ratio Prot		c0.35			0.24							
v/s Ratio Perm			0.36			0.10				0.23	0.40	0.39
v/c Ratio		0.79	0.36		0.56	0.10				0.45	0.80	0.78
Uniform Delay, d1		27.9	0.0		24.1	0.0				18.4	23.9	23.4
Progression Factor		1.00	1.00		0.54	1.00				1.00	1.00	1.00
Incremental Delay, d2		3.3	0.8		1.0	0.1				0.4	6.4	5.3
Delay (s)		31.3	0.8		13.9	0.1				18.8	30.3	28.7
Level of Service		C	A		B	A				B	C	C
Approach Delay (s)		24.3			12.3			0.0			26.9	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	670	970	0	530	790	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	691	1000	0	546	814	93
RTOR Reduction (vph)	0	0	0	0	0	44
Lane Group Flow (vph)	691	1000	0	546	814	49
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	72.8	115.0		72.8	35.2	35.2
Effective Green, g (s)	72.8	115.0		72.8	35.2	35.2
Actuated g/C Ratio	0.63	1.00		0.63	0.31	0.31
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2240	1532		2240	1050	484
v/s Ratio Prot	0.20			0.15	c0.24	
v/s Ratio Perm		c0.65				0.03
v/c Ratio	0.31	0.65		0.24	0.78	0.10
Uniform Delay, d1	9.6	0.0		9.2	36.3	28.6
Progression Factor	0.37	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	1.5		0.3	3.6	0.1
Delay (s)	3.8	1.5		9.4	39.9	28.7
Level of Service	A	A		A	D	C
Approach Delay (s)	2.5			9.4	38.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	100	50	151	70	60	40	10	104	953	30	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1750	1616			1748			1770	5051			1770
Flt Permitted	0.53	1.00			0.56			0.95	1.00			0.95
Satd. Flow (perm)	985	1616			994			1770	5051			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	104	52	157	73	62	42	10	108	993	31	21	42
RTOR Reduction (vph)	0	130	0	0	17	0	0	0	3	0	0	0
Lane Group Flow (vph)	104	79	0	0	161	0	0	118	1021	0	0	63
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	14.0	14.0			14.0			9.3	48.9			7.1
Effective Green, g (s)	14.0	14.0			14.0			9.3	48.9			7.1
Actuated g/C Ratio	0.18	0.18			0.18			0.12	0.61			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	172	282			173			205	3087			157
v/s Ratio Prot		0.05						c0.07	0.20			0.04
v/s Ratio Perm	0.11				c0.16							
v/c Ratio	0.60	0.28			0.93			0.58	0.33			0.40
Uniform Delay, d1	30.4	28.6			32.5			33.5	7.6			34.4
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	5.9	0.6			47.4			3.9	0.3			1.7
Delay (s)	36.3	29.2			79.9			37.4	7.9			36.1
Level of Service	D	C			E			D	A			D
Approach Delay (s)		31.6			79.9				10.9			
Approach LOS		C			E				B			

Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1488	50
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5056	
Flt Permitted	1.00	
Satd. Flow (perm)	5056	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1550	52
RTOR Reduction (vph)	3	0
Lane Group Flow (vph)	1599	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	46.7	
Effective Green, g (s)	46.7	
Actuated g/C Ratio	0.58	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2951	
v/s Ratio Prot	c0.32	
v/s Ratio Perm		
v/c Ratio	0.54	
Uniform Delay, d1	10.1	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	10.9	
Level of Service	B	
Approach Delay (s)	11.8	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	50	1096	1679	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	51	1118	1713	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.86	0.82	0.00	0.82			
vC, conflicting volume	2217	599	0	1752			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1207	0	0	1146			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	92	94	0	90			
cM capacity (veh/h)	133	875	0	489			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	51	373	373	373	685	685	363
Volume Left	10	51	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	454	489	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.13	0.10	0.22	0.22	0.22	0.40	0.40	0.21
Queue Length 95th (ft)	12	9	0	0	0	0	0	0
Control Delay (s)	14.2	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	14.2	0.6				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	85	0	30	20	20	1066	111	47	1712
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	*0.80
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4844		1770	4465
Flt Permitted					0.95	1.00		0.95	1.00		0.17	1.00
Satd. Flow (perm)					1770	1583		1770	4844		319	4465
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	92	0	33	21	21	1122	121	51	1802
RTOR Reduction (vph)	0	0	0	0	0	30	0	0	7	0	0	0
Lane Group Flow (vph)	0	0	0	0	92	3	0	42	1236	0	51	1813
Confl. Peds. (#/hr)								10				
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					9.2	9.2		5.5	66.4		73.3	73.3
Effective Green, g (s)					9.2	9.2		5.5	66.4		73.3	73.3
Actuated g/C Ratio					0.09	0.09		0.06	0.66		0.73	0.73
Clearance Time (s)					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
Lane Grp Cap (vph)					162	145		97	3216		233	3272
v/s Ratio Prot								c0.02	0.26			c0.41
v/s Ratio Perm					0.05	0.00					0.16	
v/c Ratio					0.57	0.02		0.43	0.38		0.22	0.55
Uniform Delay, d1					43.5	41.3		45.7	7.6		4.2	6.0
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					4.5	0.1		3.1	0.3		2.2	0.7
Delay (s)					48.0	41.4		48.8	7.9		6.4	6.7
Level of Service					D	D		D	A		A	A
Approach Delay (s)		0.0			46.3				9.3			6.7
Approach LOS		A			D				A			A

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	10
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	11
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	10
Confl. Bikes (#/hr)	9
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	112	660	50	410	190	670	10	20	538	576	807	941
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3488		4990	3539	1498		1770	5085	1561	3433	5055
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3488		4990	3539	1498		1770	5085	1561	3433	5055
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	114	673	51	418	194	684	10	20	549	588	823	960
RTOR Reduction (vph)	0	3	0	0	0	32	0	0	0	108	0	2
Lane Group Flow (vph)	114	721	0	418	194	652	0	30	549	480	823	989
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.8	40.3		15.8	43.6	84.7		6.2	42.7	42.7	41.1	78.6
Effective Green, g (s)	10.8	40.3		15.8	43.6	84.7		6.2	42.7	42.7	41.1	78.6
Actuated g/C Ratio	0.07	0.26		0.10	0.28	0.54		0.04	0.27	0.27	0.26	0.50
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	122	898		503	985	853		70	1387	425	901	2538
v/s Ratio Prot	0.06	0.21		c0.08	0.05	c0.20		0.02	0.11		c0.24	0.20
v/s Ratio Perm						0.23				c0.31		
v/c Ratio	0.93	0.80		0.83	0.20	0.76		0.43	0.40	1.13	0.91	0.39
Uniform Delay, d1	72.5	54.4		69.0	43.1	28.1		73.4	46.4	56.9	56.0	24.1
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	60.3	7.5		10.7	0.4	3.7		1.5	0.8	84.2	13.2	0.1
Delay (s)	132.8	61.9		79.7	43.5	31.8		75.0	47.2	141.1	69.2	24.2
Level of Service	F	E		E	D	C		E	D	F	E	C
Approach Delay (s)		71.6			49.0				95.2			44.6
Approach LOS		E			D				F			D

Intersection Summary			
HCM 2000 Control Delay	61.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	156.5	Sum of lost time (s)	18.3
Intersection Capacity Utilization	109.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	262	132	80	34	61	136	60	886	62	20	192	897
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1729			3477	1484	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1729			3477	1484	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	276	139	84	36	64	143	63	933	65	21	202	944
RTOR Reduction (vph)	0	16	0	0	0	131	0	0	39	0	0	0
Lane Group Flow (vph)	276	207	0	0	100	12	63	933	26	0	223	944
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			8.5	8.5	5.5	39.4	39.4		17.3	51.2
Effective Green, g (s)	19.1	19.1			8.5	8.5	5.5	39.4	39.4		17.3	51.2
Actuated g/C Ratio	0.19	0.19			0.09	0.09	0.06	0.40	0.40		0.17	0.52
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	340	332			297	127	98	2017	613		308	2621
v/s Ratio Prot	c0.16	0.12			c0.03		0.04	c0.18			c0.13	0.19
v/s Ratio Perm						0.01			0.02			
v/c Ratio	0.81	0.62			0.34	0.10	0.64	0.46	0.04		0.72	0.36
Uniform Delay, d1	38.4	36.8			42.7	41.9	45.9	22.1	18.4		38.7	14.3
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	13.7	3.6			0.7	0.3	13.5	0.8	0.1		8.2	0.4
Delay (s)	52.1	40.4			43.4	42.2	59.5	22.9	18.5		46.9	14.7
Level of Service	D	D			D	D	E	C	B		D	B
Approach Delay (s)		46.9			42.7			24.8				19.5
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	27.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	99.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	281
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	296
RTOR Reduction (vph)	102
Lane Group Flow (vph)	194
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.2
Effective Green, g (s)	51.2
Actuated g/C Ratio	0.52
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	791
v/s Ratio Prot	
v/s Ratio Perm	0.13
v/c Ratio	0.24
Uniform Delay, d1	13.3
Progression Factor	1.00
Incremental Delay, d2	0.7
Delay (s)	14.1
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	260	270	190	27	209	30	280	758	40	10	150	542
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3183			3462		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			0.99		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3183			3462		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	289	300	211	30	232	33	311	842	44	11	167	602
RTOR Reduction (vph)	0	68	0	0	7	0	0	0	25	0	0	0
Lane Group Flow (vph)	260	472	0	0	288	0	311	842	19	0	178	602
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	27.9	27.9			12.9		25.9	54.6	54.6		16.8	45.5
Effective Green, g (s)	27.9	27.9			12.9		25.9	54.6	54.6		16.8	45.5
Actuated g/C Ratio	0.22	0.22			0.10		0.21	0.43	0.43		0.13	0.36
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	355	703			353		363	2200	684		235	1833
v/s Ratio Prot	c0.16	0.15			c0.08		c0.18	c0.17			0.10	0.12
v/s Ratio Perm									0.01			
v/c Ratio	0.73	0.67			0.82		0.86	0.38	0.03		0.76	0.33
Uniform Delay, d1	45.7	45.0			55.5		48.4	24.3	20.6		52.7	29.3
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.6	2.5			13.5		17.7	0.5	0.1		13.0	0.5
Delay (s)	53.3	47.5			69.0		66.0	24.8	20.6		65.8	29.7
Level of Service	D	D			E		E	C	C		E	C
Approach Delay (s)		49.4			69.0			35.4				32.5
Approach LOS		D			E			D				C

Intersection Summary			
HCM 2000 Control Delay	41.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	126.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	190
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	211
RTOR Reduction (vph)	51
Lane Group Flow (vph)	160
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	73.4
Effective Green, g (s)	73.4
Actuated g/C Ratio	0.58
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	909
v/s Ratio Prot	0.04
v/s Ratio Perm	0.06
v/c Ratio	0.18
Uniform Delay, d1	12.3
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	12.4
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	96	10	250	10	10	10	10	70	196	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	112	12	291	12	12	12	0	81	228	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	700	712	238	981	759	314	0	291			289
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	700	712	238	981	759	314	0	291			289
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	62	96	63	90	96	98	0	93			99
cM capacity (veh/h)	0	291	312	787	121	293	679	0	1248			1221

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	123	291	35	81	240	280
Volume Left	112	0	12	81	0	12
Volume Right	0	291	12	0	12	106
cSH	293	787	228	1248	1700	1221
Volume to Capacity	0.42	0.37	0.15	0.07	0.14	0.01
Queue Length 95th (ft)	50	43	13	5	0	1
Control Delay (s)	25.9	12.2	23.6	8.1	0.0	0.4
Lane LOS	D	B	C	A		A
Approach Delay (s)	16.3		23.6	2.1		0.4
Approach LOS	C		C			

Intersection Summary				
Average Delay	8.0			
Intersection Capacity Utilization	65.8%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	140	91
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	163	106
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	1543	350	440	1084	490	136	120	240	120	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1521	2477	5085	1561	3433	1863	1576	3433	1863	1457
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1521	2477	5085	1561	3433	1863	1576	3433	1863	1457
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	344	1607	365	458	1129	510	142	125	250	125	31	52
RTOR Reduction (vph)	0	0	91	0	0	257	0	0	110	0	0	48
Lane Group Flow (vph)	344	1607	274	458	1129	253	142	125	140	125	31	4
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.1	60.2	60.2	29.4	64.5	64.5	13.1	13.1	42.5	9.2	9.2	9.2
Effective Green, g (s)	25.1	60.2	60.2	29.4	64.5	64.5	13.1	13.1	42.5	9.2	9.2	9.2
Actuated g/C Ratio	0.19	0.46	0.46	0.23	0.50	0.50	0.10	0.10	0.33	0.07	0.07	0.07
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	342	2356	704	560	2524	775	346	187	515	243	131	103
v/s Ratio Prot	c0.19	c0.32		c0.18	0.22		0.04	c0.07	0.06	c0.04	0.02	
v/s Ratio Perm			0.18			0.16			0.03			0.00
v/c Ratio	1.01	0.68	0.39	0.82	0.45	0.33	0.41	0.67	0.27	0.51	0.24	0.04
Uniform Delay, d1	52.4	27.3	22.8	47.7	21.2	19.7	54.8	56.3	32.3	58.2	57.0	56.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	50.1	1.6	1.6	8.6	0.6	1.1	0.3	6.8	0.1	0.8	0.3	0.1
Delay (s)	102.5	29.0	24.4	56.3	21.7	20.8	55.1	63.1	32.4	59.0	57.4	56.3
Level of Service	F	C	C	E	C	C	E	E	C	E	E	E
Approach Delay (s)		39.2			29.1			46.0			58.1	
Approach LOS		D			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	129.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1234	678	0	1136	100	0	0	0	560	0	1027
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.98	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4666	1337		5085	1551				1681	1443	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4666	1337		5085	1551				1681	1443	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1259	692	0	1159	102	0	0	0	571	0	1048
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1482	443	0	1159	102	0	0	0	514	554	539
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		36.0	90.0		36.0	90.0				46.8	46.8	46.8
Effective Green, g (s)		36.0	90.0		36.0	90.0				46.8	46.8	46.8
Actuated g/C Ratio		0.40	1.00		0.40	1.00				0.52	0.52	0.52
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1866	1337		2034	1551				874	750	772
v/s Ratio Prot		c0.32			0.23							
v/s Ratio Perm			0.33			0.07				0.31	0.38	0.36
v/c Ratio		0.79	0.33		0.57	0.07				0.59	0.74	0.70
Uniform Delay, d1		23.7	0.0		21.0	0.0				14.9	16.8	16.3
Progression Factor		1.00	1.00		0.64	1.00				1.00	1.00	1.00
Incremental Delay, d2		3.6	0.7		0.9	0.1				1.0	3.8	2.8
Delay (s)		27.3	0.7		14.4	0.1				16.0	20.7	19.1
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		21.3			13.2			0.0			18.6	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	914	881	0	206	1020	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	942	908	0	212	1052	206
RTOR Reduction (vph)	0	0	0	0	0	59
Lane Group Flow (vph)	942	908	0	212	1052	147
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	50.5	90.0		50.5	32.5	32.5
Effective Green, g (s)	50.5	90.0		50.5	32.5	32.5
Actuated g/C Ratio	0.56	1.00		0.56	0.36	0.36
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1985	1528		1985	1239	562
v/s Ratio Prot	0.27			0.06	c0.31	
v/s Ratio Perm		c0.59				0.09
v/c Ratio	0.47	0.59		0.11	0.85	0.26
Uniform Delay, d1	11.8	0.0		9.2	26.5	20.3
Progression Factor	0.62	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	1.2		0.1	5.6	0.2
Delay (s)	7.9	1.2		9.3	32.1	20.5
Level of Service	A	A		A	C	C
Approach Delay (s)	4.6			9.3	30.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	160	50	130	90	30	30	10	196	1644	80	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1757	1629			1740			1770	5023			1770
Flt Permitted	0.64	1.00			0.56			0.95	1.00			0.95
Satd. Flow (perm)	1182	1629			1003			1770	5023			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	165	52	134	93	31	31	10	202	1695	82	31	52
RTOR Reduction (vph)	0	108	0	0	11	0	0	0	4	0	0	0
Lane Group Flow (vph)	165	78	0	0	144	0	0	212	1773	0	0	83
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	17.7	17.7			17.7			15.4	54.0			8.3
Effective Green, g (s)	17.7	17.7			17.7			15.4	54.0			8.3
Actuated g/C Ratio	0.20	0.20			0.20			0.17	0.60			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	232	320			197			302	3013			163
v/s Ratio Prot		0.05						c0.12	c0.35			0.05
v/s Ratio Perm	0.14				c0.14							
v/c Ratio	0.71	0.24			0.73			0.70	0.59			0.51
Uniform Delay, d1	33.8	30.5			33.9			35.1	11.1			38.9
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	9.8	0.4			12.7			7.2	0.8			2.5
Delay (s)	43.6	30.9			46.6			42.3	12.0			41.4
Level of Service	D	C			D			D	B			D
Approach Delay (s)		36.9			46.6				15.2			
Approach LOS		D			D				B			

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1441	80
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5034	
Flt Permitted	1.00	
Satd. Flow (perm)	5034	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1486	82
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1563	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	46.9	
Effective Green, g (s)	46.9	
Actuated g/C Ratio	0.52	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2623	
v/s Ratio Prot	0.31	
v/s Ratio Perm		
v/c Ratio	0.60	
Uniform Delay, d1	15.0	
Progression Factor	1.00	
Incremental Delay, d2	1.0	
Delay (s)	16.0	
Level of Service	B	
Approach Delay (s)	17.3	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	120	1931	1651	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	126	2033	1738	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.83	0.79	0.00	0.79			
vC, conflicting volume	2781	682	0	1862			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	743	0	0	1173			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	94	91	0	71			
cM capacity (veh/h)	191	801	0	437			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	126	678	678	678	695	695	390
Volume Left	11	126	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	573	437	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.15	0.29	0.40	0.40	0.40	0.41	0.41	0.23
Queue Length 95th (ft)	13	30	0	0	0	0	0	0
Control Delay (s)	12.4	16.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	C						
Approach Delay (s)	12.4	1.0				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	167	0	60	30	40	1981	95	40	1640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	0.91
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4881		1770	5059
Flt Permitted					0.95	1.00		0.95	1.00		0.05	1.00
Satd. Flow (perm)					1770	1583		1770	4881		100	5059
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	182	0	65	32	42	2085	103	43	1726
RTOR Reduction (vph)	0	0	0	0	0	56	0	0	3	0	0	1
Lane Group Flow (vph)	0	0	0	0	182	9	0	74	2185	0	43	1757
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					14.7	14.7		8.8	71.3		74.5	74.5
Effective Green, g (s)					14.7	14.7		8.8	71.3		74.5	74.5
Actuated g/C Ratio					0.13	0.13		0.08	0.65		0.68	0.68
Clearance Time (s)					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
Lane Grp Cap (vph)					236	211		141	3163		67	3426
v/s Ratio Prot								c0.04	c0.45			0.35
v/s Ratio Perm					0.10	0.01					c0.43	
v/c Ratio					0.77	0.04		0.52	0.69		0.64	0.51
Uniform Delay, d1					46.0	41.5		48.6	12.3		10.1	8.8
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					14.4	0.1		3.5	1.3		38.8	0.6
Delay (s)					60.4	41.6		52.1	13.6		48.9	9.3
Level of Service					E	D		D	B		D	A
Approach Delay (s)		0.0			55.5				14.8			10.3
Approach LOS		A			E				B			B

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	32
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	32
Confl. Bikes (#/hr)	3
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	109	310	50	670	570	1175	10	70	741	630	790	1027
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3446		4990	3539	1514		1770	5085	1543	3433	5038
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3446		4990	3539	1514		1770	5085	1543	3433	5038
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	115	326	53	705	600	1237	11	74	780	663	832	1081
RTOR Reduction (vph)	0	8	0	0	0	18	0	0	0	181	0	3
Lane Group Flow (vph)	115	371	0	705	600	1219	0	85	780	482	832	1131
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		12.1	42.8	42.8	45.5	77.2
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		12.1	42.8	42.8	45.5	77.2
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.07	0.26	0.26	0.28	0.47
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	818		632	1068	915		129	1319	400	946	2357
v/s Ratio Prot	0.06	0.11		c0.14	0.17	c0.37		0.05	0.15		0.24	0.22
v/s Ratio Perm						0.44				c0.31		
v/c Ratio	1.25	0.45		1.12	0.56	1.33		0.66	0.59	1.20	0.88	0.48
Uniform Delay, d1	78.2	53.8		72.0	48.4	34.9		74.4	53.4	61.1	57.1	30.1
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	175.3	1.8		71.9	2.1	157.1		8.9	2.0	113.3	9.1	0.2
Delay (s)	253.5	55.6		143.9	50.6	192.0		83.4	55.4	174.4	66.2	30.3
Level of Service	F	E		F	D	F		F	E	F	E	C
Approach Delay (s)		101.6			145.3				108.6			45.5
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	103.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	127.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	50
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	53
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	252	102	100	58	113	250	10	100	999	40	50	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1697			3480	1506		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1697			3480	1506		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	277	112	110	64	124	275	11	110	1098	44	55	209
RTOR Reduction (vph)	0	25	0	0	0	220	0	0	0	28	0	0
Lane Group Flow (vph)	277	197	0	0	188	55	0	121	1098	16	0	264
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	22.5	22.5			12.7	12.7		7.0	39.9	39.9		21.4
Effective Green, g (s)	22.5	22.5			12.7	12.7		7.0	39.9	39.9		21.4
Actuated g/C Ratio	0.20	0.20			0.11	0.11		0.06	0.36	0.36		0.19
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	357	342			396	171		111	1819	557		339
v/s Ratio Prot	c0.16	0.12			c0.05			c0.07	0.22			c0.15
v/s Ratio Perm						0.04				0.01		
v/c Ratio	0.78	0.58			0.47	0.32		1.09	0.60	0.03		0.78
Uniform Delay, d1	42.1	40.2			46.3	45.4		52.2	29.3	23.2		42.8
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	10.1	2.4			0.9	1.1		111.7	1.5	0.1		10.8
Delay (s)	52.2	42.6			47.2	46.5		164.0	30.8	23.3		53.6
Level of Service	D	D			D	D		F	C	C		D
Approach Delay (s)		47.9			46.8				43.3			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	35.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	111.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1614	313
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1522
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1522
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1774	344
RTOR Reduction (vph)	0	62
Lane Group Flow (vph)	1774	282
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.3	54.3
Effective Green, g (s)	54.3	54.3
Actuated g/C Ratio	0.49	0.49
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2476	741
v/s Ratio Prot	c0.35	
v/s Ratio Perm		0.19
v/c Ratio	0.72	0.38
Uniform Delay, d1	22.5	18.0
Progression Factor	1.00	1.00
Incremental Delay, d2	1.8	1.5
Delay (s)	24.3	19.5
Level of Service	C	B
Approach Delay (s)	26.9	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	248	190	240	34	237	80	280	791	20	20	110	873
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.97		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3056			3401		1770	5085	1559		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3056			3401		1770	5085	1559		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	253	194	245	35	242	82	286	807	20	20	112	891
RTOR Reduction (vph)	0	159	0	0	20	0	0	0	11	0	0	0
Lane Group Flow (vph)	228	305	0	0	339	0	286	807	9	0	132	891
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	24.8	24.8			15.7		23.9	51.4	51.4		14.2	41.7
Effective Green, g (s)	24.8	24.8			15.7		23.9	51.4	51.4		14.2	41.7
Actuated g/C Ratio	0.21	0.21			0.13		0.20	0.43	0.43		0.12	0.35
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	332	631			444		352	2176	667		209	1765
v/s Ratio Prot	c0.14	0.10			c0.10		c0.16	0.16			0.07	c0.18
v/s Ratio Perm									0.01			
v/c Ratio	0.69	0.48			0.76		0.81	0.37	0.01		0.63	0.50
Uniform Delay, d1	44.1	42.0			50.4		46.0	23.4	19.8		50.5	31.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.8	0.6			7.6		13.3	0.5	0.0		6.1	1.0
Delay (s)	49.9	42.6			58.0		59.3	23.8	19.8		56.6	32.1
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		45.0			58.0			32.9				31.8
Approach LOS		D			E			C				C

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.1	Sum of lost time (s)	14.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	180
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	184
RTOR Reduction (vph)	66
Lane Group Flow (vph)	118
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	66.5
Effective Green, g (s)	66.5
Actuated g/C Ratio	0.55
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	876
v/s Ratio Prot	0.03
v/s Ratio Perm	0.05
v/c Ratio	0.13
Uniform Delay, d1	12.9
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	13.0
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	93	0	200	10	20	10	130	245	10	0	169	181
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	96	0	206	10	21	10	134	253	10	0	174	187
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	835	809	276	1006	898	283	367			268		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	835	809	276	1006	898	283	367			268		
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 %	59	100	73	93	92	99	89			100		
cM capacity (veh/h)	236	276	758	144	245	740	1186			1290		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	96	206	41	134	263	361
Volume Left	96	0	10	134	0	0
Volume Right	0	206	10	0	10	187
cSH	236	758	243	1186	1700	1290
Volume to Capacity	0.41	0.27	0.17	0.11	0.15	0.00
Queue Length 95th (ft)	47	28	15	10	0	0
Control Delay (s)	30.4	11.5	22.8	8.4	0.0	0.0
Lane LOS	D	B	C	A		
Approach Delay (s)	17.5		22.8	2.8		0.0
Approach LOS	C		C			

Intersection Summary				
Average Delay	6.7			
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												
Volume (vph)	90	1321	289	390	1712	170	374	50	500	400	50	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1498	2477	5085	1552	3433	1863	1574	3433	1863	1470
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1498	2477	5085	1552	3433	1863	1574	3433	1863	1470
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	91	1334	292	394	1729	172	378	51	505	404	51	232
RTOR Reduction (vph)	0	0	92	0	0	53	0	0	47	0	0	195
Lane Group Flow (vph)	91	1334	200	394	1729	119	378	51	458	404	51	37
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	11.3	47.1	47.1	25.7	61.5	61.5	19.0	19.0	44.7	20.7	20.7	20.7
Effective Green, g (s)	11.3	47.1	47.1	25.7	61.5	61.5	19.0	19.0	44.7	20.7	20.7	20.7
Actuated g/C Ratio	0.09	0.36	0.36	0.20	0.47	0.47	0.15	0.15	0.34	0.16	0.16	0.16
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	153	1835	540	487	2396	731	499	271	539	544	295	233
v/s Ratio Prot	0.05	c0.26		0.16	0.34		0.11	0.03	c0.17	c0.12	0.03	
v/s Ratio Perm			0.13			0.08			0.12			0.03
v/c Ratio	0.59	0.73	0.37	0.81	0.72	0.16	0.76	0.19	0.85	0.74	0.17	0.16
Uniform Delay, d1	57.4	36.1	30.8	50.1	27.6	19.8	53.5	49.0	39.8	52.4	47.5	47.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.1	2.6	1.9	9.1	1.9	0.5	5.8	0.1	11.4	4.8	0.1	0.1
Delay (s)	61.5	38.7	32.7	59.1	29.6	20.2	59.3	49.1	51.2	57.1	47.6	47.5
Level of Service	E	D	C	E	C	C	E	D	D	E	D	D
Approach Delay (s)		38.9			33.9			54.4			53.2	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	130.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1267	935	0	1244	150	0	0	0	400	0	1148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4590	1336		5085	1547				1681	1453	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4590	1336		5085	1547				1681	1453	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1334	984	0	1309	158	0	0	0	421	0	1208
RTOR Reduction (vph)	0	49	0	0	0	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	1738	531	0	1309	158	0	0	0	379	618	624
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		48.6	115.0		48.6	115.0				59.4	59.4	59.4
Effective Green, g (s)		48.6	115.0		48.6	115.0				59.4	59.4	59.4
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.52	0.52	0.52
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1939	1336		2148	1547				868	750	776
v/s Ratio Prot		c0.38			0.26							
v/s Ratio Perm			0.40			0.10				0.23	0.43	0.41
v/c Ratio		0.90	0.40		0.61	0.10				0.44	0.82	0.80
Uniform Delay, d1		30.9	0.0		25.8	0.0				17.4	23.4	23.0
Progression Factor		1.00	1.00		0.57	1.00				1.00	1.00	1.00
Incremental Delay, d2		7.0	0.9		1.2	0.1				0.4	7.3	6.0
Delay (s)		37.8	0.9		15.9	0.1				17.7	30.7	29.0
Level of Service		D	A		B	A				B	C	C
Approach Delay (s)		29.4			14.2			0.0			27.0	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	678	1049	0	535	859	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	699	1081	0	552	886	93
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	699	1081	0	552	886	54
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	70.1	115.0		70.1	37.9	37.9
Effective Green, g (s)	70.1	115.0		70.1	37.9	37.9
Actuated g/C Ratio	0.61	1.00		0.61	0.33	0.33
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2157	1532		2157	1131	521
v/s Ratio Prot	0.20			0.16	c0.26	
v/s Ratio Perm		c0.71				0.03
v/c Ratio	0.32	0.71		0.26	0.78	0.10
Uniform Delay, d1	10.9	0.0		10.4	34.8	26.8
Progression Factor	0.34	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	1.7		0.3	3.6	0.1
Delay (s)	4.0	1.7		10.7	38.5	26.8
Level of Service	A	A		B	D	C
Approach Delay (s)	2.6			10.7	37.4	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	100	50	140	70	60	40	10	90	954	30	20	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1750	1621			1748			1770	5051			1770
Flt Permitted	0.53	1.00			0.59			0.95	1.00			0.95
Satd. Flow (perm)	985	1621			1050			1770	5051			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	104	52	146	73	62	42	10	94	994	31	21	42
RTOR Reduction (vph)	0	120	0	0	17	0	0	0	3	0	0	0
Lane Group Flow (vph)	104	78	0	0	161	0	0	104	1022	0	0	63
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	14.0	14.0			14.0			8.8	48.9			7.1
Effective Green, g (s)	14.0	14.0			14.0			8.8	48.9			7.1
Actuated g/C Ratio	0.18	0.18			0.18			0.11	0.61			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	172	283			183			194	3087			157
v/s Ratio Prot		0.05						c0.06	0.20			0.04
v/s Ratio Perm	0.11				c0.15							
v/c Ratio	0.60	0.27			0.88			0.54	0.33			0.40
Uniform Delay, d1	30.4	28.6			32.2			33.7	7.6			34.4
Progression Factor	1.00	1.00			1.00			0.91	1.40			1.00
Incremental Delay, d2	5.9	0.5			34.3			2.8	0.3			1.7
Delay (s)	36.3	29.1			66.5			33.3	10.9			36.1
Level of Service	D	C			E			C	B			D
Approach Delay (s)		31.6			66.5				13.0			
Approach LOS		C			E				B			

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1496	50
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	1.00	
Flt Protected	1.00	
Satd. Flow (prot)	5056	
Flt Permitted	1.00	
Satd. Flow (perm)	5056	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1558	52
RTOR Reduction (vph)	3	0
Lane Group Flow (vph)	1607	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	47.2	
Effective Green, g (s)	47.2	
Actuated g/C Ratio	0.59	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2983	
v/s Ratio Prot	c0.32	
v/s Ratio Perm		
v/c Ratio	0.54	
Uniform Delay, d1	9.9	
Progression Factor	1.00	
Incremental Delay, d2	0.7	
Delay (s)	10.6	
Level of Service	B	
Approach Delay (s)	11.5	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	50	1084	1676	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	51	1106	1710	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.82	0.82	0.00	0.82			
vC, conflicting volume	2210	598	0	1749			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1668	0	0	1148			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	84	94	0	90			
cM capacity (veh/h)	63	877	0	489			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	51	369	369	369	684	684	362
Volume Left	10	51	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	279	489	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.22	0.10	0.22	0.22	0.22	0.40	0.40	0.21
Queue Length 95th (ft)	20	9	0	0	0	0	0	0
Control Delay (s)	21.5	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B						
Approach Delay (s)	21.5	0.6				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	20	20	1084	1756	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	*0.80	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	4465	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	4465	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	21	21	1141	1848	11
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	42	1141	1859	0
Confl. Peds. (#/hr)				10			10
Confl. Bikes (#/hr)							9
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				5.1	65.8	66.9	
Effective Green, g (s)				5.1	65.8	66.9	
Actuated g/C Ratio				0.06	0.82	0.84	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				112	4043	3733	
v/s Ratio Prot				c0.02	0.23	c0.42	
v/s Ratio Perm							
v/c Ratio				0.38	0.28	0.50	
Uniform Delay, d1				35.9	1.6	1.8	
Progression Factor				1.00	1.00	1.52	
Incremental Delay, d2				2.1	0.2	0.4	
Delay (s)				38.0	1.8	3.2	
Level of Service				D	A	A	
Approach Delay (s)	0.0				3.1	3.2	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	3.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	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	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	90	691	50	455	209	534	10	20	490	624	786	920
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3490		4990	3539	1497		1770	5085	1561	3433	5054
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3490		4990	3539	1497		1770	5085	1561	3433	5054
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	92	705	51	464	213	545	10	20	500	637	802	939
RTOR Reduction (vph)	0	3	0	0	0	45	0	0	0	107	0	2
Lane Group Flow (vph)	92	753	0	464	213	500	0	30	500	530	802	968
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.3	39.5		16.3	43.8	83.9		4.9	43.5	43.5	40.1	79.7
Effective Green, g (s)	10.3	39.5		16.3	43.8	83.9		4.9	43.5	43.5	40.1	79.7
Actuated g/C Ratio	0.07	0.25		0.10	0.28	0.54		0.03	0.28	0.28	0.26	0.51
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	116	883		521	993	848		55	1417	435	882	2582
v/s Ratio Prot	0.05	c0.22		c0.09	0.06	0.15		0.02	0.10		c0.23	0.19
v/s Ratio Perm						0.18				c0.34		
v/c Ratio	0.79	0.85		0.89	0.21	0.59		0.55	0.35	1.22	0.91	0.37
Uniform Delay, d1	71.8	55.5		69.0	42.9	24.4		74.5	45.0	56.2	56.2	23.1
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	28.3	10.2		16.8	0.5	0.7		5.8	0.7	117.8	12.8	0.1
Delay (s)	100.1	65.7		85.8	43.4	25.1		80.3	45.7	174.1	69.0	23.2
Level of Service	F	E		F	D	C		F	D	F	E	C
Approach Delay (s)		69.4			51.3				116.7			43.9
Approach LOS		E			D				F			D

Intersection Summary			
HCM 2000 Control Delay	67.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	156.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	108.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	263	130	80	20	60	110	60	911	50	20	180	933
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1727			3496	1484	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1727			3496	1484	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	277	137	84	21	63	116	63	959	53	21	189	982
RTOR Reduction (vph)	0	16	0	0	0	107	0	0	31	0	0	0
Lane Group Flow (vph)	277	205	0	0	84	9	63	959	22	0	210	982
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.1	19.1			8.0	8.0	5.5	40.2	40.2		16.5	51.2
Effective Green, g (s)	19.1	19.1			8.0	8.0	5.5	40.2	40.2		16.5	51.2
Actuated g/C Ratio	0.19	0.19			0.08	0.08	0.06	0.41	0.41		0.17	0.52
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	342	333			283	120	98	2068	628		295	2635
v/s Ratio Prot	c0.16	0.12			c0.02		0.04	c0.19			c0.12	0.19
v/s Ratio Perm						0.01			0.01			
v/c Ratio	0.81	0.62			0.30	0.08	0.64	0.46	0.03		0.71	0.37
Uniform Delay, d1	38.1	36.5			42.8	42.0	45.7	21.4	17.6		38.9	14.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	13.2	3.4			0.6	0.3	13.5	0.8	0.1		7.9	0.4
Delay (s)	51.3	39.8			43.3	42.3	59.2	22.2	17.7		46.8	14.6
Level of Service	D	D			D	D	E	C	B		D	B
Approach Delay (s)		46.2			42.7			24.1				19.0
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	98.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	282
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	297
RTOR Reduction (vph)	98
Lane Group Flow (vph)	199
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.2
Effective Green, g (s)	51.2
Actuated g/C Ratio	0.52
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	795
v/s Ratio Prot	
v/s Ratio Perm	0.13
v/c Ratio	0.25
Uniform Delay, d1	13.2
Progression Factor	1.00
Incremental Delay, d2	0.8
Delay (s)	13.9
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	263	270	190	20	200	37	280	762	40	10	154	551
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.94			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3183			3450		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3183			3450		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	292	300	211	22	222	41	311	847	44	11	171	612
RTOR Reduction (vph)	0	68	0	0	10	0	0	0	25	0	0	0
Lane Group Flow (vph)	263	472	0	0	275	0	311	847	19	0	182	612
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	28.1	28.1			12.7		25.9	54.4	54.4		17.0	45.5
Effective Green, g (s)	28.1	28.1			12.7		25.9	54.4	54.4		17.0	45.5
Actuated g/C Ratio	0.22	0.22			0.10		0.21	0.43	0.43		0.13	0.36
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	358	708			347		363	2191	682		238	1833
v/s Ratio Prot	c0.16	0.15			c0.08		c0.18	c0.17			0.10	0.12
v/s Ratio Perm									0.01			
v/c Ratio	0.73	0.67			0.79		0.86	0.39	0.03		0.76	0.33
Uniform Delay, d1	45.6	44.8			55.5		48.4	24.5	20.7		52.7	29.3
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.6	2.4			11.7		17.7	0.5	0.1		13.6	0.5
Delay (s)	53.2	47.2			67.2		66.0	25.0	20.7		66.3	29.8
Level of Service	D	D			E		E	C	C		E	C
Approach Delay (s)		49.1			67.2			35.5				32.6
Approach LOS		D			E			D				C

Intersection Summary			
HCM 2000 Control Delay	40.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	126.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	198
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	220
RTOR Reduction (vph)	52
Lane Group Flow (vph)	168
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	73.6
Effective Green, g (s)	73.6
Actuated g/C Ratio	0.58
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	912
v/s Ratio Prot	0.04
v/s Ratio Perm	0.07
v/c Ratio	0.18
Uniform Delay, d1	12.3
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	12.4
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	70	10	250	10	10	10	10	70	190	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	81	12	291	12	12	12	0	81	221	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	646	658	191	927	681	307	0	220			282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	646	658	191	927	681	307	0	220			282
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	74	97	65	92	96	98	0	94			99
cM capacity (veh/h)	0	318	336	836	137	326	685	0	1325			1229

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	93	291	35	81	233	209
Volume Left	81	0	12	81	0	12
Volume Right	0	291	12	0	12	58
cSH	320	836	254	1325	1700	1229
Volume to Capacity	0.29	0.35	0.14	0.06	0.14	0.01
Queue Length 95th (ft)	29	39	12	5	0	1
Control Delay (s)	20.8	11.6	21.4	7.9	0.0	0.5
Lane LOS	C	B	C	A		A
Approach Delay (s)	13.8		21.4	2.0		0.5
Approach LOS	B		C			

Intersection Summary				
Average Delay	7.2			
Intersection Capacity Utilization	63.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	120	50
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	140	58
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	492	1450	340	440	930	655	120	137	240	220	40	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (prot)	1770	5085	1532	2477	5085	1562	3433	1863	1576	1681	1710	1486
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5085	1532	2477	5085	1562	3433	1863	1576	1681	1710	1486
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	512	1510	354	458	969	682	125	143	250	229	42	154
RTOR Reduction (vph)	0	0	147	0	0	369	0	0	105	0	0	134
Lane Group Flow (vph)	512	1510	207	458	969	313	125	143	145	135	136	20
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	31.5	35.8	35.8	20.3	24.6	24.6	9.0	9.0	29.3	12.1	12.1	12.1
Effective Green, g (s)	31.5	35.8	35.8	20.3	24.6	24.6	9.0	9.0	29.3	12.1	12.1	12.1
Actuated g/C Ratio	0.33	0.38	0.38	0.21	0.26	0.26	0.09	0.09	0.31	0.13	0.13	0.13
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	585	1912	576	528	1313	403	324	176	485	213	217	188
v/s Ratio Prot	c0.29	0.30		0.18	0.19		0.04	c0.08	0.06	c0.08	0.08	
v/s Ratio Perm			0.13			c0.20			0.03			0.01
v/c Ratio	0.88	0.79	0.36	0.87	0.74	0.78	0.39	0.81	0.30	0.63	0.63	0.10
Uniform Delay, d1	30.0	26.4	21.4	36.2	32.3	32.7	40.5	42.3	25.1	39.4	39.4	36.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.4	3.4	1.7	13.6	3.7	13.6	0.3	22.9	0.1	4.5	4.0	0.1
Delay (s)	43.4	29.8	23.2	49.7	36.1	46.4	40.8	65.2	25.3	43.9	43.4	36.8
Level of Service	D	C	C	D	D	D	D	E	C	D	D	D
Approach Delay (s)		31.7			42.4			40.0			41.2	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1238	682	0	1143	100	0	0	0	560	0	1032
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.98	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4665	1337		5085	1551				1681	1443	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4665	1337		5085	1551				1681	1443	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1263	696	0	1166	102	0	0	0	571	0	1053
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1488	445	0	1166	102	0	0	0	514	556	542
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		35.8	90.0		35.8	90.0				47.0	47.0	47.0
Effective Green, g (s)		35.8	90.0		35.8	90.0				47.0	47.0	47.0
Actuated g/C Ratio		0.40	1.00		0.40	1.00				0.52	0.52	0.52
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1855	1337		2022	1551				877	753	775
v/s Ratio Prot		c0.32			0.23							
v/s Ratio Perm			0.33			0.07				0.31	0.39	0.37
v/c Ratio		0.80	0.33		0.58	0.07				0.59	0.74	0.70
Uniform Delay, d1		24.0	0.0		21.2	0.0				14.8	16.7	16.2
Progression Factor		1.00	1.00		0.65	1.00				1.00	1.00	1.00
Incremental Delay, d2		3.8	0.7		0.9	0.1				1.0	3.8	2.8
Delay (s)		27.7	0.7		14.6	0.1				15.8	20.5	19.0
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		21.6			13.4			0.0			18.5	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	914	884	0	207	1026	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	942	911	0	213	1058	206
RTOR Reduction (vph)	0	0	0	0	0	59
Lane Group Flow (vph)	942	911	0	213	1058	147
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	50.4	90.0		50.4	32.6	32.6
Effective Green, g (s)	50.4	90.0		50.4	32.6	32.6
Actuated g/C Ratio	0.56	1.00		0.56	0.36	0.36
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1981	1528		1981	1243	564
v/s Ratio Prot	0.27			0.06	c0.31	
v/s Ratio Perm		c0.60				0.09
v/c Ratio	0.48	0.60		0.11	0.85	0.26
Uniform Delay, d1	11.9	0.0		9.3	26.5	20.2
Progression Factor	0.62	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	1.2		0.1	5.8	0.2
Delay (s)	7.9	1.2		9.4	32.3	20.5
Level of Service	A	A		A	C	C
Approach Delay (s)	4.6			9.4	30.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	160	50	120	90	30	30	10	170	1635	80	30	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1757	1634			1740			1770	5022			1770
Flt Permitted	0.64	1.00			0.58			0.95	1.00			0.95
Satd. Flow (perm)	1181	1634			1037			1770	5022			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	165	52	124	93	31	31	10	175	1686	82	31	52
RTOR Reduction (vph)	0	100	0	0	11	0	0	0	4	0	0	0
Lane Group Flow (vph)	165	76	0	0	144	0	0	185	1764	0	0	83
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	17.5	17.5			17.5			14.4	54.2			8.3
Effective Green, g (s)	17.5	17.5			17.5			14.4	54.2			8.3
Actuated g/C Ratio	0.19	0.19			0.19			0.16	0.60			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	229	317			201			283	3024			163
v/s Ratio Prot		0.05						c0.10	c0.35			0.05
v/s Ratio Perm	c0.14				0.14							
v/c Ratio	0.72	0.24			0.72			0.65	0.58			0.51
Uniform Delay, d1	34.0	30.6			33.9			35.5	11.0			38.9
Progression Factor	1.00	1.00			1.00			1.02	1.09			1.00
Incremental Delay, d2	10.6	0.4			11.4			4.7	0.7			2.5
Delay (s)	44.6	31.0			45.3			40.9	12.7			41.4
Level of Service	D	C			D			D	B			D
Approach Delay (s)		37.6			45.3				15.4			
Approach LOS		D			D				B			

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1444	80
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5034	
Flt Permitted	1.00	
Satd. Flow (perm)	5034	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1489	82
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1566	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	48.1	
Effective Green, g (s)	48.1	
Actuated g/C Ratio	0.53	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2690	
v/s Ratio Prot	0.31	
v/s Ratio Perm		
v/c Ratio	0.58	
Uniform Delay, d1	14.2	
Progression Factor	1.00	
Incremental Delay, d2	0.9	
Delay (s)	15.1	
Level of Service	B	
Approach Delay (s)	16.4	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	120	1895	1644	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	126	1995	1731	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.88	0.80	0.00	0.80			
vC, conflicting volume	2761	680	0	1855			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1287	0	0	1186			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	88	91	0	71			
cM capacity (veh/h)	90	807	0	435			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	126	665	665	665	692	692	388
Volume Left	11	126	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	404	435	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.21	0.29	0.39	0.39	0.39	0.41	0.41	0.23
Queue Length 95th (ft)	19	30	0	0	0	0	0	0
Control Delay (s)	16.2	16.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	C						
Approach Delay (s)	16.2	1.0				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	30	40	2005	1674	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	0.91	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	5062	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	5062	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	32	42	2111	1762	32
RTOR Reduction (vph)	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	74	2111	1793	0
Confl. Peds. (#/hr)							32
Confl. Bikes (#/hr)							3
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				8.0	70.0	74.0	
Effective Green, g (s)				8.0	70.0	74.0	
Actuated g/C Ratio				0.09	0.78	0.82	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				157	3823	4162	
v/s Ratio Prot				c0.04	c0.43	c0.35	
v/s Ratio Perm							
v/c Ratio				0.47	0.55	0.43	
Uniform Delay, d1				39.0	3.9	2.2	
Progression Factor				1.00	1.00	1.61	
Incremental Delay, d2				2.2	0.6	0.3	
Delay (s)				41.2	4.5	3.8	
Level of Service				D	A	A	
Approach Delay (s)	0.0				5.7	3.8	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	4.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	90	335	50	742	601	1085	10	70	700	638	684	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3452		4990	3539	1514		1770	5085	1543	3433	5037
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3452		4990	3539	1514		1770	5085	1543	3433	5037
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	353	53	781	633	1142	11	74	737	672	720	1053
RTOR Reduction (vph)	0	7	0	0	0	18	0	0	0	180	0	3
Lane Group Flow (vph)	95	399	0	781	633	1124	0	85	737	492	720	1103
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		12.1	42.8	42.8	45.5	77.2
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		12.1	42.8	42.8	45.5	77.2
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.07	0.26	0.26	0.28	0.47
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	820		632	1068	915		129	1319	400	946	2356
v/s Ratio Prot	0.05	0.12		c0.16	0.18	c0.34		0.05	0.14		0.21	0.22
v/s Ratio Perm						0.40				c0.32		
v/c Ratio	1.03	0.49		1.24	0.59	1.23		0.66	0.56	1.23	0.76	0.47
Uniform Delay, d1	78.2	54.2		72.0	49.0	34.9		74.4	52.9	61.1	54.8	29.9
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	103.0	2.1		119.4	2.4	112.6		8.9	1.7	123.7	3.3	0.1
Delay (s)	181.2	56.3		191.4	51.4	147.4		83.4	54.6	184.8	58.1	30.1
Level of Service	F	E		F	D	F		F	D	F	E	C
Approach Delay (s)		80.0			137.1				114.8			41.1
Approach LOS		E			F				F			D

Intersection Summary			
HCM 2000 Control Delay	99.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	122.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	50
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	53
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	252	100	100	30	110	200	10	100	1016	30	50	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.93			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1696			3502	1507		1770	5085	1557		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1696			3502	1507		1770	5085	1557		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	277	110	110	33	121	220	11	110	1116	33	55	198
RTOR Reduction (vph)	0	25	0	0	0	198	0	0	0	21	0	0
Lane Group Flow (vph)	277	195	0	0	154	22	0	121	1116	12	0	253
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	22.4	22.4			10.7	10.7		7.0	40.7	40.7		20.5
Effective Green, g (s)	22.4	22.4			10.7	10.7		7.0	40.7	40.7		20.5
Actuated g/C Ratio	0.20	0.20			0.10	0.10		0.06	0.37	0.37		0.19
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	362	347			342	147		113	1893	579		331
v/s Ratio Prot	c0.16	0.11			c0.04			c0.07	0.22			c0.14
v/s Ratio Perm						0.01				0.01		
v/c Ratio	0.77	0.56			0.45	0.15		1.07	0.59	0.02		0.76
Uniform Delay, d1	41.0	39.0			46.5	45.1		51.1	27.6	21.7		42.1
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	9.3	2.1			0.9	0.5		105.0	1.4	0.1		10.1
Delay (s)	50.3	41.1			47.5	45.6		156.1	28.9	21.8		52.2
Level of Service	D	D			D	D		F	C	C		D
Approach Delay (s)		46.2			46.4				40.9			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	33.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	109.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	1670	313
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1523
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1523
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	1835	344
RTOR Reduction (vph)	0	58
Lane Group Flow (vph)	1835	286
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.2	54.2
Effective Green, g (s)	54.2	54.2
Actuated g/C Ratio	0.50	0.50
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2521	755
v/s Ratio Prot	c0.36	
v/s Ratio Perm		0.19
v/c Ratio	0.73	0.38
Uniform Delay, d1	21.7	17.1
Progression Factor	1.00	1.00
Incremental Delay, d2	1.9	1.4
Delay (s)	23.6	18.5
Level of Service	C	B
Approach Delay (s)	25.9	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	250	190	240	20	220	85	280	791	20	20	117	881
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3057			3389		1770	5085	1559		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3057			3389		1770	5085	1559		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	255	194	245	20	224	87	286	807	20	20	119	899
RTOR Reduction (vph)	0	156	0	0	26	0	0	0	11	0	0	0
Lane Group Flow (vph)	229	309	0	0	305	0	286	807	9	0	139	899
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	24.8	24.8			14.9		23.8	51.1	51.1		14.5	41.8
Effective Green, g (s)	24.8	24.8			14.9		23.8	51.1	51.1		14.5	41.8
Actuated g/C Ratio	0.21	0.21			0.12		0.20	0.43	0.43		0.12	0.35
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	334	635			423		353	2178	667		215	1781
v/s Ratio Prot	c0.14	0.10			c0.09		c0.16	0.16			0.08	c0.18
v/s Ratio Perm									0.01			
v/c Ratio	0.69	0.49			0.72		0.81	0.37	0.01		0.65	0.50
Uniform Delay, d1	43.6	41.6			50.2		45.6	23.2	19.6		50.0	30.6
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.7	0.6			5.9		13.1	0.5	0.0		6.5	1.0
Delay (s)	49.4	42.2			56.1		58.7	23.7	19.6		56.5	31.6
Level of Service	D	D			E		E	C	B		E	C
Approach Delay (s)		44.6			56.1			32.6				31.4
Approach LOS		D			E			C				C

Intersection Summary			
HCM 2000 Control Delay	36.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	119.3	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	193
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	197
RTOR Reduction (vph)	68
Lane Group Flow (vph)	129
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	66.6
Effective Green, g (s)	66.6
Actuated g/C Ratio	0.56
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	883
v/s Ratio Prot	0.03
v/s Ratio Perm	0.05
v/c Ratio	0.15
Uniform Delay, d1	12.7
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	12.7
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	0	200	10	20	10	130	240	10	0	130	100
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	72	0	206	10	21	10	134	247	10	0	134	103
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	748	722	194	919	769	278	243			263		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	748	722	194	919	769	278	243			263		
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 %	74	100	76	94	93	99	90			100		
cM capacity (veh/h)	275	314	842	173	295	745	1317			1296		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	72	206	41	134	258	237
Volume Left	72	0	10	134	0	0
Volume Right	0	206	10	0	10	103
cSH	275	842	288	1317	1700	1296
Volume to Capacity	0.26	0.24	0.14	0.10	0.15	0.00
Queue Length 95th (ft)	26	24	12	8	0	0
Control Delay (s)	22.7	10.7	19.6	8.0	0.0	0.0
Lane LOS	C	B	C	A		
Approach Delay (s)	13.8		19.6	2.8		0.0
Approach LOS	B		C			

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	47.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	217	1140	270	390	1580	300	360	64	500	562	67	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1493	2477	5085	1551	3433	1863	1574	1681	1703	1462
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5085	1493	2477	5085	1551	3433	1863	1574	1681	1703	1462
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	219	1152	273	394	1596	303	364	65	505	568	68	392
RTOR Reduction (vph)	0	0	104	0	0	121	0	0	49	0	0	226
Lane Group Flow (vph)	219	1152	169	394	1596	182	364	65	456	318	318	166
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	21.1	47.0	47.0	26.4	52.3	52.3	19.6	19.6	46.0	30.9	30.9	30.9
Effective Green, g (s)	21.1	47.0	47.0	26.4	52.3	52.3	19.6	19.6	46.0	30.9	30.9	30.9
Actuated g/C Ratio	0.15	0.33	0.33	0.19	0.37	0.37	0.14	0.14	0.32	0.22	0.22	0.22
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	263	1684	494	460	1874	571	474	257	510	366	370	318
v/s Ratio Prot	c0.12	0.23		0.16	c0.31		0.11	0.03	c0.17	c0.19	0.19	
v/s Ratio Perm			0.11			0.12			0.12			0.11
v/c Ratio	0.83	0.68	0.34	0.86	0.85	0.32	0.77	0.25	0.89	0.87	0.86	0.52
Uniform Delay, d1	58.7	41.0	35.8	55.9	41.2	32.1	59.0	54.6	45.6	53.5	53.4	49.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.9	2.3	1.9	14.0	5.1	1.5	6.6	0.2	17.6	18.5	17.1	0.7
Delay (s)	77.6	43.3	37.7	69.9	46.4	33.5	65.6	54.8	63.2	72.1	70.5	49.7
Level of Service	E	D	D	E	D	C	E	D	E	E	E	D
Approach Delay (s)		46.9			48.7			63.5			63.1	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	53.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	141.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1258	924	0	1243	150	0	0	0	400	0	1147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4591	1336		5085	1547				1681	1453	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4591	1336		5085	1547				1681	1453	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1324	973	0	1308	158	0	0	0	421	0	1207
RTOR Reduction (vph)	0	49	0	0	0	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	1723	525	0	1308	158	0	0	0	379	617	624
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		48.7	115.0		48.7	115.0				59.3	59.3	59.3
Effective Green, g (s)		48.7	115.0		48.7	115.0				59.3	59.3	59.3
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.52	0.52	0.52
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1944	1336		2153	1547				866	749	775
v/s Ratio Prot		c0.38			0.26							
v/s Ratio Perm			0.39			0.10				0.23	0.42	0.41
v/c Ratio		0.89	0.39		0.61	0.10				0.44	0.82	0.80
Uniform Delay, d1		30.6	0.0		25.7	0.0				17.4	23.4	23.1
Progression Factor		1.00	1.00		0.57	1.00				1.00	1.00	1.00
Incremental Delay, d2		6.4	0.9		1.2	0.1				0.4	7.3	6.1
Delay (s)		37.0	0.9		15.8	0.1				17.8	30.7	29.1
Level of Service		D	A		B	A				B	C	C
Approach Delay (s)		28.7			14.1			0.0			27.1	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	677	1041	0	535	858	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	698	1073	0	552	885	93
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	698	1073	0	552	885	54
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	70.2	115.0		70.2	37.8	37.8
Effective Green, g (s)	70.2	115.0		70.2	37.8	37.8
Actuated g/C Ratio	0.61	1.00		0.61	0.33	0.33
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2160	1532		2160	1128	520
v/s Ratio Prot	0.20			0.16	c0.26	
v/s Ratio Perm		c0.70				0.03
v/c Ratio	0.32	0.70		0.26	0.78	0.10
Uniform Delay, d1	10.9	0.0		10.3	34.9	26.8
Progression Factor	0.34	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	1.7		0.3	3.7	0.1
Delay (s)	4.0	1.7		10.6	38.6	26.9
Level of Service	A	A		B	D	C
Approach Delay (s)	2.6			10.6	37.5	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	150	80	200	70	100	40	10	150	1170	30	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1752	1629			1771			1770	5057			1770
Flt Permitted	0.50	1.00			0.53			0.95	1.00			0.95
Satd. Flow (perm)	915	1629			956			1770	5057			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	156	83	208	73	104	42	10	156	1219	31	21	52
RTOR Reduction (vph)	0	127	0	0	12	0	0	0	3	0	0	0
Lane Group Flow (vph)	156	164	0	0	207	0	0	166	1247	0	0	73
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	17.9	17.9			17.9			12.0	45.1			7.0
Effective Green, g (s)	17.9	17.9			17.9			12.0	45.1			7.0
Actuated g/C Ratio	0.22	0.22			0.22			0.15	0.56			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	204	364			213			265	2850			154
v/s Ratio Prot		0.10						c0.09	0.25			0.04
v/s Ratio Perm	0.17				c0.22							
v/c Ratio	0.76	0.45			0.97			0.63	0.44			0.47
Uniform Delay, d1	29.1	26.8			30.8			31.9	10.1			34.7
Progression Factor	1.00	1.00			1.00			0.95	1.33			1.00
Incremental Delay, d2	15.6	0.9			52.4			4.4	0.5			2.3
Delay (s)	44.7	27.7			83.1			34.8	13.9			37.0
Level of Service	D	C			F			C	B			D
Approach Delay (s)		33.6			83.1				16.3			
Approach LOS		C			F				B			

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1470	70
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5044	
Flt Permitted	1.00	
Satd. Flow (perm)	5044	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1531	73
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1599	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	40.1	
Effective Green, g (s)	40.1	
Actuated g/C Ratio	0.50	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2528	
v/s Ratio Prot	c0.32	
v/s Ratio Perm		
v/c Ratio	0.63	
Uniform Delay, d1	14.6	
Progression Factor	1.00	
Incremental Delay, d2	1.2	
Delay (s)	15.8	
Level of Service	B	
Approach Delay (s)	16.7	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	60	1350	1680	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	61	1378	1714	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.80	0.79	0.00	0.79			
vC, conflicting volume	2325	600	0	1753			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1484	0	0	1001			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	87	94	0	88			
cM capacity (veh/h)	81	839	0	532			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	61	459	459	459	686	686	363
Volume Left	10	61	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	327	532	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.19	0.12	0.27	0.27	0.27	0.40	0.40	0.21
Queue Length 95th (ft)	17	10	0	0	0	0	0	0
Control Delay (s)	18.5	12.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B						
Approach Delay (s)	18.5	0.5				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	20	20	1340	1760	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	*0.80	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	4461	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	4461	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	21	21	1411	1853	21
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	42	1411	1874	0
Confl. Peds. (#/hr)				10			10
Confl. Bikes (#/hr)							9
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				5.1	65.8	66.9	
Effective Green, g (s)				5.1	65.8	66.9	
Actuated g/C Ratio				0.06	0.82	0.84	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				112	4043	3730	
v/s Ratio Prot				c0.02	0.29	c0.42	
v/s Ratio Perm							
v/c Ratio				0.38	0.35	0.50	
Uniform Delay, d1				35.9	1.8	1.8	
Progression Factor				1.00	1.00	2.11	
Incremental Delay, d2				2.1	0.2	0.4	
Delay (s)				38.0	2.0	4.3	
Level of Service				D	A	A	
Approach Delay (s)	0.0				3.0	4.3	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	120	810	80	440	240	530	10	30	830	650	790	1080
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3473		4990	3539	1498		1770	5085	1561	3433	5059
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3473		4990	3539	1498		1770	5085	1561	3433	5059
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	122	827	82	449	245	541	10	31	847	663	806	1102
RTOR Reduction (vph)	0	4	0	0	0	19	0	0	0	105	0	2
Lane Group Flow (vph)	122	905	0	449	245	522	0	41	847	558	806	1131
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.8	39.9		16.2	43.6	83.9		7.0	42.8	42.8	40.3	77.1
Effective Green, g (s)	10.8	39.9		16.2	43.6	83.9		7.0	42.8	42.8	40.3	77.1
Actuated g/C Ratio	0.07	0.26		0.10	0.28	0.54		0.04	0.27	0.27	0.26	0.49
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	122	889		518	990	849		79	1396	428	887	2503
v/s Ratio Prot	0.07	c0.26		c0.09	0.07	0.16		0.02	0.17		c0.23	0.22
v/s Ratio Perm						0.19				c0.36		
v/c Ratio	1.00	1.02		0.87	0.25	0.61		0.52	0.61	1.30	0.91	0.45
Uniform Delay, d1	72.5	58.0		68.7	43.4	24.8		72.8	49.2	56.5	56.0	25.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	81.5	34.6		13.8	0.6	0.9		2.4	2.0	152.7	12.7	0.1
Delay (s)	154.0	92.6		82.5	44.0	25.7		75.1	51.1	209.2	68.6	25.7
Level of Service	F	F		F	D	C		E	D	F	E	C
Approach Delay (s)		99.8			50.0				119.3			43.6
Approach LOS		F			D				F			D

Intersection Summary			
HCM 2000 Control Delay	75.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	155.8	Sum of lost time (s)	18.3
Intersection Capacity Utilization	108.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	290	160	130	30	70	120	100	1260	90	20	200	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.93			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1703			3487	1483	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1703			3487	1483	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	168	137	32	74	126	105	1326	95	21	211	1053
RTOR Reduction (vph)	0	21	0	0	0	115	0	0	55	0	0	0
Lane Group Flow (vph)	305	284	0	0	106	11	105	1326	40	0	232	1053
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.0	19.0			8.5	8.5	7.0	39.9	39.9		18.1	51.0
Effective Green, g (s)	19.0	19.0			8.5	8.5	7.0	39.9	39.9		18.1	51.0
Actuated g/C Ratio	0.19	0.19			0.08	0.08	0.07	0.40	0.40		0.18	0.51
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	334	321			294	125	123	2018	613		318	2580
v/s Ratio Prot	c0.17	0.17			c0.03		c0.06	c0.26			c0.13	0.21
v/s Ratio Perm						0.01			0.03			
v/c Ratio	0.91	0.88			0.36	0.09	0.85	0.66	0.06		0.73	0.41
Uniform Delay, d1	39.9	39.7			43.4	42.4	46.2	24.7	18.8		38.9	15.4
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	28.2	23.8			0.8	0.3	40.3	1.7	0.2		8.1	0.5
Delay (s)	68.1	63.5			44.2	42.7	86.5	26.4	19.0		47.0	15.9
Level of Service	E	E			D	D	F	C	B		D	B
Approach Delay (s)		65.8			43.4			30.1				20.2
Approach LOS		E			D			C				C

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	300
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	316
RTOR Reduction (vph)	99
Lane Group Flow (vph)	217
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.0
Effective Green, g (s)	51.0
Actuated g/C Ratio	0.51
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	778
v/s Ratio Prot	
v/s Ratio Perm	0.14
v/c Ratio	0.28
Uniform Delay, d1	14.2
Progression Factor	1.00
Incremental Delay, d2	0.9
Delay (s)	15.1
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	290	340	200	20	240	50	300	1140	50	10	250	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3203			3442		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3203			3442		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	322	378	222	22	267	56	333	1267	56	11	278	622
RTOR Reduction (vph)	0	48	0	0	12	0	0	0	28	0	0	0
Lane Group Flow (vph)	290	584	0	0	333	0	333	1267	28	0	289	622
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	31.9	31.9			13.1		27.6	52.7	52.7		20.1	45.2
Effective Green, g (s)	31.9	31.9			13.1		27.6	52.7	52.7		20.1	45.2
Actuated g/C Ratio	0.24	0.24			0.10		0.21	0.40	0.40		0.15	0.34
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	389	775			342		370	2033	632		269	1743
v/s Ratio Prot	0.18	c0.18			c0.10		c0.19	c0.25			c0.16	0.12
v/s Ratio Perm									0.02			
v/c Ratio	0.75	0.75			0.97		0.90	0.62	0.04		1.07	0.36
Uniform Delay, d1	46.2	46.3			59.2		50.8	31.6	24.2		55.9	32.4
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.6	4.2			41.5		24.0	1.5	0.1		76.0	0.6
Delay (s)	53.8	50.5			100.7		74.7	33.1	24.3		131.9	33.0
Level of Service	D	D			F		E	C	C		F	C
Approach Delay (s)		51.5			100.7			41.2				51.2
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	51.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	131.8	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	290
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	322
RTOR Reduction (vph)	43
Lane Group Flow (vph)	279
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	77.1
Effective Green, g (s)	77.1
Actuated g/C Ratio	0.58
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	914
v/s Ratio Prot	0.07
v/s Ratio Perm	0.10
v/c Ratio	0.31
Uniform Delay, d1	13.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	14.0
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	170	10	260	10	10	10	10	70	270	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	198	12	302	12	12	12	0	81	314	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	756	769	208	1049	798	400	0	243			375
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	756	769	208	1049	798	400	0	243			375
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	26	96	63	89	96	98	0	94			99
cM capacity (veh/h)	0	266	290	817	109	279	607	0	1299			1136

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	209	302	35	81	326	233
Volume Left	198	0	12	81	0	12
Volume Right	0	302	12	0	12	70
cSH	267	817	208	1299	1700	1136
Volume to Capacity	0.78	0.37	0.17	0.06	0.19	0.01
Queue Length 95th (ft)	149	43	15	5	0	1
Control Delay (s)	54.1	12.0	25.8	8.0	0.0	0.5
Lane LOS	F	B	D	A		A
Approach Delay (s)	29.2		25.8	1.6		0.5
Approach LOS	D		D			

Intersection Summary				
Average Delay	14.0			
Intersection Capacity Utilization	66.7%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	130	60
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	151	70
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	1540	450	580	1000	520	160	220	370	150	60	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1518	2477	5085	1561	3433	1863	1574	3433	1863	1449
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1518	2477	5085	1561	3433	1863	1574	3433	1863	1449
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	365	1604	469	604	1042	542	167	229	385	156	62	52
RTOR Reduction (vph)	0	0	124	0	0	252	0	0	84	0	0	48
Lane Group Flow (vph)	365	1604	345	604	1042	290	167	229	301	156	62	4
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.0	60.1	60.1	30.0	65.1	65.1	20.5	20.5	50.5	10.7	10.7	10.7
Effective Green, g (s)	25.0	60.1	60.1	30.0	65.1	65.1	20.5	20.5	50.5	10.7	10.7	10.7
Actuated g/C Ratio	0.18	0.43	0.43	0.22	0.47	0.47	0.15	0.15	0.36	0.08	0.08	0.08
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	317	2193	654	533	2376	729	505	274	570	263	143	111
v/s Ratio Prot	c0.21	c0.32		c0.24	0.20		0.05	c0.12	0.11	c0.05	0.03	
v/s Ratio Perm			0.23			0.19			0.08			0.00
v/c Ratio	1.15	0.73	0.53	1.13	0.44	0.40	0.33	0.84	0.53	0.59	0.43	0.04
Uniform Delay, d1	57.2	32.9	29.2	54.7	24.9	24.3	53.2	57.8	35.0	62.2	61.4	59.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	98.1	2.2	3.0	81.2	0.6	1.6	0.1	18.5	0.4	2.4	0.8	0.0
Delay (s)	155.3	35.1	32.2	135.8	25.4	25.9	53.4	76.3	35.4	64.6	62.2	59.6
Level of Service	F	D	C	F	C	C	D	E	D	E	E	E
Approach Delay (s)		52.5			56.0			51.2			63.1	
Approach LOS		D			E			D			E	

Intersection Summary			
HCM 2000 Control Delay	54.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	139.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1240	640	0	1050	110	0	0	0	600	0	1000
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.98	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4679	1337		5085	1551				1681	1445	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4679	1337		5085	1551				1681	1445	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1265	653	0	1071	112	0	0	0	612	0	1020
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1466	431	0	1071	112	0	0	0	551	534	535
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		36.8	90.0		36.8	90.0				46.0	46.0	46.0
Effective Green, g (s)		36.8	90.0		36.8	90.0				46.0	46.0	46.0
Actuated g/C Ratio		0.41	1.00		0.41	1.00				0.51	0.51	0.51
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1913	1337		2079	1551				859	738	759
v/s Ratio Prot		c0.31			0.21							
v/s Ratio Perm			0.32			0.07				0.33	0.37	0.36
v/c Ratio		0.77	0.32		0.52	0.07				0.64	0.72	0.71
Uniform Delay, d1		22.9	0.0		19.9	0.0				16.0	17.1	16.8
Progression Factor		1.00	1.00		0.62	1.00				1.00	1.00	1.00
Incremental Delay, d2		3.0	0.6		0.7	0.1				1.6	3.5	3.0
Delay (s)		25.9	0.6		13.1	0.1				17.6	20.6	19.8
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		20.2			11.9			0.0			19.3	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1070	910	0	210	980	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1103	938	0	216	1010	526
RTOR Reduction (vph)	0	0	0	0	0	38
Lane Group Flow (vph)	1103	938	0	216	1010	488
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	50.3	90.0		50.3	32.7	32.7
Effective Green, g (s)	50.3	90.0		50.3	32.7	32.7
Actuated g/C Ratio	0.56	1.00		0.56	0.36	0.36
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1977	1528		1977	1247	566
v/s Ratio Prot	0.31			0.06	0.29	
v/s Ratio Perm		c0.61				c0.31
v/c Ratio	0.56	0.61		0.11	0.81	0.86
Uniform Delay, d1	12.7	0.0		9.3	25.8	26.6
Progression Factor	0.72	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	1.4		0.1	4.0	12.8
Delay (s)	10.1	1.4		9.4	29.8	39.3
Level of Service	B	A		A	C	D
Approach Delay (s)	6.1			9.4	33.1	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	200	70	170	110	50	40	10	230	1680	90	30	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1758	1633			1747			1770	5016			1770
Flt Permitted	0.60	1.00			0.48			0.95	1.00			0.95
Satd. Flow (perm)	1102	1633			862			1770	5016			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	206	72	175	113	52	41	10	237	1732	93	31	82
RTOR Reduction (vph)	0	104	0	0	11	0	0	0	5	0	0	0
Lane Group Flow (vph)	206	143	0	0	195	0	0	247	1820	0	0	113
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	20.9	20.9			20.9			16.4	49.9			9.2
Effective Green, g (s)	20.9	20.9			20.9			16.4	49.9			9.2
Actuated g/C Ratio	0.23	0.23			0.23			0.18	0.55			0.10
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	255	379			200			322	2781			180
v/s Ratio Prot		0.09						c0.14	0.36			0.06
v/s Ratio Perm	0.19				c0.23							
v/c Ratio	0.81	0.38			0.98			0.77	0.65			0.63
Uniform Delay, d1	32.7	29.1			34.3			35.0	14.0			38.8
Progression Factor	1.00	1.00			1.00			1.06	1.06			1.00
Incremental Delay, d2	16.9	0.6			56.2			9.1	1.0			6.7
Delay (s)	49.5	29.7			90.5			46.1	15.9			45.4
Level of Service	D	C			F			D	B			D
Approach Delay (s)		38.7			90.5				19.5			
Approach LOS		D			F				B			

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1520	90
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5029	
Flt Permitted	1.00	
Satd. Flow (perm)	5029	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1567	93
RTOR Reduction (vph)	6	0
Lane Group Flow (vph)	1654	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	42.7	
Effective Green, g (s)	42.7	
Actuated g/C Ratio	0.47	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2385	
v/s Ratio Prot	c0.33	
v/s Ratio Perm		
v/c Ratio	0.69	
Uniform Delay, d1	18.5	
Progression Factor	1.00	
Incremental Delay, d2	1.7	
Delay (s)	20.2	
Level of Service	C	
Approach Delay (s)	21.8	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	130	1950	1760	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	137	2053	1853	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.84	0.75	0.00	0.75			
vC, conflicting volume	2924	721	0	1977			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1216	0	0	1135			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	88	90	0	68			
cM capacity (veh/h)	91	758	0	427			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	137	684	684	684	741	741	413
Volume Left	11	137	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	396	427	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.21	0.32	0.40	0.40	0.40	0.44	0.44	0.24
Queue Length 95th (ft)	20	34	0	0	0	0	0	0
Control Delay (s)	16.5	17.4	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	C						
Approach Delay (s)	16.5	1.1				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	30	70	2080	1780	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	0.91	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	5063	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	5063	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	32	74	2189	1874	32
RTOR Reduction (vph)	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	106	2189	1905	0
Confl. Peds. (#/hr)							32
Confl. Bikes (#/hr)							3
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				9.4	70.0	72.6	
Effective Green, g (s)				9.4	70.0	72.6	
Actuated g/C Ratio				0.10	0.78	0.81	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				184	3823	4084	
v/s Ratio Prot				c0.06	c0.45	c0.38	
v/s Ratio Perm							
v/c Ratio				0.58	0.57	0.47	
Uniform Delay, d1				38.4	4.0	2.7	
Progression Factor				1.00	1.00	2.02	
Incremental Delay, d2				4.3	0.6	0.3	
Delay (s)				42.7	4.6	5.7	
Level of Service				D	A	A	
Approach Delay (s)	0.0				6.4	5.7	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	110	380	90	710	610	1100	10	130	730	700	680	1370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3411		4990	3539	1514		1770	5085	1543	3433	5043
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3411		4990	3539	1514		1770	5085	1543	3433	5043
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	400	95	747	642	1158	11	137	768	737	716	1442
RTOR Reduction (vph)	0	12	0	0	0	18	0	0	0	170	0	3
Lane Group Flow (vph)	116	483	0	747	642	1140	0	148	768	567	716	1502
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.10	0.26	0.26	0.28	0.45
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	810		632	1068	915		169	1319	400	946	2246
v/s Ratio Prot	0.07	0.14		c0.15	0.18	c0.34		0.08	0.15		0.21	0.30
v/s Ratio Perm						0.41				c0.37		
v/c Ratio	1.26	0.60		1.18	0.60	1.25		0.88	0.58	1.42	0.76	0.67
Uniform Delay, d1	78.2	55.9		72.0	49.1	34.9		73.6	53.3	61.1	54.7	36.1
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	179.3	3.2		97.4	2.5	120.0		35.3	1.9	201.7	3.1	0.8
Delay (s)	257.5	59.1		169.5	51.6	154.8		108.9	55.2	262.8	57.8	36.9
Level of Service	F	E		F	D	F		F	E	F	E	D
Approach Delay (s)		96.8			133.1				152.6			43.6
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	106.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	123.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	63
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	300	120	150	30	140	250	10	140	1270	30	50	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.92			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1679			3508	1504		1770	5085	1556		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1679			3508	1504		1770	5085	1556		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	330	132	165	33	154	275	11	154	1396	33	55	242
RTOR Reduction (vph)	0	30	0	0	0	205	0	0	0	22	0	0
Lane Group Flow (vph)	330	267	0	0	187	70	0	165	1396	11	0	297
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	26.0	26.0			13.2	13.2		7.0	37.1	37.1		24.0
Effective Green, g (s)	26.0	26.0			13.2	13.2		7.0	37.1	37.1		24.0
Actuated g/C Ratio	0.23	0.23			0.11	0.11		0.06	0.32	0.32		0.21
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	399	378			401	172		107	1636	500		368
v/s Ratio Prot	c0.19	0.16			c0.05			c0.09	0.27			0.17
v/s Ratio Perm						0.05				0.01		
v/c Ratio	0.83	0.71			0.47	0.40		1.54	0.85	0.02		0.81
Uniform Delay, d1	42.5	41.1			47.8	47.4		54.1	36.6	26.7		43.4
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	13.1	5.9			0.9	1.6		284.9	5.9	0.1		12.2
Delay (s)	55.7	47.0			48.6	49.0		339.0	42.4	26.8		55.6
Level of Service	E	D			D	D		F	D	C		E
Approach Delay (s)		51.6			48.8				72.8			
Approach LOS		D			D				E			

Intersection Summary			
HCM 2000 Control Delay	49.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	115.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	2010	380
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1520
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1520
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	2209	418
RTOR Reduction (vph)	0	62
Lane Group Flow (vph)	2209	356
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.1	54.1
Effective Green, g (s)	54.1	54.1
Actuated g/C Ratio	0.47	0.47
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2385	713
v/s Ratio Prot	c0.43	
v/s Ratio Perm		0.23
v/c Ratio	0.93	0.50
Uniform Delay, d1	28.7	21.2
Progression Factor	1.00	1.00
Incremental Delay, d2	7.7	2.5
Delay (s)	36.4	23.7
Level of Service	D	C
Approach Delay (s)	36.6	
Approach LOS	D	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	270	220	250	20	340	140	340	970	30	20	200	1020
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3068			3384		1770	5085	1559		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3068			3384		1770	5085	1559		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	276	224	255	20	347	143	347	990	31	20	204	1041
RTOR Reduction (vph)	0	141	0	0	29	0	0	0	19	0	0	0
Lane Group Flow (vph)	248	366	0	0	481	0	347	990	12	0	224	1041
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	27.8	27.8			17.1		28.0	50.3	50.3		19.0	41.3
Effective Green, g (s)	27.8	27.8			17.1		28.0	50.3	50.3		19.0	41.3
Actuated g/C Ratio	0.22	0.22			0.13		0.22	0.39	0.39		0.15	0.32
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	349	665			451		386	1995	611		262	1638
v/s Ratio Prot	c0.15	0.12			c0.14		c0.20	0.19			0.13	c0.20
v/s Ratio Perm									0.01			
v/c Ratio	0.71	0.55			1.07		0.90	0.50	0.02		0.85	0.64
Uniform Delay, d1	46.5	44.6			55.5		48.7	29.4	23.9		53.3	37.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.7	1.0			60.9		22.8	0.9	0.1		22.8	1.9
Delay (s)	53.1	45.6			116.4		71.5	30.3	23.9		76.1	38.9
Level of Service	D	D			F		E	C	C		E	D
Approach Delay (s)		48.1			116.4			40.6				39.6
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	50.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	128.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	320
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	327
RTOR Reduction (vph)	41
Lane Group Flow (vph)	286
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	69.1
Effective Green, g (s)	69.1
Actuated g/C Ratio	0.54
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	853
v/s Ratio Prot	0.07
v/s Ratio Perm	0.11
v/c Ratio	0.34
Uniform Delay, d1	16.6
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	16.9
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	0	230	10	20	10	140	240	10	0	260	190
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	93	0	237	10	21	10	144	247	10	0	268	196
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	949	923	374	1151	1016	278	470			263		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	949	923	374	1151	1016	278	470			263		
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 %	52	100	64	90	90	99	87			100		
cM capacity (veh/h)	191	232	668	100	204	745	1086			1296		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	93	237	41	144	258	464
Volume Left	93	0	10	144	0	0
Volume Right	0	237	10	0	10	196
cSH	191	668	189	1086	1700	1296
Volume to Capacity	0.48	0.36	0.22	0.13	0.15	0.00
Queue Length 95th (ft)	59	40	20	11	0	0
Control Delay (s)	40.3	13.3	29.2	8.8	0.0	0.0
Lane LOS	E	B	D	A		
Approach Delay (s)	20.9		29.2	3.2		0.0
Approach LOS	C		D			

Intersection Summary				
Average Delay	7.6			
Intersection Capacity Utilization	60.6%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	1210	330	490	1700	190	440	100	580	440	80	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1493	2477	5085	1551	3433	1863	1574	3433	1863	1462
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1493	2477	5085	1551	3433	1863	1574	3433	1863	1462
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	101	1222	333	495	1717	192	444	101	586	444	81	253
RTOR Reduction (vph)	0	0	120	0	0	60	0	0	45	0	0	211
Lane Group Flow (vph)	101	1222	213	495	1717	132	444	101	541	444	81	42
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	12.5	46.7	46.7	31.2	65.4	65.4	22.6	22.6	53.8	23.4	23.4	23.4
Effective Green, g (s)	12.5	46.7	46.7	31.2	65.4	65.4	22.6	22.6	53.8	23.4	23.4	23.4
Actuated g/C Ratio	0.09	0.33	0.33	0.22	0.46	0.46	0.16	0.16	0.38	0.16	0.16	0.16
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	155	1673	491	544	2343	714	546	296	596	566	307	241
v/s Ratio Prot	0.06	c0.24		c0.20	0.34		0.13	0.05	c0.20	c0.13	0.04	
v/s Ratio Perm			0.14			0.08			0.14			0.03
v/c Ratio	0.65	0.73	0.43	0.91	0.73	0.18	0.81	0.34	0.91	0.78	0.26	0.17
Uniform Delay, d1	62.6	42.0	37.3	54.0	31.1	22.5	57.6	53.0	41.7	56.8	51.7	50.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.3	2.8	2.8	18.7	2.1	0.6	8.6	0.3	17.3	6.5	0.2	0.1
Delay (s)	69.9	44.9	40.0	72.7	33.2	23.1	66.2	53.3	59.0	63.3	51.9	51.1
Level of Service	E	D	D	E	C	C	E	D	E	E	D	D
Approach Delay (s)		45.4			40.5			61.3			58.2	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	48.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	141.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1340	900	0	1260	160	0	0	0	400	0	1170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.97	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4615	1336		5085	1547				1681	1453	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4615	1336		5085	1547				1681	1453	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1411	947	0	1326	168	0	0	0	421	0	1232
RTOR Reduction (vph)	0	39	0	0	0	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	1779	540	0	1326	168	0	0	0	379	629	637
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		48.2	115.0		48.2	115.0				59.8	59.8	59.8
Effective Green, g (s)		48.2	115.0		48.2	115.0				59.8	59.8	59.8
Actuated g/C Ratio		0.42	1.00		0.42	1.00				0.52	0.52	0.52
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1934	1336		2131	1547				874	755	782
v/s Ratio Prot		c0.39			0.26							
v/s Ratio Perm			0.40			0.11				0.23	0.43	0.42
v/c Ratio		0.92	0.40		0.62	0.11				0.43	0.83	0.81
Uniform Delay, d1		31.6	0.0		26.2	0.0				17.1	23.4	23.0
Progression Factor		1.00	1.00		0.58	1.00				1.00	1.00	1.00
Incremental Delay, d2		8.6	0.9		1.3	0.1				0.3	7.8	6.5
Delay (s)		40.2	0.9		16.6	0.1				17.5	31.2	29.5
Level of Service		D	A		B	A				B	C	C
Approach Delay (s)		31.2			14.7			0.0			27.4	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	870	1050	0	550	850	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	897	1082	0	567	876	103
RTOR Reduction (vph)	0	0	0	0	0	42
Lane Group Flow (vph)	897	1082	0	567	876	61
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	70.5	115.0		70.5	37.5	37.5
Effective Green, g (s)	70.5	115.0		70.5	37.5	37.5
Actuated g/C Ratio	0.61	1.00		0.61	0.33	0.33
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2169	1532		2169	1119	516
v/s Ratio Prot	0.25			0.16	c0.26	
v/s Ratio Perm		c0.71				0.04
v/c Ratio	0.41	0.71		0.26	0.78	0.12
Uniform Delay, d1	11.5	0.0		10.3	35.1	27.2
Progression Factor	0.34	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	1.8		0.3	3.6	0.1
Delay (s)	4.3	1.8		10.5	38.7	27.3
Level of Service	A	A		B	D	C
Approach Delay (s)	2.9			10.5	37.5	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	150	80	224	70	100	40	10	174	1279	30	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1752	1622			1771			1770	5060			1770
Flt Permitted	0.50	1.00			0.48			0.95	1.00			0.95
Satd. Flow (perm)	919	1622			867			1770	5060			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	156	83	233	73	104	42	10	181	1332	31	21	52
RTOR Reduction (vph)	0	142	0	0	12	0	0	0	2	0	0	0
Lane Group Flow (vph)	156	174	0	0	207	0	0	191	1361	0	0	73
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	18.1	18.1			18.1			12.8	44.9			7.0
Effective Green, g (s)	18.1	18.1			18.1			12.8	44.9			7.0
Actuated g/C Ratio	0.23	0.23			0.23			0.16	0.56			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	207	366			196			283	2839			154
v/s Ratio Prot		0.11						c0.11	0.27			0.04
v/s Ratio Perm	0.17				c0.24							
v/c Ratio	0.75	0.47			1.05			0.67	0.48			0.47
Uniform Delay, d1	28.9	26.8			30.9			31.6	10.5			34.7
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	14.4	1.0			79.3			6.2	0.6			2.3
Delay (s)	43.2	27.8			110.3			37.9	11.1			37.0
Level of Service	D	C			F			D	B			D
Approach Delay (s)		32.9			110.3				14.4			
Approach LOS		C			F				B			

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	98.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1670	70
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5048	
Flt Permitted	1.00	
Satd. Flow (perm)	5048	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1740	73
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1808	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	39.1	
Effective Green, g (s)	39.1	
Actuated g/C Ratio	0.49	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2467	
v/s Ratio Prot	c0.36	
v/s Ratio Perm		
v/c Ratio	0.73	
Uniform Delay, d1	16.3	
Progression Factor	1.00	
Incremental Delay, d2	2.0	
Delay (s)	18.3	
Level of Service	B	
Approach Delay (s)	19.0	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	60	1483	1904	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	61	1513	1943	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.82	0.73	0.00	0.73			
vC, conflicting volume	2599	676	0	1981			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	687	0	0	1029			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	96	93	0	87			
cM capacity (veh/h)	267	775	0	479			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	61	504	504	504	777	777	409
Volume Left	10	61	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	588	479	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.10	0.13	0.30	0.30	0.30	0.46	0.46	0.24
Queue Length 95th (ft)	9	11	0	0	0	0	0	0
Control Delay (s)	11.8	13.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	11.8	0.5				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	153	0	54	20	20	1419	235	100	1884
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	*0.80
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.98		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4808		1770	4461
Flt Permitted					0.95	1.00		0.95	1.00		0.08	1.00
Satd. Flow (perm)					1770	1583		1770	4808		151	4461
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	166	0	59	21	21	1494	255	109	1983
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	15	0	0	1
Lane Group Flow (vph)	0	0	0	0	166	8	0	42	1734	0	109	2003
Confl. Peds. (#/hr)								10				
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					13.6	13.6		5.5	62.0		68.9	68.9
Effective Green, g (s)					13.6	13.6		5.5	62.0		68.9	68.9
Actuated g/C Ratio					0.14	0.14		0.06	0.62		0.69	0.69
Clearance Time (s)					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
Lane Grp Cap (vph)					240	215		97	2980		104	3073
v/s Ratio Prot								c0.02	0.36			0.45
v/s Ratio Perm					0.09	0.01					c0.72	
v/c Ratio					0.69	0.04		0.43	0.58		1.05	0.65
Uniform Delay, d1					41.2	37.5		45.7	11.3		15.5	8.8
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					8.3	0.1		3.1	0.8		101.8	1.1
Delay (s)					49.5	37.6		48.8	12.1		117.4	9.9
Level of Service					D	D		D	B		F	A
Approach Delay (s)		0.0			46.4				13.0			15.4
Approach LOS		A			D				B			B

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	20
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	21
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	10
Confl. Bikes (#/hr)	9
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	167	863	80	507	267	939	10	30	932	827	1026	1121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3476		4990	3539	1503		1770	5085	1560	3433	5060
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3476		4990	3539	1503		1770	5085	1560	3433	5060
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	170	881	82	517	272	958	10	31	951	844	1047	1144
RTOR Reduction (vph)	0	5	0	0	0	18	0	0	0	100	0	1
Lane Group Flow (vph)	170	958	0	517	272	940	0	41	951	744	1047	1174
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.8	39.4		16.6	43.5	94.0		7.3	42.6	42.6	50.5	86.8
Effective Green, g (s)	10.8	39.4		16.6	43.5	94.0		7.3	42.6	42.6	50.5	86.8
Actuated g/C Ratio	0.07	0.24		0.10	0.26	0.57		0.04	0.26	0.26	0.30	0.52
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	115	826		499	929	893		77	1307	401	1046	2650
v/s Ratio Prot	c0.10	0.28		c0.10	0.08	c0.32		0.02	0.19		0.30	0.23
v/s Ratio Perm						0.30				c0.48		
v/c Ratio	1.48	1.16		1.04	0.29	1.05		0.53	0.73	1.86	1.00	0.44
Uniform Delay, d1	77.4	63.1		74.5	48.8	35.8		77.5	56.2	61.5	57.6	24.5
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	255.9	85.5		49.9	0.8	44.9		3.5	3.6	394.9	28.1	0.1
Delay (s)	333.4	148.6		124.5	49.6	80.7		81.0	59.8	456.5	85.7	24.6
Level of Service	F	F		F	D	F		F	E	F	F	C
Approach Delay (s)		176.3			88.8				242.6			53.4
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	132.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	165.7	Sum of lost time (s)	18.3
Intersection Capacity Utilization	118.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	302	165	130	56	73	166	100	1481	115	20	225	1076
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.93			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1705			3464	1483	1770	5085	1544		1770	5085
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1705			3464	1483	1770	5085	1544		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	318	174	137	59	77	175	105	1559	121	21	237	1133
RTOR Reduction (vph)	0	21	0	0	0	158	0	0	57	0	0	0
Lane Group Flow (vph)	318	290	0	0	136	17	105	1559	64	0	258	1133
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.0	19.0			9.6	9.6	7.0	38.3	38.3		19.8	51.1
Effective Green, g (s)	19.0	19.0			9.6	9.6	7.0	38.3	38.3		19.8	51.1
Actuated g/C Ratio	0.19	0.19			0.09	0.09	0.07	0.38	0.38		0.19	0.50
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	330	318			326	139	121	1915	581		344	2555
v/s Ratio Prot	c0.18	0.17			c0.04		c0.06	c0.31			c0.15	0.22
v/s Ratio Perm						0.01			0.04			
v/c Ratio	0.96	0.91			0.42	0.12	0.87	0.81	0.11		0.75	0.44
Uniform Delay, d1	41.0	40.5			43.4	42.2	46.9	28.5	20.6		38.6	16.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	39.6	28.9			0.9	0.4	43.7	3.9	0.4		8.9	0.6
Delay (s)	80.6	69.4			44.3	42.6	90.6	32.4	21.0		47.5	16.8
Level of Service	F	E			D	D	F	C	C		D	B
Approach Delay (s)		75.1			43.3			35.1				21.2
Approach LOS		E			D			D				C

Intersection Summary			
HCM 2000 Control Delay	36.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	101.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	306
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1534
Flt Permitted	1.00
Satd. Flow (perm)	1534
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	322
RTOR Reduction (vph)	95
Lane Group Flow (vph)	227
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.1
Effective Green, g (s)	51.1
Actuated g/C Ratio	0.50
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	770
v/s Ratio Prot	
v/s Ratio Perm	0.15
v/c Ratio	0.29
Uniform Delay, d1	14.8
Progression Factor	1.00
Incremental Delay, d2	1.0
Delay (s)	15.8
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	333	340	200	33	256	62	300	1332	50	10	256	645
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			0.97		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3204			3429		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3204			3429		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	370	378	222	37	284	69	333	1480	56	11	284	717
RTOR Reduction (vph)	0	59	0	0	16	0	0	0	39	0	0	0
Lane Group Flow (vph)	326	585	0	0	374	0	333	1480	17	0	295	717
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	29.7	29.7			11.1		20.1	31.1	31.1		17.1	28.1
Effective Green, g (s)	29.7	29.7			11.1		20.1	31.1	31.1		17.1	28.1
Actuated g/C Ratio	0.29	0.29			0.11		0.20	0.30	0.30		0.17	0.27
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	464	923			369		345	1535	477		293	1387
v/s Ratio Prot	c0.20	0.18			c0.11		0.19	c0.29			c0.17	0.14
v/s Ratio Perm									0.01			
v/c Ratio	0.70	0.63			1.01		0.97	0.96	0.04		1.01	0.52
Uniform Delay, d1	32.7	31.9			46.0		41.1	35.4	25.4		43.0	31.7
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	4.8	1.4			50.3		38.9	15.9	0.1		54.3	1.4
Delay (s)	37.5	33.3			96.2		80.0	51.3	25.5		97.3	33.1
Level of Service	D	C			F		E	D	C		F	C
Approach Delay (s)		34.7			96.2			55.6				42.1
Approach LOS		C			F			E				D

Intersection Summary			
HCM 2000 Control Delay	50.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	103.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	301
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1569
Flt Permitted	1.00
Satd. Flow (perm)	1569
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	334
RTOR Reduction (vph)	29
Lane Group Flow (vph)	305
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	57.8
Effective Green, g (s)	57.8
Actuated g/C Ratio	0.56
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	880
v/s Ratio Prot	0.10
v/s Ratio Perm	0.09
v/c Ratio	0.35
Uniform Delay, d1	12.3
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	12.5
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	226	10	260	10	10	10	10	70	284	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	263	12	302	12	12	12	0	81	330	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	856	869	292	1149	941	416	0	370			391
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	856	869	292	1149	941	416	0	370			391
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	0	95	59	86	95	98	0	93			99
cM capacity (veh/h)	0	225	252	734	86	228	595	0	1167			1120

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	274	302	35	81	342	359
Volume Left	263	0	12	81	0	12
Volume Right	0	302	12	0	12	156
cSH	226	734	169	1167	1700	1120
Volume to Capacity	1.21	0.41	0.21	0.07	0.20	0.01
Queue Length 95th (ft)	341	51	19	6	0	1
Control Delay (s)	174.5	13.3	31.7	8.3	0.0	0.4
Lane LOS	F	B	D	A		A
Approach Delay (s)	90.0		31.7	1.6		0.4
Approach LOS	F		D			

Intersection Summary				
Average Delay	38.6			
Intersection Capacity Utilization	73.2%	ICU Level of Service		D
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	165	134
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	192	156
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	506	1706	594	709	1325	679	254	237	432	235	69	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.91
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (prot)	1770	5085	1515	2477	5085	1561	3433	1863	1573	1681	1722	1442
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5085	1515	2477	5085	1561	3433	1863	1573	1681	1722	1442
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	527	1777	619	739	1380	707	265	247	450	245	72	139
RTOR Reduction (vph)	0	0	155	0	0	256	0	0	47	0	0	122
Lane Group Flow (vph)	527	1777	464	739	1380	451	265	247	403	157	160	17
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.0	60.1	60.1	30.0	65.1	65.1	21.8	21.8	51.8	18.3	18.3	18.3
Effective Green, g (s)	25.0	60.1	60.1	30.0	65.1	65.1	21.8	21.8	51.8	18.3	18.3	18.3
Actuated g/C Ratio	0.17	0.41	0.41	0.20	0.44	0.44	0.15	0.15	0.35	0.12	0.12	0.12
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	298	2062	614	501	2233	685	504	274	549	207	212	178
v/s Ratio Prot	c0.30	c0.35		c0.30	0.27		0.08	c0.13	0.15	c0.09	0.09	
v/s Ratio Perm			0.31			0.29			0.11			0.01
v/c Ratio	1.77	0.86	0.76	1.48	0.62	0.66	0.53	0.90	0.73	0.76	0.75	0.10
Uniform Delay, d1	61.6	40.3	37.8	59.1	32.0	32.8	58.4	62.1	42.2	62.8	62.8	57.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	359.2	5.0	8.5	224.4	1.3	4.9	0.5	29.6	4.4	13.2	12.7	0.1
Delay (s)	420.8	45.3	46.2	283.5	33.3	37.7	58.9	91.7	46.6	76.0	75.4	57.7
Level of Service	F	D	D	F	C	D	E	F	D	E	E	E
Approach Delay (s)		113.2			99.8			61.5			70.2	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	98.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	148.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	100.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1390	803	0	1395	110	0	0	0	600	0	1268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.97	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4651	1337		5085	1551				1681	1441	1486
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4651	1337		5085	1551				1681	1441	1486
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1418	819	0	1423	112	0	0	0	612	0	1294
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	1696	508	0	1423	112	0	0	0	551	677	668
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		31.2	90.0		31.2	90.0				51.6	51.6	51.6
Effective Green, g (s)		31.2	90.0		31.2	90.0				51.6	51.6	51.6
Actuated g/C Ratio		0.35	1.00		0.35	1.00				0.57	0.57	0.57
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1612	1337		1762	1551				963	826	851
v/s Ratio Prot		c0.36			0.28							
v/s Ratio Perm			0.38			0.07				0.33	0.47	0.45
v/c Ratio		1.05	0.38		0.81	0.07				0.57	0.82	0.78
Uniform Delay, d1		29.4	0.0		26.7	0.0				12.2	15.5	14.9
Progression Factor		1.00	1.00		0.79	1.00				1.00	1.00	1.00
Incremental Delay, d2		37.6	0.8		2.0	0.0				0.8	6.4	4.8
Delay (s)		67.0	0.8		22.9	0.0				13.0	21.8	19.7
Level of Service		E	A		C	A				B	C	B
Approach Delay (s)		52.0			21.2			0.0			18.5	
Approach LOS		D			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1083	1047	0	236	1299	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1116	1079	0	243	1339	526
RTOR Reduction (vph)	0	0	0	0	0	35
Lane Group Flow (vph)	1116	1079	0	243	1339	491
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	48.0	90.0		48.0	35.0	35.0
Effective Green, g (s)	48.0	90.0		48.0	35.0	35.0
Actuated g/C Ratio	0.53	1.00		0.53	0.39	0.39
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1887	1528		1887	1335	605
v/s Ratio Prot	0.32			0.07	c0.39	
v/s Ratio Perm		c0.71				0.31
v/c Ratio	0.59	0.71		0.13	1.00	0.81
Uniform Delay, d1	14.3	0.0		10.5	27.5	24.5
Progression Factor	0.62	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	1.5		0.1	25.4	8.1
Delay (s)	9.5	1.5		10.7	52.9	32.6
Level of Service	A	A		B	D	C
Approach Delay (s)	5.6			10.7	47.2	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	200	70	185	110	50	40	10	280	1887	90	30	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1758	1627			1747			1770	5023			1770
Flt Permitted	0.60	1.00			0.46			0.95	1.00			0.95
Satd. Flow (perm)	1104	1627			832			1770	5023			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	206	72	191	113	52	41	10	289	1945	93	31	82
RTOR Reduction (vph)	0	112	0	0	11	0	0	0	5	0	0	0
Lane Group Flow (vph)	206	151	0	0	195	0	0	299	2033	0	0	113
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	21.5	21.5			21.5			18.1	49.3			9.2
Effective Green, g (s)	21.5	21.5			21.5			18.1	49.3			9.2
Actuated g/C Ratio	0.24	0.24			0.24			0.20	0.55			0.10
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	263	388			198			355	2751			180
v/s Ratio Prot		0.09						c0.17	c0.40			0.06
v/s Ratio Perm	0.19				c0.23							
v/c Ratio	0.78	0.39			0.99			0.84	0.74			0.63
Uniform Delay, d1	32.1	28.7			34.1			34.6	15.5			38.8
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	14.1	0.6			59.6			16.4	1.8			6.7
Delay (s)	46.2	29.4			93.7			50.9	17.3			45.4
Level of Service	D	C			F			D	B			D
Approach Delay (s)		36.8			93.7				21.6			
Approach LOS		D			F				C			

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1632	90
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5032	
Flt Permitted	1.00	
Satd. Flow (perm)	5032	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1682	93
RTOR Reduction (vph)	6	0
Lane Group Flow (vph)	1769	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	40.4	
Effective Green, g (s)	40.4	
Actuated g/C Ratio	0.45	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2258	
v/s Ratio Prot	0.35	
v/s Ratio Perm		
v/c Ratio	0.78	
Uniform Delay, d1	21.1	
Progression Factor	1.00	
Incremental Delay, d2	2.8	
Delay (s)	23.9	
Level of Service	C	
Approach Delay (s)	25.2	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	130	2207	1887	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	137	2323	1986	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.77	0.71	0.00	0.71			
vC, conflicting volume	3147	765	0	2110			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	178	0	0	1114			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	97	90	0	67			
cM capacity (veh/h)	377	713	0	409			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	137	774	774	774	795	795	439
Volume Left	11	137	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	642	409	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.13	0.33	0.46	0.46	0.46	0.47	0.47	0.26
Queue Length 95th (ft)	11	36	0	0	0	0	0	0
Control Delay (s)	11.5	18.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	C						
Approach Delay (s)	11.5	1.0				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	318	0	113	30	70	2224	145	62	1845
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	0.91
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4869		1770	5062
Flt Permitted					0.95	1.00		0.95	1.00		0.06	1.00
Satd. Flow (perm)					1770	1583		1770	4869		106	5062
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	346	0	123	32	74	2341	158	67	1942
RTOR Reduction (vph)	0	0	0	0	0	68	0	0	5	0	0	1
Lane Group Flow (vph)	0	0	0	0	346	55	0	106	2494	0	67	1973
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					16.0	16.0		11.9	70.0		70.1	70.1
Effective Green, g (s)					16.0	16.0		11.9	70.0		70.1	70.1
Actuated g/C Ratio					0.15	0.15		0.11	0.64		0.64	0.64
Clearance Time (s)					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
Lane Grp Cap (vph)					257	230		191	3098		67	3225
v/s Ratio Prot								c0.06	0.51			0.39
v/s Ratio Perm					0.20	0.04					c0.63	
v/c Ratio					1.35	0.24		0.55	0.81		1.00	0.61
Uniform Delay, d1					47.0	41.6		46.5	14.9		20.0	11.9
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					179.5	0.5		3.5	2.3		110.0	0.9
Delay (s)					226.5	42.2		50.0	17.3		129.9	12.7
Level of Service					F	D		D	B		F	B
Approach Delay (s)		0.0			178.1				18.6			16.6
Approach LOS		A			F				B			B

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	32
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	32
Confl. Bikes (#/hr)	3
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	139	407	90	823	656	1407	10	130	793	861	1015	1418
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3418		4990	3539	1514		1770	5085	1543	3433	5044
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3418		4990	3539	1514		1770	5085	1543	3433	5044
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	146	428	95	866	691	1481	11	137	835	906	1068	1493
RTOR Reduction (vph)	0	11	0	0	0	18	0	0	0	158	0	3
Lane Group Flow (vph)	146	512	0	866	691	1463	0	148	835	748	1068	1553
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.10	0.26	0.26	0.28	0.45
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	812		632	1068	915		169	1319	400	946	2246
v/s Ratio Prot	0.08	0.15		c0.17	0.20	c0.44		0.08	0.16		0.31	0.31
v/s Ratio Perm						0.53				c0.49		
v/c Ratio	1.59	0.63		1.37	0.65	1.60		0.88	0.63	1.87	1.13	0.69
Uniform Delay, d1	78.2	56.4		72.0	50.0	34.9		73.6	54.1	61.1	59.8	36.7
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	309.3	3.7		176.6	3.0	274.8		35.3	2.3	401.2	71.5	0.9
Delay (s)	387.5	60.1		248.6	53.0	309.6		108.9	56.5	462.3	131.3	37.6
Level of Service	F	E		F	D	F		F	E	F	F	D
Approach Delay (s)		131.5			233.9				255.2			75.7
Approach LOS		F			F				F			E

Intersection Summary			
HCM 2000 Control Delay	180.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.74		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	143.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	63
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	306	123	150	84	145	345	10	140	1392	46	50	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.92			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1680			3476	1499		1770	5085	1555		1770
Flt Permitted	0.95	1.00			0.98	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1680			3476	1499		1770	5085	1555		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	336	135	165	92	159	379	11	154	1530	51	55	259
RTOR Reduction (vph)	0	31	0	0	0	190	0	0	0	36	0	0
Lane Group Flow (vph)	336	269	0	0	251	189	0	165	1530	15	0	314
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	26.2	26.2			21.9	21.9		7.0	35.9	35.9		25.5
Effective Green, g (s)	26.2	26.2			21.9	21.9		7.0	35.9	35.9		25.5
Actuated g/C Ratio	0.21	0.21			0.18	0.18		0.06	0.29	0.29		0.20
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	372	353			611	263		99	1466	448		362
v/s Ratio Prot	c0.19	0.16			0.07			c0.09	0.30			0.18
v/s Ratio Perm						c0.13				0.01		
v/c Ratio	0.90	0.76			0.41	0.72		1.67	1.04	0.03		0.87
Uniform Delay, d1	47.9	46.2			45.6	48.4		58.8	44.3	31.8		47.9
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	24.3	9.4			0.5	9.0		340.1	35.8	0.1		19.1
Delay (s)	72.3	55.6			46.0	57.4		398.8	80.1	32.0		67.0
Level of Service	E	E			D	E		F	F	C		E
Approach Delay (s)		64.4			52.8				108.8			
Approach LOS		E			D				F			

Intersection Summary			
HCM 2000 Control Delay	76.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	124.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	105.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	2145	391
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1517
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1517
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	2357	430
RTOR Reduction (vph)	0	64
Lane Group Flow (vph)	2357	366
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.4	54.4
Effective Green, g (s)	54.4	54.4
Actuated g/C Ratio	0.44	0.44
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2221	662
v/s Ratio Prot	c0.46	
v/s Ratio Perm		0.24
v/c Ratio	1.06	0.55
Uniform Delay, d1	35.0	26.0
Progression Factor	1.00	1.00
Incremental Delay, d2	37.8	3.3
Delay (s)	72.8	29.3
Level of Service	E	C
Approach Delay (s)	66.2	
Approach LOS	E	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	294	220	250	47	372	146	340	1078	30	20	210	1179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.93			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3075			3388		1770	5085	1557		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3075			3388		1770	5085	1557		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	300	224	255	48	380	149	347	1100	31	20	214	1203
RTOR Reduction (vph)	0	164	0	0	28	0	0	0	22	0	0	0
Lane Group Flow (vph)	267	348	0	0	549	0	347	1100	9	0	234	1203
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	26.8	26.8			18.1		23.1	33.3	33.3		17.9	28.1
Effective Green, g (s)	26.8	26.8			18.1		23.1	33.3	33.3		17.9	28.1
Actuated g/C Ratio	0.24	0.24			0.16		0.21	0.30	0.30		0.16	0.26
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	391	748			556		371	1537	470		287	1297
v/s Ratio Prot	c0.17	0.11			c0.16		c0.20	0.22			0.13	c0.24
v/s Ratio Perm									0.01			
v/c Ratio	0.68	0.47			0.99		0.94	0.72	0.02		0.82	0.93
Uniform Delay, d1	37.8	35.5			45.9		42.8	34.2	26.9		44.5	40.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	4.9	0.5			34.4		30.4	2.9	0.1		16.1	12.8
Delay (s)	42.7	36.0			80.3		73.2	37.1	27.0		60.6	52.8
Level of Service	D	D			F		E	D	C		E	D
Approach Delay (s)		38.3			80.3			45.3				47.0
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	49.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.1	Sum of lost time (s)	14.0
Intersection Capacity Utilization	96.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	339
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	346
RTOR Reduction (vph)	35
Lane Group Flow (vph)	311
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	54.9
Effective Green, g (s)	54.9
Actuated g/C Ratio	0.50
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	789
v/s Ratio Prot	0.10
v/s Ratio Perm	0.10
v/c Ratio	0.39
Uniform Delay, d1	17.2
Progression Factor	1.00
Incremental Delay, d2	0.3
Delay (s)	17.6
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	124	0	230	10	20	10	140	248	10	0	334	344
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	128	0	237	10	21	10	144	256	10	0	344	355
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1113	1087	530	1315	1259	286	705			271		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1113	1087	530	1315	1259	286	705			271		
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 %	8	100	57	84	85	99	84			100		
cM capacity (veh/h)	139	179	545	66	141	738	889			1287		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	128	237	41	144	266	699
Volume Left	128	0	10	144	0	0
Volume Right	0	237	10	0	10	355
cSH	139	545	130	889	1700	1287
Volume to Capacity	0.92	0.43	0.32	0.16	0.16	0.00
Queue Length 95th (ft)	157	55	31	14	0	0
Control Delay (s)	118.0	16.6	44.9	9.8	0.0	0.0
Lane LOS	F	C	E	A		
Approach Delay (s)	52.1		44.9	3.5		0.0
Approach LOS	F		E			

Intersection Summary				
Average Delay	14.7			
Intersection Capacity Utilization	76.2%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	1555	410	535	1901	289	553	110	674	596	96	402
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (prot)	1770	5085	1485	2477	5085	1550	3433	1863	1573	1681	1708	1450
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5085	1485	2477	5085	1550	3433	1863	1573	1681	1708	1450
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	199	1571	414	540	1920	292	559	111	681	602	97	406
RTOR Reduction (vph)	0	0	123	0	0	98	0	0	45	0	0	212
Lane Group Flow (vph)	199	1571	291	540	1920	194	559	111	636	349	350	194
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	21.1	46.5	46.5	31.0	56.4	56.4	28.2	28.2	59.2	34.0	34.0	34.0
Effective Green, g (s)	21.1	46.5	46.5	31.0	56.4	56.4	28.2	28.2	59.2	34.0	34.0	34.0
Actuated g/C Ratio	0.13	0.29	0.29	0.20	0.36	0.36	0.18	0.18	0.38	0.22	0.22	0.22
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	236	1499	437	486	1818	554	613	333	590	362	368	312
v/s Ratio Prot	0.11	c0.31		0.22	c0.38		0.16	0.06	c0.21	c0.21	0.20	
v/s Ratio Perm			0.20			0.13			0.19			0.13
v/c Ratio	0.84	1.05	0.67	1.11	1.06	0.35	0.91	0.33	1.08	0.96	0.95	0.62
Uniform Delay, d1	66.7	55.6	48.8	63.3	50.6	37.2	63.5	56.5	49.2	61.2	61.0	56.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.2	36.9	7.8	74.8	37.7	1.7	17.6	0.2	59.8	37.4	34.0	2.8
Delay (s)	88.9	92.5	56.6	138.1	88.4	38.9	81.2	56.8	109.1	98.6	95.0	58.8
Level of Service	F	F	E	F	F	D	F	E	F	F	F	E
Approach Delay (s)		85.4			92.9			93.2			82.9	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	89.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	157.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1625	1209	0	1454	160	0	0	0	400	0	1321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4591	1336		5085	1547				1681	1451	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4591	1336		5085	1547				1681	1451	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1711	1273	0	1531	168	0	0	0	421	0	1391
RTOR Reduction (vph)	0	69	0	0	0	0	0	0	0	0	7	7
Lane Group Flow (vph)	0	2228	687	0	1531	168	0	0	0	379	717	702
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		42.0	90.0		42.0	90.0				41.0	41.0	41.0
Effective Green, g (s)		42.0	90.0		42.0	90.0				41.0	41.0	41.0
Actuated g/C Ratio		0.47	1.00		0.47	1.00				0.46	0.46	0.46
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		2142	1336		2373	1547				765	661	685
v/s Ratio Prot		c0.49			0.30							
v/s Ratio Perm			0.51			0.11				0.23	0.49	0.47
v/c Ratio		1.04	0.51		0.65	0.11				0.50	1.09	1.03
Uniform Delay, d1		24.0	0.0		18.3	0.0				17.2	24.5	24.5
Progression Factor		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Incremental Delay, d2		30.9	1.4		1.4	0.1				0.5	60.4	41.0
Delay (s)		54.9	1.4		19.7	0.1				17.7	84.9	65.5
Level of Service		D	A		B	A				B	F	E
Approach Delay (s)		42.6			17.7			0.0			63.3	
Approach LOS		D			B			A			E	

Intersection Summary			
HCM 2000 Control Delay	41.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	895	1310	0	564	1030	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	923	1351	0	581	1062	103
RTOR Reduction (vph)	0	0	0	0	0	33
Lane Group Flow (vph)	923	1351	0	581	1062	70
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	63.5	115.0		63.5	44.5	44.5
Effective Green, g (s)	63.5	115.0		63.5	44.5	44.5
Actuated g/C Ratio	0.55	1.00		0.55	0.39	0.39
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1954	1532		1954	1328	612
v/s Ratio Prot	0.26			0.16	0.31	
v/s Ratio Perm		c0.88				0.04
v/c Ratio	0.47	0.88		0.30	0.80	0.11
Uniform Delay, d1	15.6	0.0		13.8	31.3	22.6
Progression Factor	0.33	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.8		0.4	3.5	0.1
Delay (s)	5.2	0.8		14.2	34.8	22.7
Level of Service	A	A		B	C	C
Approach Delay (s)	2.6			14.2	33.7	
Approach LOS	A			B	C	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
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	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	150	80	211	70	100	40	10	163	1201	30	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1752	1625			1771			1770	5058			1770
Flt Permitted	0.50	1.00			0.51			0.95	1.00			0.95
Satd. Flow (perm)	917	1625			913			1770	5058			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	156	83	220	73	104	42	10	170	1251	31	21	52
RTOR Reduction (vph)	0	134	0	0	12	0	0	0	3	0	0	0
Lane Group Flow (vph)	156	169	0	0	207	0	0	180	1279	0	0	73
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	18.0	18.0			18.0			12.4	45.0			7.0
Effective Green, g (s)	18.0	18.0			18.0			12.4	45.0			7.0
Actuated g/C Ratio	0.22	0.22			0.22			0.16	0.56			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	206	365			205			274	2845			154
v/s Ratio Prot		0.10						c0.10	0.25			0.04
v/s Ratio Perm	0.17				c0.23							
v/c Ratio	0.76	0.46			1.01			0.66	0.45			0.47
Uniform Delay, d1	29.0	26.8			31.0			31.8	10.2			34.7
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	14.7	0.9			64.9			5.6	0.5			2.3
Delay (s)	43.6	27.7			95.9			37.4	10.8			37.0
Level of Service	D	C			F			D	B			D
Approach Delay (s)		33.1			95.9				14.0			
Approach LOS		C			F				B			

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1516	70
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5045	
Flt Permitted	1.00	
Satd. Flow (perm)	5045	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1579	73
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1647	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	39.6	
Effective Green, g (s)	39.6	
Actuated g/C Ratio	0.50	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2497	
v/s Ratio Prot	c0.33	
v/s Ratio Perm		
v/c Ratio	0.66	
Uniform Delay, d1	15.1	
Progression Factor	1.00	
Incremental Delay, d2	1.4	
Delay (s)	16.5	
Level of Service	B	
Approach Delay (s)	17.4	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	60	1394	1737	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	61	1422	1772	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.84	0.77	0.00	0.77			
vC, conflicting volume	2398	619	0	1811			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	933	0	0	1010			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	95	94	0	88			
cM capacity (veh/h)	192	823	0	518			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	61	474	474	474	709	709	375
Volume Left	10	61	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	532	518	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.12	0.12	0.28	0.28	0.28	0.42	0.42	0.22
Queue Length 95th (ft)	10	10	0	0	0	0	0	0
Control Delay (s)	12.6	12.9	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	12.6	0.5				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	82	0	29	20	20	1355	107	45	1772
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	*0.80
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4860		1770	4460
Flt Permitted					0.95	1.00		0.95	1.00		0.12	1.00
Satd. Flow (perm)					1770	1583		1770	4860		217	4460
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	89	0	32	21	21	1426	116	49	1865
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	5	0	0	1
Lane Group Flow (vph)	0	0	0	0	89	3	0	42	1537	0	49	1885
Confl. Peds. (#/hr)								10				
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					9.1	9.1		5.5	66.5		73.4	73.4
Effective Green, g (s)					9.1	9.1		5.5	66.5		73.4	73.4
Actuated g/C Ratio					0.09	0.09		0.06	0.66		0.73	0.73
Clearance Time (s)					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
Lane Grp Cap (vph)					161	144		97	3231		159	3273
v/s Ratio Prot								c0.02	0.32			c0.42
v/s Ratio Perm					0.05	0.00					0.23	
v/c Ratio					0.55	0.02		0.43	0.48		0.31	0.58
Uniform Delay, d1					43.5	41.4		45.7	8.2		4.6	6.1
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					4.1	0.1		3.1	0.5		5.0	0.7
Delay (s)					47.6	41.4		48.8	8.7		9.5	6.9
Level of Service					D	D		D	A		A	A
Approach Delay (s)		0.0			45.9				9.8			6.9
Approach LOS		A			D				A			A

Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	20
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	21
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	10
Confl. Bikes (#/hr)	9
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	141	810	80	440	240	693	10	30	876	675	864	1100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3473		4990	3539	1500		1770	5085	1561	3433	5059
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3473		4990	3539	1500		1770	5085	1561	3433	5059
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	144	827	82	449	245	707	10	31	894	689	882	1122
RTOR Reduction (vph)	0	4	0	0	0	19	0	0	0	102	0	1
Lane Group Flow (vph)	144	905	0	449	245	688	0	41	894	587	882	1152
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.8	39.9		16.2	43.6	87.6		7.1	42.7	42.7	44.0	80.6
Effective Green, g (s)	10.8	39.9		16.2	43.6	87.6		7.1	42.7	42.7	44.0	80.6
Actuated g/C Ratio	0.07	0.25		0.10	0.27	0.55		0.04	0.27	0.27	0.28	0.51
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	119	869		507	968	866		78	1362	418	947	2558
v/s Ratio Prot	c0.08	c0.26		c0.09	0.07	c0.22		0.02	0.18		c0.26	0.23
v/s Ratio Perm						0.24				c0.38		
v/c Ratio	1.21	1.04		0.89	0.25	0.79		0.53	0.66	1.40	0.93	0.45
Uniform Delay, d1	74.3	59.8		70.7	45.2	28.7		74.5	51.8	58.4	56.2	25.2
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	149.6	41.7		16.4	0.6	4.7		2.9	2.5	195.3	15.1	0.1
Delay (s)	223.9	101.4		87.0	45.8	33.4		77.4	54.3	253.7	71.4	25.3
Level of Service	F	F		F	D	C		E	D	F	E	C
Approach Delay (s)		118.2			52.8				139.5			45.3
Approach LOS		F			D				F			D

Intersection Summary			
HCM 2000 Control Delay	84.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	159.4	Sum of lost time (s)	18.3
Intersection Capacity Utilization	111.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	292	162	130	44	71	145	100	1304	102	20	212	1007
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.93			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1704			3473	1483	1770	5085	1544		1770	5085
Flt Permitted	0.95	1.00			0.98	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1704			3473	1483	1770	5085	1544		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	307	171	137	46	75	153	105	1373	107	21	223	1060
RTOR Reduction (vph)	0	21	0	0	0	139	0	0	56	0	0	0
Lane Group Flow (vph)	307	287	0	0	121	14	105	1373	51	0	244	1060
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.0	19.0			9.0	9.0	7.0	39.2	39.2		18.8	51.0
Effective Green, g (s)	19.0	19.0			9.0	9.0	7.0	39.2	39.2		18.8	51.0
Actuated g/C Ratio	0.19	0.19			0.09	0.09	0.07	0.39	0.39		0.19	0.50
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	332	320			309	132	122	1973	599		329	2567
v/s Ratio Prot	c0.17	0.17			c0.03		c0.06	c0.27			c0.14	0.21
v/s Ratio Perm						0.01			0.03			
v/c Ratio	0.92	0.90			0.39	0.10	0.86	0.70	0.08		0.74	0.41
Uniform Delay, d1	40.3	40.0			43.4	42.3	46.5	25.9	19.5		38.8	15.6
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	30.5	25.8			0.8	0.3	42.2	2.1	0.3		8.7	0.5
Delay (s)	70.8	65.9			44.2	42.6	88.8	28.0	19.8		47.5	16.1
Level of Service	E	E			D	D	F	C	B		D	B
Approach Delay (s)		68.3			43.3			31.4				20.7
Approach LOS		E			D			C				C

Intersection Summary			
HCM 2000 Control Delay	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	101.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	301
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1534
Flt Permitted	1.00
Satd. Flow (perm)	1534
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	317
RTOR Reduction (vph)	100
Lane Group Flow (vph)	217
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.0
Effective Green, g (s)	51.0
Actuated g/C Ratio	0.50
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	774
v/s Ratio Prot	
v/s Ratio Perm	0.14
v/c Ratio	0.28
Uniform Delay, d1	14.4
Progression Factor	1.00
Incremental Delay, d2	0.9
Delay (s)	15.3
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	299	340	200	27	248	50	300	1186	50	10	250	581
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			0.98		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3203			3443		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3203			3443		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.90	0.90
Adj. Flow (vph)	332	378	222	30	276	56	333	1318	56	11	278	646
RTOR Reduction (vph)	0	47	0	0	11	0	0	0	28	0	0	0
Lane Group Flow (vph)	299	586	0	0	351	0	333	1318	28	0	289	646
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	32.3	32.3			13.1		27.6	52.8	52.8		20.1	45.3
Effective Green, g (s)	32.3	32.3			13.1		27.6	52.8	52.8		20.1	45.3
Actuated g/C Ratio	0.24	0.24			0.10		0.21	0.40	0.40		0.15	0.34
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	393	781			340		369	2029	631		268	1741
v/s Ratio Prot	c0.19	0.18			c0.10		c0.19	c0.26			c0.16	0.13
v/s Ratio Perm									0.02			
v/c Ratio	0.76	0.75			1.03		0.90	0.65	0.04		1.08	0.37
Uniform Delay, d1	46.4	46.3			59.6		51.0	32.2	24.3		56.1	32.8
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.4	4.1			57.6		24.4	1.6	0.1		77.4	0.6
Delay (s)	54.8	50.4			117.2		75.4	33.9	24.4		133.5	33.4
Level of Service	D	D			F		E	C	C		F	C
Approach Delay (s)		51.8			117.2			41.7				51.4
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	53.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	132.3	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	290
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	322
RTOR Reduction (vph)	43
Lane Group Flow (vph)	279
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	77.6
Effective Green, g (s)	77.6
Actuated g/C Ratio	0.59
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	917
v/s Ratio Prot	0.07
v/s Ratio Perm	0.10
v/c Ratio	0.30
Uniform Delay, d1	13.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	14.0
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	195	10	260	10	10	10	10	70	276	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.92	0.86	0.86	0.86	0.86	0.86	0.86	0.92	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	227	12	302	12	12	12	0	81	321	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	809	821	253	1101	873	407	0	312			382
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	809	821	253	1101	873	407	0	312			382
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	7	96	61	88	95	98	0	93			99
cM capacity (veh/h)	0	244	269	771	96	251	602	0	1226			1129

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	238	302	35	81	333	301
Volume Left	227	0	12	81	0	12
Volume Right	0	302	12	0	12	116
cSH	245	771	187	1226	1700	1129
Volume to Capacity	0.97	0.39	0.19	0.07	0.20	0.01
Queue Length 95th (ft)	226	47	17	5	0	1
Control Delay (s)	94.2	12.7	28.6	8.1	0.0	0.4
Lane LOS	F	B	D	A		A
Approach Delay (s)	48.6		28.6	1.6		0.4
Approach LOS	E		D			

Intersection Summary				
Average Delay	21.7			
Intersection Capacity Utilization	69.8%	ICU Level of Service		C
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	149	100
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	173	116
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	1629	459	580	1147	520	175	220	370	150	60	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1518	2477	5085	1561	3433	1863	1574	3433	1863	1449
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1518	2477	5085	1561	3433	1863	1574	3433	1863	1449
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	365	1697	478	604	1195	542	182	229	385	156	62	52
RTOR Reduction (vph)	0	0	119	0	0	252	0	0	84	0	0	48
Lane Group Flow (vph)	365	1697	359	604	1195	290	182	229	301	156	62	4
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	25.0	60.1	60.1	30.0	65.1	65.1	20.5	20.5	50.5	10.7	10.7	10.7
Effective Green, g (s)	25.0	60.1	60.1	30.0	65.1	65.1	20.5	20.5	50.5	10.7	10.7	10.7
Actuated g/C Ratio	0.18	0.43	0.43	0.22	0.47	0.47	0.15	0.15	0.36	0.08	0.08	0.08
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	317	2193	654	533	2376	729	505	274	570	263	143	111
v/s Ratio Prot	c0.21	c0.33		c0.24	0.23		0.05	c0.12	0.11	c0.05	0.03	
v/s Ratio Perm			0.24			0.19			0.08			0.00
v/c Ratio	1.15	0.77	0.55	1.13	0.50	0.40	0.36	0.84	0.53	0.59	0.43	0.04
Uniform Delay, d1	57.2	33.8	29.5	54.7	25.8	24.3	53.5	57.8	35.0	62.2	61.4	59.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	98.1	2.7	3.3	81.2	0.8	1.6	0.2	18.5	0.4	2.4	0.8	0.0
Delay (s)	155.3	36.5	32.8	135.8	26.6	25.9	53.7	76.3	35.4	64.6	62.2	59.6
Level of Service	F	D	C	F	C	C	D	E	D	E	E	E
Approach Delay (s)		52.9			54.6			51.4			63.1	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	53.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	139.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1283	686	0	1133	110	0	0	0	600	0	1064
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.98	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4672	1337		5085	1551				1681	1444	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4672	1337		5085	1551				1681	1444	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1309	700	0	1156	112	0	0	0	612	0	1086
RTOR Reduction (vph)	0	24	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1530	455	0	1156	112	0	0	0	551	565	570
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		35.1	90.0		35.1	90.0				47.7	47.7	47.7
Effective Green, g (s)		35.1	90.0		35.1	90.0				47.7	47.7	47.7
Actuated g/C Ratio		0.39	1.00		0.39	1.00				0.53	0.53	0.53
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1822	1337		1983	1551				890	765	787
v/s Ratio Prot		c0.33			0.23							
v/s Ratio Perm			0.34			0.07				0.33	0.39	0.38
v/c Ratio		0.84	0.34		0.58	0.07				0.62	0.74	0.72
Uniform Delay, d1		24.9	0.0		21.7	0.0				14.8	16.3	16.1
Progression Factor		1.00	1.00		0.68	1.00				1.00	1.00	1.00
Incremental Delay, d2		4.8	0.7		0.9	0.1				1.3	3.8	3.3
Delay (s)		29.7	0.7		15.6	0.1				16.1	20.1	19.5
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		23.2			14.2			0.0			18.6	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1074	949	0	216	1057	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1107	978	0	223	1090	526
RTOR Reduction (vph)	0	0	0	0	0	38
Lane Group Flow (vph)	1107	978	0	223	1090	488
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	49.7	90.0		49.7	33.3	33.3
Effective Green, g (s)	49.7	90.0		49.7	33.3	33.3
Actuated g/C Ratio	0.55	1.00		0.55	0.37	0.37
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1954	1528		1954	1270	576
v/s Ratio Prot	0.31			0.06	c0.32	
v/s Ratio Perm		c0.64				0.31
v/c Ratio	0.57	0.64		0.11	0.86	0.85
Uniform Delay, d1	13.1	0.0		9.6	26.2	26.0
Progression Factor	0.69	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	1.5		0.1	6.0	11.1
Delay (s)	9.9	1.5		9.7	32.1	37.1
Level of Service	A	A		A	C	D
Approach Delay (s)	5.9			9.7	33.8	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	200	70	179	110	50	40	10	255	1742	90	30	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1758	1629			1747			1770	5019			1770
Flt Permitted	0.60	1.00			0.47			0.95	1.00			0.95
Satd. Flow (perm)	1103	1629			844			1770	5019			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	206	72	185	113	52	41	10	263	1796	93	31	82
RTOR Reduction (vph)	0	108	0	0	11	0	0	0	5	0	0	0
Lane Group Flow (vph)	206	149	0	0	195	0	0	273	1884	0	0	113
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	21.3	21.3			21.3			17.3	49.5			9.2
Effective Green, g (s)	21.3	21.3			21.3			17.3	49.5			9.2
Actuated g/C Ratio	0.24	0.24			0.24			0.19	0.55			0.10
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	261	385			199			340	2760			180
v/s Ratio Prot		0.09						c0.15	0.38			0.06
v/s Ratio Perm	0.19				c0.23							
v/c Ratio	0.79	0.39			0.98			0.80	0.68			0.63
Uniform Delay, d1	32.2	28.9			34.2			34.7	14.6			38.8
Progression Factor	1.00	1.00			1.00			1.00	1.00			1.00
Incremental Delay, d2	14.6	0.6			58.2			12.8	1.4			6.7
Delay (s)	46.8	29.5			92.3			47.5	16.0			45.4
Level of Service	D	C			F			D	B			D
Approach Delay (s)		37.2			92.3				20.0			
Approach LOS		D			F				B			

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1560	90
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5030	
Flt Permitted	1.00	
Satd. Flow (perm)	5030	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1608	93
RTOR Reduction (vph)	6	0
Lane Group Flow (vph)	1695	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	41.4	
Effective Green, g (s)	41.4	
Actuated g/C Ratio	0.46	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2313	
v/s Ratio Prot	c0.34	
v/s Ratio Perm		
v/c Ratio	0.73	
Uniform Delay, d1	19.8	
Progression Factor	1.00	
Incremental Delay, d2	2.1	
Delay (s)	21.9	
Level of Service	C	
Approach Delay (s)	23.4	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	130	2037	1809	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	137	2144	1904	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.83	0.73	0.00	0.73			
vC, conflicting volume	3006	738	0	2028			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	500	0	0	1123			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	96	90	0	68			
cM capacity (veh/h)	258	739	0	421			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	137	715	715	715	762	762	423
Volume Left	11	137	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	599	421	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.32	0.42	0.42	0.42	0.45	0.45	0.25
Queue Length 95th (ft)	12	35	0	0	0	0	0	0
Control Delay (s)	12.0	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	C						
Approach Delay (s)	12.0	1.1				0.0		
Approach LOS	B							

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	161	0	57	30	70	2110	92	39	1790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor					1.00	1.00		1.00	0.91		1.00	0.91
Frpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Flpb, ped/bikes					1.00	1.00		1.00	1.00		1.00	1.00
Frt					1.00	0.85		1.00	0.99		1.00	1.00
Flt Protected					0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)					1770	1583		1770	4884		1770	5062
Flt Permitted					0.95	1.00		0.95	1.00		0.06	1.00
Satd. Flow (perm)					1770	1583		1770	4884		104	5062
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.95
Adj. Flow (vph)	0	0	0	175	0	62	32	74	2221	100	42	1884
RTOR Reduction (vph)	0	0	0	0	0	54	0	0	3	0	0	1
Lane Group Flow (vph)	0	0	0	0	175	8	0	106	2318	0	42	1915
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Parking (#/hr)									0			
Turn Type				Perm	NA	Perm	Prot	Prot	NA		Perm	NA
Protected Phases					8		1	1	6			2
Permitted Phases				8		8					2	
Actuated Green, G (s)					14.5	14.5		11.9	71.5		71.6	71.6
Effective Green, g (s)					14.5	14.5		11.9	71.5		71.6	71.6
Actuated g/C Ratio					0.13	0.13		0.11	0.65		0.65	0.65
Clearance Time (s)					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
Lane Grp Cap (vph)					233	208		191	3174		67	3294
v/s Ratio Prot								c0.06	c0.47			0.38
v/s Ratio Perm					0.10	0.01					0.40	
v/c Ratio					0.75	0.04		0.55	0.73		0.63	0.58
Uniform Delay, d1					46.0	41.7		46.5	12.8		11.3	10.8
Progression Factor					1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2					12.8	0.1		3.5	1.5		37.0	0.8
Delay (s)					58.8	41.7		50.0	14.3		48.3	11.5
Level of Service					E	D		D	B		D	B
Approach Delay (s)		0.0			54.3				15.9			12.3
Approach LOS		A			D				B			B

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	32
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	32
Confl. Bikes (#/hr)	3
Parking (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	128	380	90	710	610	1240	10	130	770	748	824	1396
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3411		4990	3539	1514		1770	5085	1543	3433	5044
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3411		4990	3539	1514		1770	5085	1543	3433	5044
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	135	400	95	747	642	1305	11	137	811	787	867	1469
RTOR Reduction (vph)	0	12	0	0	0	18	0	0	0	165	0	3
Lane Group Flow (vph)	135	483	0	747	642	1287	0	148	811	622	867	1529
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.10	0.26	0.26	0.28	0.45
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	810		632	1068	915		169	1319	400	946	2246
v/s Ratio Prot	0.08	0.14		c0.15	0.18	c0.39		0.08	0.16		0.25	0.30
v/s Ratio Perm						0.46				c0.40		
v/c Ratio	1.47	0.60		1.18	0.60	1.41		0.88	0.61	1.55	0.92	0.68
Uniform Delay, d1	78.2	55.9		72.0	49.1	34.9		73.6	53.8	61.1	57.9	36.4
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	260.0	3.2		97.4	2.5	189.6		35.3	2.2	261.6	13.0	0.9
Delay (s)	338.2	59.1		169.5	51.6	224.5		108.9	56.0	322.7	70.9	37.3
Level of Service	F	E		F	D	F		F	E	F	E	D
Approach Delay (s)		118.9			168.0				180.7			49.4
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	128.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.50		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	132.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	63
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	302	122	150	57	143	298	10	140	1308	40	50	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.92			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1680			3489	1501		1770	5085	1555		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1680			3489	1501		1770	5085	1555		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	332	134	165	63	157	327	11	154	1437	44	55	253
RTOR Reduction (vph)	0	30	0	0	0	199	0	0	0	31	0	0
Lane Group Flow (vph)	332	269	0	0	220	128	0	165	1437	13	0	308
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	26.1	26.1			17.0	17.0		7.0	36.4	36.4		24.8
Effective Green, g (s)	26.1	26.1			17.0	17.0		7.0	36.4	36.4		24.8
Actuated g/C Ratio	0.22	0.22			0.14	0.14		0.06	0.31	0.31		0.21
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	387	367			497	213		103	1551	474		367
v/s Ratio Prot	c0.19	0.16			0.06			c0.09	0.28			0.17
v/s Ratio Perm						c0.09				0.01		
v/c Ratio	0.86	0.73			0.44	0.60		1.60	0.93	0.03		0.84
Uniform Delay, d1	44.8	43.3			46.8	48.0		56.1	40.2	29.1		45.3
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	16.9	7.3			0.6	4.7		311.3	11.0	0.1		15.4
Delay (s)	61.7	50.7			47.4	52.7		367.5	51.1	29.2		60.7
Level of Service	E	D			D	D		F	D	C		E
Approach Delay (s)		56.5			50.6				82.3			
Approach LOS		E			D				F			

Intersection Summary			
HCM 2000 Control Delay	56.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	119.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	2024	383
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1519
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1519
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	2224	421
RTOR Reduction (vph)	0	64
Lane Group Flow (vph)	2224	357
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.2	54.2
Effective Green, g (s)	54.2	54.2
Actuated g/C Ratio	0.45	0.45
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2310	690
v/s Ratio Prot	c0.44	
v/s Ratio Perm		0.24
v/c Ratio	0.96	0.52
Uniform Delay, d1	31.6	23.2
Progression Factor	1.00	1.00
Incremental Delay, d2	11.8	2.8
Delay (s)	43.4	26.0
Level of Service	D	C
Approach Delay (s)	42.7	
Approach LOS	D	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	278	220	250	34	356	140	340	1010	30	20	200	1061
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3068			3388		1770	5085	1559		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3068			3388		1770	5085	1559		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	284	224	255	35	363	143	347	1031	31	20	204	1083
RTOR Reduction (vph)	0	140	0	0	26	0	0	0	19	0	0	0
Lane Group Flow (vph)	256	367	0	0	515	0	347	1031	12	0	224	1083
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	28.6	28.6			17.1		28.1	50.3	50.3		19.1	41.3
Effective Green, g (s)	28.6	28.6			17.1		28.1	50.3	50.3		19.1	41.3
Actuated g/C Ratio	0.22	0.22			0.13		0.22	0.39	0.39		0.15	0.32
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	356	679			448		385	1981	607		261	1626
v/s Ratio Prot	c0.16	0.12			c0.15		c0.20	0.20			0.13	c0.21
v/s Ratio Perm									0.01			
v/c Ratio	0.72	0.54			1.15		0.90	0.52	0.02		0.86	0.67
Uniform Delay, d1	46.5	44.4			56.0		49.2	30.2	24.2		53.7	37.9
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.8	0.9			90.3		23.5	1.0	0.1		23.3	2.2
Delay (s)	53.3	45.3			146.3		72.6	31.1	24.3		76.9	40.1
Level of Service	D	D			F		E	C	C		E	D
Approach Delay (s)		48.0			146.3			41.2				40.5
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	55.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	129.1	Sum of lost time (s)	14.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	320
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	327
RTOR Reduction (vph)	40
Lane Group Flow (vph)	287
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	69.9
Effective Green, g (s)	69.9
Actuated g/C Ratio	0.54
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	857
v/s Ratio Prot	0.07
v/s Ratio Perm	0.11
v/c Ratio	0.33
Uniform Delay, d1	16.6
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	16.8
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	112	0	230	10	20	10	140	245	10	0	297	268
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	115	0	237	10	21	10	144	253	10	0	306	276
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1032	1007	452	1235	1140	283	588			268		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1032	1007	452	1235	1140	283	588			268		
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 %	29	100	61	87	88	99	85			100		
cM capacity (veh/h)	163	204	603	81	170	740	982			1290		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	115	237	41	144	263	582
Volume Left	115	0	10	144	0	0
Volume Right	0	237	10	0	10	276
cSH	163	603	157	982	1700	1290
Volume to Capacity	0.71	0.39	0.26	0.15	0.15	0.00
Queue Length 95th (ft)	106	47	25	13	0	0
Control Delay (s)	67.9	14.8	35.8	9.3	0.0	0.0
Lane LOS	F	B	E	A		
Approach Delay (s)	32.2		35.8	3.3		0.0
Approach LOS	D		E			

Intersection Summary				
Average Delay	10.2			
Intersection Capacity Utilization	68.7%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	1384	348	490	1827	190	453	100	580	440	80	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.92
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1492	2477	5085	1551	3433	1863	1574	3433	1863	1461
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1492	2477	5085	1551	3433	1863	1574	3433	1863	1461
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	101	1398	352	495	1845	192	458	101	586	444	81	253
RTOR Reduction (vph)	0	0	112	0	0	57	0	0	45	0	0	211
Lane Group Flow (vph)	101	1398	240	495	1845	135	458	101	541	444	81	42
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	12.6	46.7	46.7	31.2	65.3	65.3	23.1	23.1	54.3	23.5	23.5	23.5
Effective Green, g (s)	12.6	46.7	46.7	31.2	65.3	65.3	23.1	23.1	54.3	23.5	23.5	23.5
Actuated g/C Ratio	0.09	0.33	0.33	0.22	0.46	0.46	0.16	0.16	0.38	0.16	0.16	0.16
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	156	1666	488	542	2330	710	556	302	599	566	307	240
v/s Ratio Prot	0.06	c0.27		c0.20	0.36		0.13	0.05	c0.20	c0.13	0.04	
v/s Ratio Perm			0.16			0.09			0.15			0.03
v/c Ratio	0.65	0.84	0.49	0.91	0.79	0.19	0.82	0.33	0.90	0.78	0.26	0.17
Uniform Delay, d1	62.8	44.4	38.4	54.3	32.8	22.9	57.7	52.9	41.6	57.1	51.9	51.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.7	5.3	3.5	19.5	2.9	0.6	9.2	0.2	16.7	6.5	0.2	0.1
Delay (s)	69.5	49.7	41.9	73.9	35.7	23.5	66.9	53.1	58.4	63.6	52.1	51.3
Level of Service	E	D	D	E	D	C	E	D	E	E	D	D
Approach Delay (s)		49.3			42.2			61.3			58.4	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	49.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	142.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1423	991	0	1331	160	0	0	0	400	0	1225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4606	1336		5085	1547				1681	1452	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4606	1336		5085	1547				1681	1452	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1498	1043	0	1401	168	0	0	0	421	0	1289
RTOR Reduction (vph)	0	45	0	0	0	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	1912	584	0	1401	168	0	0	0	379	670	653
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		46.4	115.0		46.4	115.0				61.6	61.6	61.6
Effective Green, g (s)		46.4	115.0		46.4	115.0				61.6	61.6	61.6
Actuated g/C Ratio		0.40	1.00		0.40	1.00				0.54	0.54	0.54
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1858	1336		2051	1547				900	777	805
v/s Ratio Prot		c0.42			0.28							
v/s Ratio Perm			0.44			0.11				0.23	0.46	0.43
v/c Ratio		1.03	0.44		0.68	0.11				0.42	0.86	0.81
Uniform Delay, d1		34.3	0.0		28.2	0.0				16.0	23.0	21.9
Progression Factor		1.00	1.00		0.62	1.00				1.00	1.00	1.00
Incremental Delay, d2		28.7	1.0		1.7	0.1				0.3	9.7	6.2
Delay (s)		63.0	1.0		19.1	0.1				16.3	32.7	28.1
Level of Service		E	A		B	A				B	C	C
Approach Delay (s)		48.7			17.1			0.0			27.3	
Approach LOS		D			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	33.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	877	1126	0	555	916	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	904	1161	0	572	944	103
RTOR Reduction (vph)	0	0	0	0	0	39
Lane Group Flow (vph)	904	1161	0	572	944	64
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	67.8	115.0		67.8	40.2	40.2
Effective Green, g (s)	67.8	115.0		67.8	40.2	40.2
Actuated g/C Ratio	0.59	1.00		0.59	0.35	0.35
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2086	1532		2086	1200	553
v/s Ratio Prot	0.26			0.16	0.27	
v/s Ratio Perm		c0.76				0.04
v/c Ratio	0.43	0.76		0.27	0.79	0.12
Uniform Delay, d1	13.0	0.0		11.6	33.6	25.4
Progression Factor	0.33	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	1.9		0.3	3.5	0.1
Delay (s)	4.7	1.9		11.9	37.0	25.4
Level of Service	A	A		B	D	C
Approach Delay (s)	3.1			11.9	35.9	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	150	80	200	70	100	40	10	150	1203	30	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			0.99			1.00	1.00			1.00
Flpb, ped/bikes	0.99	1.00			1.00			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	1.00			1.00
Flt Protected	0.95	1.00			0.98			0.95	1.00			0.95
Satd. Flow (prot)	1752	1629			1771			1770	5058			1770
Flt Permitted	0.50	1.00			0.53			0.95	1.00			0.95
Satd. Flow (perm)	915	1629			956			1770	5058			1770
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	156	83	208	73	104	42	10	156	1253	31	21	52
RTOR Reduction (vph)	0	127	0	0	12	0	0	0	3	0	0	0
Lane Group Flow (vph)	156	164	0	0	207	0	0	166	1281	0	0	73
Confl. Peds. (#/hr)	21		18	18		21		9		25		25
Confl. Bikes (#/hr)			3							1		
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	17.9	17.9			17.9			12.0	45.1			7.0
Effective Green, g (s)	17.9	17.9			17.9			12.0	45.1			7.0
Actuated g/C Ratio	0.22	0.22			0.22			0.15	0.56			0.09
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	204	364			213			265	2851			154
v/s Ratio Prot		0.10						c0.09	0.25			0.04
v/s Ratio Perm	0.17				c0.22							
v/c Ratio	0.76	0.45			0.97			0.63	0.45			0.47
Uniform Delay, d1	29.1	26.8			30.8			31.9	10.2			34.7
Progression Factor	1.00	1.00			1.00			0.95	1.33			1.00
Incremental Delay, d2	15.6	0.9			52.4			4.4	0.5			2.3
Delay (s)	44.7	27.7			83.1			34.8	14.0			37.0
Level of Service	D	C			F			C	B			D
Approach Delay (s)		33.6			83.1				16.4			
Approach LOS		C			F				B			

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1524	70
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5045	
Flt Permitted	1.00	
Satd. Flow (perm)	5045	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	1588	73
RTOR Reduction (vph)	5	0
Lane Group Flow (vph)	1656	0
Confl. Peds. (#/hr)		9
Confl. Bikes (#/hr)		2
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	40.1	
Effective Green, g (s)	40.1	
Actuated g/C Ratio	0.50	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2528	
v/s Ratio Prot	c0.33	
v/s Ratio Perm		
v/c Ratio	0.66	
Uniform Delay, d1	14.8	
Progression Factor	1.00	
Incremental Delay, d2	1.3	
Delay (s)	16.2	
Level of Service	B	
Approach Delay (s)	17.0	
Approach LOS	B	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	50	10	60	1383	1734	20
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	51	0	61	1411	1769	20
Pedestrians	18					1	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	1					0	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.79	0.77	0.00	0.77			
vC, conflicting volume	2391	618	0	1808			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1489	0	0	1010			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	87	94	0	88			
cM capacity (veh/h)	79	824	0	518			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	61	61	470	470	470	708	708	374
Volume Left	10	61	0	0	0	0	0	0
Volume Right	51	0	0	0	0	0	0	20
cSH	320	518	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.19	0.12	0.28	0.28	0.28	0.42	0.42	0.22
Queue Length 95th (ft)	17	10	0	0	0	0	0	0
Control Delay (s)	18.9	12.9	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	B						
Approach Delay (s)	18.9	0.5				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	20	20	1373	1814	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	*0.80	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	4461	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	4461	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	21	21	1445	1909	21
RTOR Reduction (vph)	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	42	1445	1930	0
Confl. Peds. (#/hr)				10			10
Confl. Bikes (#/hr)							9
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				5.1	65.8	66.9	
Effective Green, g (s)				5.1	65.8	66.9	
Actuated g/C Ratio				0.06	0.82	0.84	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				112	4043	3730	
v/s Ratio Prot				c0.02	0.29	c0.43	
v/s Ratio Perm							
v/c Ratio				0.38	0.36	0.52	
Uniform Delay, d1				35.9	1.8	1.9	
Progression Factor				1.00	1.00	2.20	
Incremental Delay, d2				2.1	0.2	0.4	
Delay (s)				38.0	2.0	4.6	
Level of Service				D	A	A	
Approach Delay (s)	0.0				3.0	4.6	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	120	840	80	483	258	563	10	30	830	721	844	1080
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.95		1.00	1.00	0.99	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3475		4990	3539	1499		1770	5085	1561	3433	5059
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3475		4990	3539	1499		1770	5085	1561	3433	5059
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	122	857	82	493	263	574	10	31	847	736	861	1102
RTOR Reduction (vph)	0	5	0	0	0	19	0	0	0	103	0	1
Lane Group Flow (vph)	122	934	0	493	263	555	0	41	847	633	861	1132
Confl. Peds. (#/hr)			26			75				2		
Confl. Bikes (#/hr)			4			4						
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	10.8	39.5		16.6	43.6	86.5		7.1	42.7	42.7	42.9	79.5
Effective Green, g (s)	10.8	39.5		16.6	43.6	86.5		7.1	42.7	42.7	42.9	79.5
Actuated g/C Ratio	0.07	0.25		0.10	0.28	0.55		0.04	0.27	0.27	0.27	0.50
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	120	867		523	974	861		79	1371	421	930	2540
v/s Ratio Prot	0.07	c0.27		c0.10	0.07	0.17		0.02	0.17		c0.25	0.22
v/s Ratio Perm						0.20				c0.41		
v/c Ratio	1.02	1.08		0.94	0.27	0.64		0.52	0.62	1.50	0.93	0.45
Uniform Delay, d1	73.8	59.4		70.4	44.9	25.1		73.9	50.6	57.8	56.2	25.3
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	86.7	53.8		25.4	0.7	1.2		2.4	2.1	238.8	14.4	0.1
Delay (s)	160.4	113.2		95.8	45.6	26.4		76.3	52.7	296.6	70.6	25.4
Level of Service	F	F		F	D	C		E	D	F	E	C
Approach Delay (s)		118.6			55.9				163.8			44.9
Approach LOS		F			E				F			D

Intersection Summary			
HCM 2000 Control Delay	92.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	158.3	Sum of lost time (s)	18.3
Intersection Capacity Utilization	110.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	30
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	31
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	26
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	292	160	130	30	70	120	100	1329	90	20	200	1042
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	4.0
Lane Util. Factor	1.00	1.00			0.95	1.00	1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00	0.94	1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.93			1.00	0.85	1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1703			3487	1483	1770	5085	1545		1770	5085
Flt Permitted	0.95	1.00			0.99	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1703			3487	1483	1770	5085	1545		1770	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	307	168	137	32	74	126	105	1399	95	21	211	1097
RTOR Reduction (vph)	0	21	0	0	0	115	0	0	55	0	0	0
Lane Group Flow (vph)	307	284	0	0	106	11	105	1399	40	0	232	1097
Confl. Peds. (#/hr)			20			60	14		16		16	
Confl. Bikes (#/hr)			1			2			1			
Turn Type	Split	NA		Split	NA	Perm	Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases						7			6			
Actuated Green, G (s)	19.0	19.0			8.5	8.5	7.0	39.9	39.9		18.1	51.0
Effective Green, g (s)	19.0	19.0			8.5	8.5	7.0	39.9	39.9		18.1	51.0
Actuated g/C Ratio	0.19	0.19			0.08	0.08	0.07	0.40	0.40		0.18	0.51
Clearance Time (s)	4.0	4.0			4.0	4.0	3.0	4.0	4.0		3.0	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)	334	321			294	125	123	2018	613		318	2580
v/s Ratio Prot	c0.17	0.17			c0.03		c0.06	c0.28			c0.13	0.22
v/s Ratio Perm						0.01			0.03			
v/c Ratio	0.92	0.88			0.36	0.09	0.85	0.69	0.06		0.73	0.43
Uniform Delay, d1	40.0	39.7			43.4	42.4	46.2	25.2	18.8		38.9	15.5
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	29.1	23.8			0.8	0.3	40.3	2.0	0.2		8.1	0.5
Delay (s)	69.1	63.5			44.2	42.7	86.5	27.2	19.0		47.0	16.1
Level of Service	E	E			D	D	F	C	B		D	B
Approach Delay (s)		66.3			43.4			30.6				20.2
Approach LOS		E			D			C				C

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	302
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.97
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1535
Flt Permitted	1.00
Satd. Flow (perm)	1535
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	318
RTOR Reduction (vph)	96
Lane Group Flow (vph)	222
Confl. Peds. (#/hr)	14
Confl. Bikes (#/hr)	
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Actuated Green, G (s)	51.0
Effective Green, g (s)	51.0
Actuated g/C Ratio	0.51
Clearance Time (s)	4.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	778
v/s Ratio Prot	
v/s Ratio Perm	0.14
v/c Ratio	0.29
Uniform Delay, d1	14.3
Progression Factor	1.00
Incremental Delay, d2	0.9
Delay (s)	15.2
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	302	340	200	20	240	57	300	1190	50	10	254	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.95			0.97		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3204			3433		1770	5085	1583		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3204			3433		1770	5085	1583		1770	5085
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	336	378	222	22	267	63	333	1322	56	11	282	656
RTOR Reduction (vph)	0	47	0	0	14	0	0	0	28	0	0	0
Lane Group Flow (vph)	302	587	0	0	338	0	333	1322	28	0	293	656
Confl. Peds. (#/hr)							8					
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	32.4	32.4			13.1		27.6	52.8	52.8		20.1	45.3
Effective Green, g (s)	32.4	32.4			13.1		27.6	52.8	52.8		20.1	45.3
Actuated g/C Ratio	0.24	0.24			0.10		0.21	0.40	0.40		0.15	0.34
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	393	784			339		368	2027	631		268	1739
v/s Ratio Prot	c0.19	0.18			c0.10		c0.19	c0.26			c0.17	0.13
v/s Ratio Perm									0.02			
v/c Ratio	0.77	0.75			1.00		0.90	0.65	0.04		1.09	0.38
Uniform Delay, d1	46.5	46.2			59.6		51.1	32.3	24.4		56.2	32.9
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.8	3.9			48.1		24.8	1.6	0.1		82.2	0.6
Delay (s)	55.3	50.2			107.8		75.9	34.0	24.5		138.3	33.5
Level of Service	E	D			F		E	C	C		F	C
Approach Delay (s)		51.8			107.8			41.8				52.5
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	52.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	132.4	Sum of lost time (s)	14.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	298
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1564
Flt Permitted	1.00
Satd. Flow (perm)	1564
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	331
RTOR Reduction (vph)	43
Lane Group Flow (vph)	288
Confl. Peds. (#/hr)	8
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	77.7
Effective Green, g (s)	77.7
Actuated g/C Ratio	0.59
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	917
v/s Ratio Prot	0.08
v/s Ratio Perm	0.11
v/c Ratio	0.31
Uniform Delay, d1	13.9
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	14.1
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	10	170	10	260	10	10	10	10	70	270	10	10
Sign Control			Stop			Stop				Free		
Grade			0%			0%				0%		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	0	198	12	302	12	12	12	0	81	314	12	12
Pedestrians			22			49						
Lane Width (ft)			12.0			12.0						
Walking Speed (ft/s)			4.0			4.0						
Percent Blockage			2			4						
Right turn flare (veh)												
Median type										None		
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.00							0.00				
vC, conflicting volume	0	756	769	208	1049	798	400	0	243			375
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0	756	769	208	1049	798	400	0	243			375
tC, single (s)	0.0	7.1	6.5	6.2	7.1	6.5	6.2	0.0	4.1			4.1
tC, 2 stage (s)												
tF (s)	0.0	3.5	4.0	3.3	3.5	4.0	3.3	0.0	2.2			2.2
p0 queue free %	0	26	96	63	89	96	98	0	94			99
cM capacity (veh/h)	0	266	290	817	109	279	607	0	1299			1136

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	209	302	35	81	326	233
Volume Left	198	0	12	81	0	12
Volume Right	0	302	12	0	12	70
cSH	267	817	208	1299	1700	1136
Volume to Capacity	0.78	0.37	0.17	0.06	0.19	0.01
Queue Length 95th (ft)	149	43	15	5	0	1
Control Delay (s)	54.1	12.0	25.8	8.0	0.0	0.5
Lane LOS	F	B	D	A		A
Approach Delay (s)	29.2		25.8	1.6		0.5
Approach LOS	D		D			

Intersection Summary				
Average Delay	14.0			
Intersection Capacity Utilization	66.7%	ICU Level of Service		C
Analysis Period (min)	15			

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	130	60
Sign Control	Free	
Grade	0%	
Peak Hour Factor	0.86	0.86
Hourly flow rate (vph)	151	70
Pedestrians	31	
Lane Width (ft)	12.0	
Walking Speed (ft/s)	4.0	
Percent Blockage	3	
Right turn flare (veh)		
Median type	None	
Median storage veh)		
Upstream signal (ft)		
pX, platoon unblocked		
vC, conflicting volume		
vC1, stage 1 conf vol		
vC2, stage 2 conf vol		
vCu, unblocked vol		
tC, single (s)		
tC, 2 stage (s)		
tF (s)		
p0 queue free %		
cM capacity (veh/h)		
Direction, Lane #		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	506	1540	450	580	1000	679	160	237	370	246	70	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.91
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (prot)	1770	5085	1517	2477	5085	1561	3433	1863	1575	1681	1722	1447
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5085	1517	2477	5085	1561	3433	1863	1575	1681	1722	1447
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	527	1604	469	604	1042	707	167	247	385	256	73	150
RTOR Reduction (vph)	0	0	141	0	0	277	0	0	46	0	0	131
Lane Group Flow (vph)	527	1604	328	604	1042	430	167	247	339	164	165	19
Confl. Peds. (#/hr)			16			1			1			48
Confl. Bikes (#/hr)			2						4			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	43.6	49.3	49.3	36.0	41.7	41.7	19.9	19.9	55.9	18.2	18.2	18.2
Effective Green, g (s)	43.6	49.3	49.3	36.0	41.7	41.7	19.9	19.9	55.9	18.2	18.2	18.2
Actuated g/C Ratio	0.31	0.35	0.35	0.25	0.29	0.29	0.14	0.14	0.40	0.13	0.13	0.13
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	545	1772	528	630	1499	460	483	262	622	216	221	186
v/s Ratio Prot	c0.30	c0.32		0.24	0.20		0.05	c0.13	0.14	c0.10	0.10	
v/s Ratio Perm			0.22			c0.28			0.08			0.01
v/c Ratio	0.97	0.91	0.62	0.96	0.70	0.93	0.35	0.94	0.55	0.76	0.75	0.10
Uniform Delay, d1	48.2	43.8	38.3	52.0	44.2	48.5	54.9	60.2	32.9	59.5	59.4	54.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	29.8	8.1	5.4	25.5	2.7	28.4	0.2	39.7	0.5	12.7	11.3	0.1
Delay (s)	78.0	52.0	43.7	77.4	46.9	77.0	55.0	99.9	33.5	72.2	70.7	54.5
Level of Service	E	D	D	E	D	E	E	F	C	E	E	D
Approach Delay (s)		55.8			63.8			58.5			66.1	
Approach LOS		E			E			E			E	

Intersection Summary			
HCM 2000 Control Delay	59.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	141.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1286	690	0	1139	110	0	0	0	600	0	1070
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.2	3.2	3.2
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		1.00	0.98		1.00	0.98				1.00	0.99	0.99
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.98	0.85		1.00	0.85				1.00	0.87	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (prot)		4671	1337		5085	1551				1681	1444	1485
Flt Permitted		1.00	1.00		1.00	1.00				0.95	0.99	1.00
Satd. Flow (perm)		4671	1337		5085	1551				1681	1444	1485
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1312	704	0	1162	112	0	0	0	612	0	1092
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	0	0	6	6
Lane Group Flow (vph)	0	1533	458	0	1162	112	0	0	0	551	579	562
Confl. Peds. (#/hr)			17									
Confl. Bikes (#/hr)			5			1						1
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		34.6	90.0		34.6	90.0				48.2	48.2	48.2
Effective Green, g (s)		34.6	90.0		34.6	90.0				48.2	48.2	48.2
Actuated g/C Ratio		0.38	1.00		0.38	1.00				0.54	0.54	0.54
Clearance Time (s)		4.0			4.0					3.2	3.2	3.2
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1795	1337		1954	1551				900	773	795
v/s Ratio Prot		c0.33			0.23							
v/s Ratio Perm			0.34			0.07				0.33	0.40	0.38
v/c Ratio		0.85	0.34		0.59	0.07				0.61	0.75	0.71
Uniform Delay, d1		25.4	0.0		22.1	0.0				14.4	16.2	15.6
Progression Factor		1.00	1.00		0.68	1.00				1.00	1.00	1.00
Incremental Delay, d2		5.4	0.7		0.9	0.1				1.2	4.0	2.9
Delay (s)		30.8	0.7		15.9	0.1				15.7	20.2	18.5
Level of Service		C	A		B	A				B	C	B
Approach Delay (s)		24.0			14.5			0.0			18.2	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.2
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1074	952	0	217	1063	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1528		3539	3433	1558
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1528		3539	3433	1558
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1107	981	0	224	1096	526
RTOR Reduction (vph)	0	0	0	0	0	38
Lane Group Flow (vph)	1107	981	0	224	1096	488
Confl. Peds. (#/hr)		25				
Confl. Bikes (#/hr)		7				7
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	49.6	90.0		49.6	33.4	33.4
Effective Green, g (s)	49.6	90.0		49.6	33.4	33.4
Actuated g/C Ratio	0.55	1.00		0.55	0.37	0.37
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	1950	1528		1950	1274	578
v/s Ratio Prot	0.31			0.06	c0.32	
v/s Ratio Perm		c0.64				0.31
v/c Ratio	0.57	0.64		0.11	0.86	0.84
Uniform Delay, d1	13.2	0.0		9.7	26.1	25.9
Progression Factor	0.68	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	1.5		0.1	6.1	10.9
Delay (s)	9.8	1.5		9.8	32.3	36.8
Level of Service	A	A		A	C	D
Approach Delay (s)	5.9			9.8	33.8	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	200	70	170	110	50	40	10	230	1733	90	30	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Lane Util. Factor	1.00	1.00			1.00			1.00	0.91			1.00
Frpb, ped/bikes	1.00	0.98			1.00			1.00	0.99			1.00
Flpb, ped/bikes	0.99	1.00			0.99			1.00	1.00			1.00
Frt	1.00	0.89			0.97			1.00	0.99			1.00
Flt Protected	0.95	1.00			0.97			0.95	1.00			0.95
Satd. Flow (prot)	1758	1633			1747			1770	5018			1770
Flt Permitted	0.60	1.00			0.48			0.95	1.00			0.95
Satd. Flow (perm)	1102	1633			862			1770	5018			1770
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	206	72	175	113	52	41	10	237	1787	93	31	82
RTOR Reduction (vph)	0	104	0	0	11	0	0	0	5	0	0	0
Lane Group Flow (vph)	206	143	0	0	195	0	0	247	1875	0	0	113
Confl. Peds. (#/hr)	12		18	18		12		24		42		42
Confl. Bikes (#/hr)												
Turn Type	Perm	NA		Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8			4								
Actuated Green, G (s)	20.9	20.9			20.9			16.4	49.9			9.2
Effective Green, g (s)	20.9	20.9			20.9			16.4	49.9			9.2
Actuated g/C Ratio	0.23	0.23			0.23			0.18	0.55			0.10
Clearance Time (s)	3.0	3.0			3.0			3.0	4.0			3.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	255	379			200			322	2782			180
v/s Ratio Prot		0.09						c0.14	c0.37			0.06
v/s Ratio Perm	0.19				c0.23							
v/c Ratio	0.81	0.38			0.98			0.77	0.67			0.63
Uniform Delay, d1	32.7	29.1			34.3			35.0	14.3			38.8
Progression Factor	1.00	1.00			1.00			1.05	1.07			1.00
Incremental Delay, d2	16.9	0.6			56.2			9.0	1.1			6.7
Delay (s)	49.5	29.7			90.5			45.8	16.4			45.4
Level of Service	D	C			F			D	B			D
Approach Delay (s)		38.7			90.5				19.8			
Approach LOS		D			F				B			

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Volume (vph)	1563	90
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	
Lane Util. Factor	0.91	
Frpb, ped/bikes	1.00	
Flpb, ped/bikes	1.00	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5031	
Flt Permitted	1.00	
Satd. Flow (perm)	5031	
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	1611	93
RTOR Reduction (vph)	6	0
Lane Group Flow (vph)	1698	0
Confl. Peds. (#/hr)		24
Confl. Bikes (#/hr)		3
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	42.7	
Effective Green, g (s)	42.7	
Actuated g/C Ratio	0.47	
Clearance Time (s)	4.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2386	
v/s Ratio Prot	0.34	
v/s Ratio Perm		
v/c Ratio	0.71	
Uniform Delay, d1	18.8	
Progression Factor	1.00	
Incremental Delay, d2	1.8	
Delay (s)	20.6	
Level of Service	C	
Approach Delay (s)	22.1	
Approach LOS	C	

Intersection Summary

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (veh/h)	10	70	10	130	2003	1803	40
Sign Control	Stop				Free	Free	
Grade	0%				0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	74	0	137	2108	1898	42
Pedestrians	82					10	
Lane Width (ft)	12.0					12.0	
Walking Speed (ft/s)	4.0					4.0	
Percent Blockage	7					1	
Right turn flare (veh)							
Median type					None	None	
Median storage veh)							
Upstream signal (ft)					674	668	
pX, platoon unblocked	0.83	0.74	0.00	0.74			
vC, conflicting volume	2987	736	0	2022			
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1184	0	0	1145			
tC, single (s)	6.8	6.9	0.0	4.1			
tC, 2 stage (s)							
tF (s)	3.5	3.3	0.0	2.2			
p0 queue free %	89	90	0	67			
cM capacity (veh/h)	94	746	0	417			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	137	703	703	703	759	759	422
Volume Left	11	137	0	0	0	0	0	0
Volume Right	74	0	0	0	0	0	0	42
cSH	399	417	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.21	0.33	0.41	0.41	0.41	0.45	0.45	0.25
Queue Length 95th (ft)	20	35	0	0	0	0	0	0
Control Delay (s)	16.4	17.8	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C	C						
Approach Delay (s)	16.4	1.1				0.0		
Approach LOS	C							

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	0	0	30	70	2133	1823	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	
Lane Util. Factor				1.00	0.91	0.91	
Frpb, ped/bikes				1.00	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	
Frt				1.00	1.00	1.00	
Flt Protected				0.95	1.00	1.00	
Satd. Flow (prot)				1770	4916	5064	
Flt Permitted				0.95	1.00	1.00	
Satd. Flow (perm)				1770	4916	5064	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	32	74	2245	1919	32
RTOR Reduction (vph)	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	106	2245	1950	0
Confl. Peds. (#/hr)							32
Confl. Bikes (#/hr)							3
Parking (#/hr)					0		
Turn Type			Prot	Prot	NA	NA	
Protected Phases			1	1	6	2	
Permitted Phases							
Actuated Green, G (s)				9.4	70.0	72.6	
Effective Green, g (s)				9.4	70.0	72.6	
Actuated g/C Ratio				0.10	0.78	0.81	
Clearance Time (s)				4.0	4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	
Lane Grp Cap (vph)				184	3823	4084	
v/s Ratio Prot				c0.06	c0.46	c0.39	
v/s Ratio Perm							
v/c Ratio				0.58	0.59	0.48	
Uniform Delay, d1				38.4	4.1	2.7	
Progression Factor				1.00	1.00	2.06	
Incremental Delay, d2				4.3	0.7	0.3	
Delay (s)				42.7	4.8	5.9	
Level of Service				D	A	A	
Approach Delay (s)	0.0				6.5	5.9	
Approach LOS	A				A	A	

Intersection Summary			
HCM 2000 Control Delay	6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	110	404	90	780	639	1153	10	130	730	756	723	1370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Lane Util. Factor	1.00	0.95		0.94	0.95	1.00		1.00	0.91	1.00	0.97	0.91
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3417		4990	3539	1514		1770	5085	1543	3433	5043
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3417		4990	3539	1514		1770	5085	1543	3433	5043
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	425	95	821	673	1214	11	137	768	796	761	1442
RTOR Reduction (vph)	0	11	0	0	0	18	0	0	0	164	0	3
Lane Group Flow (vph)	116	509	0	821	673	1196	0	148	768	632	761	1502
Confl. Peds. (#/hr)			16			56				11		
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA	Perm	Prot	NA
Protected Phases	5	2		1	6	7	3	3	8		7	4
Permitted Phases						6				8		
Actuated Green, G (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Effective Green, g (s)	8.6	39.2		20.9	49.8	95.3		15.8	42.8	42.8	45.5	73.5
Actuated g/C Ratio	0.05	0.24		0.13	0.30	0.58		0.10	0.26	0.26	0.28	0.45
Clearance Time (s)	5.2	4.5		3.5	4.5	4.5		3.5	4.1	4.1	4.5	4.1
Vehicle Extension (s)	2.0	3.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	3.0
Lane Grp Cap (vph)	92	811		632	1068	915		169	1319	400	946	2246
v/s Ratio Prot	0.07	0.15		c0.16	0.19	c0.36		0.08	0.15		0.22	0.30
v/s Ratio Perm						0.43				c0.41		
v/c Ratio	1.26	0.63		1.30	0.63	1.31		0.88	0.58	1.58	0.80	0.67
Uniform Delay, d1	78.2	56.4		72.0	49.7	34.9		73.6	53.3	61.1	55.6	36.1
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	179.3	3.7		146.0	2.8	146.2		35.3	1.9	272.3	4.8	0.8
Delay (s)	257.5	60.0		218.0	52.5	181.1		108.9	55.2	333.4	60.4	36.9
Level of Service	F	E		F	D	F		F	E	F	E	D
Approach Delay (s)		96.0			160.3				189.2			44.8
Approach LOS		F			F				F			D

Intersection Summary			
HCM 2000 Control Delay	125.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	165.0	Sum of lost time (s)	18.3
Intersection Capacity Utilization	126.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	63
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	33
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	302	120	150	30	140	250	10	140	1324	30	50	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Lane Util. Factor	1.00	1.00			0.95	1.00		1.00	0.91	1.00		1.00
Frpb, ped/bikes	1.00	0.98			1.00	0.95		1.00	1.00	0.98		1.00
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Frt	1.00	0.92			1.00	0.85		1.00	1.00	0.85		1.00
Flt Protected	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (prot)	1770	1679			3508	1504		1770	5085	1556		1770
Flt Permitted	0.95	1.00			0.99	1.00		0.95	1.00	1.00		0.95
Satd. Flow (perm)	1770	1679			3508	1504		1770	5085	1556		1770
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	332	132	165	33	154	275	11	154	1455	33	55	242
RTOR Reduction (vph)	0	30	0	0	0	205	0	0	0	22	0	0
Lane Group Flow (vph)	332	267	0	0	187	70	0	165	1455	11	0	297
Confl. Peds. (#/hr)			12			43		18		6		6
Confl. Bikes (#/hr)			2									
Turn Type	Split	NA		Split	NA	Perm	Prot	Prot	NA	Perm	Prot	Prot
Protected Phases	8	8		7	7		1	1	6		5	5
Permitted Phases						7				6		
Actuated Green, G (s)	26.0	26.0			13.2	13.2		7.0	37.1	37.1		24.0
Effective Green, g (s)	26.0	26.0			13.2	13.2		7.0	37.1	37.1		24.0
Actuated g/C Ratio	0.23	0.23			0.11	0.11		0.06	0.32	0.32		0.21
Clearance Time (s)	4.0	4.0			4.0	4.0		3.0	4.0	4.0		3.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	399	378			401	172		107	1636	500		368
v/s Ratio Prot	c0.19	0.16			c0.05			c0.09	0.29			0.17
v/s Ratio Perm						0.05				0.01		
v/c Ratio	0.83	0.71			0.47	0.40		1.54	0.89	0.02		0.81
Uniform Delay, d1	42.6	41.1			47.8	47.4		54.1	37.2	26.7		43.4
Progression Factor	1.00	1.00			1.00	1.00		1.00	1.00	1.00		1.00
Incremental Delay, d2	13.8	5.9			0.9	1.6		284.9	7.7	0.1		12.2
Delay (s)	56.3	47.0			48.6	49.0		339.0	44.8	26.8		55.6
Level of Service	E	D			D	D		F	D	C		E
Approach Delay (s)		51.9			48.8				73.8			
Approach LOS		D			D				E			

Intersection Summary			
HCM 2000 Control Delay	51.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	115.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	103.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations	↑↑↑	↱
Volume (vph)	2077	382
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	4.0	4.0
Lane Util. Factor	0.91	1.00
Frpb, ped/bikes	1.00	0.96
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	5085	1520
Flt Permitted	1.00	1.00
Satd. Flow (perm)	5085	1520
Peak-hour factor, PHF	0.91	0.91
Adj. Flow (vph)	2282	420
RTOR Reduction (vph)	0	61
Lane Group Flow (vph)	2282	359
Confl. Peds. (#/hr)		18
Confl. Bikes (#/hr)		
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Actuated Green, G (s)	54.1	54.1
Effective Green, g (s)	54.1	54.1
Actuated g/C Ratio	0.47	0.47
Clearance Time (s)	4.0	4.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	2385	713
v/s Ratio Prot	c0.45	
v/s Ratio Perm		0.24
v/c Ratio	0.96	0.50
Uniform Delay, d1	29.5	21.3
Progression Factor	1.00	1.00
Incremental Delay, d2	10.8	2.5
Delay (s)	40.2	23.8
Level of Service	D	C
Approach Delay (s)	39.5	
Approach LOS	D	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Volume (vph)	280	220	250	20	340	145	340	1009	30	20	206	1069
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Lane Util. Factor	0.91	0.91			0.95		1.00	0.91	1.00		1.00	0.91
Frpb, ped/bikes	1.00	0.98			1.00		1.00	1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.92			0.96		1.00	1.00	0.85		1.00	1.00
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1610	3069			3380		1770	5085	1559		1770	5085
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1610	3069			3380		1770	5085	1559		1770	5085
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	286	224	255	20	347	148	347	1030	31	20	210	1091
RTOR Reduction (vph)	0	140	0	0	31	0	0	0	19	0	0	0
Lane Group Flow (vph)	257	368	0	0	484	0	347	1030	12	0	230	1091
Confl. Peds. (#/hr)			24						3		3	
Confl. Bikes (#/hr)									2			
Turn Type	Split	NA		Split	NA		Prot	NA	Perm	Prot	Prot	NA
Protected Phases	8	8		7	7		1	6		5	5	2
Permitted Phases									6			
Actuated Green, G (s)	28.6	28.6			17.1		28.1	50.1	50.1		19.3	41.3
Effective Green, g (s)	28.6	28.6			17.1		28.1	50.1	50.1		19.3	41.3
Actuated g/C Ratio	0.22	0.22			0.13		0.22	0.39	0.39		0.15	0.32
Clearance Time (s)	3.0	3.0			3.0		3.0	5.0	5.0		3.0	5.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	356	679			447		385	1973	605		264	1626
v/s Ratio Prot	c0.16	0.12			c0.14		c0.20	0.20			0.13	c0.21
v/s Ratio Perm									0.01			
v/c Ratio	0.72	0.54			1.08		0.90	0.52	0.02		0.87	0.67
Uniform Delay, d1	46.6	44.5			56.0		49.2	30.3	24.4		53.7	38.0
Progression Factor	1.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.1	0.9			66.5		23.5	1.0	0.1		25.4	2.2
Delay (s)	53.6	45.3			122.5		72.6	31.3	24.4		79.1	40.2
Level of Service	D	D			F		E	C	C		E	D
Approach Delay (s)		48.1			122.5			41.3				40.9
Approach LOS		D			F			D				D

Intersection Summary			
HCM 2000 Control Delay	52.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	129.1	Sum of lost time (s)	14.0
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	332
Ideal Flow (vphpl)	1900
Total Lost time (s)	3.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.98
Adj. Flow (vph)	339
RTOR Reduction (vph)	41
Lane Group Flow (vph)	298
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Turn Type	pm+ov
Protected Phases	8
Permitted Phases	2
Actuated Green, G (s)	69.9
Effective Green, g (s)	69.9
Actuated g/C Ratio	0.54
Clearance Time (s)	3.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	857
v/s Ratio Prot	0.08
v/s Ratio Perm	0.11
v/c Ratio	0.35
Uniform Delay, d1	16.7
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	17.0
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	0	230	10	20	10	140	240	10	0	260	190
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	93	0	237	10	21	10	144	247	10	0	268	196
Pedestrians		6			5			2			20	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	949	923	374	1151	1016	278	470			263		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	949	923	374	1151	1016	278	470			263		
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 %	52	100	64	90	90	99	87			100		
cM capacity (veh/h)	191	232	668	100	204	745	1086			1296		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total	93	237	41	144	258	464
Volume Left	93	0	10	144	0	0
Volume Right	0	237	10	0	10	196
cSH	191	668	189	1086	1700	1296
Volume to Capacity	0.48	0.36	0.22	0.13	0.15	0.00
Queue Length 95th (ft)	59	40	20	11	0	0
Control Delay (s)	40.3	13.3	29.2	8.8	0.0	0.0
Lane LOS	E	B	D	A		
Approach Delay (s)	20.9		29.2	3.2		0.0
Approach LOS	C		D			

Intersection Summary				
Average Delay	7.6			
Intersection Capacity Utilization	60.6%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	222	1210	330	490	1700	315	440	113	580	596	96	402
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	*0.70	0.91	1.00	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (prot)	1770	5085	1510	2477	5085	1554	3433	1863	1575	1681	1708	1486
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00
Satd. Flow (perm)	1770	5085	1510	2477	5085	1554	3433	1863	1575	1681	1708	1486
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	224	1222	333	495	1717	318	444	114	586	602	97	406
RTOR Reduction (vph)	0	0	184	0	0	181	0	0	68	0	0	198
Lane Group Flow (vph)	224	1222	149	495	1717	137	444	114	518	349	350	208
Confl. Peds. (#/hr)			25			4			1			42
Confl. Bikes (#/hr)									1			
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	pm+ov	Split	NA	Perm
Protected Phases	5	2		1	6		8	8	1	7	7	
Permitted Phases			2			6			8			7
Actuated Green, G (s)	14.2	28.0	28.0	22.5	36.3	36.3	14.5	14.5	37.0	25.3	25.3	25.3
Effective Green, g (s)	14.2	28.0	28.0	22.5	36.3	36.3	14.5	14.5	37.0	25.3	25.3	25.3
Actuated g/C Ratio	0.13	0.26	0.26	0.21	0.34	0.34	0.13	0.13	0.34	0.23	0.23	0.23
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	232	1314	390	514	1704	520	459	249	538	392	399	347
v/s Ratio Prot	0.13	c0.24		0.20	c0.34		c0.13	0.06	0.20	c0.21	0.20	
v/s Ratio Perm			0.10			0.09			0.13			0.14
v/c Ratio	0.97	0.93	0.38	0.96	1.01	0.26	0.97	0.46	0.96	0.89	0.88	0.60
Uniform Delay, d1	46.8	39.2	33.0	42.5	36.0	26.3	46.7	43.3	35.0	40.2	40.0	37.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	48.7	12.9	2.8	30.1	23.7	1.2	33.1	0.5	29.1	21.0	18.5	1.8
Delay (s)	95.5	52.1	35.9	72.6	59.7	27.5	79.8	43.8	64.0	61.1	58.5	38.8
Level of Service	F	D	D	E	E	C	E	D	E	E	E	D
Approach Delay (s)		54.5			58.2			68.1			52.1	
Approach LOS		D			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	57.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	108.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1415	981	0	1330	160	0	0	0	400	0	1225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0				3.0	3.0	3.0
Lane Util. Factor		0.86	0.86		0.91	1.00				0.95	0.91	0.95
Frpb, ped/bikes		0.99	0.98		1.00	0.98				1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00				1.00	1.00	1.00
Frt		0.96	0.85		1.00	0.85				1.00	0.86	0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)		4606	1336		5085	1547				1681	1452	1504
Flt Permitted		1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)		4606	1336		5085	1547				1681	1452	1504
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1489	1033	0	1400	168	0	0	0	421	0	1289
RTOR Reduction (vph)	0	45	0	0	0	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	1899	578	0	1400	168	0	0	0	379	670	653
Confl. Peds. (#/hr)			23									
Confl. Bikes (#/hr)						8						
Turn Type		NA	Free		NA	Free				Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases			Free			Free				4		4
Actuated Green, G (s)		46.4	115.0		46.4	115.0				61.6	61.6	61.6
Effective Green, g (s)		46.4	115.0		46.4	115.0				61.6	61.6	61.6
Actuated g/C Ratio		0.40	1.00		0.40	1.00				0.54	0.54	0.54
Clearance Time (s)		4.0			4.0					3.0	3.0	3.0
Vehicle Extension (s)		3.0			3.0					3.0	3.0	3.0
Lane Grp Cap (vph)		1858	1336		2051	1547				900	777	805
v/s Ratio Prot		c0.41			0.28							
v/s Ratio Perm			0.43			0.11				0.23	0.46	0.43
v/c Ratio		1.02	0.43		0.68	0.11				0.42	0.86	0.81
Uniform Delay, d1		34.3	0.0		28.2	0.0				16.0	23.0	21.9
Progression Factor		1.00	1.00		0.62	1.00				1.00	1.00	1.00
Incremental Delay, d2		26.6	1.0		1.7	0.1				0.3	9.7	6.2
Delay (s)		60.9	1.0		19.1	0.1				16.3	32.7	28.1
Level of Service		E	A		B	A				B	C	C
Approach Delay (s)		47.2			17.1			0.0			27.3	
Approach LOS		D			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	876	1118	0	555	915	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	3.0	3.0
Lane Util. Factor	0.95	1.00		0.95	0.97	1.00
Frpb, ped/bikes	1.00	0.97		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1532		3539	3433	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1532		3539	3433	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	903	1153	0	572	943	103
RTOR Reduction (vph)	0	0	0	0	0	40
Lane Group Flow (vph)	903	1153	0	572	943	63
Confl. Peds. (#/hr)		25				
Turn Type	NA	Free		NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		Free				8
Actuated Green, G (s)	67.8	115.0		67.8	40.2	40.2
Effective Green, g (s)	67.8	115.0		67.8	40.2	40.2
Actuated g/C Ratio	0.59	1.00		0.59	0.35	0.35
Clearance Time (s)	4.0			4.0	3.0	3.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2086	1532		2086	1200	553
v/s Ratio Prot	0.26			0.16	0.27	
v/s Ratio Perm		c0.75				0.04
v/c Ratio	0.43	0.75		0.27	0.79	0.11
Uniform Delay, d1	13.0	0.0		11.6	33.5	25.3
Progression Factor	0.33	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	1.9		0.3	3.5	0.1
Delay (s)	4.7	1.9		11.9	37.0	25.4
Level of Service	A	A		B	D	C
Approach Delay (s)	3.1			11.9	35.9	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection Queuing Calculations

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	86	162	144	79	899	46	1521
v/c Ratio	0.54	0.46	0.76	0.40	0.26	0.28	0.47
Control Delay	42.5	13.3	52.2	33.8	10.1	37.1	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	13.3	52.2	33.8	10.1	37.1	9.9
Queue Length 50th (ft)	40	16	61	37	65	22	138
Queue Length 95th (ft)	79	63	113	76	168	52	231
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	330	589	369	309	3400	203	3206
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.28	0.39	0.26	0.26	0.23	0.47

Intersection Summary

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	32	982	1746
v/c Ratio	0.21	0.22	0.43
Control Delay	36.5	3.4	2.1
Queue Delay	0.0	0.0	0.0
Total Delay	36.5	3.4	2.1
Queue Length 50th (ft)	15	0	12
Queue Length 95th (ft)	40	132	91
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	685	4437	4100
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.05	0.22	0.43

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	654	405	167	489	17	393	523	724	902
v/c Ratio	0.62	0.70	0.79	0.16	0.56	0.24	0.28	0.95	0.89	0.34
Control Delay	92.6	54.9	77.8	41.1	16.1	79.4	43.4	64.2	68.3	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.6	54.9	77.8	41.1	16.1	79.4	43.4	64.2	68.3	21.7
Queue Length 50th (ft)	70	306	138	64	188	16	110	380	356	172
Queue Length 95th (ft)	#139	409	190	104	281	46	155	#671	432	240
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	128	935	555	1034	1008	195	1429	552	1162	2678
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.70	0.73	0.16	0.49	0.09	0.28	0.95	0.62	0.34

Intersection Summary

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	263	179	65	113	40	751	36	197	869	284
v/c Ratio	0.75	0.50	0.24	0.51	0.33	0.37	0.05	0.68	0.32	0.31
Control Delay	52.1	37.8	44.7	17.4	52.0	21.6	0.1	50.3	13.5	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	37.8	44.7	17.4	52.0	21.6	0.1	50.3	13.5	4.7
Queue Length 50th (ft)	159	92	21	0	25	114	0	119	112	20
Queue Length 95th (ft)	#296	167	42	51	61	172	0	189	152	67
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	351	357	1389	651	129	2042	672	407	2732	921
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.50	0.05	0.17	0.31	0.37	0.05	0.48	0.32	0.31

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	226	499	232	296	636	32	135	557	168
v/c Ratio	0.68	0.68	0.67	0.83	0.27	0.04	0.65	0.29	0.17
Control Delay	56.0	40.2	63.3	67.1	22.3	3.7	67.5	29.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	40.2	63.3	67.1	22.3	3.7	67.5	29.1	1.9
Queue Length 50th (ft)	184	163	92	225	113	0	104	115	5
Queue Length 95th (ft)	289	231	153	#385	178	13	186	175	24
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	498	1054	384	444	2372	763	296	1916	1142
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.47	0.60	0.67	0.27	0.04	0.46	0.29	0.15

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	327	1458	317	407	941	490	107	92	207	108	17	44
v/c Ratio	0.90	0.58	0.38	0.81	0.38	0.48	0.36	0.57	0.35	0.46	0.13	0.23
Control Delay	76.4	24.3	11.6	60.1	20.2	3.3	57.2	69.4	5.8	62.9	58.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.4	24.3	11.6	60.1	20.2	3.3	57.2	69.4	5.8	62.9	58.4	2.8
Queue Length 50th (ft)	256	295	69	220	164	0	42	71	10	43	13	0
Queue Length 95th (ft)	#485	406	162	321	221	58	75	135	53	78	39	0
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	364	2510	828	611	2719	1062	621	337	648	847	459	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.58	0.38	0.67	0.35	0.46	0.17	0.27	0.32	0.13	0.04	0.10

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1367	395	1054	97	494	496	497
v/c Ratio	0.66	0.30	0.47	0.06	0.61	0.71	0.69
Control Delay	23.6	0.6	11.9	0.1	19.6	22.8	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	0.6	11.9	0.1	19.6	22.8	21.9
Queue Length 50th (ft)	228	0	54	0	202	221	210
Queue Length 95th (ft)	#381	0	110	m0	228	261	245
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	2075	1337	2236	1551	1023	884	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.30	0.47	0.06	0.48	0.56	0.55

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	865	844	195	953	108
v/c Ratio	0.42	0.55	0.09	0.82	0.19
Control Delay	8.1	3.7	9.3	33.2	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	3.7	9.3	33.2	9.4
Queue Length 50th (ft)	165	55	24	246	16
Queue Length 95th (ft)	124	153	44	302	47
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2059	1528	2059	1335	646
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.42	0.55	0.09	0.71	0.17

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	139	127	163	1646	64	1426
v/c Ratio	0.67	0.38	0.58	0.62	0.51	0.38	0.50
Control Delay	49.5	13.9	39.9	43.8	12.3	43.8	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	13.9	39.9	43.8	12.3	43.8	14.1
Queue Length 50th (ft)	75	20	60	88	172	35	165
Queue Length 95th (ft)	125	64	106	166	217	72	279
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	336	524	342	373	3213	255	2852
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.27	0.37	0.44	0.51	0.25	0.50

Intersection Summary

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	53	1984	1596
v/c Ratio	0.33	0.49	0.36
Control Delay	43.1	7.1	2.7
Queue Delay	0.0	0.0	0.0
Total Delay	43.1	7.1	2.7
Queue Length 50th (ft)	29	0	54
Queue Length 95th (ft)	63	325	162
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	609	4086	4477
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.49	0.36

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	87	334	684	583	1051	59	693	562	651	975
v/c Ratio	0.95	0.40	1.08	0.55	1.18	0.56	0.53	0.94	0.69	0.39
Control Delay	154.7	53.8	125.1	50.5	122.6	94.4	54.1	55.8	57.9	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.7	53.8	125.1	50.5	122.6	94.4	54.1	55.8	57.9	27.4
Queue Length 50th (ft)	96	158	~291	278	~837	63	237	358	326	243
Queue Length 95th (ft)	#217	210	#381	343	#1170	113	283	#607	397	296
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	830	632	1068	892	177	1319	597	946	2483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.40	1.08	0.55	1.18	0.33	0.53	0.94	0.69	0.39

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	257	187	132	193	93	978	24	219	1635	316
v/c Ratio	0.75	0.53	0.41	0.62	0.80	0.48	0.04	0.73	0.63	0.38
Control Delay	54.8	38.0	50.5	16.0	94.9	26.6	0.1	56.4	21.4	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	38.0	50.5	16.0	94.9	26.6	0.1	56.4	21.4	12.2
Queue Length 50th (ft)	166	96	45	0	64	179	0	143	286	75
Queue Length 95th (ft)	268	174	79	69	#171	278	0	229	400	164
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	432	437	1250	655	116	2043	675	448	2577	824
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.43	0.11	0.29	0.80	0.48	0.04	0.49	0.63	0.38

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	206	438	250	264	698	14	94	787	139
v/c Ratio	0.66	0.58	0.61	0.78	0.30	0.02	0.52	0.41	0.14
Control Delay	53.7	25.3	50.8	60.6	21.1	0.1	61.4	29.6	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	25.3	50.8	60.6	21.1	0.1	61.4	29.6	1.4
Queue Length 50th (ft)	151	83	81	180	111	0	65	153	0
Queue Length 95th (ft)	263	152	146	316	193	0	136	256	17
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	542	1160	549	483	2409	763	322	1898	1171
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.38	0.46	0.55	0.29	0.02	0.29	0.41	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	83	1104	243	357	1560	166	335	35	476	389	40	222
v/c Ratio	0.56	0.58	0.38	0.75	0.63	0.21	0.73	0.14	0.85	0.74	0.14	0.54
Control Delay	72.6	34.7	15.1	59.3	27.2	9.2	62.9	51.9	32.9	60.9	49.3	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.6	34.7	15.1	59.3	27.2	9.2	62.9	51.9	32.9	60.9	49.3	11.5
Queue Length 50th (ft)	66	259	53	195	332	25	135	25	194	157	28	0
Queue Length 95th (ft)	133	386	150	305	502	82	208	63	279	233	68	76
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	357	1908	646	619	2460	804	831	450	650	955	518	563
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.58	0.38	0.58	0.63	0.21	0.40	0.08	0.73	0.41	0.08	0.39

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1574	463	1197	156	377	579	581
v/c Ratio	0.75	0.35	0.53	0.10	0.45	0.80	0.78
Control Delay	29.5	0.7	13.6	0.1	19.9	32.0	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	0.7	13.6	0.1	19.9	32.0	30.2
Queue Length 50th (ft)	367	0	208	0	175	353	333
Queue Length 95th (ft)	474	0	295	0	229	468	437
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	2089	1336	2263	1547	950	827	856
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.35	0.53	0.10	0.40	0.70	0.68

Intersection Summary

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	634	979	539	791	90
v/c Ratio	0.28	0.64	0.24	0.77	0.17
Control Delay	4.1	7.1	9.8	42.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	7.1	9.8	42.1	11.0
Queue Length 50th (ft)	34	187	82	274	14
Queue Length 95th (ft)	57	475	132	311	47
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2270	1532	2270	1701	816
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.64	0.24	0.47	0.11

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	86	188	144	106	1019	46	1743
v/c Ratio	0.53	0.50	0.86	0.48	0.30	0.28	0.56
Control Delay	42.2	12.9	68.9	38.9	7.1	37.1	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	12.9	68.9	38.9	7.1	37.1	11.6
Queue Length 50th (ft)	40	16	62	50	76	22	177
Queue Length 95th (ft)	78	66	#129	93	131	52	296
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	330	604	322	309	3400	203	3136
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.31	0.45	0.34	0.30	0.23	0.56

Intersection Summary

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

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	176	63	32	1342	115	1885
v/c Ratio	0.72	0.23	0.25	0.44	0.61	0.60
Control Delay	57.5	11.9	47.6	13.0	29.4	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	11.9	47.6	13.0	29.4	9.8
Queue Length 50th (ft)	107	0	20	75	40	267
Queue Length 95th (ft)	177	36	48	288	#155	358
Internal Link Dist (ft)	336			1025		594
Turn Bay Length (ft)			95			
Base Capacity (vph)	283	306	548	3081	187	3157
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.21	0.06	0.44	0.61	0.60

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	124	712	478	196	934	17	503	715	980	947
v/c Ratio	1.08	0.85	0.95	0.21	1.05	0.25	0.39	1.43	0.93	0.34
Control Delay	174.5	70.3	102.6	48.1	75.3	85.7	52.0	239.1	71.2	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	174.5	70.3	102.6	48.1	75.3	85.7	52.0	239.1	71.2	21.6
Queue Length 50th (ft)	~148	388	185	87	~993	18	166	~926	532	211
Queue Length 95th (ft)	#293	470	#261	125	#1326	47	205	#1182	#661	253
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	115	839	502	933	890	177	1291	500	1050	2781
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.85	0.95	0.21	1.05	0.10	0.39	1.43	0.93	0.34

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	276	184	97	163	40	998	64	225	955	291
v/c Ratio	0.80	0.52	0.32	0.59	0.33	0.51	0.10	0.71	0.35	0.32
Control Delay	56.8	39.3	45.4	16.3	52.9	24.9	2.6	51.0	14.3	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.8	39.3	45.4	16.3	52.9	24.9	2.6	51.0	14.3	5.6
Queue Length 50th (ft)	171	97	31	0	25	170	0	137	129	27
Queue Length 95th (ft)	#322	175	57	61	61	241	15	217	173	80
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	346	353	1356	674	127	1948	645	401	2714	910
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.52	0.07	0.24	0.31	0.51	0.10	0.56	0.35	0.32

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	263	513	281	296	862	32	142	657	181
v/c Ratio	0.74	0.67	0.78	0.84	0.38	0.04	0.67	0.35	0.18
Control Delay	58.9	40.7	70.1	70.1	25.4	3.6	70.1	31.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	40.7	70.1	70.1	25.4	3.6	70.1	31.4	2.3
Queue Length 50th (ft)	221	175	116	234	172	0	113	146	8
Queue Length 95th (ft)	338	245	#206	#385	245	13	195	207	29
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	482	1017	372	430	2288	738	286	1855	1109
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.50	0.76	0.69	0.38	0.04	0.50	0.35	0.16

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	499	1642	477	551	1302	665	211	110	276	202	26	135
v/c Ratio	1.50	0.72	0.60	0.99	0.52	0.64	0.64	0.62	0.48	0.64	0.15	0.53
Control Delay	277.6	32.4	18.3	86.5	24.9	8.0	67.7	73.6	17.8	68.4	58.3	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	277.6	32.4	18.3	86.5	24.9	8.0	67.7	73.6	17.8	68.4	58.3	17.0
Queue Length 50th (ft)	~594	411	163	340	275	59	91	93	91	88	21	0
Queue Length 95th (ft)	#881	528	310	#559	361	207	138	161	154	134	52	64
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	333	2294	801	558	2485	1038	568	308	570	774	420	427
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.50	0.72	0.60	0.99	0.52	0.64	0.37	0.36	0.48	0.26	0.06	0.32

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1626	474	1429	97	494	645	640
v/c Ratio	0.95	0.35	0.78	0.06	0.53	0.80	0.77
Control Delay	42.1	0.7	23.0	0.0	14.1	23.3	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	0.7	23.0	0.0	14.1	23.3	21.4
Queue Length 50th (ft)	~389	0	136	0	153	262	242
Queue Length 95th (ft)	#502	0	m163	m0	228	414	376
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1714	1337	1837	1551	1023	882	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.35	0.78	0.06	0.48	0.73	0.70

Intersection Summary

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

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	879	994	223	1303	108
v/c Ratio	0.47	0.65	0.12	0.98	0.17
Control Delay	7.7	6.8	10.7	47.8	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	6.8	10.7	47.8	11.4
Queue Length 50th (ft)	81	136	31	368	21
Queue Length 95th (ft)	m101	m237	49	#519	55
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1887	1528	1887	1335	635
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.65	0.12	0.98	0.17

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	154	127	218	1874	64	1547
v/c Ratio	0.67	0.41	0.62	0.69	0.58	0.38	0.57
Control Delay	49.5	13.3	42.5	46.1	12.1	43.8	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	13.3	42.5	46.1	12.1	43.8	16.5
Queue Length 50th (ft)	75	20	60	117	211	35	201
Queue Length 95th (ft)	125	66	108	181	352	72	328
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	336	533	322	381	3218	255	2716
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.29	0.39	0.57	0.58	0.25	0.57

Intersection Summary

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	368	130	53	2313	71	1668
v/c Ratio	1.43	0.44	0.38	0.72	1.03	0.48
Control Delay	250.9	24.0	55.1	18.2	147.0	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	250.9	24.0	55.1	18.2	147.0	9.4
Queue Length 50th (ft)	~352	33	36	200	~55	193
Queue Length 95th (ft)	#538	92	75	#720	#107	250
Internal Link Dist (ft)	420			1025		594
Turn Bay Length (ft)		120	95		120	
Base Capacity (vph)	257	296	498	3205	69	3465
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.43	0.44	0.11	0.72	1.03	0.48

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	120	364	811	635	1393	59	762	741	1025	1029
v/c Ratio	1.30	0.44	1.28	0.59	1.56	0.56	0.58	1.29	1.08	0.41
Control Delay	251.3	54.6	193.3	51.8	285.2	94.4	55.3	173.7	109.3	27.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	251.3	54.6	193.3	51.8	285.2	94.4	55.3	173.7	109.3	27.8
Queue Length 50th (ft)	~165	174	~392	308	~2130	63	265	~815	~636	260
Queue Length 95th (ft)	#308	228	#484	377	#2400	113	313	#1073	#773	315
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	831	632	1068	892	177	1319	576	946	2484
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.30	0.44	1.28	0.59	1.56	0.33	0.58	1.29	1.08	0.41

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	264	190	201	304	93	1120	43	237	1792	329
v/c Ratio	0.77	0.54	0.48	0.73	0.84	0.59	0.07	0.76	0.72	0.41
Control Delay	59.4	40.8	49.7	20.1	103.9	32.1	0.5	60.3	26.1	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	40.8	49.7	20.1	103.9	32.1	0.5	60.3	26.1	14.8
Queue Length 50th (ft)	179	103	72	26	67	234	0	162	361	92
Queue Length 95th (ft)	297	192	112	120	#184	364	3	263	516	200
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	414	420	1187	685	111	1900	634	430	2476	793
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.45	0.17	0.44	0.84	0.59	0.07	0.55	0.72	0.41

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	440	320	264	814	14	105	959	160
v/c Ratio	0.69	0.56	0.72	0.79	0.36	0.02	0.56	0.53	0.16
Control Delay	55.1	25.0	57.6	63.9	24.4	0.1	64.1	33.6	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	25.0	57.6	63.9	24.4	0.1	64.1	33.6	1.4
Queue Length 50th (ft)	179	88	115	192	148	0	77	212	0
Queue Length 95th (ft)	292	152	194	323	239	0	151	327	17
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	518	1117	521	462	2287	727	307	1813	1140
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.39	0.61	0.57	0.36	0.02	0.34	0.53	0.14

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	187	1475	329	405	1774	272	458	46	578	556	58	385
v/c Ratio	0.81	0.91	0.58	0.81	0.90	0.39	0.83	0.15	0.94	0.83	0.16	0.76
Control Delay	88.8	58.5	28.5	70.3	50.1	17.3	73.9	55.7	45.5	68.8	51.4	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.8	58.5	28.5	70.3	50.1	17.3	73.9	55.7	45.5	68.8	51.4	26.7
Queue Length 50th (ft)	180	515	151	271	600	78	226	39	270	270	47	101
Queue Length 95th (ft)	279	#682	281	#412	#840	182	298	81	#422	353	92	241
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	302	1616	571	524	1982	697	703	382	632	809	439	553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.91	0.58	0.77	0.90	0.39	0.65	0.12	0.91	0.69	0.13	0.70

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	2088	615	1413	156	377	672	656
v/c Ratio	1.10	0.46	0.69	0.10	0.42	0.86	0.81
Control Delay	84.7	1.1	19.7	0.1	17.1	35.0	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	1.1	19.7	0.1	17.1	35.0	30.4
Queue Length 50th (ft)	~703	0	311	0	156	414	368
Queue Length 95th (ft)	#806	0	410	0	229	625	547
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1903	1336	2055	1547	950	824	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.46	0.69	0.10	0.40	0.82	0.77

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	661	1265	555	987	90
v/c Ratio	0.32	0.83	0.27	0.79	0.15
Control Delay	4.4	16.5	13.5	37.6	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	16.5	13.5	37.6	11.4
Queue Length 50th (ft)	33	610	103	332	19
Queue Length 95th (ft)	m44	m560	161	364	48
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2040	1532	2040	1701	809
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.83	0.27	0.58	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	86	174	144	94	933	46	1572
v/c Ratio	0.53	0.48	0.80	0.45	0.27	0.28	0.50
Control Delay	42.3	13.0	58.2	38.7	7.0	37.1	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	13.0	58.2	38.7	7.0	37.1	10.5
Queue Length 50th (ft)	40	16	61	44	68	22	149
Queue Length 95th (ft)	79	65	115	85	118	52	249
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	330	596	348	309	3401	203	3166
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.29	0.41	0.30	0.27	0.23	0.50

Intersection Summary

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	95	34	32	1123	52	1759
v/c Ratio	0.50	0.16	0.25	0.33	0.18	0.51
Control Delay	50.7	6.4	47.6	11.0	8.4	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	6.4	47.6	11.0	8.4	7.4
Queue Length 50th (ft)	58	0	20	45	10	201
Queue Length 95th (ft)	105	16	48	231	34	307
Internal Link Dist (ft)	336			1025		594
Turn Bay Length (ft)			95			
Base Capacity (vph)	283	299	548	3400	282	3429
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.11	0.06	0.33	0.18	0.51

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	96	654	405	167	666	17	443	550	804	923
v/c Ratio	0.81	0.72	0.81	0.17	0.77	0.24	0.32	1.03	0.90	0.35
Control Delay	114.5	58.0	81.8	43.7	28.2	82.5	46.6	85.8	69.1	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	114.5	58.0	81.8	43.7	28.2	82.5	46.6	85.8	69.1	22.5
Queue Length 50th (ft)	97	319	143	67	391	17	131	~475	407	204
Queue Length 95th (ft)	#215	426	#197	108	538	47	181	#774	488	245
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	123	913	537	998	962	189	1382	534	1124	2643
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.72	0.75	0.17	0.69	0.09	0.32	1.03	0.72	0.35

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	265	181	83	140	40	800	48	210	877	285
v/c Ratio	0.76	0.51	0.29	0.56	0.33	0.40	0.07	0.70	0.32	0.31
Control Delay	53.5	38.4	45.1	16.7	52.5	22.6	0.9	50.9	13.8	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	38.4	45.1	16.7	52.5	22.6	0.9	50.9	13.8	4.8
Queue Length 50th (ft)	162	94	26	0	25	126	0	128	115	21
Queue Length 95th (ft)	#302	171	50	57	60	186	5	202	156	70
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	348	355	1369	663	128	1998	659	404	2720	917
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.51	0.06	0.21	0.31	0.40	0.07	0.52	0.32	0.31

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	236	500	250	296	690	32	135	581	168
v/c Ratio	0.70	0.67	0.71	0.83	0.30	0.04	0.65	0.31	0.17
Control Delay	57.1	40.1	65.4	67.9	23.0	3.6	68.1	29.7	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	40.1	65.4	67.9	23.0	3.6	68.1	29.7	2.0
Queue Length 50th (ft)	194	164	101	227	126	0	105	122	5
Queue Length 95th (ft)	303	232	#173	#385	193	13	186	183	24
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	494	1043	380	440	2350	756	293	1898	1132
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.48	0.66	0.67	0.29	0.04	0.46	0.31	0.15

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	327	1557	327	407	1104	490	124	92	207	108	17	44
v/c Ratio	0.90	0.62	0.40	0.81	0.44	0.48	0.42	0.57	0.35	0.46	0.13	0.23
Control Delay	76.4	25.1	12.4	60.1	21.1	3.3	58.3	69.4	5.8	62.9	58.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.4	25.1	12.4	60.1	21.1	3.3	58.3	69.4	5.8	62.9	58.4	2.8
Queue Length 50th (ft)	256	324	77	220	201	0	48	71	10	43	13	0
Queue Length 95th (ft)	#485	444	174	321	266	58	84	135	53	78	39	0
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	364	2510	825	611	2719	1062	621	337	647	847	459	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.62	0.40	0.67	0.41	0.46	0.20	0.27	0.32	0.13	0.04	0.10

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1438	420	1145	97	494	539	524
v/c Ratio	0.74	0.31	0.55	0.06	0.58	0.73	0.69
Control Delay	26.7	0.6	14.6	0.1	17.3	22.2	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	0.6	14.6	0.1	17.3	22.2	20.4
Queue Length 50th (ft)	264	0	70	0	184	230	207
Queue Length 95th (ft)	#414	0	131	m0	228	300	266
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1944	1337	2093	1551	1023	883	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.31	0.55	0.06	0.48	0.61	0.58

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	869	887	202	1037	108
v/c Ratio	0.43	0.58	0.10	0.85	0.18
Control Delay	8.0	4.4	9.8	33.8	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	4.4	9.8	33.8	9.9
Queue Length 50th (ft)	136	73	26	268	17
Queue Length 95th (ft)	126	208	45	338	49
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1999	1528	1999	1335	643
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.58	0.10	0.78	0.17

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	149	127	191	1714	64	1469
v/c Ratio	0.67	0.40	0.60	0.65	0.53	0.38	0.53
Control Delay	49.5	13.5	41.5	45.3	11.4	43.8	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	13.5	41.5	45.3	11.4	43.8	15.3
Queue Length 50th (ft)	75	20	60	103	184	35	179
Queue Length 95th (ft)	125	65	107	161	308	72	301
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	336	529	329	378	3213	255	2775
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.28	0.39	0.51	0.53	0.25	0.53

Intersection Summary

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	186	66	53	2123	45	1606
v/c Ratio	0.78	0.25	0.38	0.65	0.66	0.46
Control Delay	68.9	12.7	55.1	16.2	62.5	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.9	12.7	55.1	16.2	62.5	8.8
Queue Length 50th (ft)	127	0	36	171	18	183
Queue Length 95th (ft)	#227	40	75	573	#96	237
Internal Link Dist (ft)	420			1025		594
Turn Bay Length (ft)		120	95		120	
Base Capacity (vph)	257	286	498	3270	68	3522
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.23	0.11	0.65	0.66	0.46

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	107	334	684	583	1205	59	737	616	812	1005
v/c Ratio	1.16	0.40	1.08	0.55	1.35	0.56	0.56	1.05	0.86	0.40
Control Delay	207.5	53.8	125.1	50.5	194.4	94.4	54.9	83.1	66.9	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	207.5	53.8	125.1	50.5	194.4	94.4	54.9	83.1	66.9	27.7
Queue Length 50th (ft)	~136	158	~291	278	~1445	63	254	~503	432	252
Queue Length 95th (ft)	#270	210	#381	343	#1976	113	302	#752	516	306
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	830	632	1068	892	177	1319	589	946	2484
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.40	1.08	0.55	1.35	0.33	0.56	1.05	0.86	0.40

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	259	189	167	249	93	1022	35	230	1651	320
v/c Ratio	0.76	0.54	0.46	0.66	0.82	0.52	0.05	0.74	0.65	0.39
Control Delay	56.4	39.3	50.5	14.7	98.3	29.1	0.2	57.3	22.8	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	39.3	50.5	14.7	98.3	29.1	0.2	57.3	22.8	13.0
Queue Length 50th (ft)	170	100	58	0	65	197	0	152	300	79
Queue Length 95th (ft)	277	182	96	78	#176	308	0	242	423	173
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	424	430	1219	684	114	1965	653	440	2533	813
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.44	0.14	0.36	0.82	0.52	0.05	0.52	0.65	0.39

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	213	439	282	264	741	14	94	831	139
v/c Ratio	0.68	0.58	0.66	0.78	0.32	0.02	0.52	0.45	0.14
Control Delay	54.6	25.4	53.8	62.0	22.2	0.1	62.6	30.9	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	25.4	53.8	62.0	22.2	0.1	62.6	30.9	1.4
Queue Length 50th (ft)	160	85	96	185	124	0	67	169	0
Queue Length 95th (ft)	272	152	168	319	208	0	137	273	16
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	533	1143	536	475	2371	752	317	1865	1155
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.38	0.53	0.56	0.31	0.02	0.30	0.45	0.12

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	83	1291	263	357	1694	166	349	35	476	389	40	222
v/c Ratio	0.56	0.68	0.41	0.75	0.69	0.21	0.74	0.14	0.84	0.74	0.14	0.54
Control Delay	73.2	37.5	18.1	60.0	29.0	10.4	63.1	51.6	32.3	61.2	49.6	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.2	37.5	18.1	60.0	29.0	10.4	63.1	51.6	32.3	61.2	49.6	11.5
Queue Length 50th (ft)	66	321	73	196	380	29	141	25	194	158	29	0
Queue Length 95th (ft)	133	473	183	306	571	90	216	63	278	235	68	77
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	355	1898	637	616	2448	796	826	448	653	950	515	561
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.68	0.41	0.58	0.69	0.21	0.42	0.08	0.73	0.41	0.08	0.40

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1724	509	1276	156	377	608	613
v/c Ratio	0.85	0.38	0.58	0.10	0.44	0.82	0.80
Control Delay	34.5	0.8	15.5	0.1	18.8	32.4	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	0.8	15.5	0.1	18.8	32.4	30.7
Queue Length 50th (ft)	440	0	260	0	168	370	351
Queue Length 95th (ft)	#588	0	338	0	229	515	483
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	2017	1336	2183	1547	950	825	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.38	0.58	0.10	0.40	0.74	0.72

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	642	1063	545	863	90
v/c Ratio	0.29	0.69	0.25	0.78	0.16
Control Delay	4.2	9.6	11.1	40.4	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.2	9.6	11.1	40.4	11.2
Queue Length 50th (ft)	33	319	88	297	16
Queue Length 95th (ft)	m55	560	142	332	48
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2186	1532	2186	1701	813
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.29	0.69	0.25	0.51	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	86	162	144	79	935	46	1582
v/c Ratio	0.54	0.46	0.76	0.40	0.27	0.28	0.49
Control Delay	42.5	13.3	52.2	33.8	10.2	37.1	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	13.3	52.2	33.8	10.2	37.1	10.1
Queue Length 50th (ft)	40	16	61	37	68	22	146
Queue Length 95th (ft)	79	63	113	76	176	52	243
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	330	589	369	309	3403	203	3206
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.28	0.39	0.26	0.27	0.23	0.49

Intersection Summary

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	32	1019	1807
v/c Ratio	0.21	0.23	0.44
Control Delay	36.5	3.4	2.3
Queue Delay	0.0	0.0	0.0
Total Delay	36.5	3.4	2.3
Queue Length 50th (ft)	15	0	13
Queue Length 95th (ft)	40	138	106
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	685	4437	4100
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.05	0.23	0.44

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	687	452	187	524	17	393	600	784	902
v/c Ratio	0.64	0.76	0.86	0.18	0.59	0.24	0.28	1.12	0.90	0.34
Control Delay	96.1	59.6	84.3	43.0	17.0	81.7	45.4	113.2	68.9	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.1	59.6	84.3	43.0	17.0	81.7	45.4	113.2	68.9	22.5
Queue Length 50th (ft)	71	336	160	75	217	17	114	~575	394	199
Queue Length 95th (ft)	#144	446	#237	118	316	47	160	#886	473	239
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	124	904	541	1018	990	191	1392	536	1132	2636
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.76	0.84	0.18	0.53	0.09	0.28	1.12	0.69	0.34

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	266	179	65	113	40	827	36	197	916	286
v/c Ratio	0.76	0.50	0.24	0.51	0.33	0.40	0.05	0.68	0.34	0.31
Control Delay	52.8	37.8	44.7	17.4	52.0	22.0	0.1	50.3	13.7	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	37.8	44.7	17.4	52.0	22.0	0.1	50.3	13.7	5.1
Queue Length 50th (ft)	161	92	21	0	25	128	0	119	119	24
Queue Length 95th (ft)	#301	167	42	51	61	191	0	189	161	74
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	351	357	1389	651	129	2042	672	407	2732	916
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.50	0.05	0.17	0.31	0.40	0.05	0.48	0.34	0.31

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	239	501	240	296	694	32	140	592	177
v/c Ratio	0.71	0.67	0.69	0.83	0.30	0.04	0.66	0.31	0.18
Control Delay	57.2	39.9	64.1	67.8	23.2	3.6	68.6	29.8	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	39.9	64.1	67.8	23.2	3.6	68.6	29.8	2.1
Queue Length 50th (ft)	197	165	95	228	128	0	109	126	7
Queue Length 95th (ft)	305	233	#157	#385	195	13	192	186	26
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	494	1044	382	440	2346	755	293	1899	1134
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.48	0.63	0.67	0.30	0.04	0.48	0.31	0.16

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	499	1458	317	407	941	665	107	110	207	120	123	148
v/c Ratio	0.85	0.77	0.44	0.79	0.74	0.84	0.40	0.76	0.35	0.58	0.58	0.47
Control Delay	42.3	26.7	8.0	44.5	33.4	17.8	42.3	71.7	4.3	45.7	45.8	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	26.7	8.0	44.5	33.4	17.8	42.3	71.7	4.3	45.7	45.8	11.4
Queue Length 50th (ft)	240	240	27	145	165	54	27	58	3	63	65	0
Queue Length 95th (ft)	#446	322	96	#260	227	#278	55	#151	33	118	121	50
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	588	1897	719	517	1269	793	267	145	589	544	552	580
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.77	0.44	0.79	0.74	0.84	0.40	0.76	0.35	0.22	0.22	0.26

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1444	422	1151	97	494	541	527
v/c Ratio	0.74	0.32	0.55	0.06	0.58	0.73	0.69
Control Delay	26.9	0.6	14.9	0.1	17.3	22.2	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	0.6	14.9	0.1	17.3	22.2	20.5
Queue Length 50th (ft)	267	0	72	0	183	230	208
Queue Length 95th (ft)	#417	0	133	m0	228	301	268
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1940	1337	2089	1551	1023	883	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.32	0.55	0.06	0.48	0.61	0.58

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	869	891	202	1043	108
v/c Ratio	0.44	0.58	0.10	0.85	0.18
Control Delay	7.9	4.5	9.8	34.0	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	4.5	9.8	34.0	10.0
Queue Length 50th (ft)	135	75	26	270	17
Queue Length 95th (ft)	126	215	45	340	50
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1997	1528	1997	1335	642
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.44	0.58	0.10	0.78	0.17

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	140	139	127	163	1704	64	1472
v/c Ratio	0.67	0.38	0.58	0.62	0.53	0.38	0.52
Control Delay	49.5	13.9	39.9	43.4	12.7	43.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	13.9	39.9	43.4	12.7	43.8	14.3
Queue Length 50th (ft)	75	20	60	88	182	35	172
Queue Length 95th (ft)	125	64	106	166	230	72	291
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	336	524	342	373	3213	255	2852
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.27	0.37	0.44	0.53	0.25	0.52

Intersection Summary

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	53	2043	1643
v/c Ratio	0.33	0.50	0.37
Control Delay	43.1	7.3	2.8
Queue Delay	0.0	0.0	0.0
Total Delay	43.1	7.3	2.8
Queue Length 50th (ft)	29	0	57
Queue Length 95th (ft)	63	341	176
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	609	4086	4477
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.50	0.37

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	87	360	762	616	1109	59	693	624	698	975
v/c Ratio	0.95	0.43	1.21	0.58	1.24	0.56	0.53	1.06	0.74	0.39
Control Delay	154.7	54.5	164.9	51.3	149.1	94.4	54.1	89.1	59.8	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.7	54.5	164.9	51.3	149.1	94.4	54.1	89.1	59.8	27.4
Queue Length 50th (ft)	96	172	~353	297	~968	63	237	~527	355	243
Queue Length 95th (ft)	#217	225	#445	364	#1665	113	283	#776	431	296
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	831	632	1068	892	177	1319	586	946	2483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.43	1.21	0.58	1.24	0.33	0.53	1.06	0.74	0.39

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	259	187	132	193	93	1041	24	219	1713	320
v/c Ratio	0.75	0.53	0.41	0.62	0.80	0.51	0.04	0.73	0.67	0.39
Control Delay	54.8	37.9	50.6	16.0	95.2	27.2	0.1	56.5	22.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	37.9	50.6	16.0	95.2	27.2	0.1	56.5	22.2	12.6
Queue Length 50th (ft)	168	96	45	0	64	194	0	143	308	79
Queue Length 95th (ft)	269	174	79	69	#171	298	0	229	427	169
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	431	436	1249	655	116	2039	674	448	2574	821
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.43	0.11	0.29	0.80	0.51	0.04	0.49	0.67	0.39

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	215	439	255	264	740	14	101	839	152
v/c Ratio	0.68	0.58	0.62	0.78	0.32	0.02	0.54	0.45	0.15
Control Delay	54.0	25.0	51.0	61.4	22.2	0.1	61.9	30.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	25.0	51.0	61.4	22.2	0.1	61.9	30.5	1.4
Queue Length 50th (ft)	159	84	82	182	122	0	70	167	0
Queue Length 95th (ft)	274	152	148	320	210	0	145	277	17
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	538	1152	545	479	2377	753	319	1882	1168
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.38	0.47	0.55	0.31	0.02	0.32	0.45	0.13

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	213	1104	243	357	1560	299	335	49	476	306	308	385
v/c Ratio	0.81	0.63	0.40	0.58	0.82	0.43	0.75	0.20	0.89	0.85	0.85	0.71
Control Delay	80.8	41.7	17.7	56.6	45.2	14.7	69.3	57.8	39.1	74.6	73.9	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.8	41.7	17.7	56.6	45.2	14.7	69.3	57.8	39.1	74.6	73.9	20.7
Queue Length 50th (ft)	191	319	65	156	490	68	155	41	194	280	282	71
Queue Length 95th (ft)	#318	420	160	220	614	166	219	86	274	#467	#465	210
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	326	1747	604	786	1973	719	761	412	613	428	433	588
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.63	0.40	0.45	0.79	0.42	0.44	0.12	0.78	0.71	0.71	0.65

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1708	502	1275	156	377	608	613
v/c Ratio	0.85	0.38	0.58	0.10	0.44	0.82	0.80
Control Delay	34.1	0.8	15.5	0.1	18.8	32.4	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	0.8	15.5	0.1	18.8	32.4	30.7
Queue Length 50th (ft)	434	0	259	0	168	370	351
Queue Length 95th (ft)	#578	0	337	0	229	515	483
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	2017	1336	2183	1547	950	825	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.38	0.58	0.10	0.40	0.74	0.72

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	641	1054	544	862	90
v/c Ratio	0.29	0.69	0.25	0.78	0.16
Control Delay	4.2	9.3	11.1	40.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.2	9.3	11.1	40.4	5.5
Queue Length 50th (ft)	33	289	88	296	0
Queue Length 95th (ft)	m56	552	142	331	32
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2187	1532	2187	1701	830
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.29	0.69	0.25	0.51	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	104	198	177	104	989	63	1552
v/c Ratio	0.60	0.49	0.89	0.47	0.32	0.35	0.51
Control Delay	44.3	13.0	67.9	35.8	12.5	37.9	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	13.0	67.9	35.8	12.5	37.9	12.0
Queue Length 50th (ft)	49	22	78	49	81	30	158
Queue Length 95th (ft)	91	72	#153	99	189	64	266
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	307	607	341	309	3124	210	3025
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.33	0.52	0.34	0.32	0.30	0.51

Intersection Summary

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

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	42	1105	1800
v/c Ratio	0.26	0.25	0.46
Control Delay	36.9	3.5	3.4
Queue Delay	0.0	0.0	0.0
Total Delay	36.9	3.5	3.4
Queue Length 50th (ft)	20	0	74
Queue Length 95th (ft)	49	152	165
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	685	4437	3913
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.06	0.25	0.46

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	92	724	418	194	510	30	500	561	745	970
v/c Ratio	0.77	0.78	0.81	0.19	0.61	0.36	0.35	1.03	0.89	0.38
Control Delay	106.1	59.0	79.9	42.3	20.9	83.3	45.4	84.8	68.8	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.1	59.0	79.9	42.3	20.9	83.3	45.4	84.8	68.8	23.8
Queue Length 50th (ft)	91	352	144	76	250	29	146	~476	369	220
Queue Length 95th (ft)	#198	465	#199	120	351	69	198	#773	446	267
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	126	925	549	1021	974	193	1413	544	1150	2613
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.78	0.76	0.19	0.52	0.16	0.35	1.03	0.65	0.37

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	274	221	84	116	63	884	53	210	937	295
v/c Ratio	0.80	0.63	0.29	0.51	0.51	0.43	0.08	0.71	0.35	0.33
Control Delay	57.1	43.0	45.8	17.0	60.5	22.8	1.5	52.0	14.8	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	43.0	45.8	17.0	60.5	22.8	1.5	52.0	14.8	5.5
Queue Length 50th (ft)	168	119	26	0	39	142	0	128	125	26
Queue Length 95th (ft)	#314	206	51	53	#90	206	9	200	165	77
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	344	350	1359	641	126	2046	673	398	2652	897
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.63	0.06	0.18	0.50	0.43	0.08	0.53	0.35	0.33

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	250	539	277	311	789	44	178	578	211
v/c Ratio	0.71	0.71	0.78	0.86	0.36	0.06	0.75	0.31	0.21
Control Delay	57.5	43.0	70.7	71.2	25.7	6.6	74.1	31.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	43.0	70.7	71.2	25.7	6.6	74.1	31.1	3.2
Queue Length 50th (ft)	213	193	117	248	161	0	144	129	18
Queue Length 95th (ft)	320	261	#202	#416	223	24	#251	182	41
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	480	1010	370	427	2254	728	285	1844	1099
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.53	0.75	0.73	0.35	0.06	0.62	0.31	0.19

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	344	1510	354	458	969	510	125	125	250	125	31	52
v/c Ratio	1.01	0.64	0.45	0.82	0.38	0.49	0.36	0.67	0.40	0.51	0.24	0.27
Control Delay	103.5	28.9	14.0	61.1	21.4	3.5	57.7	74.2	9.5	66.7	62.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.5	28.9	14.0	61.1	21.4	3.5	57.7	74.2	9.5	66.7	62.7	3.3
Queue Length 50th (ft)	~299	351	95	262	180	0	51	104	40	53	25	0
Queue Length 95th (ft)	#543	453	198	#409	244	61	85	175	92	90	61	0
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	341	2354	793	573	2550	1037	582	316	633	794	431	410
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.64	0.45	0.80	0.38	0.49	0.21	0.40	0.39	0.16	0.07	0.13

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1439	418	1071	102	514	518	519
v/c Ratio	0.72	0.31	0.50	0.07	0.62	0.71	0.70
Control Delay	25.9	0.6	12.8	0.1	18.8	22.1	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	0.6	12.8	0.1	18.8	22.1	21.3
Queue Length 50th (ft)	259	0	57	0	202	224	211
Queue Length 95th (ft)	#417	0	116	m0	241	280	262
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1998	1337	2150	1551	1023	885	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.31	0.50	0.07	0.50	0.59	0.57

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	938	866	206	969	206
v/c Ratio	0.46	0.57	0.10	0.81	0.34
Control Delay	8.4	4.0	9.5	32.5	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	4.0	9.5	32.5	12.5
Queue Length 50th (ft)	154	60	26	251	44
Queue Length 95th (ft)	157	185	46	309	92
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2032	1528	2032	1335	662
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.57	0.10	0.73	0.31

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	165	176	155	185	1711	83	1525
v/c Ratio	0.72	0.42	0.73	0.65	0.56	0.45	0.57
Control Delay	50.5	13.1	49.4	45.8	14.3	44.6	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	13.1	49.4	45.8	14.3	44.6	16.7
Queue Length 50th (ft)	88	25	76	100	203	45	200
Queue Length 95th (ft)	143	73	132	184	232	87	322
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	328	543	298	373	3059	255	2692
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.32	0.52	0.50	0.56	0.33	0.57

Intersection Summary

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	74	2053	1748
v/c Ratio	0.41	0.50	0.41
Control Delay	44.0	7.3	4.1
Queue Delay	0.0	0.0	0.0
Total Delay	44.0	7.3	4.1
Queue Length 50th (ft)	40	0	67
Queue Length 95th (ft)	80	344	236
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	609	4086	4250
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.12	0.50	0.41

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	95	379	705	600	1084	85	737	611	674	1106
v/c Ratio	1.03	0.46	1.12	0.56	1.22	0.65	0.56	1.04	0.71	0.47
Control Delay	175.0	54.5	134.9	50.9	137.6	96.8	54.9	80.6	58.8	30.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	175.0	54.5	134.9	50.9	137.6	96.8	54.9	80.6	58.8	30.9
Queue Length 50th (ft)	~109	181	~308	288	~912	91	254	~492	340	293
Queue Length 95th (ft)	#239	236	#398	353	#1427	150	302	#741	413	353
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	826	632	1068	892	177	1319	589	946	2359
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.46	1.12	0.56	1.22	0.48	0.56	1.04	0.71	0.47

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	275	220	154	220	121	1055	33	253	1758	341
v/c Ratio	0.76	0.59	0.45	0.64	1.07	0.56	0.05	0.76	0.70	0.42
Control Delay	56.0	40.8	51.2	15.4	154.5	30.5	0.2	57.5	23.9	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	40.8	51.2	15.4	154.5	30.5	0.2	57.5	23.9	13.7
Queue Length 50th (ft)	182	119	55	0	~96	217	0	172	345	94
Queue Length 95th (ft)	289	208	90	73	#229	312	0	262	450	186
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	422	429	1221	663	113	1893	632	439	2522	810
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.51	0.13	0.33	1.07	0.56	0.05	0.58	0.70	0.42

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	220	464	326	286	765	20	132	847	184
v/c Ratio	0.67	0.59	0.73	0.81	0.35	0.03	0.63	0.47	0.19
Control Delay	54.8	27.0	57.9	65.0	25.1	0.6	66.1	33.5	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	27.0	57.9	65.0	25.1	0.6	66.1	33.5	2.1
Queue Length 50th (ft)	175	101	118	213	145	0	99	190	5
Queue Length 95th (ft)	281	165	194	#356	227	2	182	284	25
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	510	1104	517	455	2246	715	303	1786	1127
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.42	0.63	0.63	0.34	0.03	0.44	0.47	0.16

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	91	1152	273	394	1596	172	364	51	505	404	51	232
v/c Ratio	0.59	0.63	0.43	0.81	0.66	0.22	0.75	0.19	0.87	0.74	0.17	0.55
Control Delay	75.4	38.0	17.2	64.4	29.9	10.3	64.8	53.5	35.4	61.9	50.7	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	38.0	17.2	64.4	29.9	10.3	64.8	53.5	35.4	61.9	50.7	11.2
Queue Length 50th (ft)	76	297	70	228	373	29	155	39	214	170	38	0
Queue Length 95th (ft)	145	423	178	349	552	92	228	85	302	245	82	78
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	344	1841	636	597	2403	788	801	434	648	921	500	558
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.63	0.43	0.66	0.66	0.22	0.45	0.12	0.78	0.44	0.10	0.42

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1640	486	1232	158	379	593	596
v/c Ratio	0.80	0.36	0.55	0.10	0.45	0.81	0.78
Control Delay	31.7	0.8	14.7	0.1	19.3	32.0	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	0.8	14.7	0.1	19.3	32.0	30.3
Queue Length 50th (ft)	400	0	241	0	172	360	341
Queue Length 95th (ft)	#539	0	312	0	230	490	458
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	2054	1336	2221	1547	950	827	855
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.36	0.55	0.10	0.40	0.72	0.70

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	691	1000	546	814	93
v/c Ratio	0.31	0.65	0.24	0.78	0.18
Control Delay	4.1	7.7	10.2	41.4	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	7.7	10.2	41.4	11.1
Queue Length 50th (ft)	36	203	85	282	16
Queue Length 95th (ft)	61	496	136	318	49
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2241	1532	2241	1701	816
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.65	0.24	0.48	0.11

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	104	209	177	118	1024	63	1602
v/c Ratio	0.60	0.51	0.93	0.50	0.33	0.35	0.54
Control Delay	44.2	12.7	78.1	39.1	9.1	37.9	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	12.7	78.1	39.1	9.1	37.9	12.7
Queue Length 50th (ft)	49	22	79	56	84	30	169
Queue Length 95th (ft)	91	74	#160	100	146	64	285
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	307	613	324	312	3123	210	2991
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.34	0.55	0.38	0.33	0.30	0.54

Intersection Summary

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

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	92	33	42	1243	51	1813
v/c Ratio	0.49	0.15	0.30	0.36	0.21	0.53
Control Delay	50.6	6.1	48.3	11.4	9.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.6	6.1	48.3	11.4	9.4	7.8
Queue Length 50th (ft)	56	0	26	52	10	214
Queue Length 95th (ft)	102	15	58	262	36	330
Internal Link Dist (ft)	336			1025		594
Turn Bay Length (ft)			95			
Base Capacity (vph)	283	299	548	3413	244	3416
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.11	0.08	0.36	0.21	0.53

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	114	724	418	194	684	30	549	588	823	991
v/c Ratio	0.93	0.80	0.83	0.20	0.81	0.37	0.40	1.11	0.91	0.39
Control Delay	135.7	62.1	83.6	44.5	33.3	85.9	48.4	112.4	70.1	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	135.7	62.1	83.6	44.5	33.3	85.9	48.4	112.4	70.1	24.5
Queue Length 50th (ft)	118	366	149	80	451	30	168	~568	420	227
Queue Length 95th (ft)	#264	#482	#211	123	611	70	224	#871	502	273
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	122	905	532	990	936	187	1369	528	1114	2569
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.80	0.79	0.20	0.73	0.16	0.40	1.11	0.74	0.39

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	276	223	100	143	63	933	65	223	944	296
v/c Ratio	0.81	0.64	0.34	0.56	0.51	0.47	0.10	0.72	0.36	0.33
Control Delay	58.4	43.7	46.1	16.3	61.1	24.0	2.7	52.0	15.0	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	43.7	46.1	16.3	61.1	24.0	2.7	52.0	15.0	5.6
Queue Length 50th (ft)	171	121	32	0	40	156	0	136	127	27
Queue Length 95th (ft)	#319	209	58	57	#92	221	16	214	169	80
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	342	349	1344	655	126	1994	658	396	2640	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.64	0.07	0.22	0.50	0.47	0.10	0.56	0.36	0.33

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	260	540	295	311	842	44	178	602	211
v/c Ratio	0.73	0.70	0.82	0.86	0.38	0.06	0.76	0.33	0.21
Control Delay	58.6	42.9	74.1	71.9	26.4	6.7	74.9	31.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	42.9	74.1	71.9	26.4	6.7	74.9	31.7	3.3
Queue Length 50th (ft)	224	194	127	250	177	0	145	137	19
Queue Length 95th (ft)	335	263	#223	#416	239	24	#251	189	42
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	476	1002	367	424	2238	723	283	1829	1091
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.54	0.80	0.73	0.38	0.06	0.63	0.33	0.19

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	344	1607	365	458	1129	510	142	125	250	125	31	52
v/c Ratio	1.01	0.68	0.46	0.82	0.45	0.49	0.41	0.67	0.40	0.51	0.24	0.27
Control Delay	103.5	30.0	15.0	61.1	22.4	3.5	58.6	74.2	9.5	66.7	62.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.5	30.0	15.0	61.1	22.4	3.5	58.6	74.2	9.5	66.7	62.7	3.3
Queue Length 50th (ft)	~299	384	105	262	219	0	58	104	40	53	25	0
Queue Length 95th (ft)	#543	494	213	#409	291	61	95	175	92	90	61	0
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	341	2354	790	573	2550	1037	582	316	633	794	431	410
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.68	0.46	0.80	0.44	0.49	0.24	0.40	0.39	0.16	0.07	0.13

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1508	443	1159	102	514	560	545
v/c Ratio	0.80	0.33	0.57	0.07	0.59	0.74	0.70
Control Delay	29.6	0.7	15.6	0.1	17.0	22.1	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	0.7	15.6	0.1	17.0	22.1	20.2
Queue Length 50th (ft)	294	0	75	0	187	235	211
Queue Length 95th (ft)	#450	0	136	m0	241	318	284
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1888	1337	2031	1551	1023	883	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.33	0.57	0.07	0.50	0.63	0.60

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	942	908	212	1052	206
v/c Ratio	0.47	0.59	0.11	0.85	0.33
Control Delay	8.3	4.9	10.0	33.7	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	4.9	10.0	33.7	12.2
Queue Length 50th (ft)	142	79	28	270	42
Queue Length 95th (ft)	160	238	47	344	93
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1984	1528	1984	1335	662
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.59	0.11	0.79	0.31

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	165	186	155	212	1777	83	1568
v/c Ratio	0.71	0.44	0.75	0.70	0.58	0.45	0.60
Control Delay	49.7	12.7	51.2	47.5	13.8	44.6	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	12.7	51.2	47.5	13.8	44.6	17.8
Queue Length 50th (ft)	88	25	76	114	215	45	215
Queue Length 95th (ft)	143	74	133	181	351	87	334
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	328	549	289	373	3051	255	2629
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.34	0.54	0.57	0.58	0.33	0.60

Intersection Summary

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	182	65	74	2188	43	1758
v/c Ratio	0.77	0.24	0.46	0.67	0.62	0.51
Control Delay	67.8	12.8	55.9	16.7	58.1	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	12.8	55.9	16.7	58.1	10.0
Queue Length 50th (ft)	124	0	50	181	17	219
Queue Length 95th (ft)	#220	39	95	#651	#94	286
Internal Link Dist (ft)	420			1025		594
Turn Bay Length (ft)		120	95		120	
Base Capacity (vph)	257	285	498	3275	69	3466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.23	0.15	0.67	0.62	0.51

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	379	705	600	1237	85	780	663	832	1134
v/c Ratio	1.25	0.46	1.12	0.56	1.39	0.65	0.59	1.14	0.88	0.48
Control Delay	233.6	54.5	134.9	50.9	209.7	96.8	55.6	116.0	68.7	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	233.6	54.5	134.9	50.9	209.7	96.8	55.6	116.0	68.7	31.2
Queue Length 50th (ft)	~154	181	~308	288	~1777	91	272	~627	446	303
Queue Length 95th (ft)	#293	236	#398	353	#2047	150	321	#880	#535	364
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	826	632	1068	892	177	1319	581	946	2359
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.46	1.12	0.56	1.39	0.48	0.59	1.14	0.88	0.48

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	277	222	188	275	121	1098	44	264	1774	344
v/c Ratio	0.78	0.61	0.47	0.71	1.09	0.60	0.07	0.78	0.72	0.43
Control Delay	58.3	42.7	50.6	18.9	161.3	33.3	0.8	59.5	25.8	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	42.7	50.6	18.9	161.3	33.3	0.8	59.5	25.8	14.8
Queue Length 50th (ft)	188	124	68	18	~101	243	0	184	369	101
Queue Length 95th (ft)	#313	222	106	106	#240	348	4	288	493	203
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	414	420	1189	673	111	1815	609	430	2471	796
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.53	0.16	0.41	1.09	0.60	0.07	0.61	0.72	0.43

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	228	464	359	286	807	20	132	891	184
v/c Ratio	0.69	0.59	0.77	0.81	0.37	0.03	0.63	0.51	0.19
Control Delay	55.9	27.0	61.1	66.0	25.9	0.6	66.9	34.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	27.0	61.1	66.0	25.9	0.6	66.9	34.6	2.3
Queue Length 50th (ft)	184	102	135	216	157	0	101	206	6
Queue Length 95th (ft)	291	165	#234	#356	241	2	182	301	27
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	503	1090	508	448	2214	705	298	1760	1113
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.43	0.71	0.64	0.36	0.03	0.44	0.51	0.17

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	91	1334	292	394	1729	172	378	51	505	404	51	232
v/c Ratio	0.59	0.73	0.47	0.81	0.72	0.22	0.76	0.19	0.86	0.74	0.17	0.55
Control Delay	76.1	41.2	20.5	65.1	31.9	11.4	65.0	53.2	34.7	62.3	51.0	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.1	41.2	20.5	65.1	31.9	11.4	65.0	53.2	34.7	62.3	51.0	11.3
Queue Length 50th (ft)	76	364	94	230	425	34	161	39	214	171	38	0
Queue Length 95th (ft)	146	512	215	352	626	100	237	84	302	247	82	78
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	343	1831	626	595	2390	781	797	432	651	917	497	556
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.73	0.47	0.66	0.72	0.22	0.47	0.12	0.78	0.44	0.10	0.42

Intersection Summary

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1787	531	1309	158	379	622	628
v/c Ratio	0.90	0.40	0.61	0.10	0.44	0.82	0.81
Control Delay	37.8	0.9	16.6	0.1	18.4	32.8	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	0.9	16.6	0.1	18.4	32.8	31.0
Queue Length 50th (ft)	475	0	284	0	166	378	358
Queue Length 95th (ft)	#627	0	356	0	230	538	505
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1989	1336	2150	1547	950	825	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.40	0.61	0.10	0.40	0.75	0.74

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	699	1081	552	886	93
v/c Ratio	0.32	0.71	0.26	0.78	0.17
Control Delay	4.3	10.1	11.6	39.8	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	10.1	11.6	39.8	11.3
Queue Length 50th (ft)	36	404	92	304	18
Queue Length 95th (ft)	m58	m549	148	336	49
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2157	1532	2157	1701	813
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.71	0.26	0.52	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	104	198	177	104	1025	63	1610
v/c Ratio	0.60	0.49	0.89	0.47	0.33	0.35	0.53
Control Delay	44.3	13.0	67.9	35.8	12.7	37.9	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	13.0	67.9	35.8	12.7	37.9	12.3
Queue Length 50th (ft)	49	22	78	49	84	30	167
Queue Length 95th (ft)	91	72	#153	99	196	64	280
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	307	607	341	309	3124	210	3025
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.33	0.52	0.34	0.33	0.30	0.53

Intersection Summary

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

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	42	1141	1859
v/c Ratio	0.26	0.26	0.48
Control Delay	36.9	3.5	3.6
Queue Delay	0.0	0.0	0.0
Total Delay	36.9	3.5	3.6
Queue Length 50th (ft)	20	0	78
Queue Length 95th (ft)	49	158	185
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	685	4437	3913
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.06	0.26	0.48

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	92	756	464	213	545	30	500	637	802	970
v/c Ratio	0.79	0.85	0.88	0.21	0.64	0.37	0.36	1.20	0.90	0.37
Control Delay	110.9	64.8	87.1	44.2	21.9	85.4	47.2	143.2	69.1	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.9	64.8	87.1	44.2	21.9	85.4	47.2	143.2	69.1	23.4
Queue Length 50th (ft)	93	383	166	86	281	30	150	~665	406	220
Queue Length 95th (ft)	#204	#530	#250	134	390	70	204	#987	486	266
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	123	894	537	1002	956	189	1381	531	1124	2611
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.85	0.86	0.21	0.57	0.16	0.36	1.20	0.71	0.37

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	277	221	84	116	63	959	53	210	982	297
v/c Ratio	0.81	0.63	0.29	0.51	0.51	0.47	0.08	0.71	0.37	0.33
Control Delay	57.9	43.0	45.8	17.0	60.5	23.2	1.5	52.0	15.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	43.0	45.8	17.0	60.5	23.2	1.5	52.0	15.0	5.9
Queue Length 50th (ft)	171	119	26	0	39	157	0	128	132	30
Queue Length 95th (ft)	#318	206	51	53	#90	225	9	200	174	83
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	344	350	1359	641	126	2046	673	398	2652	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.63	0.06	0.18	0.50	0.47	0.08	0.53	0.37	0.33

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	263	540	285	311	847	44	182	612	220
v/c Ratio	0.73	0.70	0.80	0.86	0.39	0.06	0.76	0.33	0.22
Control Delay	58.7	42.7	72.0	71.9	26.6	6.7	75.3	31.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	42.7	72.0	71.9	26.6	6.7	75.3	31.8	3.4
Queue Length 50th (ft)	227	195	121	251	180	0	149	141	20
Queue Length 95th (ft)	338	263	#209	#416	241	24	#260	193	44
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	476	1002	368	424	2236	722	283	1830	1092
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.54	0.77	0.73	0.38	0.06	0.64	0.33	0.20

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	512	1510	354	458	969	682	125	143	250	135	136	154
v/c Ratio	0.87	0.79	0.49	0.87	0.74	0.88	0.39	0.81	0.42	0.63	0.63	0.48
Control Delay	48.5	30.7	10.6	55.1	37.0	24.5	45.3	77.1	8.4	52.7	52.1	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	30.7	10.6	55.1	37.0	24.5	45.3	77.1	8.4	52.7	52.1	11.5
Queue Length 50th (ft)	287	290	47	191	195	110	37	86	28	83	83	0
Queue Length 95th (ft)	#522	388	137	#340	266	#367	69	#205	67	145	146	54
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	586	1908	720	528	1309	772	324	176	589	477	485	528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.79	0.49	0.87	0.74	0.88	0.39	0.81	0.42	0.28	0.28	0.29

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1514	445	1166	102	514	562	548
v/c Ratio	0.80	0.33	0.58	0.07	0.59	0.74	0.70
Control Delay	29.9	0.7	15.8	0.1	16.9	22.1	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	0.7	15.8	0.1	16.9	22.1	20.3
Queue Length 50th (ft)	297	0	77	0	186	236	212
Queue Length 95th (ft)	#452	0	138	m0	241	321	287
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1881	1337	2024	1551	1023	883	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.33	0.58	0.07	0.50	0.64	0.60

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	942	911	213	1058	206
v/c Ratio	0.48	0.60	0.11	0.85	0.33
Control Delay	8.3	5.0	10.0	33.8	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	5.0	10.0	33.8	12.2
Queue Length 50th (ft)	144	79	29	271	42
Queue Length 95th (ft)	161	241	47	347	93
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1980	1528	1980	1335	662
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.60	0.11	0.79	0.31

Intersection Summary

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	165	176	155	185	1768	83	1571
v/c Ratio	0.72	0.42	0.73	0.65	0.58	0.45	0.58
Control Delay	50.5	13.1	49.4	45.5	14.7	44.6	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	13.1	49.4	45.5	14.7	44.6	16.9
Queue Length 50th (ft)	88	25	76	100	214	45	208
Queue Length 95th (ft)	143	73	132	183	245	87	335
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	328	543	298	373	3060	255	2692
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.32	0.52	0.50	0.58	0.33	0.58

Intersection Summary

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	74	2111	1794
v/c Ratio	0.41	0.52	0.42
Control Delay	44.0	7.5	4.3
Queue Delay	0.0	0.0	0.0
Total Delay	44.0	7.5	4.3
Queue Length 50th (ft)	40	0	71
Queue Length 95th (ft)	80	360	248
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	609	4086	4250
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.12	0.52	0.42

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	95	406	781	633	1142	85	737	672	720	1106
v/c Ratio	1.03	0.49	1.24	0.59	1.28	0.65	0.56	1.16	0.76	0.47
Control Delay	175.0	55.4	175.7	51.7	164.6	96.8	54.9	122.7	60.9	30.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	175.0	55.4	175.7	51.7	164.6	96.8	54.9	122.7	60.9	30.9
Queue Length 50th (ft)	~109	196	~368	307	~1043	91	254	~651	370	293
Queue Length 95th (ft)	#239	254	#459	375	#1834	150	302	#904	446	353
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	826	632	1068	892	177	1319	580	946	2359
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.49	1.24	0.59	1.28	0.48	0.56	1.16	0.76	0.47

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	277	220	154	220	121	1116	33	253	1835	344
v/c Ratio	0.77	0.59	0.45	0.64	1.07	0.59	0.05	0.76	0.73	0.43
Control Delay	56.0	40.7	51.3	15.4	155.2	31.2	0.2	57.6	24.8	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	40.7	51.3	15.4	155.2	31.2	0.2	57.6	24.8	14.1
Queue Length 50th (ft)	183	119	55	0	~97	234	0	172	371	98
Queue Length 95th (ft)	291	208	90	73	#229	334	0	262	479	190
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	422	428	1219	662	113	1889	631	438	2518	806
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.51	0.13	0.33	1.07	0.59	0.05	0.58	0.73	0.43

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	465	331	286	807	20	139	899	197
v/c Ratio	0.69	0.59	0.74	0.81	0.37	0.03	0.65	0.51	0.20
Control Delay	55.5	27.3	58.1	65.5	25.9	0.6	66.9	34.3	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	27.3	58.1	65.5	25.9	0.6	66.9	34.3	2.3
Queue Length 50th (ft)	184	103	120	215	157	0	106	207	8
Queue Length 95th (ft)	292	168	196	#356	241	2	191	304	29
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	507	1095	516	452	2225	708	301	1775	1123
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.42	0.64	0.63	0.36	0.03	0.46	0.51	0.18

Intersection Summary

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	219	1152	273	394	1596	303	364	65	505	318	318	392
v/c Ratio	0.83	0.69	0.46	0.86	0.85	0.44	0.77	0.25	0.91	0.87	0.86	0.72
Control Delay	85.6	45.4	19.9	75.3	48.3	15.6	71.4	59.1	41.5	78.0	76.4	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.6	45.4	19.9	75.3	48.3	15.6	71.4	59.1	41.5	78.0	76.4	22.8
Queue Length 50th (ft)	205	358	87	262	530	77	176	57	214	306	305	88
Queue Length 95th (ft)	#338	449	190	#370	#650	177	238	107	301	#505	#500	230
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	314	1681	594	545	1898	698	732	397	610	412	417	573
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.69	0.46	0.72	0.84	0.43	0.50	0.16	0.83	0.77	0.76	0.68

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1772	525	1308	158	379	621	628
v/c Ratio	0.89	0.39	0.61	0.10	0.44	0.82	0.81
Control Delay	37.1	0.9	16.5	0.1	18.4	32.8	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	0.9	16.5	0.1	18.4	32.8	31.1
Queue Length 50th (ft)	468	0	283	0	166	378	360
Queue Length 95th (ft)	#618	0	356	0	230	535	505
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1991	1336	2153	1547	950	825	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.39	0.61	0.10	0.40	0.75	0.74

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	698	1073	552	885	93
v/c Ratio	0.32	0.70	0.26	0.78	0.17
Control Delay	4.3	9.9	11.6	39.8	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.9	11.6	39.8	11.3
Queue Length 50th (ft)	36	389	92	304	18
Queue Length 95th (ft)	m58	m549	148	336	49
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2159	1532	2159	1701	813
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.70	0.26	0.52	0.11

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	291	219	166	1250	73	1604
v/c Ratio	0.76	0.59	0.97	0.63	0.43	0.41	0.63
Control Delay	51.5	16.2	81.1	40.6	15.8	40.4	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	16.2	81.1	40.6	15.8	40.4	17.6
Queue Length 50th (ft)	73	53	101	78	130	35	208
Queue Length 95th (ft)	127	114	#195	153	245	74	315
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	285	622	309	312	2893	203	2533
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.47	0.71	0.53	0.43	0.36	0.63

Intersection Summary

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

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	42	1411	1874
v/c Ratio	0.26	0.32	0.48
Control Delay	36.9	3.8	4.8
Queue Delay	0.0	0.0	0.0
Total Delay	36.9	3.8	4.8
Queue Length 50th (ft)	20	0	76
Queue Length 95th (ft)	49	206	252
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	685	4437	3908
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.06	0.32	0.48

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	122	909	449	245	541	41	847	663	806	1133
v/c Ratio	0.99	1.01	0.86	0.25	0.65	0.45	0.62	1.26	0.90	0.45
Control Delay	149.1	88.9	85.7	44.9	25.4	87.8	52.5	165.8	69.4	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	149.1	88.9	85.7	44.9	25.4	87.8	52.5	165.8	69.4	26.3
Queue Length 50th (ft)	126	~510	160	101	316	41	276	~726	409	272
Queue Length 95th (ft)	#286	#718	#237	153	429	87	354	#1053	489	326
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	123	898	535	994	929	188	1376	528	1119	2555
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	1.01	0.84	0.25	0.58	0.22	0.62	1.26	0.72	0.44

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	305	305	106	126	105	1326	95	232	1053	316
v/c Ratio	0.91	0.89	0.36	0.53	0.85	0.66	0.14	0.73	0.41	0.36
Control Delay	73.0	66.0	46.8	16.4	97.8	27.5	5.8	52.6	16.1	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	66.0	46.8	16.4	97.8	27.5	5.8	52.6	16.1	6.7
Queue Length 50th (ft)	193	177	34	0	68	250	1	141	146	38
Queue Length 95th (ft)	#365	#347	61	55	#172	334	35	221	190	96
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	334	341	1317	632	123	2019	665	387	2579	873
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.89	0.08	0.20	0.85	0.66	0.14	0.60	0.41	0.36

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	290	632	345	333	1267	56	289	622	322
v/c Ratio	0.75	0.77	0.98	0.90	0.62	0.08	1.07	0.36	0.33
Control Delay	59.1	48.7	100.3	78.7	33.6	9.3	128.1	34.2	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	48.7	100.3	78.7	33.6	9.3	128.1	34.2	5.7
Queue Length 50th (ft)	259	258	~164	287	324	5	~294	154	53
Queue Length 95th (ft)	376	331	#275	#461	386	34	#489	196	85
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	454	947	352	404	2131	690	269	1744	1039
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.67	0.98	0.82	0.59	0.08	1.07	0.36	0.31

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	365	1604	469	604	1042	542	167	229	385	156	62	52
v/c Ratio	1.15	0.73	0.61	1.13	0.44	0.55	0.33	0.84	0.59	0.59	0.43	0.25
Control Delay	147.4	35.9	19.7	129.7	26.0	6.2	55.4	83.2	18.9	71.8	71.3	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	147.4	35.9	19.7	129.7	26.0	6.2	55.4	83.2	18.9	71.8	71.3	3.0
Queue Length 50th (ft)	~395	445	176	~461	232	35	71	205	139	72	55	0
Queue Length 95th (ft)	#616	525	307	#649	284	129	110	#342	220	110	105	0
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	317	2191	775	533	2374	981	542	294	654	739	401	388
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.73	0.61	1.13	0.44	0.55	0.31	0.78	0.59	0.21	0.15	0.13

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1487	431	1071	112	551	540	541
v/c Ratio	0.77	0.32	0.52	0.07	0.64	0.73	0.71
Control Delay	28.2	0.6	14.3	0.1	18.8	21.9	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	0.6	14.3	0.1	18.8	21.9	21.0
Queue Length 50th (ft)	282	0	65	0	213	228	215
Queue Length 95th (ft)	#440	0	123	m0	266	300	281
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1933	1337	2078	1551	1023	884	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.32	0.52	0.07	0.54	0.61	0.60

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1103	938	216	1010	526
v/c Ratio	0.56	0.61	0.11	0.81	0.87
Control Delay	10.6	4.6	10.1	31.5	39.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	4.6	10.1	31.5	39.9
Queue Length 50th (ft)	251	69	30	251	236
Queue Length 95th (ft)	287	220	48	326	#418
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1977	1528	1977	1335	642
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.56	0.61	0.11	0.76	0.82

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	247	206	247	1825	113	1660
v/c Ratio	0.81	0.51	0.98	0.77	0.65	0.55	0.69
Control Delay	55.8	16.6	89.9	50.7	17.8	47.0	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	16.6	89.9	50.7	17.8	47.0	21.8
Queue Length 50th (ft)	108	51	106	132	274	61	278
Queue Length 95th (ft)	#200	117	#229	231	258	112	363
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	305	551	249	373	2818	255	2391
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.45	0.83	0.66	0.65	0.44	0.69

Intersection Summary

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

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	106	2189	1906
v/c Ratio	0.50	0.54	0.46
Control Delay	44.6	7.7	6.7
Queue Delay	0.0	0.0	0.0
Total Delay	44.6	7.7	6.7
Queue Length 50th (ft)	57	0	142
Queue Length 95th (ft)	103	384	282
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	609	4086	4171
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.54	0.46

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	116	495	747	642	1158	148	768	737	716	1505
v/c Ratio	1.26	0.60	1.18	0.60	1.30	0.88	0.58	1.29	0.76	0.67
Control Delay	237.1	57.6	156.6	52.0	172.1	115.2	55.4	176.9	60.7	37.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	237.1	57.6	156.6	52.0	172.1	115.2	55.4	176.9	60.7	37.9
Queue Length 50th (ft)	~156	244	~341	313	~1086	160	267	~820	367	468
Queue Length 95th (ft)	#297	308	#432	382	#1868	#287	315	#1078	444	523
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	822	632	1068	892	177	1319	570	946	2251
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	0.60	1.18	0.60	1.30	0.84	0.58	1.29	0.76	0.67

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	330	297	187	275	165	1396	33	297	2209	418
v/c Ratio	0.83	0.73	0.47	0.73	1.54	0.85	0.06	0.81	0.93	0.54
Control Delay	61.5	48.0	51.2	22.2	320.3	43.8	0.2	61.4	37.3	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	48.0	51.2	22.2	320.3	43.8	0.2	61.4	37.3	19.0
Queue Length 50th (ft)	232	177	69	30	~170	358	0	205	539	150
Queue Length 95th (ft)	#426	#329	105	119	#334	#521	0	#352	#763	283
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	399	408	1156	647	107	1636	558	414	2383	770
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.73	0.16	0.43	1.54	0.85	0.06	0.72	0.93	0.54

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	248	507	510	347	990	31	224	1041	327
v/c Ratio	0.71	0.63	1.06	0.90	0.50	0.05	0.85	0.64	0.36
Control Delay	58.3	32.2	107.8	76.0	31.5	3.7	82.8	40.5	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	32.2	107.8	76.0	31.5	3.7	82.8	40.5	7.0
Queue Length 50th (ft)	214	138	~240	284	230	0	186	278	58
Queue Length 95th (ft)	318	200	#389	#491	302	13	#350	359	93
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	467	1017	480	416	2034	651	277	1635	1026
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.50	1.06	0.83	0.49	0.05	0.81	0.64	0.32

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	1222	333	495	1717	192	444	101	586	444	81	253
v/c Ratio	0.65	0.73	0.55	0.91	0.73	0.25	0.81	0.34	0.92	0.79	0.26	0.56
Control Delay	82.8	46.3	22.3	76.6	35.7	12.7	70.6	57.1	41.5	67.7	54.5	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	46.3	22.3	76.6	35.7	12.7	70.6	57.1	41.5	67.7	54.5	10.9
Queue Length 50th (ft)	92	365	114	321	466	41	206	84	276	204	66	0
Queue Length 95th (ft)	164	489	246	#547	679	118	284	150	#420	279	123	81
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	313	1674	608	543	2340	773	728	395	640	838	455	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.73	0.55	0.91	0.73	0.25	0.61	0.26	0.92	0.53	0.18	0.47

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1818	540	1326	168	379	633	641
v/c Ratio	0.92	0.40	0.62	0.11	0.43	0.83	0.82
Control Delay	40.4	0.9	17.3	0.1	18.1	33.3	31.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	0.9	17.3	0.1	18.1	33.3	31.6
Queue Length 50th (ft)	497	0	288	0	164	385	368
Queue Length 95th (ft)	#650	0	360	0	230	557	524
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1973	1336	2132	1547	950	825	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.40	0.62	0.11	0.40	0.77	0.75

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	897	1082	567	876	103
v/c Ratio	0.41	0.71	0.26	0.78	0.18
Control Delay	4.7	9.7	11.5	40.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	9.7	11.5	40.0	11.6
Queue Length 50th (ft)	49	396	94	301	20
Queue Length 95th (ft)	m76	m521	151	332	53
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2168	1532	2168	1701	816
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.71	0.26	0.51	0.13

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	316	219	191	1363	73	1813
v/c Ratio	0.75	0.62	1.05	0.67	0.47	0.41	0.73
Control Delay	49.7	16.3	105.8	43.8	12.6	40.4	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	16.3	105.8	43.8	12.6	40.4	20.6
Queue Length 50th (ft)	72	55	~112	90	147	35	259
Queue Length 95th (ft)	127	121	#210	#157	224	74	#415
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	287	633	281	317	2882	203	2470
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.50	0.78	0.60	0.47	0.36	0.73

Intersection Summary

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

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

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	166	59	42	1749	109	2004
v/c Ratio	0.69	0.22	0.30	0.56	1.03	0.64
Control Delay	56.0	12.2	48.3	15.5	121.1	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	12.2	48.3	15.5	121.1	10.7
Queue Length 50th (ft)	101	0	26	112	~79	299
Queue Length 95th (ft)	168	36	58	430	#135	409
Internal Link Dist (ft)	336			1025		594
Turn Bay Length (ft)			95			
Base Capacity (vph)	283	302	548	3110	106	3145
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.20	0.08	0.56	1.03	0.64

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	170	963	517	272	958	41	951	844	1047	1175
v/c Ratio	1.48	1.15	1.03	0.29	1.10	0.47	0.74	1.70	1.00	0.44
Control Delay	303.9	136.6	118.4	49.5	92.3	92.0	60.5	354.3	83.4	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	303.9	136.6	118.4	49.5	92.3	92.0	60.5	354.3	83.4	25.3
Queue Length 50th (ft)	~251	~641	~210	124	~1148	44	348	~1228	585	286
Queue Length 95th (ft)	#414	#782	#295	168	#1415	87	403	#1491	#738	341
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	115	834	502	933	874	177	1291	496	1050	2663
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.48	1.15	1.03	0.29	1.10	0.23	0.74	1.70	1.00	0.44

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	318	311	136	175	105	1559	121	258	1133	322
v/c Ratio	0.96	0.92	0.41	0.59	0.86	0.81	0.19	0.75	0.44	0.37
Control Delay	83.7	71.0	47.1	15.3	100.2	33.6	8.6	53.1	17.2	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.7	71.0	47.1	15.3	100.2	33.6	8.6	53.1	17.2	7.6
Queue Length 50th (ft)	206	184	44	0	68	336	12	155	164	44
Queue Length 95th (ft)	#395	#367	74	62	#177	#431	53	#254	217	110
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	330	338	1295	657	122	1913	635	383	2551	860
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.92	0.11	0.27	0.86	0.81	0.19	0.67	0.44	0.37

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	326	644	390	333	1480	56	295	717	334
v/c Ratio	0.81	0.77	1.12	0.90	0.73	0.09	1.11	0.42	0.34
Control Delay	64.3	48.8	136.5	80.0	37.2	9.3	138.6	35.7	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	48.8	136.5	80.0	37.2	9.3	138.6	35.7	5.9
Queue Length 50th (ft)	300	266	~214	293	414	5	~315	186	57
Queue Length 95th (ft)	#429	340	#325	#461	472	34	#502	227	91
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	449	936	348	400	2109	683	266	1725	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.69	1.12	0.83	0.70	0.08	1.11	0.42	0.32

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	527	1777	619	739	1380	707	265	247	450	245	72	139
v/c Ratio	1.72	0.84	0.79	1.44	0.60	0.74	0.51	0.88	0.74	0.70	0.38	0.51
Control Delay	373.7	43.0	29.8	248.7	31.8	16.4	61.0	91.1	29.8	73.7	66.2	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	373.7	43.0	29.8	248.7	31.8	16.4	61.0	91.1	29.8	73.7	66.2	15.8
Queue Length 50th (ft)	~731	546	314	~672	354	199	120	231	227	117	65	0
Queue Length 95th (ft)	#1001	651	524	#890	432	395	173	#406	325	164	116	66
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	306	2111	779	514	2286	953	522	283	609	712	386	407
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.72	0.84	0.79	1.44	0.60	0.74	0.51	0.87	0.74	0.34	0.19	0.34

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1729	508	1423	112	551	682	673
v/c Ratio	1.05	0.38	0.81	0.07	0.57	0.82	0.79
Control Delay	67.0	0.8	24.3	0.0	14.4	24.4	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	0.8	24.3	0.0	14.4	24.4	21.9
Queue Length 50th (ft)	~452	0	148	0	174	282	257
Queue Length 95th (ft)	#555	0	m156	m0	266	467	415
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1646	1337	1765	1551	1023	882	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.38	0.81	0.07	0.54	0.77	0.74

Intersection Summary

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

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1116	1079	243	1339	526
v/c Ratio	0.59	0.71	0.13	1.00	0.82
Control Delay	9.7	7.9	10.8	54.0	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	7.9	10.8	54.0	34.4
Queue Length 50th (ft)	143	226	34	~387	237
Queue Length 95th (ft)	m191	m227	53	#542	#419
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1887	1528	1887	1335	641
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.71	0.13	1.00	0.82

Intersection Summary

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

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	263	206	299	2038	113	1775
v/c Ratio	0.78	0.53	0.99	0.84	0.73	0.55	0.78
Control Delay	52.5	16.3	92.7	56.5	19.2	47.0	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	16.3	92.7	56.5	19.2	47.0	25.3
Queue Length 50th (ft)	105	52	106	160	339	61	332
Queue Length 95th (ft)	#199	122	#234	#292	435	112	400
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	306	558	240	377	2790	255	2268
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.47	0.86	0.79	0.73	0.44	0.78

Intersection Summary

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

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	346	123	106	2499	67	1974
v/c Ratio	1.35	0.41	0.55	0.78	1.00	0.61
Control Delay	217.0	22.1	56.7	19.7	139.9	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	217.0	22.1	56.7	19.7	139.9	13.3
Queue Length 50th (ft)	~320	28	72	234	43	278
Queue Length 95th (ft)	#501	84	124	#820	#102	367
Internal Link Dist (ft)	420			1025		594
Turn Bay Length (ft)		120	95		120	
Base Capacity (vph)	257	297	498	3210	67	3226
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.35	0.41	0.21	0.78	1.00	0.61

Intersection Summary

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

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	146	523	866	691	1481	148	835	906	1068	1556
v/c Ratio	1.59	0.64	1.37	0.65	1.66	0.88	0.63	1.63	1.13	0.69
Control Delay	354.0	58.8	226.7	53.4	328.1	115.2	56.7	318.6	124.2	38.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	354.0	58.8	226.7	53.4	328.1	115.2	56.7	318.6	124.2	38.6
Queue Length 50th (ft)	~223	262	~436	342	~2330	160	295	~1231	~685	491
Queue Length 95th (ft)	#378	328	#529	415	#2597	#287	345	#1496	#822	547
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	823	632	1068	892	177	1319	557	946	2251
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.59	0.64	1.37	0.65	1.66	0.84	0.63	1.63	1.13	0.69

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	336	300	251	379	165	1530	51	314	2357	430
v/c Ratio	0.91	0.78	0.41	0.84	1.65	1.04	0.10	0.87	1.06	0.60
Control Delay	77.4	57.1	46.5	35.0	371.4	79.3	2.2	72.6	73.0	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.4	57.1	46.5	35.0	371.4	79.3	2.2	72.6	73.0	24.8
Queue Length 50th (ft)	263	200	94	119	~190	~504	0	240	~756	189
Queue Length 95th (ft)	#521	#402	134	239	#379	#728	10	#464	#1041	366
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	371	383	1066	617	100	1465	509	386	2217	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.78	0.24	0.61	1.65	1.04	0.10	0.81	1.06	0.60

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	267	512	577	347	1100	31	234	1203	346
v/c Ratio	0.73	0.62	1.23	0.91	0.56	0.05	0.89	0.75	0.38
Control Delay	59.2	32.2	164.9	78.2	33.6	3.7	87.9	44.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.2	32.2	164.9	78.2	33.6	3.7	87.9	44.3	7.3
Queue Length 50th (ft)	234	142	~319	291	272	0	201	345	65
Queue Length 95th (ft)	345	204	#465	#491	342	13	#373	427	102
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	461	1004	469	411	2007	643	273	1614	1013
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.51	1.23	0.84	0.55	0.05	0.86	0.75	0.34

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	199	1571	414	540	1920	292	559	111	681	602	97	406
v/c Ratio	0.84	1.03	0.73	1.09	1.03	0.44	0.91	0.33	1.06	0.87	0.26	0.80
Control Delay	93.9	82.4	36.6	122.4	75.7	20.7	81.9	58.9	77.1	73.8	54.1	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.9	82.4	36.6	122.4	75.7	20.7	81.9	58.9	77.1	73.8	54.1	32.0
Queue Length 50th (ft)	204	~654	237	~460	~822	109	294	101	~398	312	85	141
Queue Length 95th (ft)	#297	#756	380	#633	#954	207	#387	165	#716	385	142	286
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	286	1530	568	497	1867	665	666	361	642	766	416	533
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	1.03	0.73	1.09	1.03	0.44	0.84	0.31	1.06	0.79	0.23	0.76

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	2297	687	1531	168	379	724	709
v/c Ratio	1.25	0.51	0.77	0.11	0.41	0.91	0.86
Control Delay	146.7	1.4	24.4	0.1	16.4	39.2	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	146.7	1.4	24.4	0.1	16.4	39.2	33.3
Queue Length 50th (ft)	~833	0	349	0	157	479	425
Queue Length 95th (ft)	#934	0	467	0	230	#782	#646
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1843	1336	1984	1547	950	824	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.51	0.77	0.11	0.40	0.88	0.83

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	923	1351	581	1062	103
v/c Ratio	0.47	0.88	0.30	0.80	0.16
Control Delay	5.6	18.1	15.3	35.9	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	18.1	15.3	35.9	11.0
Queue Length 50th (ft)	52	687	115	354	23
Queue Length 95th (ft)	m98	m530	178	384	52
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1953	1532	1953	1701	811
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.88	0.30	0.62	0.13

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	303	219	180	1282	73	1652
v/c Ratio	0.76	0.61	1.01	0.65	0.44	0.41	0.66
Control Delay	51.0	16.3	92.5	43.2	12.2	40.4	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	16.3	92.5	43.2	12.2	40.4	18.4
Queue Length 50th (ft)	73	55	102	84	134	35	220
Queue Length 95th (ft)	127	118	#202	148	207	74	328
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	286	627	296	315	2889	203	2500
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.48	0.74	0.57	0.44	0.36	0.66

Intersection Summary

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

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	89	32	42	1542	49	1886
v/c Ratio	0.49	0.15	0.30	0.45	0.29	0.55
Control Delay	50.7	6.0	48.3	12.4	13.3	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	6.0	48.3	12.4	13.3	7.9
Queue Length 50th (ft)	55	0	26	69	11	228
Queue Length 95th (ft)	100	14	58	349	44	350
Internal Link Dist (ft)	336			1025		594
Turn Bay Length (ft)			95			
Base Capacity (vph)	283	299	548	3434	167	3419
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.11	0.08	0.45	0.29	0.55

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	144	909	449	245	707	41	894	689	882	1153
v/c Ratio	1.20	1.04	0.88	0.25	0.84	0.46	0.67	1.34	0.93	0.45
Control Delay	203.6	96.7	89.5	46.6	36.8	89.7	55.5	199.8	71.8	25.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	203.6	96.7	89.5	46.6	36.8	89.7	55.5	199.8	71.8	25.9
Queue Length 50th (ft)	~182	~542	166	105	502	42	308	~826	460	279
Queue Length 95th (ft)	#345	#718	#237	153	676	87	376	#1123	547	333
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	120	876	522	971	909	184	1344	515	1094	2572
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	1.04	0.86	0.25	0.78	0.22	0.67	1.34	0.81	0.45

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	307	308	121	153	105	1373	107	244	1060	317
v/c Ratio	0.92	0.91	0.39	0.57	0.86	0.70	0.16	0.74	0.41	0.36
Control Delay	75.2	68.4	47.1	15.9	99.3	29.0	7.2	52.9	16.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.2	68.4	47.1	15.9	99.3	29.0	7.2	52.9	16.4	6.8
Queue Length 50th (ft)	196	180	39	0	68	269	6	148	149	38
Queue Length 95th (ft)	#370	#354	68	59	#172	353	43	234	194	98
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	332	340	1306	647	122	1974	652	385	2568	870
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.91	0.09	0.24	0.86	0.70	0.16	0.63	0.41	0.36

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	299	633	362	333	1318	56	289	646	322
v/c Ratio	0.76	0.77	1.03	0.90	0.65	0.08	1.08	0.37	0.33
Control Delay	60.2	48.5	112.9	79.1	34.4	9.3	129.7	34.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	48.5	112.9	79.1	34.4	9.3	129.7	34.6	5.7
Queue Length 50th (ft)	269	258	~183	289	345	5	~297	162	53
Queue Length 95th (ft)	390	333	#295	#461	406	34	#489	204	86
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	452	944	350	403	2124	688	268	1738	1035
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.67	1.03	0.83	0.62	0.08	1.08	0.37	0.31

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	365	1697	478	604	1195	542	182	229	385	156	62	52
v/c Ratio	1.15	0.77	0.62	1.13	0.50	0.55	0.36	0.84	0.59	0.59	0.43	0.25
Control Delay	147.4	37.3	20.9	129.7	27.2	6.2	55.9	83.2	19.0	71.8	71.3	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	147.4	37.3	20.9	129.7	27.2	6.2	55.9	83.2	19.0	71.8	71.3	3.0
Queue Length 50th (ft)	~395	484	191	~461	277	35	77	205	140	72	55	0
Queue Length 95th (ft)	#616	569	326	#649	335	129	119	#342	221	110	105	0
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	317	2191	770	533	2374	981	542	294	654	739	401	388
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.77	0.62	1.13	0.50	0.55	0.34	0.78	0.59	0.21	0.15	0.13

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1554	455	1156	112	551	571	576
v/c Ratio	0.84	0.34	0.58	0.07	0.62	0.74	0.73
Control Delay	32.0	0.7	16.8	0.1	17.3	21.7	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	0.7	16.8	0.1	17.3	21.7	20.9
Queue Length 50th (ft)	314	0	82	0	202	236	225
Queue Length 95th (ft)	#472	0	140	m0	266	329	311
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1846	1337	1985	1551	1023	883	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.34	0.58	0.07	0.54	0.65	0.63

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1107	978	223	1090	526
v/c Ratio	0.57	0.64	0.11	0.86	0.86
Control Delay	10.3	5.5	10.3	33.9	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	5.5	10.3	33.9	38.1
Queue Length 50th (ft)	201	88	31	280	236
Queue Length 95th (ft)	292	m264	49	362	#418
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1953	1528	1953	1335	642
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.64	0.11	0.82	0.82

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	257	206	273	1889	113	1701
v/c Ratio	0.79	0.52	0.99	0.80	0.67	0.55	0.73
Control Delay	53.6	16.5	91.0	53.0	17.7	47.0	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	16.5	91.0	53.0	17.7	47.0	23.4
Queue Length 50th (ft)	106	52	106	145	295	61	305
Queue Length 95th (ft)	#199	121	#232	#256	385	112	375
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	306	555	244	374	2801	255	2320
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.46	0.84	0.73	0.67	0.44	0.73

Intersection Summary

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

Lane Group	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	175	62	106	2321	42	1916
v/c Ratio	0.75	0.24	0.55	0.71	0.63	0.58
Control Delay	66.2	13.1	56.7	17.6	59.5	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	13.1	56.7	17.6	59.5	12.4
Queue Length 50th (ft)	119	0	72	201	17	265
Queue Length 95th (ft)	#207	38	124	#723	#91	350
Internal Link Dist (ft)	420			1025		594
Turn Bay Length (ft)		120	95		120	
Base Capacity (vph)	257	283	498	3286	67	3294
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.22	0.21	0.71	0.63	0.58

Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	135	495	747	642	1305	148	811	787	867	1532
v/c Ratio	1.47	0.60	1.18	0.60	1.46	0.88	0.61	1.39	0.92	0.68
Control Delay	308.8	57.6	156.6	52.0	242.5	115.2	56.2	218.7	72.7	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	308.8	57.6	156.6	52.0	242.5	115.2	56.2	218.7	72.7	38.3
Queue Length 50th (ft)	~199	244	~341	313	~1931	160	285	~945	471	480
Queue Length 95th (ft)	#349	308	#432	382	#2203	#287	335	#1208	#588	535
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	822	632	1068	892	177	1319	565	946	2251
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.47	0.60	1.18	0.60	1.46	0.84	0.61	1.39	0.92	0.68

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	332	299	220	327	165	1437	44	308	2224	421
v/c Ratio	0.86	0.76	0.44	0.80	1.59	0.93	0.08	0.84	0.96	0.56
Control Delay	67.7	52.0	48.9	29.4	343.5	52.5	0.7	66.1	44.4	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	52.0	48.9	29.4	343.5	52.5	0.7	66.1	44.4	21.2
Queue Length 50th (ft)	241	185	82	69	~176	392	0	218	573	160
Queue Length 95th (ft)	#471	#366	120	178	#357	#604	3	#411	#860	317
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	386	396	1114	633	104	1549	532	401	2307	749
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.76	0.20	0.52	1.59	0.93	0.08	0.77	0.96	0.56

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	256	507	541	347	1031	31	224	1083	327
v/c Ratio	0.72	0.62	1.14	0.90	0.52	0.05	0.86	0.67	0.36
Control Delay	58.6	31.8	132.7	77.1	32.3	3.7	83.9	41.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	31.8	132.7	77.1	32.3	3.7	83.9	41.6	7.0
Queue Length 50th (ft)	223	138	~279	289	247	0	189	298	59
Queue Length 95th (ft)	328	200	#425	#491	316	13	#350	376	93
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	464	1012	474	413	2021	648	275	1625	1020
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.50	1.14	0.84	0.51	0.05	0.81	0.67	0.32

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	1398	352	495	1845	192	458	101	586	444	81	253
v/c Ratio	0.65	0.84	0.59	0.91	0.79	0.25	0.82	0.34	0.91	0.79	0.26	0.56
Control Delay	83.0	50.8	26.1	77.5	37.8	13.7	71.2	56.8	40.8	68.0	54.7	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	50.8	26.1	77.5	37.8	13.7	71.2	56.8	40.8	68.0	54.7	11.0
Queue Length 50th (ft)	92	441	143	323	527	46	214	84	276	205	66	0
Queue Length 95th (ft)	164	#603	288	#547	#793	124	292	150	#420	279	123	81
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	311	1667	597	541	2329	766	726	394	643	835	453	543
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.84	0.59	0.91	0.79	0.25	0.63	0.26	0.91	0.53	0.18	0.47

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1957	584	1401	168	379	674	657
v/c Ratio	1.03	0.44	0.68	0.11	0.42	0.86	0.81
Control Delay	61.6	1.0	19.7	0.1	17.1	35.1	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	1.0	19.7	0.1	17.1	35.1	30.4
Queue Length 50th (ft)	~628	0	308	0	157	416	369
Queue Length 95th (ft)	#732	0	398	0	230	629	548
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1904	1336	2052	1547	950	824	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.44	0.68	0.11	0.40	0.82	0.77

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	904	1161	572	944	103
v/c Ratio	0.43	0.76	0.27	0.79	0.17
Control Delay	5.0	12.5	12.9	38.3	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	12.5	12.9	38.3	11.4
Queue Length 50th (ft)	50	493	103	319	21
Queue Length 95th (ft)	m73	m514	161	352	53
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2085	1532	2085	1701	814
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.76	0.27	0.55	0.13

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	156	291	219	166	1284	73	1661
v/c Ratio	0.76	0.59	0.97	0.63	0.44	0.41	0.66
Control Delay	51.5	16.2	81.1	40.5	16.0	40.4	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	16.2	81.1	40.5	16.0	40.4	18.1
Queue Length 50th (ft)	73	53	101	78	134	35	219
Queue Length 95th (ft)	127	114	#195	153	252	74	331
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	285	622	309	312	2893	203	2533
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.47	0.71	0.53	0.44	0.36	0.66

Intersection Summary

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

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	42	1445	1930
v/c Ratio	0.26	0.33	0.49
Control Delay	36.9	3.8	5.1
Queue Delay	0.0	0.0	0.0
Total Delay	36.9	3.8	5.1
Queue Length 50th (ft)	20	0	80
Queue Length 95th (ft)	49	213	271
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	685	4437	3908
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.06	0.33	0.49

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	122	939	493	263	574	41	847	736	861	1133
v/c Ratio	1.01	1.07	0.94	0.27	0.68	0.45	0.63	1.42	0.92	0.44
Control Delay	154.5	106.4	95.6	46.3	26.6	89.2	53.9	233.0	71.4	25.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.5	106.4	95.6	46.3	26.6	89.2	53.9	233.0	71.4	25.9
Queue Length 50th (ft)	~130	~565	182	112	348	42	284	~915	446	272
Queue Length 95th (ft)	#286	#753	#275	163	470	87	354	#1230	530	326
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	121	874	526	978	915	185	1354	519	1102	2563
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	1.07	0.94	0.27	0.63	0.22	0.63	1.42	0.78	0.44

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	307	305	106	126	105	1399	95	232	1097	318
v/c Ratio	0.92	0.89	0.36	0.53	0.85	0.69	0.14	0.73	0.43	0.37
Control Delay	74.1	66.0	46.8	16.4	97.8	28.3	5.8	52.6	16.4	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.1	66.0	46.8	16.4	97.8	28.3	5.8	52.6	16.4	7.0
Queue Length 50th (ft)	195	177	34	0	68	269	1	141	154	40
Queue Length 95th (ft)	#366	#347	61	55	#172	358	35	221	200	100
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	334	341	1317	632	123	2019	665	387	2579	870
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.89	0.08	0.20	0.85	0.69	0.14	0.60	0.43	0.37

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	302	634	352	333	1322	56	293	656	331
v/c Ratio	0.77	0.76	1.00	0.90	0.65	0.08	1.09	0.38	0.34
Control Delay	60.6	48.5	105.4	79.2	34.5	9.4	133.8	34.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	48.5	105.4	79.2	34.5	9.4	133.8	34.7	5.8
Queue Length 50th (ft)	272	259	~172	289	348	5	~305	165	55
Queue Length 95th (ft)	392	334	#282	#461	407	34	#496	207	89
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	452	943	352	403	2123	688	268	1737	1035
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.67	1.00	0.83	0.62	0.08	1.09	0.38	0.32

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	527	1604	469	604	1042	707	167	247	385	164	165	150
v/c Ratio	0.97	0.91	0.70	0.96	0.70	0.96	0.35	0.94	0.58	0.76	0.74	0.47
Control Delay	79.7	52.5	27.8	79.3	47.8	46.6	58.1	102.6	19.0	81.0	79.2	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.7	52.5	27.8	79.3	47.8	46.6	58.1	102.6	19.0	81.0	79.2	12.9
Queue Length 50th (ft)	477	511	205	392	311	343	72	228	144	155	155	0
Queue Length 95th (ft)	#778	#667	373	#615	395	#661	116	#432	212	238	241	64
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	545	1771	668	629	1497	737	483	262	668	321	329	396
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.91	0.70	0.96	0.70	0.96	0.35	0.94	0.58	0.51	0.50	0.38

Intersection Summary

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1558	458	1162	112	551	585	568
v/c Ratio	0.86	0.34	0.59	0.07	0.61	0.75	0.71
Control Delay	32.9	0.7	17.0	0.1	16.9	21.9	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	0.7	17.0	0.1	16.9	21.9	19.9
Queue Length 50th (ft)	319	0	84	0	196	241	215
Queue Length 95th (ft)	#474	0	142	m0	266	345	303
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1820	1337	1957	1551	1023	883	909
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.34	0.59	0.07	0.54	0.66	0.62

Intersection Summary

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	1107	981	224	1096	526
v/c Ratio	0.57	0.64	0.11	0.86	0.86
Control Delay	10.2	5.6	10.3	34.1	37.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	5.6	10.3	34.1	37.9
Queue Length 50th (ft)	190	92	31	282	236
Queue Length 95th (ft)	m283	m253	50	365	#418
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	1951	1528	1951	1335	642
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.64	0.11	0.82	0.82

Intersection Summary

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	206	247	206	247	1880	113	1704
v/c Ratio	0.81	0.51	0.98	0.77	0.67	0.55	0.71
Control Delay	55.8	16.6	89.9	50.3	18.3	47.0	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	16.6	89.9	50.3	18.3	47.0	22.3
Queue Length 50th (ft)	108	51	106	132	288	61	289
Queue Length 95th (ft)	#200	117	#229	231	271	112	376
Internal Link Dist (ft)		120	722		588		492
Turn Bay Length (ft)	90			300		100	
Base Capacity (vph)	305	551	249	373	2822	255	2391
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.45	0.83	0.66	0.67	0.44	0.71

Intersection Summary

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

Lane Group	NBL	NBT	SBT
Lane Group Flow (vph)	106	2245	1951
v/c Ratio	0.50	0.55	0.47
Control Delay	44.6	7.9	6.9
Queue Delay	0.0	0.0	0.0
Total Delay	44.6	7.9	6.9
Queue Length 50th (ft)	57	0	152
Queue Length 95th (ft)	103	402	291
Internal Link Dist (ft)		1025	594
Turn Bay Length (ft)	95		
Base Capacity (vph)	609	4086	4175
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.55	0.47

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	116	520	821	673	1214	148	768	796	761	1505
v/c Ratio	1.26	0.63	1.30	0.63	1.36	0.88	0.58	1.41	0.80	0.67
Control Delay	237.1	58.7	199.3	52.8	198.7	115.2	55.4	226.4	63.3	37.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	237.1	58.7	199.3	52.8	198.7	115.2	55.4	226.4	63.3	37.9
Queue Length 50th (ft)	~156	260	~400	331	~1525	160	267	~967	397	468
Queue Length 95th (ft)	#297	327	#492	402	#1997	#287	315	#1230	477	523
Internal Link Dist (ft)		1486		1141			794			1025
Turn Bay Length (ft)	140		275			310			370	
Base Capacity (vph)	92	823	632	1068	892	177	1319	564	946	2251
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	0.63	1.30	0.63	1.36	0.84	0.58	1.41	0.80	0.67

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	332	297	187	275	165	1455	33	297	2282	420
v/c Ratio	0.83	0.73	0.47	0.73	1.54	0.89	0.06	0.81	0.96	0.55
Control Delay	62.0	48.0	51.2	22.2	320.3	46.1	0.2	61.4	41.1	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	48.0	51.2	22.2	320.3	46.1	0.2	61.4	41.1	19.3
Queue Length 50th (ft)	233	177	69	30	~170	379	0	205	572	153
Queue Length 95th (ft)	#431	#329	105	119	#334	#558	0	#352	#807	288
Internal Link Dist (ft)		816	135			1389			794	
Turn Bay Length (ft)				50	250		75	130		110
Base Capacity (vph)	399	408	1156	647	107	1636	558	414	2383	768
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.73	0.16	0.43	1.54	0.89	0.06	0.72	0.96	0.55

Intersection Summary

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

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	257	508	515	347	1030	31	230	1091	339
v/c Ratio	0.72	0.62	1.08	0.90	0.52	0.05	0.87	0.67	0.37
Control Delay	58.7	31.9	112.1	77.2	32.4	3.7	85.6	41.7	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	31.9	112.1	77.2	32.4	3.7	85.6	41.7	7.1
Queue Length 50th (ft)	224	139	~250	289	247	0	195	301	62
Queue Length 95th (ft)	329	200	#394	#491	316	13	#363	380	98
Internal Link Dist (ft)		771	151		718			1389	
Turn Bay Length (ft)	135			410		65	310		300
Base Capacity (vph)	464	1012	478	413	2021	647	275	1624	1020
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.50	1.08	0.84	0.51	0.05	0.84	0.67	0.33

Intersection Summary

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

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	224	1222	333	495	1717	318	444	114	586	349	350	406
v/c Ratio	0.97	0.93	0.58	0.96	1.01	0.45	0.97	0.46	0.97	0.89	0.88	0.74
Control Delay	99.7	52.7	14.3	75.2	60.2	7.7	82.2	50.5	48.7	65.7	63.8	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.7	52.7	14.3	75.2	60.2	7.7	82.2	50.5	48.7	65.7	63.8	22.9
Queue Length 50th (ft)	160	310	48	250	~473	22	163	76	193	248	247	94
Queue Length 95th (ft)	#316	#404	142	#400	#570	92	#267	134	#432	#413	#408	215
Internal Link Dist (ft)		1141			1121			651			765	
Turn Bay Length (ft)	210		165	380			150		150			
Base Capacity (vph)	232	1315	573	514	1704	702	459	249	606	419	425	564
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.58	0.96	1.01	0.45	0.97	0.46	0.97	0.83	0.82	0.72

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	1944	578	1400	168	379	674	657
v/c Ratio	1.02	0.43	0.68	0.11	0.42	0.86	0.81
Control Delay	59.7	1.0	19.7	0.1	17.1	35.1	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	1.0	19.7	0.1	17.1	35.1	30.4
Queue Length 50th (ft)	~620	0	308	0	157	416	369
Queue Length 95th (ft)	#724	0	398	0	230	629	548
Internal Link Dist (ft)	1121		881			712	
Turn Bay Length (ft)				100			
Base Capacity (vph)	1904	1336	2052	1547	950	824	854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.43	0.68	0.11	0.40	0.82	0.77

Intersection Summary

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

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

Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	903	1153	572	943	103
v/c Ratio	0.43	0.75	0.27	0.79	0.17
Control Delay	5.0	12.2	12.8	38.3	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	12.2	12.8	38.3	11.2
Queue Length 50th (ft)	51	485	103	319	21
Queue Length 95th (ft)	m74	m510	161	352	52
Internal Link Dist (ft)	881		918	415	
Turn Bay Length (ft)				220	90
Base Capacity (vph)	2087	1532	2087	1701	815
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.75	0.27	0.55	0.13

Intersection Summary

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

Detailed Trip Generation Tables

Site 1

	Residential	Office	Retail	Other	Total
Land Use Qty	500	267	32	0	
Daily ITE	3,154	2,769	3,238	0	9,161
Daily Internal Reduction	80	88	100	0	268
Daily External Vehicle Trips	3,074	2,681	3,138	0	8,893
AM ITE	249	420	78	0	746
AM Internal Reduction	12	25	5	0	42
AM Externa Vehicle Trips	236	395	73	0	704
PM ITE	293	377	279	0	949
PM Internal Reduction	25	39	28	0	92
PM Externa Vehicle Trips	268	338	251	0	857

Site 5-6

	Residential	Office	Retail	Other	Total
Land Use Qty	321	165	47	116	
Daily ITE	2,069	1,917	5,495	948	10,428
Daily Internal Reduction	65	72	206	38	382
Daily External Vehicle Trips	2,004	1,844	5,288	909	10,046
AM ITE	161	285	295	61	803
AM Internal Reduction	12	24	24	5	66
AM Externa Vehicle Trips	149	261	271	56	737
PM ITE	194	263	449	70	976
PM Internal Reduction	32	52	88	14	186
PM Externa Vehicle Trips	162	211	362	55	790

Buildout

	Residential	Office	Retail	Other	Total
Land Use Qty	1,438	1,645	181	364	
Daily ITE	8,838	11,027	15,301	2,974	38,140
Daily Internal Reduction	437	770	1,093	178	2,478
Daily External Vehicle Trips	8,400	10,258	14,207	2,796	35,662
AM ITE	708	1,798	823	193	3,523
AM Internal Reduction	51	136	64	13	264
AM Externa Vehicle Trips	658	1,662	760	180	3,259
PM ITE	809	1,921	1,270	218	4,218
PM Internal Reduction	104	346	236	32	718
PM Externa Vehicle Trips	705	1,575	1,035	186	3,500

Existing

	Residential	Office	Retail	Other	Total
Land Use Qty	1	68	38	374	
Daily ITE	130	975	3,627	2,655	7,387
Daily Internal Reduction	1	14	54	38	108
Daily External Vehicle Trips	129	960	3,573	2,617	7,279
AM ITE	4	140	87	329	560
AM Internal Reduction	0	2	1	3	6
AM Externa Vehicle Trips	4	138	86	326	554
PM ITE	18	154	314	349	835
PM Internal Reduction	0	6	12	13	31
PM Externa Vehicle Trips	18	148	301	336	803

Source: \\Fpsf03\Data\Projects\2014 Projects\SF14-0730_Millbrae_Static **Mode Split**

SITE 1

Trip by trip purpose				Residential					Office					Retail					Other				
Residentia	**Office**	**Retail**	**Other**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**
Daily HBW	680	882	925	0	360	27	245	34	14	600	53	150	53	26	546	213	102	37	28	0	0	0	0	0
Daily HBO	2209	1062	1311	0	1,657	243	221	22	66	722	64	181	64	32	773	301	144	52	39	0	0	0	0	0
Daily NHB	185	737	902	0	139	20	18	2	6	501	44	125	44	22	532	207	99	36	27	0	0	0	0	0
	3,074	**2,681**	**3,138**	**0**	**2,156**	**291**	**484**	**58**	**85**	**1,823**	**161**	**456**	**161**	**80**	**1,851**	**722**	**345**	**126**	**94**	**0**	**0**	**0**	**0**	**0**
AM HBW	106	257	45	0	56	4	38	5	2	175	15	44	15	8	26	10	5	2	1	0	0	0	0	0
AM HBO	127	114	24	0	96	14	13	1	4	78	7	19	7	3	14	5	3	1	1	0	0	0	0	0
AM NHB	3	24	5	0	2	0	0	0	0	16	1	4	1	1	3	1	1	0	0	0	0	0	0	0
	236	**395**	**73**	**0**	**154**	**19**	**51**	**7**	**6**	**268**	**24**	**67**	**24**	**12**	**43**	**17**	**8**	**3**	**2**	**0**	**0**	**0**	**0**	**0**
PM HBW	79	136	91	0	42	3	28	4	2	92	8	23	8	4	54	21	10	4	3	0	0	0	0	0
PM HBO	172	110	87	0	129	19	17	2	5	75	7	19	7	3	51	20	10	3	3	0	0	0	0	0
PM NHB	18	93	73	0	13	2	2	0	1	63	6	16	6	3	43	17	8	3	2	0	0	0	0	0
	268	**338**	**251**	**0**	**184**	**24**	**47**	**6**	**7**	**230**	**20**	**58**	**20**	**10**	**148**	**58**	**28**	**10**	**8**	**0**	**0**	**0**	**0**	**0**

In/Out Distribution (Based on ITE)

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

SITE 5-6

Trip by trip purpose				Residential					Office					Retail					Other				
Residentia	**Office**	**Retail**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**
Daily HBW	447	612	1573	537	237	18	161	22	9	416	37	104	37	18	928	362	173	63	47	209	167	145	16	0
Daily HBO	1437	729	2206	188	1,078	158	144	14	43	496	44	124	44	22	1,301	507	243	88	66	73	58	51	6	0
Daily NHB	119	503	1509	184	90	13	12	1	4	342	30	86	30	15	890	347	166	60	45	72	57	50	6	0
	2,004	**1,844**	**5,288**	**909**	**1,405**	**189**	**317**	**38**	**56**	**1,254**	**111**	**314**	**111**	**55**	**3,120**	**1,216**	**582**	**212**	**159**	**355**	**282**	**246**	**27**	**0**
AM HBW	67	171	167	48	36	3	24	3	1	116	10	29	10	5	98	38	18	7	5	19	15	13	1	0
AM HBO	80	75	87	6	60	9	8	1	2	51	5	13	5	2	51	20	10	3	3	2	2	2	0	0
AM NHB	2	15	18	2	1	0	0	0	0	10	1	3	1	0	10	4	2	1	1	1	1	0	0	0
	149	**261**	**271**	**56**	**97**	**12**	**32**	**4**	**4**	**178**	**16**	**44**	**16**	**8**	**160**	**62**	**30**	**11**	**8**	**22**	**17**	**15**	**2**	**0**
PM HBW	48	86	134	37	25	2	17	2	1	59	5	15	5	3	79	31	15	5	4	14	11	10	1	0
PM HBO	105	70	128	9	78	12	10	1	3	48	4	12	4	2	76	30	14	5	4	3	3	2	0	0
PM NHB	10	55	99	10	7	1	1	0	0	37	3	9	3	2	59	23	11	4	3	4	3	3	0	0
	162	**211**	**362**	**55**	**111**	**14**	**29**	**4**	**4**	**144**	**13**	**36**	**13**	**6**	**213**	**83**	**40**	**14**	**11**	**22**	**17**	**15**	**2**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

SITE BUILDOUT

Trip by trip purpose				Residential					Office					Retail					Other				
Residentia	**Office**	**Retail**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**
Daily HBW	1925	3548	4416	1699	1,020	77	693	96	39	2,413	213	603	213	106	2,605	1,016	486	177	132	663	527	459	51	0
Daily HBO	6017	4111	6020	579	4,513	662	602	60	181	2,796	247	699	247	123	3,552	1,384	662	241	181	226	179	156	17	0
Daily NHB	458	2598	3772	518	344	50	46	5	14	1,767	156	442	156	78	2,225	868	415	151	113	202	161	140	16	0
	8,400	**10,258**	**14,207**	**2,796**	**5,877**	**789**	**1,341**	**161**	**233**	**6,975**	**615**	**1,744**	**615**	**308**	**8,382**	**3,268**	**1,563**	**568**	**426**	**1,091**	**867**	**755**	**84**	**0**
AM HBW	306	1115	482	156	162	12	110	15	6	758	67	190	67	33	284	111	53	19	14	61	48	42	5	0
AM HBO	345	466	237	19	258	38	34	3	10	317	28	79	28	14	140	54	26	9	7	7	6	5	1	0
AM NHB	7	81	41	5	5	1	1	0	0	55	5	14	5	2	24	9	4	2	1	2	1	1	0	0
	658	**1,662**	**760**	**180**	**426**	**51**	**145**	**19**	**17**	**1,130**	**100**	**282**	**100**	**50**	**448**	**175**	**84**	**30**	**23**	**70**	**56**	**49**	**5**	**0**
PM HBW	229	727	437	133	121	9	82	11	5	494	44	124	44	22	258	100	48	17	13	52	41	36	4	0
PM HBO	442	521	368	28	332	49	44	4	13	354	31	89	31	16	217	85	40	15	11	11	9	8	1	0
PM NHB	34	328	230	25	25	4	3	0	1	223	20	56	20	10	136	53	25	9	7	10	8	7	1	0
	705	**1,575**	**1,035**	**186**	**478**	**61**	**130**	**16**	**19**	**1,071**	**94**	**268**	**94**	**47**	**610**	**238**	**114**	**41**	**31**	**73**	**58**	**50**	**6**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

Existing

Trip by trip purpose				Residential					Office					Retail					Other				
Residentia	**Office**	**Retail**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**
Daily HBW	29	321	1072	1554	15	1	10	1	1	218	19	55	19	10	633	247	118	43	32	606	482	420	47	0
Daily HBO	92	379	1488	539	69	10	9	1	3	258	23	64	23	11	878	342	164	60	45	210	167	146	16	0
Daily NHB	8	260	1012	524	6	1	1	0	0	177	16	44	16	8	597	233	111	40	30	204	162	141	16	0
	129	**960**	**3,573**	**2,617**	**90**	**12**	**20**	**2**	**4**	**653**	**58**	**163**	**58**	**29**	**2,108**	**822**	**393**	**143**	**107**	**1,021**	**811**	**707**	**79**	**0**
AM HBW	2	91	53	280	1	0	1	0	0	62	5	16	5	3	31	12	6	2	2	109	87	76	8	0
AM HBO	2	39	27	35	2	0	0	0	0	27	2	7	2	1	16	6	3	1	1	14	11	10	1	0
AM NHB	0	8	5	10	0	0	0	0	0	5	0	1	0	0	3	1	1	0	0	4	3	3	0	0
	4	**138**	**86**	**326**	**3**	**0**	**1**	**0**	**0**	**94**	**8**	**24**	**8**	**4**	**50**	**20**	**9**	**3**	**3**	**127**	**101**	**88**	**10**	**0**
PM HBW	6	62	115	227	3	0	2	0	0	42	4	11	4	2	68	27	13	5	3	89	70	61	7	0
PM HBO	11	47	102	50	8	1	1	0	0	32	3	8	3	1	60	24	11	4	3	20	16	14	2	0
PM NHB	1	39	84	59	1	0	0	0	0	26	2	7	2	1	49	19	9	3	3	23	18	16	2	0
	18	**148**	**301**	**336**	**12**	**2**	**3**	**0**	**0**	**101**	**9**	**25**	**9**	**4**	**178**	**69**	**33**	**12**	**9**	**131**	**104**	**91**	**10**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

Site 1

	Residential	Office	Retail	Other	Total
Land Use Qty	500	267	32	0	
Daily ITE	3,154	2,769	3,238	0	9,161
Daily Internal Red	80	88	100	0	268
Daily External Veh	3,074	2,681	3,138	0	8,893
AM ITE	249	420	78	0	746
AM Internal Redu	12	25	5	0	42
AM Externa Vehic	236	395	73	0	704
PM ITE	293	377	279	0	949
PM Internal Redu	25	39	28	0	92
PM Externa Vehic	268	338	251	0	857

Site 5-6

	Residential	Office	Retail	Other	Total
Land Use Qty	321	165	47	116	
Daily ITE	2,069	1,917	5,495	948	10,428
Daily Internal Red	65	72	206	38	382
Daily External Veh	2,004	1,844	5,288	909	10,046
AM ITE	161	285	295	61	803
AM Internal Redu	12	24	24	5	66
AM Externa Vehic	149	261	271	56	737
PM ITE	194	263	449	70	976
PM Internal Redu	32	52	88	14	186
PM Externa Vehic	162	211	362	55	790

Buildout

	Residential	Office	Retail	Other	Total
Land Use Qty	1,438	1,645	181	364	
Daily ITE	8,838	11,027	15,301	2,974	38,140
Daily Internal Red	437	770	1,093	178	2,478
Daily External Veh	8,400	10,258	14,207	2,796	35,662
AM ITE	708	1,798	823	193	3,523
AM Internal Redu	51	136	64	13	264
AM Externa Vehic	658	1,662	760	180	3,259
PM ITE	809	1,921	1,270	218	4,218
PM Internal Redu	104	346	236	32	718
PM Externa Vehic	705	1,575	1,035	186	3,500

Existing

	Residential	Office	Retail	Other	Total
Land Use Qty	1	68	38	374	
Daily ITE	130	975	3,627	2,655	7,387
Daily Internal Red	1	14	54	38	108
Daily External Veh	129	960	3,573	2,617	7,279
AM ITE	4	140	87	329	560
AM Internal Redu	0	2	1	3	6
AM Externa Vehic	4	138	86	326	554
PM ITE	18	154	314	349	835
PM Internal Redu	0	6	12	13	31
PM Externa Vehic	18	148	301	336	803

Source: \\Fpsf03\Data\Projects\2014 Projects\SF14-0730_Millbrae_Stati

Mode Split

SITE 1

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residentia	**Office**	**Retail**	**Other**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**
Daily HBW	680	882	925	0	354	27	252	34	14	582	53	159	62	26	536	213	111	37	28	0	0	0	0	0
Daily HBO	2209	1062	1311	0	1,635	243	243	22	66	701	64	191	74	32	760	301	157	52	39	0	0	0	0	0
Daily NHB	185	737	902	0	137	20	20	2	6	487	44	133	52	22	523	207	108	36	27	0	0	0	0	0
	3,074	**2,681**	**3,138**	**0**	**2,125**	**291**	**515**	**58**	**85**	**1,770**	**161**	**483**	**188**	**80**	**1,820**	**722**	**377**	**126**	**94**	**0**	**0**	**0**	**0**	**0**
AM HBW	106	257	45	0	55	4	39	5	2	169	15	46	18	8	26	10	5	2	1	0	0	0	0	0
AM HBO	127	114	24	0	94	14	14	1	4	76	7	21	8	3	14	5	3	1	1	0	0	0	0	0
AM NHB	3	24	5	0	2	0	0	0	0	16	1	4	2	1	3	1	1	0	0	0	0	0	0	0
	236	**395**	**73**	**0**	**152**	**19**	**54**	**7**	**6**	**261**	**24**	**71**	**28**	**12**	**42**	**17**	**9**	**3**	**2**	**0**	**0**	**0**	**0**	**0**
PM HBW	79	136	91	0	41	3	29	4	2	90	8	24	10	4	53	21	11	4	3	0	0	0	0	0
PM HBO	172	110	87	0	127	19	19	2	5	72	7	20	8	3	50	20	10	3	3	0	0	0	0	0
PM NHB	18	93	73	0	13	2	2	0	1	61	6	17	7	3	42	17	9	3	2	0	0	0	0	0
	268	**338**	**251**	**0**	**181**	**24**	**50**	**6**	**7**	**223**	**20**	**61**	**24**	**10**	**146**	**58**	**30**	**10**	**8**	**0**	**0**	**0**	**0**	**0**

In/Out Distribution (Based on ITE)

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

SITE 5-6

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residentia	**Office**	**Retail**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**
Daily HBW	447	612	1573	537	232	18	165	22	9	404	37	110	43	18	913	362	189	63	47	204	167	150	16	0
Daily HBO	1437	729	2206	188	1,064	158	158	14	43	481	44	131	51	22	1,279	507	265	88	66	72	58	53	6	0
Daily NHB	119	503	1509	184	88	13	13	1	4	332	30	91	35	15	875	347	181	60	45	70	57	52	6	0
	2,004	**1,844**	**5,288**	**909**	**1,385**	**189**	**337**	**38**	**56**	**1,217**	**111**	**332**	**129**	**55**	**3,067**	**1,216**	**635**	**212**	**159**	**346**	**282**	**255**	**27**	**0**
AM HBW	67	171	167	48	35	3	25	3	1	113	10	31	12	5	97	38	20	7	5	18	15	13	1	0
AM HBO	80	75	87	6	59	9	9	1	2	50	5	14	5	2	50	20	10	3	3	2	2	2	0	0
AM NHB	2	15	18	2	1	0	0	0	0	10	1	3	1	0	10	4	2	1	1	1	1	1	0	0
	149	**261**	**271**	**56**	**95**	**12**	**34**	**4**	**4**	**172**	**16**	**47**	**18**	**8**	**157**	**62**	**33**	**11**	**8**	**21**	**17**	**16**	**2**	**0**
PM HBW	48	86	134	37	25	2	18	2	1	57	5	15	6	3	78	31	16	5	4	14	11	10	1	0
PM HBO	105	70	128	9	77	12	12	1	3	46	4	13	5	2	74	30	15	5	4	3	3	2	0	0
PM NHB	10	55	99	10	7	1	1	0	0	36	3	10	4	2	58	23	12	4	3	4	3	3	0	0
	162	**211**	**362**	**55**	**109**	**14**	**30**	**4**	**4**	**139**	**13**	**38**	**15**	**6**	**210**	**83**	**43**	**14**	**11**	**21**	**17**	**15**	**2**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

SITE BUILDOUT

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residentia	**Office**	**Retail**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**
Daily HBW	1925	3548	4416	1699	1,001	77	712	96	39	2,342	213	639	248	106	2,561	1,016	530	177	132	646	527	476	51	0
Daily HBO	6017	4111	6020	579	4,453	662	662	60	181	2,714	247	740	288	123	3,491	1,384	722	241	181	220	179	162	17	0
Daily NHB	458	2598	3772	518	339	50	50	5	14	1,715	156	468	182	78	2,188	868	453	151	113	197	161	145	16	0
	8,400	**10,258**	**14,207**	**2,796**	**5,793**	**789**	**1,425**	**161**	**233**	**6,770**	**615**	**1,846**	**718**	**308**	**8,240**	**3,268**	**1,705**	**568**	**426**	**1,063**	**867**	**783**	**84**	**0**
AM HBW	306	1115	482	156	159	12	113	15	6	736	67	201	78	33	280	111	58	19	14	59	48	44	5	0
AM HBO	345	466	237	19	255	38	38	3	10	307	28	84	33	14	137	54	28	9	7	7	6	5	1	0
AM NHB	7	81	41	5	5	1	1	0	0	53	5	15	6	2	24	9	5	2	1	2	1	1	0	0
	658	**1,662**	**760**	**180**	**419**	**51**	**152**	**19**	**17**	**1,097**	**100**	**299**	**116**	**50**	**441**	**175**	**91**	**30**	**23**	**68**	**56**	**50**	**5**	**0**
PM HBW	229	727	437	133	119	9	85	11	5	480	44	131	51	22	253	100	52	17	13	51	41	37	4	0
PM HBO	442	521	368	28	327	49	49	4	13	344	31	94	36	16	214	85	44	15	11	11	9	8	1	0
PM NHB	34	328	230	25	25	4	4	0	1	216	20	59	23	10	133	53	28	9	7	9	8	7	1	0
	705	**1,575**	**1,035**	**186**	**471**	**61**	**137**	**16**	**19**	**1,039**	**94**	**283**	**110**	**47**	**600**	**238**	**124**	**41**	**31**	**71**	**58**	**52**	**6**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

Existing

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residentia	**Office**	**Retail**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**	**Auto**	**Rail**	**Bus**	**Walk/Bike**	**Other**
Daily HBW	29	321	1072	1554	15	1	11	1	1	212	19	58	22	10	622	247	129	43	32	590	482	435	47	0
Daily HBO	92	379	1488	539	68	10	10	1	3	250	23	68	27	11	863	342	179	60	45	205	167	151	16	0
Daily NHB	8	260	1012	524	6	1	1	0	0	172	16	47	18	8	587	233	121	40	30	199	162	147	16	0
	129	**960**	**3,573**	**2,617**	**89**	**12**	**22**	**2**	**4**	**634**	**58**	**173**	**67**	**29**	**2,072**	**822**	**429**	**143**	**107**	**994**	**811**	**733**	**79**	**0**
AM HBW	2	91	53	280	1	0	1	0	0	60	5	16	6	3	31	12	6	2	2	107	87	79	8	0
AM HBO	2	39	27	35	2	0	0	0	0	26	2	7	3	1	16	6	3	1	1	13	11	10	1	0
AM NHB	0	8	5	10	0	0	0	0	0	5	0	1	1	0	3	1	1	0	0	4	3	3	0	0
	4	**138**	**86**	**326**	**3**	**0**	**1**	**0**	**0**	**91**	**8**	**25**	**10**	**4**	**50**	**20**	**10**	**3**	**3**	**124**	**101**	**91**	**10**	**0**
PM HBW	6	62	115	227	3	0	2	0	0	41	4	11	4	2	67	27	14	5	3	86	70	64	7	0
PM HBO	11	47	102	50	8	1	1	0	0	31	3	8	3	1	59	24	12	4	3	19	16	14	2	0
PM NHB	1	39	84	59	1	0	0	0	0	26	2	7	3	1	48	19	10	3	3	22	18	16	2	0
	18	**148**	**301**	**336**	**12**	**2**	**3**	**0**	**0**	**98**	**9**	**27**	**10**	**4**	**175**	**69**	**36**	**12**	**9**	**128**	**104**	**94**	**10**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

Site 1

	Residential	Office	Retail	Other	Total
Land Use Qty	500	267	32	0	
Daily ITE	3,154	2,769	3,238	0	9,161
Daily Internal Red	80	88	100	0	268
Daily External Veh	3,074	2,681	3,138	0	8,893
AM ITE	249	420	78	0	746
AM Internal Redu	12	25	5	0	42
AM Externa Vehic	236	395	73	0	704
PM ITE	293	377	279	0	949
PM Internal Redu	25	39	28	0	92
PM Externa Vehic	268	338	251	0	857

Site 5-6

	Residential	Office	Retail	Other	Total
Land Use Qty	321	165	47	116	
Daily ITE	2,069	1,917	5,495	948	10,428
Daily Internal Red	65	72	206	38	382
Daily External Veh	2,004	1,844	5,288	909	10,046
AM ITE	161	285	295	61	803
AM Internal Redu	12	24	24	5	66
AM Externa Vehic	149	261	271	56	737
PM ITE	194	263	449	70	976
PM Internal Redu	32	52	88	14	186
PM Externa Vehic	162	211	362	55	790

Buildout

	Residential	Office	Retail	Other	Total
Land Use Qty	1,438	1,645	181	364	
Daily ITE	8,838	11,027	15,301	2,974	38,140
Daily Internal Red	437	770	1,093	178	2,478
Daily External Veh	8,400	10,258	14,207	2,796	35,662
AM ITE	708	1,798	823	193	3,523
AM Internal Redu	51	136	64	13	264
AM Externa Vehic	658	1,662	760	180	3,259
PM ITE	809	1,921	1,270	218	4,218
PM Internal Redu	104	346	236	32	718
PM Externa Vehic	705	1,575	1,035	186	3,500

Existing

	Residential	Office	Retail	Other	Total
Land Use Qty	1	68	38	374	
Daily ITE	130	975	3,627	2,655	7,387
Daily Internal Red	1	14	54	38	108
Daily External Veh	129	960	3,573	2,617	7,279
AM ITE	4	140	87	329	560
AM Internal Redu	0	2	1	3	6
AM Externa Vehic	4	138	86	326	554
PM ITE	18	154	314	349	835
PM Internal Redu	0	6	12	13	31
PM Externa Vehic	18	148	301	336	803

Source: \\Fpsf03\Data\Projects\2014 Projects\SF14-0730_Millbrae_Statio **Mode Split**

SITE 1

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residential	**Office**	**Retail**	**Other**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**
Daily HBW	680	882	925	0	333	27	272	34	14	556	53	185	62	26	509	213	139	37	28	0	0	0	0	0
Daily HBO	2209	1062	1311	0	1,568	243	309	22	66	669	64	223	74	32	721	301	197	52	39	0	0	0	0	0
Daily NHB	185	737	902	0	131	20	26	2	6	464	44	155	52	22	496	207	135	36	27	0	0	0	0	0
	3,074	**2,681**	**3,138**	**0**	**2,033**	**291**	**607**	**58**	**85**	**1,689**	**161**	**563**	**188**	**80**	**1,726**	**722**	**471**	**126**	**94**	**0**	**0**	**0**	**0**	**0**
AM HBW	106	257	45	0	52	4	42	5	2	162	15	54	18	8	25	10	7	2	1	0	0	0	0	0
AM HBO	127	114	24	0	90	14	18	1	4	72	7	24	8	3	13	5	4	1	1	0	0	0	0	0
AM NHB	3	24	5	0	2	0	0	0	0	15	1	5	2	1	3	1	1	0	0	0	0	0	0	0
	236	**395**	**73**	**0**	**145**	**19**	**61**	**7**	**6**	**249**	**24**	**83**	**28**	**12**	**40**	**17**	**11**	**3**	**2**	**0**	**0**	**0**	**0**	**0**
PM HBW	79	136	91	0	39	3	31	4	2	86	8	29	10	4	50	21	14	4	3	0	0	0	0	0
PM HBO	172	110	87	0	122	19	24	2	5	69	7	23	8	3	48	20	13	3	3	0	0	0	0	0
PM NHB	18	93	73	0	12	2	2	0	1	59	6	20	7	3	40	17	11	3	2	0	0	0	0	0
	268	**338**	**251**	**0**	**173**	**24**	**58**	**6**	**7**	**213**	**20**	**71**	**24**	**10**	**138**	**58**	**38**	**10**	**8**	**0**	**0**	**0**	**0**	**0**

In/Out Distribution (Based on ITE)

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

SITE 5-6

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residential	**Office**	**Retail**	**Other**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**
Daily HBW	447	612	1573	537	219	18	179	22	9	385	37	128	43	18	865	362	236	63	47	188	167	167	16	0
Daily HBO	1437	729	2206	188	1,021	158	201	14	43	459	44	153	51	22	1,213	507	331	88	66	66	58	58	6	0
Daily NHB	119	503	1509	184	85	13	17	1	4	317	30	106	35	15	830	347	226	60	45	64	57	57	6	0
	2,004	**1,844**	**5,288**	**909**	**1,324**	**189**	**397**	**38**	**56**	**1,162**	**111**	**387**	**129**	**55**	**2,909**	**1,216**	**793**	**212**	**159**	**318**	**282**	**282**	**27**	**0**
AM HBW	67	171	167	48	33	3	27	3	1	107	10	36	12	5	92	38	25	7	5	17	15	15	1	0
AM HBO	80	75	87	6	57	9	11	1	2	47	5	16	5	2	48	20	13	3	3	2	2	2	0	0
AM NHB	2	15	18	2	1	0	0	0	0	10	1	3	1	0	10	4	3	1	1	1	1	1	0	0
	149	**261**	**271**	**56**	**91**	**12**	**38**	**4**	**4**	**165**	**16**	**55**	**18**	**8**	**149**	**62**	**41**	**11**	**8**	**20**	**17**	**17**	**2**	**0**
PM HBW	48	86	134	37	23	2	19	2	1	54	5	18	6	3	74	31	20	5	4	13	11	11	1	0
PM HBO	105	70	128	9	74	12	15	1	3	44	4	15	5	2	71	30	19	5	4	3	3	3	0	0
PM NHB	10	55	99	10	7	1	1	0	0	35	3	12	4	2	55	23	15	4	3	3	3	3	0	0
	162	**211**	**362**	**55**	**105**	**14**	**35**	**4**	**4**	**133**	**13**	**44**	**15**	**6**	**199**	**83**	**54**	**14**	**11**	**19**	**17**	**17**	**2**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

SITE BUILDOUT

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residential	**Office**	**Retail**	**Other**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**
Daily HBW	1925	3548	4416	1699	943	77	770	96	39	2,236	213	745	248	106	2,429	1,016	662	177	132	595	527	527	51	0
Daily HBO	6017	4111	6020	579	4,272	662	842	60	181	2,590	247	863	288	123	3,311	1,384	903	241	181	203	179	179	17	0
Daily NHB	458	2598	3772	518	325	50	64	5	14	1,637	156	546	182	78	2,075	868	566	151	113	181	161	161	16	0
	8,400	**10,258**	**14,207**	**2,796**	**5,541**	**789**	**1,677**	**161**	**233**	**6,462**	**615**	**2,154**	**718**	**308**	**7,814**	**3,268**	**2,131**	**568**	**426**	**979**	**867**	**867**	**84**	**0**
AM HBW	306	1115	482	156	150	12	122	15	6	702	67	234	78	33	265	111	72	19	14	55	48	48	5	0
AM HBO	345	466	237	19	245	38	48	3	10	293	28	98	33	14	130	54	36	9	7	7	6	6	1	0
AM NHB	7	81	41	5	5	1	1	0	0	51	5	17	6	2	22	9	6	2	1	2	1	1	0	0
	658	**1,662**	**760**	**180**	**400**	**51**	**172**	**19**	**17**	**1,047**	**100**	**349**	**116**	**50**	**418**	**175**	**114**	**30**	**23**	**63**	**56**	**56**	**5**	**0**
PM HBW	229	727	437	133	112	9	92	11	5	458	44	153	51	22	240	100	66	17	13	47	41	41	4	0
PM HBO	442	521	368	28	314	49	62	4	13	328	31	109	36	16	202	85	55	15	11	10	9	9	1	0
PM NHB	34	328	230	25	24	4	5	0	1	206	20	69	23	10	126	53	34	9	7	9	8	8	1	0
	705	**1,575**	**1,035**	**186**	**450**	**61**	**158**	**16**	**19**	**992**	**94**	**331**	**110**	**47**	**569**	**238**	**155**	**41**	**31**	**65**	**58**	**58**	**6**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

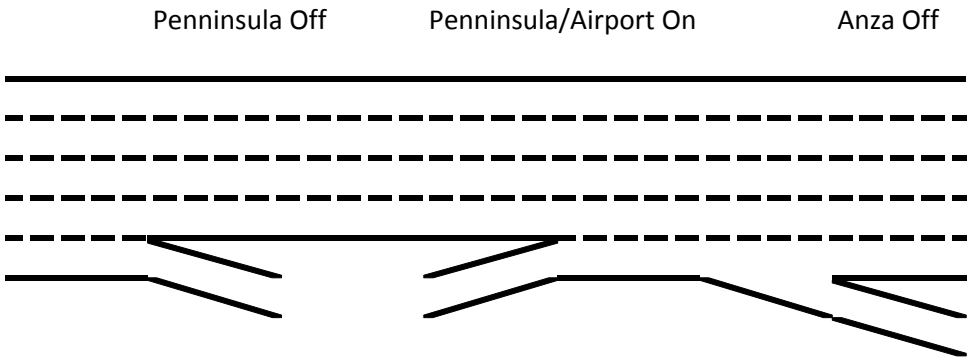
EXISTING

	Trip by trip purpose				Residential					Office					Retail					Other				
	Residential	**Office**	**Retail**	**Other**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**	**Car**	**Carpool**	**Rail**	**Bus**	**Walk/Bike**
Daily HBW	29	321	1072	1554	14	1	12	1	1	202	19	67	22	10	590	247	161	43	32	544	482	482	47	0
Daily HBO	92	379	1488	539	65	10	13	1	3	239	23	80	27	11	819	342	223	60	45	189	167	167	16	0
Daily NHB	8	260	1012	524	5	1	1	0	0	164	16	55	18	8	557	233	152	40	30	183	162	162	16	0
	129	**960**	**3,573**	**2,617**	**85**	**12**	**26**	**2**	**4**	**605**	**58**	**202**	**67**	**29**	**1,965**	**822**	**536**	**143**	**107**	**916**	**811**	**811**	**79**	**0**
AM HBW	2	91	53	280	1	0	1	0	0	58	5	19	6	3	29	12	8	2	2	98	87	87	8	0
AM HBO	2	39	27	35	2	0	0	0	0	25	2	8	3	1	15	6	4	1	1	12	11	11	1	0
AM NHB	0	8	5	10	0	0	0	0	0	5	0	2	1	0	3	1	1	0	0	3	3	3	0	0
	4	**138**	**86**	**326**	**3**	**0**	**1**	**0**	**0**	**87**	**8**	**29**	**10**	**4**	**47**	**20**	**13**	**3**	**3**	**114**	**101**	**101**	**10**	**0**
PM HBW	6	62	115	227	3	0	2	0	0	39	4	13	4	2	64	27	17	5	3	79	70	70	7	0
PM HBO	11	47	102	50	8	1	2	0	0	30	3	10	3	1	56	24	15	4	3	18	16	16	2	0
PM NHB	1	39	84	59	1	0	0	0	0	24	2	8	3	1	46	19	13	3	3	21	18	18	2	0
	18	**148**	**301**	**336**	**11**	**2**	**4**	**0**	**0**	**93**	**9**	**31**	**10**	**4**	**166**	**69**	**45**	**12**	**9**	**118**	**104**	**104**	**10**	**0**

Residential		Office		Retail		Other	
IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**	**IN**	**OUT**
50%	50%	50%	50%	50%	50%	50%	50%
20%	80%	88%	12%	61%	39%	61%	39%
65%	35%	17%	83%	49%	51%	53%	47%

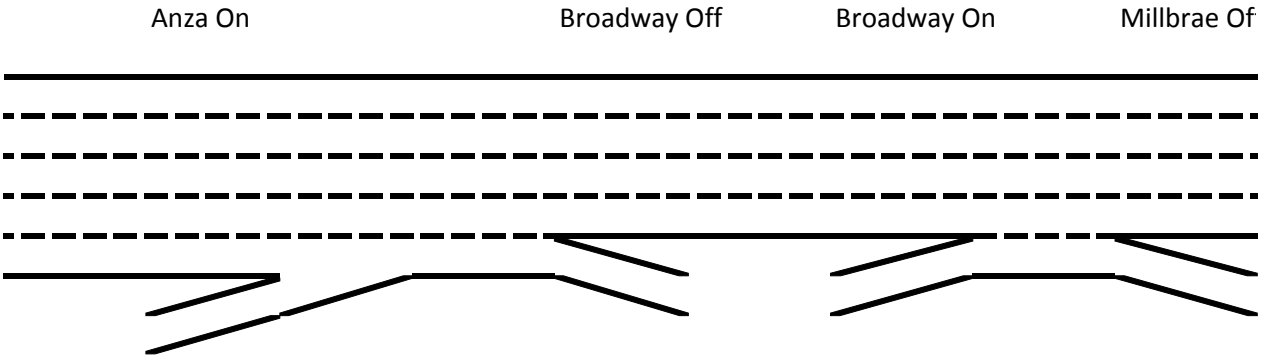
Freeway Analysis Calculations

101 NB



Capacity		11500		9200		11500	
Caltrans AADT			6900		6200		1300
Existing	AM	11814	931	10883	602	11485	185
Existing	PM	8069	366	7703	519	8222	78
EPP (BO)	AM	12028	931	11097	631	11728	185
EPP (BO)	PM	8189	366	7823	535	8358	78
EPP (S1)	AM	11865	931	10934	609	11543	185
EPP (S1)	PM	8113	366	7747	525	8271	78
EPP (S5/6)	AM	11869	931	10938	609	11547	185
EPP (S5/6)	PM	8113	366	7747	525	8271	78
2020 NP	AM	12852	1011	11841	654	12495	201
2020 NP	PM	8604	392	8212	556	8768	84
2020 PP (S1)	AM	12902	1011	11891	660	12552	201
2020 PP (S1)	PM	8648	392	8256	561	8817	84
2020 PP (S5/6)	AM	12906	1011	11895	661	12556	201
2020 PP (S5/6)	PM	8647	392	8255	561	8816	84
2040 NP	AM	15266	1189	14077	769	14846	236
2040 NP	PM	9835	451	9384	639	10023	96
2040 PP (BO)	AM	15467	1189	14278	796	15073	236
2040 PP (BO)	PM	9948	451	9498	654	10152	96
2040 PP (S1)	AM	15314	1189	14125	775	14900	236
2040 PP (S1)	PM	9876	451	9426	645	10070	96
2040 PP (S5/6)	AM	15318	1189	14129	776	14905	236
2040 PP (S5/6)	PM	9876	451	9426	645	10070	96

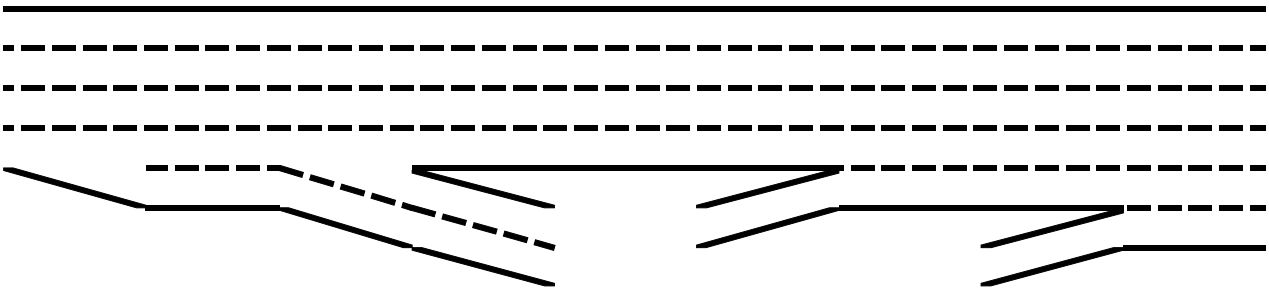
101 NB



11500		11500		9200		11500	
	2250		10400		13100		11300
11300	265	11565	947	10617	488	11105	1029
8144	262	8406	786	7620	1010	8630	854
11543	294	11836	947	10889	502	11391	1315
8280	278	8558	786	7772	1018	8790	1014
11358	272	11630	947	10683	491	11174	1098
8193	268	8461	786	7675	1013	8688	912
11362	272	11635	947	10688	492	11179	1103
8193	268	8461	786	7675	1013	8688	912
12294	288	12581	1028	11553	530	12083	1140
8684	280	8965	841	8123	1081	9205	880
12351	294	12645	1028	11617	533	12150	1207
8734	286	9020	841	8179	1084	9263	938
12355	295	12650	1028	11621	534	12155	1212
8733	286	9019	841	8178	1084	9262	937
14609	339	14948	1210	13738	623	14361	1490
9927	323	10250	968	9282	1244	10526	950
14837	365	15202	1210	13993	637	14629	1758
10056	338	10393	968	9426	1251	10677	1101
14664	345	15009	1210	13799	627	14425	1554
9974	328	10302	968	9334	1247	10581	1005
14669	346	15014	1210	13805	627	14431	1560
9974	328	10302	968	9334	1247	10581	1005

101 NB

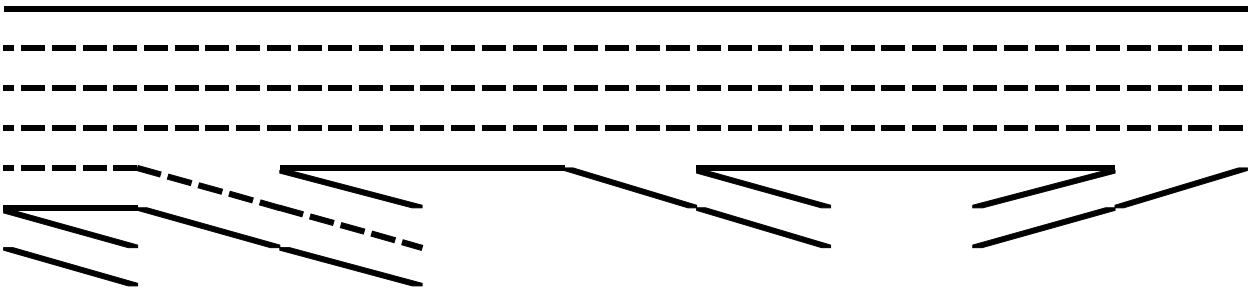
Lane Add | SFO Off | Millbrae On | SFO On



9200		9200		11500		13800
	14100		14000		12400	
10076	1284	8792	1275	10067	1129	11197
7776	1066	6710	1058	7768	937	8706
10076	1284	8792	1420	10212	1129	11342
7776	1066	6710	1335	8045	937	8983
10076	1284	8792	1316	10108	1129	11238
7776	1066	6710	1139	7849	937	8787
10076	1284	8792	1320	10112	1129	11242
7776	1066	6710	1130	7840	937	8778
10943	1394	9549	1384	10933	1226	12159
8325	1141	7184	1133	8317	1003	9320
10943	1394	9549	1425	10974	1226	12200
8325	1141	7184	1212	8396	1003	9399
10943	1394	9549	1428	10977	1226	12203
8325	1141	7184	1204	8388	1003	9391
12871	1640	11231	1628	12860	1442	14302
9576	1312	8264	1303	9567	1154	10721
12871	1640	11231	1765	12997	1442	14439
9576	1312	8264	1563	9827	1154	10981
12871	1640	11231	1667	12899	1442	14341
9576	1312	8264	1379	9643	1154	10797
12871	1640	11231	1670	12902	1442	14344
9576	1312	8264	1371	9635	1154	10789

101 NB

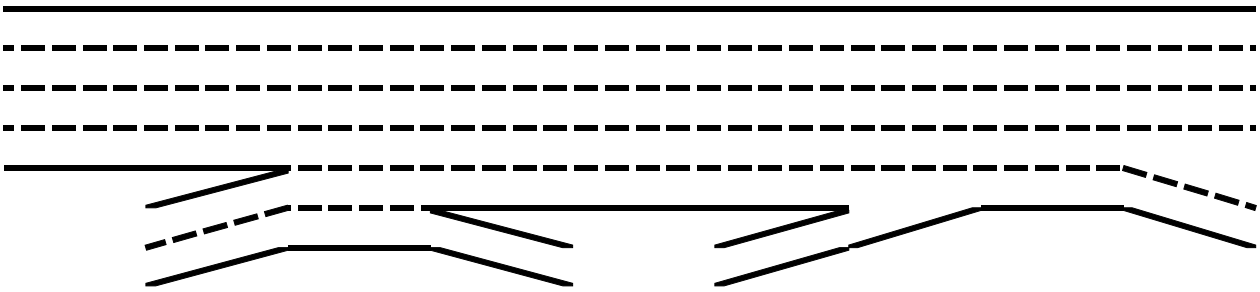
San Bruno Off | 380 W Off | N. Access Off | San Bruno On



	11500		9200		9200	
9400		44500		2250		12300
856	10341	4052	6288	205	6083	1120
710	7995	3363	4632	170	4462	930
863	10478	4074	6404	205	6199	1120
724	8258	3405	4854	170	4684	930
858	10379	4058	6321	205	6116	1120
714	8072	3375	4697	170	4527	930
858	10383	4059	6324	205	6119	1120
714	8064	3374	4690	170	4520	930
930	11230	4401	6829	223	6606	1216
761	8559	3600	4959	182	4777	995
932	11269	4407	6862	223	6639	1216
764	8634	3612	5022	182	4840	995
932	11272	4407	6864	223	6642	1216
764	8627	3611	5016	182	4834	995
1093	13209	5176	8033	262	7771	1431
875	9846	4142	5704	209	5495	1145
1100	13339	5197	8142	262	7880	1431
888	10093	4181	5912	209	5703	1145
1095	13246	5182	8064	262	7802	1431
879	9918	4153	5765	209	5556	1145
1096	13249	5183	8066	262	7804	1431
878	9910	4152	5759	209	5549	1145

101 NB

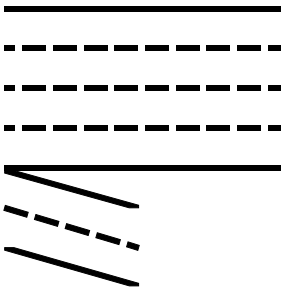
380 E On | S. Airport Off | S. Airport On



9200		13800		11500		11500
	25000		11500		4750	
7203	2277	9480	1216	8264	246	8510
5392	1889	7281	763	6518	405	6923
7319	2277	9596	1223	8373	246	8619
5613	1889	7503	777	6726	405	7131
7236	2277	9513	1218	8295	246	8541
5456	1889	7346	767	6579	405	6984
7239	2277	9516	1218	8298	246	8544
5449	1889	7339	767	6572	405	6977
7823	2472	10295	1321	8975	267	9242
5772	2023	7795	817	6978	434	7412
7856	2472	10328	1323	9005	267	9273
5835	2023	7858	821	7037	434	7471
7858	2472	10330	1323	9008	267	9275
5829	2023	7852	820	7031	434	7465
9202	2908	12110	1553	10556	314	10870
6640	2327	8966	940	8027	499	8525
9311	2908	12219	1560	10659	314	10973
6848	2327	9174	953	8222	499	8720
9233	2908	12141	1555	10585	314	10900
6700	2327	9027	943	8084	499	8582
9235	2908	12143	1555	10588	314	10902
6694	2327	9021	943	8078	499	8576

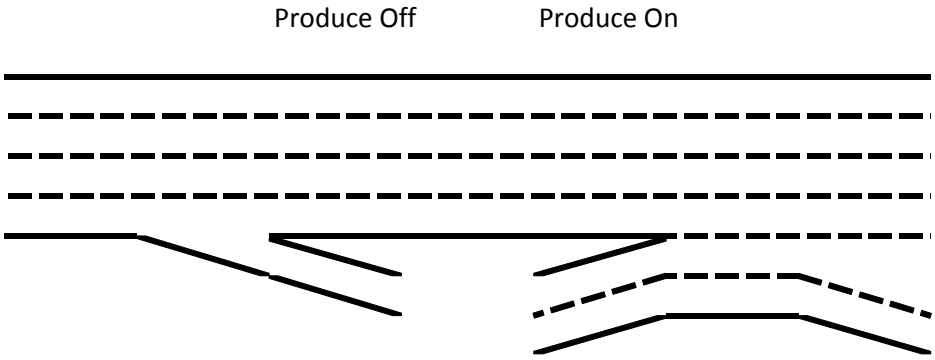
101 NB

Industrial/Grand Off



	9200
10500	
1618	6892
536	6387
1633	6986
564	6567
1622	6919
544	6440
1623	6921
543	6434
1757	7485
574	6838
1761	7511
582	6889
1762	7513
581	6884
2067	8804
660	7865
2080	8893
686	8034
2071	8829
668	7915
2071	8831
667	7910

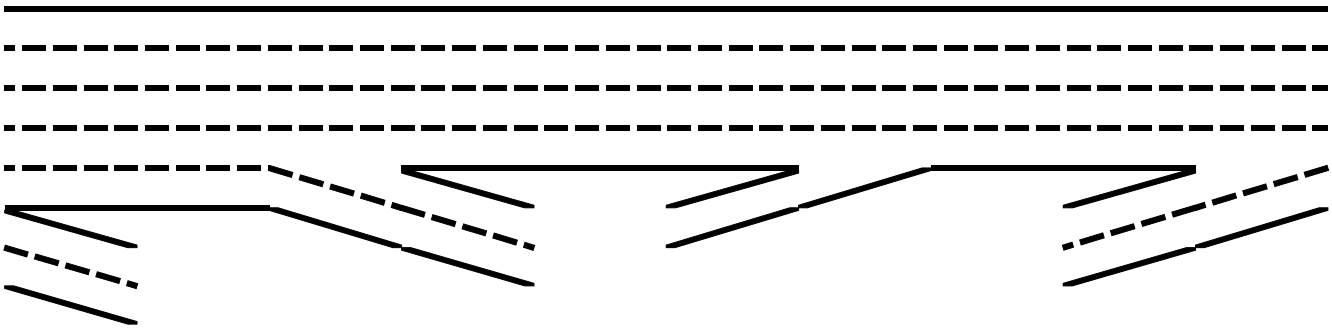
101 SB



Capacity		9200		9200		13800
Caltrans AADT			5900		17800	
Existing	AM	8004	208	7796	934	8730
Existing	PM	7692	419	7273	1733	9006
EPP (BO)	AM	8225	208	8017	968	8985
EPP (BO)	PM	7816	419	7397	1752	9149
EPP (S1)	AM	8057	208	7849	942	8792
EPP (S1)	PM	7738	419	7319	1740	9059
EPP (S5/6)	AM	8061	208	7853	943	8796
EPP (S5/6)	PM	7737	419	7318	1740	9058
2020 NP	AM	8692	226	8466	1014	9481
2020 NP	PM	8235	449	7786	1855	9642
2020 PP (S1)	AM	8744	226	8518	1022	9541
2020 PP (S1)	PM	8280	449	7831	1862	9693
2020 PP (S5/6)	AM	8748	226	8522	1023	9545
2020 PP (S5/6)	PM	8279	449	7830	1862	9693
2040 NP	AM	10224	266	9958	1193	11152
2040 NP	PM	9472	516	8956	2134	11091
2040 PP (BO)	AM	10431	266	10166	1225	11391
2040 PP (BO)	PM	9589	516	9073	2152	11226
2040 PP (S1)	AM	10274	266	10008	1201	11209
2040 PP (S1)	PM	9515	516	8999	2141	11140
2040 PP (S5/6)	AM	10278	266	10012	1201	11214
2040 PP (S5/6)	PM	9515	516	8999	2141	11139

101 SB

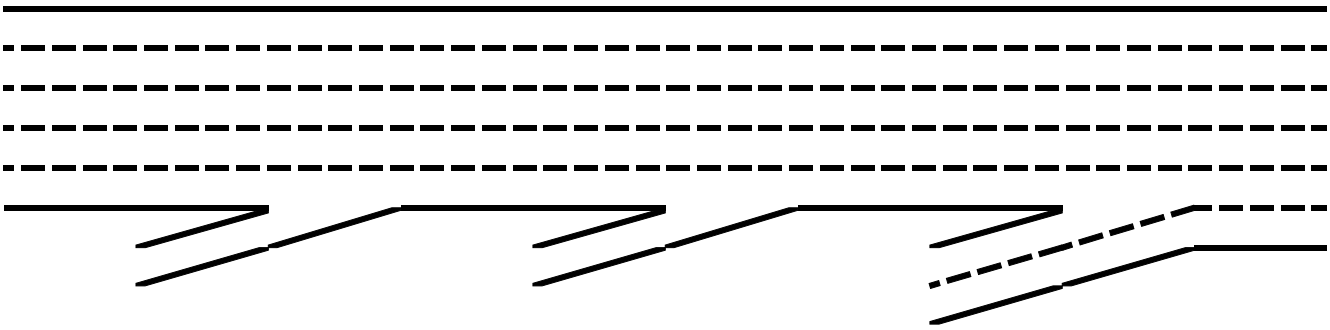
380 WB Off | San Bruno Off | N. Access On | 380 EB On



	11500		9200		9200	
19000		18900		1150		10000
1480	7250	1473	5777	90	5867	779
1483	7523	1476	6047	90	6137	781
1480	7505	1473	6032	90	6122	830
1483	7665	1476	6189	90	6279	809
1480	7311	1473	5839	90	5928	791
1483	7575	1476	6099	90	6189	791
1480	7316	1473	5843	90	5933	792
1483	7574	1476	6099	90	6188	791
1608	7873	1599	6274	97	6371	846
1588	8053	1580	6474	96	6570	836
1608	7933	1599	6334	97	6431	858
1588	8105	1580	6525	96	6622	846
1608	7938	1599	6338	97	6436	859
1588	8104	1580	6525	96	6621	846
1891	9261	1881	7379	114	7494	995
1827	9264	1817	7447	111	7557	961
1891	9500	1881	7619	114	7733	1043
1827	9399	1817	7582	111	7692	988
1891	9318	1881	7437	114	7552	1007
1827	9313	1817	7496	111	7607	971
1891	9323	1881	7442	114	7556	1008
1827	9313	1817	7495	111	7606	971

101 SB

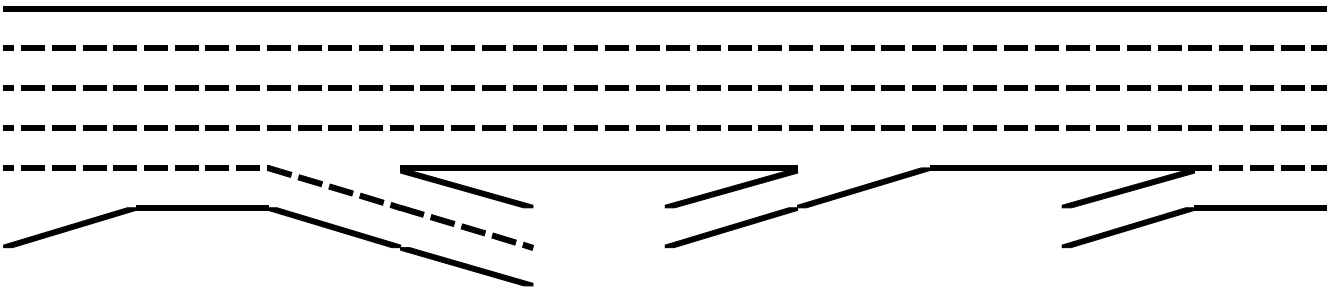
Frontage On | SFO On | SFO On



11500		11500		11500		13800
	5000		2000		12400	
6646	390	7035	156	7191	966	8157
6917	390	7308	156	7464	968	8432
6952	390	7341	173	7514	983	8497
7088	390	7479	166	7645	978	8622
6720	390	7109	160	7269	970	8239
6980	390	7371	160	7531	972	8502
6725	390	7115	160	7275	971	8245
6980	390	7370	160	7530	972	8501
7217	423	7640	169	7810	1049	8859
7406	418	7824	167	7991	1036	9027
7289	423	7712	173	7886	1053	8939
7468	418	7886	171	8056	1040	9096
7295	423	7718	174	7891	1054	8945
7467	418	7885	171	8055	1040	9095
8489	498	8987	199	9186	1234	10420
8519	481	8999	192	9192	1192	10384
8776	498	9274	215	9489	1250	10739
8681	481	9161	201	9363	1201	10564
8558	498	9056	203	9259	1238	10497
8578	481	9059	196	9254	1196	10450
8564	498	9062	203	9265	1238	10503
8577	481	9058	196	9253	1195	10449

101 SB

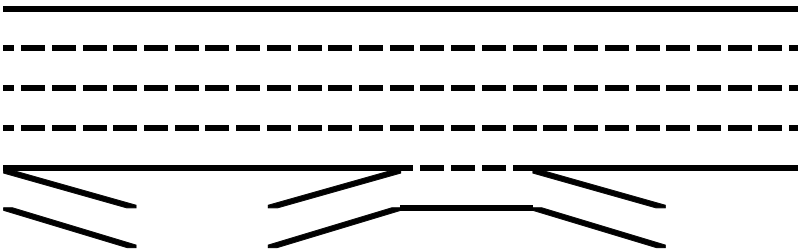
Lane Drop | Millbrae Off | Millbrae WB On | Millbrae EB On



		9200			9200		11500
18700							
1457	6700	95		6795	614	7409	
1460	6972	148		7120	815	7935	
1797	6700	95		6795	787	7582	
1650	6972	148		7120	1145	8265	
1539	6700	95		6795	663	7458	
1530	6972	148		7120	912	8032	
1545	6700	95		6795	667	7462	
1529	6972	148		7120	901	8021	
1520	7339	100		7439	630	8069	
1490	7537	150		7687	840	8527	
1600	7339	100		7439	678	8117	
1559	7537	150		7687	935	8622	
1606	7339	100		7439	682	8121	
1558	7537	150		7687	924	8611	
1600	8820	110		8930	640	9570	
1570	8814	160		8974	900	9874	
1919	8820	110		8930	803	9733	
1750	8814	160		8974	1209	10183	
1677	8820	110		8930	686	9616	
1636	8814	160		8974	991	9965	
1683	8820	110		8930	690	9620	
1635	8814	160		8974	981	9955	

101 SB

Broadway Off | Broadway On | Poplar Off



	9200		11500		9200
13100		16300		8000	
1021	6389	1270	7659	623	7035
1023	6912	1273	8185	625	7560
1029	6553	1270	7823	641	7182
1039	7226	1273	8498	658	7841
1023	6435	1270	7705	628	7077
1028	7005	1273	8277	634	7643
1023	6439	1270	7709	629	7080
1027	6994	1273	8267	633	7633
1108	6960	1379	8340	677	7663
1095	7432	1362	8795	669	8126
1111	7006	1379	8385	682	7703
1100	7522	1362	8885	678	8207
1111	7010	1379	8389	682	7707
1099	7512	1362	8874	677	8197
1304	8266	1622	9888	796	9092
1260	8614	1567	10182	769	9412
1312	8421	1622	10043	813	9231
1275	8908	1567	10475	800	9675
1306	8310	1622	9932	801	9131
1264	8701	1567	10268	778	9490
1306	8314	1622	9936	801	9135
1264	8691	1567	10258	777	9481